Journal of Economics and Administrative Sciences
2024; 30(144), pp. 73-85

P-ISSN 2518-5764
E-ISSN 2227-703X

Journal of Economics and Administrative Sciences (JEAS)

Available online at http://jeasiq.uobaghdad.edu.iq
DOI: https://doi.org/10.33095/am39cz70

The Role of Strategic Information Systems in Sustainable Development: An Analytical Study in Public Universities in Baghdad

Akram Salim H. Al-Janabi *
Dijlah University College, Iraq.
E-mail: akram.salim@duc.edu.iq
Orcid: https://orcid. org/0000-0003-0309-5378

Alaa Abdulkraeem Ghaleb Al-Mado
College of Administration and Economics, University of Baghdad, Iraq.
E-mail: alaa.abdulkareem@coadec.uobaghdad.edu.iq
Orcid: https://orcid. org/0009-0004-9524-3642

***Corresponding author**

Received:7/8/2024 Accepted:16/9/2024 Published Online First: 1 /12/ 2024

Abstract:

Purpose: This study aimed to identify the strategic information system and its role and reflections on sustainable development by identifying the level of appreciation and interest of the researched organization in the strategic information system and its dimensions and in sustainable development and its dimensions.

Theoretical framework: Recent studies reported good results in university workers and the use of management information systems to improve the requirements of sustainable development and its contexts in universities.

Design/methodology/approach: The descriptive analytical approach was adopted for the study in the research community by distributing a questionnaire to a random sample of (86) researchers working in public universities in Baghdad. The research used its scale about the independent variable, the strategic information system, a three-dimensional model that includes individuals, information, and information technology (Laudon & Laudon, 2015), and it also used the sustainable development model that includes the economic, social and environmental dimensions (Yuan & Zuo, 2013).

Results: The most important conclusion of the paper is the deep need to pay attention to strategic information systems, their advanced technologies, infrastructure, uses, and cadres by organizations representing the research community to exchange, organize, and manage knowledge constructively and purposefully to develop the requirements and factors of sustainable development and its trends.

Research, practical, and social implications: We propose a future research agenda and highlight the cognitive contributions made in higher education in information systems and sustainable development.

Originality/value: The results indicate that the number and quality of publications in strategic information systems and sustainable development contribute profoundly to enriching and rooting this trend, in addition to the need to encourage platforms and climates for research and authorship in this vital and relevant field.

Keywords: strategic information system; sustainable development; public universities in Baghdad.

P-ISSN 2518-5764
E-ISSN 2227-703X

JEL Classification: M10, M12, M15, M19.
Authors' individual contribution: Conceptualization — A. A. S. H. ; Methodology — A. A. S. H. . ; Formal Analysis — A. A. S. H. . ; Investigation — A. A. A. G. . ; Data Curation — A. A. A. G., Writing —Original Draft — A. A. S. H. ; Writing — Review & Editing — A. A. S. H. ; Visualization — A. A. A. G. ; Supervision —A. A. A. G. . ; Project Administration —A. A. S. H.
Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1.Introduction:

In order to confront the various social, economic, and environmental challenges associated with sustainable development and its primary contexts and the necessities of adapting to its vital developments and thus enhancing sustainable competitive advantage, the need has emerged to pay attention to strategic information systems and their technologies and their crucial organizational role in collecting, classifying and preparing information for planning and future adaptation, especially keeping pace with and managing the tasks and directions of sustainable development and its vital dimensions in justice, equality and social parity and preserving depleted natural resources and distributing them fairly to current and future generations. This contributes to enhancing responsible behavior towards the living ecological environment, caring for it, and averting pollution risks in all its forms and causes. Strategic information systems are essential for confronting various social, economic, and environmental challenges and adapting to their vital developments, aiming to enhance competitive advantage and raise sustainability. The importance of strategic information systems as a top priority lies in supporting organizations through their vital organizational role in collecting, classifying and preparing information for the purposes of planning and future adaptation to variables, especially keeping pace with and managing the tasks and trends of sustainable development in justice, equality and social parity and preserving depleted natural resources and distributing them somewhat to the current generation and future generations in the future, in addition to responsible behavior towards the living ecological environment and caring for it and warding off the risks of pollution in all its forms and causes, especially since the world is going through a dangerous turning point in the twenty-first century, which is witnessing dramatic transformations of globalization and the rearrangement of the digital knowledge economy, and means of network communication based on generations of advanced computers that constitute an essential technical basis for information systems, which will push towards the transition of the form of relations and forces of production to a new perspective. The research aims to analyze and diagnose the role of information systems in promoting sustainable development while understanding the dimensions of the problem and its repercussions. Then, it aims to achieve the following objectives: Identifying the research community's interest in both information systems and sustainable development, identifying the level of appreciation and interest in the vitality and importance of the dimensions of information systems on the one hand and sustainable development on the other hand, providing evidence and highlighting the role of information systems, their dimensions and their relationships in promoting sustainable development and its dimensions, in addition to seeking to summarize the theoretical ideas and concepts related to information systems and sustainable development. The research stems from the importance of information systems and their sensitive and strategic role in building a competitive advantage for businesses. In addition to the importance of sustainable development with its social, economic, and environmental dimensions lies in keeping pace with its developments, adapting to its path, and directing it in the right direction in a manner consistent with preserving society, the environment, and depleted economic resources and their fair distribution, especially in light of the accelerating environmental conditions and factors that the world is currently witnessing. A random sample of 86 researchers was taken from a research community consisting of public universities in Baghdad, using a scale of the independent

P-ISSN 2518-5764
E-ISSN 2227-703X

variable, which is strategic information systems, with its three dimensions that include individuals, information, and information technology (Laudon & Laudon, 2015), and the responsive variable, sustainable development, with its economic, social, and environmental dimensions (Yuan & Zuo, 2013).

The research problem focuses on the following questions:

RQ1: What is the extent of the actual interest of the research institution in information systems and sustainable development in public universities in Baghdad?

RQ2: To what extent does the research institution appreciate and realize the vitality and seriousness of the two variables and their dimensions in public universities in Baghdad?

RQ3: What is the role of information systems and their dimensions in promoting sustainable development, and what are their dimensions in the research institutions in public universities in Baghdad?

RQ4: What is the summary of the theoretical concepts and ideas related to information systems and sustainable development in public Universities in Baghdad?

The paper consists of five sections: the first section is the introduction, the second section is the literature review, the third section is the methodology, the fourth section is the results and calculations, and the fifth section is the conclusions.

2. **Literature Review:**

Knowledge capital and knowledge management KM depends on the production and formation of value, and in turn, it is based on the pillars of informatics and its advanced technologies ITC and its management methods and system that provide a sound and objective road-map for achieving sustainable development goals (Lassala et al., 2021). Information technology has been changing the economy, society, and technologies for more than fifty years, and this has caused large waves of technological changes that were then invested in by entrepreneurs who seized the opportunities in this direction. This research aims to publish the phenomena and disciplines related to these emerging variables recently, as there were calls for conducting more research on the coupling of SIS with entrepreneurship, and more than 290 scientific papers dealing with SIS and entrepreneurship that are related to Information Technology and through This can reveal the roles played by technology and SIS in supporting entrepreneurial processes for value creation. The research found four basic roles in entrepreneurial processes, which are as a facilitator to facilitate operations, as a mediator for establishing new projects, as a system for those projects, and as a business model to be emulated in different places (Steininger, 2019). Blut (2021) aims to provide an overview of meta-analysis techniques and the development of this in SIS as its uses increased in this research and its systemic applications, given that its fields have expanded, increased, and developed especially relevant experimental studies. A meta-analysis is useful for bringing together a growing body of empirical SIS research. This paper is based on 100 studies dealing with meta-analysis of SIS that collect data from more than 6,000 experimental studies that were published between 1989 and 2020 according to 16 basic choices and approaches made by SIS researchers when conducting them, to describe performance methods, coding problems, solve business problems, and interpreting Results, to help to increase the transparency of reports in various administrative and marketing fields. Smart cities use information and communication technology and systems to improve the quality of life, the economy, transportation, traffic, the environment, and government interaction to complete citizens' transactions. The concept of smart or digital cities based on information has received great importance and interest from stakeholders and researchers in various fields, including SIS, as this study presents a synthesis related to smart cities from the perspective of SIS. Focusing on Smart Environment, Smart Government, Smart Mobility, Smart Architecture, and related technologies and concepts. It also focuses on the alignment of smart cities with the goals of SD of the United Nations.

P-ISSN 2518-5764
E-ISSN 2227-703X

It provides a comprehensive review of all of this while highlighting the limitations of current developments and future directions (Ismagilova et al., 2019). Decision-making theories are a reference basis for SIS research, as the SIS is concerned with processing information for decision-making, and the controlling determinants of behavioral economics provide the contemporary approach to understanding decision-making. Therefore, SIS research for decision-making must consider behavioral economics as a reference basis. The paper reports on a critical analysis of behavioral economics in all areas of SIS based on an extensive investigation of high-quality SIS research using bibliometric content analysis. The paper concludes that the behavioral economic reference theory can transform and enrich important areas of SIS research. Hariyati et al. (2019) aim to examine the mediating effect of intellectual capital IC, internal operations performance, and customer performance on the relationship of strategies to financial performance FP. The research community is the business unit of manufacturing companies in Java, and they are responsible for producing and marketing a product or group of products that compete with each other to achieve profits and excellence. The innovation strategy includes the innovation of processes, products, and technologies on financial performance FP if there is a good internal performance of operations and a reliable management accounting SIS and a good system of customer performance leads to the performance of internal operations leads to the outstanding performance of innovation and organization processes and thus to improve the strategic management relationship with performance Financial FP One of the most important conclusions is that SIS affect financial performance FP through the performance of internal operations and the performance of customers. To measure the impact of SIS in building competitive advantage at the Arab Potash Company in Jordan, a questionnaire was used and distributed to a sample of 116 individuals in the company. After differentiation in products. Moreover, there is an impact of SIS in achieving a competitive advantage. It came out with recommendations, the most important of which is the need to pay attention to building information resources and SIS while increasing the efficiency of coordination between the company's operations to introduce a new product and expand the market share (Al-Mobaiden, 2014) In order to identify the relationship and influence between the blue ocean strategy as an independent variable and organizational sustainability as a responding variable in the Asia Telecom Company in Anbar, Iraq. SPSS statistical data to extract the results. Among the most important conclusions reached is that a strong correlation exists between the blue ocean strategy and organizational sustainability (Hussein & Shaker, 2022). To identify the extent to which investments contribute to achieving economic development in Syria and the role of investments in promoting SD. The research problem lies in the mismatch between the independent variable - available investments on the one hand and the responsive variable - SD on the other hand, as SD is a central goal for all countries that investment is an important pillar of its pillars because it contributes to providing job opportunities and increasing local and total income and results in a way that reflects positively on economic, environmental and social development. The paper adopted the descriptive analytical approach with time limits between 1990 and 2011 in Syria. Investments and achieving sustainable development goals and the Syrian economy need huge investments to solve unemployment and poverty problems (Sachs et al., 2022). The development path is not ideal, and rapid civilization development leads to spreading poverty and lack of food security. Therefore, a local development policy must be formulated to solve the problem, especially since most of the population is poor and lives in irregular places depending on nature for livelihood. They do not abide by the laws as they did not come to improve the standard of living. their livelihood, and if development policies consider the interests of the local population, they play a major role in the SD process (Cobbinah et al., 2015). To determine the extent to which the opinions of Generation Z depend on the indicators of the brand of the company, or the employer based on the SD adopted by the company and the gender of the respondent. The principles of SD and its applications are an element of the image of the company and the employer. The opinions of young job applicants are important to companies.

P-ISSN 2518-5764
E-ISSN 2227-703X

The research was conducted on a sample of 291 students in a higher education institution in Poland by distributing a questionnaire to process data statistics. The results indicated that the measures related to SD taken by the company increase the incentives for applicants to work in that company. The analysis stated that the views of Generation Z regarding the SD activities of companies depend on the gender of the applicants, and the main conclusion is that women are more environmentally oriented than men and that the SD strategy is more important to them. Moreover, companies should consider adopting the brand (Rzemieniak & Wawer, 2021). The world is witnessing tremendous progress in SIS that requires their use and application in developing performance and supporting decisions at various levels, especially the strategy that falls within the framework of achieving SD, as it is a vital resource for dealing with environmental conditions and factors and keeping pace with sustainability trends. SIS is defined as a method of environmental analysis through the establishment of strategic databases based on the inputs of suppliers, customers, competitors, environmental factors, organization management, and R&D units (Stair & Reynolds, 2015; Stair et al., 2011). They are also modern system applications that enable organizations to develop their business and activities and keep pace with the challenges of the times (Ward et al., 2002; Al-Janabi et al., 2022). Also, they are modern systems that analyze, organize, control, and control internal and external environmental variables (Al-Janabi & Mhaibes, 2019; Yang et al., 2011). SIS is a system of elements and components intertwined with each other that classify, store, process and distribute information to facilitate planning, communication, control, analysis, and decision-making (Laudon & Laudon, 2015). It is also a group of individuals, technologies, software, and procedures that collect, store, process information, and send it to the beneficiary (Stair & Reynolds, 2015), (Maseer et al., 2022). The SIS SIS leads to supporting and formulating the competitive advantage of organizations (Turban et al., 2001). One of the most important roles of SIS is the operational efficiency of SIS (Hussein et al., 2024), creativity, and the building of strategic information resources. In addition to business re-engineering, the agile organization or company The Agile co is formed. With its high flexibility in rapid and continuous change and creating a virtual co. Learning achieves sustainable strategic success in the competitive global environment, using information technology and systems and building a creative and educational company (O'Brien & Marakas, 2006). The importance of SIS lies in its adoption as an important tool by the organization's senior management in making and taking strategic decisions in light of the turbulent, uncertain environment and its accelerating changes (Sanghera, 2009). The dimensions of SIS are represented in people or H. R. human resources, information, and Information Technology (Haag et al., 2003). Moreover, information is data being processed to become meaningful that performs the required purposes socially and economically and is a basis for strategic success and achievement of goals, as the accuracy and quality of administrative decisions are embodied in the role of information in reducing uncertainty and maximizing the value of tangible and intangible material benefits, and in raising the level of predictability and foresight and making the right decision (Khosrow-pour, 2006). There are four indicators or dimensions of information quality: timing, accuracy, clarity, and trust in the source (Chaffey et al., 2006). The dimension of people or human resources H. R represents the essential axis within the operations of SIS due to its main role in managing, directing, and rationalizing these systems. Information Technology represents advanced computerized tools and techniques and information networks necessary to achieve and maintain communications between the parties and managers of the system or related system (Belanger & Crossler, 2011). Among the most prominent justifications for the development and emergence of SIS is their use in solving business problems, improving performance, and supporting strategic decision-making by moving away from ambiguity and uncertainty prevailing in the conditions of complex and rapid environmental movement created by the dynamics of globalization (Al-Janabi et al., 2024). Certainly, SIS has gained the ladder of upgrading towards a strategic position by passing through five historical stages represented in data processing system in the fifties-sixties, management

P-ISSN 2518-5764
E-ISSN 2227-703X

reports in the seventies, decision support in the eighties, strategic support for end-beneficiaries in the nineties, and electronic business and commerce system at the beginning of the third millennium (Al-Janabi et al., 2024). There is increasing global emphasis and interest in sustainability strategies, especially SD, and the necessity and importance of integrating and synergizing economic-social-environmental policies to rationally invest natural resources without compromising the benefits of future generations. Climate and the bio-ecological environment. From this standpoint, SD must seek to raise social living standards and the quality of life without violating the economic, environmental, ecological, and societal determinants and criteria for social justice, equality, and equal opportunities.

At the end of the eighties of the last century, the Brandt report entitled "Our Common Future" was issued and defined SD as meeting current needs without harming the capabilities of future generations to meet their needs (WCED, 1987). On a global scale, developmental and environmental activities should be organized by emphasizing organizational sustainability strategies. The close organic relationship between economic, societal, and environmental priorities that constitute the capital of SD was addressed (Spangenberg & Bonniot, 1998). Organizational or institutional sustainability means business models that adopt an innovative approach and tend to achieve socioeconomic and environmental goals (Hahn et al., 2018). It is achieved by adapting environmental, social, and economic factors, presently and in the future, inseparably (Beiler et al., 2016). Where accurate adherence to the entitlements of future generations should be met through the tripartite organizational sustainability criterion within the framework of planning, implementation, and follow-up of sustainability policies and not being limited to current outputs (Moldavanove et al., 2017), this is done by integrating the economic, social and environmental dimensions and not fragmenting them (Stubbs & Cocklin, 2008). Likewise, organizational sustainability is embodied in environmental awareness by various organizations with the need to adhere to policies that guarantee the preservation of natural resources and economic and social capital (Lopes et al., 2017) while supporting organizations in achieving sustainable competitive advantage by building close social relationships and improving the image of their societal legitimacy and will (Paulrag, 2011). Ensures long-term strategic success to keep pace with environmental changes in a balanced manner coordinated with stakeholders' requirements without encroaching on the entitlements and interests of future generations (Wales, 2013). In addition, organizational sustainability tends to make wise decisions and rationalize societal and environmental activities through resources Ltd. with just and equitable standards for the current and future generations (Yuan & Zuo, 2013). Concerning addressing the three basic integrated dimensions of the issue of SD, especially organizational sustainability, it pursues ensuring synergies in aspects of the conscious and rational use of natural resources, reducing and avoiding environmental risks, and taking responsibility for them while supporting them with innovation and modernization processes, in addition to cultural and educational activities and other sustainability policies that secure the future for future generations (Hansmann et al., 2012). The integrated and comprehensive three-dimensional framework of organizational sustainability priorities is more practical and valuable when defining the initiatives and policies of institutions as it is a balanced and integrated work guide for that (Seghezzo, 2009). Therefore, SD is embodied in coordinated organizational work and resource-mobilization procedures within the framework of interdependent relationships that pave the way towards integrating the organization's policy and its orientations with the economic, social, cultural, and environmental foundations (Munck & Borim-de-Souza, 2012). Among the most critical sustainability principles are reducing poverty, preserving the environment, preserving land resources, social justice, and peace (Liu et al., 2022). Education in light of SD includes guiding individuals to live sustainably through participation in a democratic society that enables them to deal with complexities, inequalities, and differences of opinion (Rieckmann, 2017).

P-ISSN 2518-5764
E-ISSN 2227-703X

Considering the above, the research paper starts with the following central hypothesis: Strategic information systems significantly affect sustainable development. The following sub-hypotheses are derived from the main hypothesis:

- There is a significant effect of information on sustainable development.
- There is a significant effect of I.T on sustainable development.
- There is a significant effect of People on sustainable development.

Figure (1) below shows the hypothetical research model as follows:

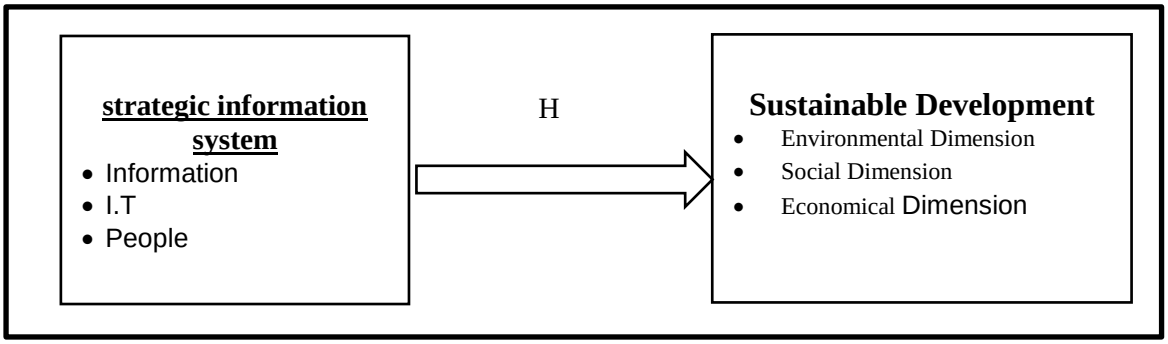

Figure (1): research model

3. Methodology:

3. 1. Sample:

The research sheds light on the knowledge gap through statistical tools and methods. The research adopted the descriptive analytical (College of Administration, Economics and Law) approach, as it dealt with a random sample of researchers in government universities in Baghdad, where (86) questionnaires were distributed to that sample. After returning them, they were all valid for analysis.

Data and information were obtained through the questionnaire that was distributed and retrieved from the sample members, which is the primary source for the practical aspect, and its paragraphs were designed from ready-made standards from foreign studies that dealt with the research variables after translating them and making the necessary modifications to them to suit the requirements of the research. Moreover, its local community and reliance were placed on Laudon & Laudon (2015) to measure the strategic information system. In the Yuan & Zuo (2013) model to measure sustainable development, Cronbach's alpha coefficient for the questionnaire reached 0.91, which is good reliability and validity. With the root of consistency, it reached 0.94, a value more than 0.67 that most statisticians, measurement, and evaluation experts agreed upon. The paper placed the questionnaire scale with its two variables, the independent variable SIS and the respondent SD, and their basic dimensions and the primary references adopted for this purpose. as in the following table (1).

Table 1. Questionnaire, variables, and dimensions

Reference	Dimension		Variable
Laudon & Laudon (2015)	Information	X1	Strategic Information System (SIS)
	I.T	X2	
	People	X3	
Yuang & Zuo (2013)	Environmental Dimension	Y1	Sustainable Development (SD)
	Social Dimension	Y2	
	Economical Dimension	Y3	

P-ISSN 2518-5764
E-ISSN 2227-703X

4. Results:

4.1. The Independent variable (SIS):

Table (1) indicates the descriptive statistics of the SIS variable with an arithmetic mean of 2. 541, which is a high value with a standard deviation of 0.2429. Low. As for dimensions:
Information: Table (1) indicates a high arithmetic mean of 2. 544 and a low standard deviation of 0. 1454 and ranked first in relative importance. This result indicates that public universities in Baghdad employ information well and open communication channels to ensure its smoothness.
People: Table (1) indicates a good arithmetic mean of 2. 434 and a low standard deviation of 0. 1495, ranked second in relative importance. This result indicates that individuals working in public universities have sufficient skills and experience to deal with information technology.
IT: Table (1) indicates a good arithmetic mean of 2. 414 and a low standard deviation of 0. 1516, ranked third in relative importance. This result indicates.
Public universities have information technology capable of accomplishing tasks efficiently.

Table 1: Descriptive statistics of SIS variable

Dimensions	**Ques. No.**	**No**	**Neutral**	**Yes**	***Mean***	***Standard deviation***	**Coefficient of variation**	**Relative importance**
		Freq.	**Freq.**	**Freq.**				
People	1	2	42	42	2.465	0. 5466	0. 1495	The second
	2	2	44	40	2.441	0. 54459		
	3	4	43	39	2.407	0. 58164		
	4	3	44	39	2.418	0. 56287		
	5	3	42	41	2.441	0. 56578		
information	6	2	36	48	2.534	0. 5466	0. 1454	The first
	7	2	37	47	2.523	0. 54722		
	8	3	33	50	2.546	0. 56687		
	9	2	32	52	2.581	0. 54157		
	10	4	32	50	2.534	0. 58807		
IT	11	2	41	43	2.476	0. 54722	0. 1516	The third
	12	2	44	40	2.441	0. 54459		
	13	2	56	28	2.302	0. 51036		
	14	8	37	41	2.383	0. 65383		
	15	4	41	41	2.430	0. 58492		
	16	2	43	41	2.453	0. 54572		
SIS						0.2429	0. 0959	

The development variable with an arithmetic mean of 2.527 is a high value with a standard deviation of 1175. Low. As for dimensions:

4.2. The Dependent variable (SD):

Environmental dimension: Table (2) indicates a high arithmetic mean of 2.419 and a low standard deviation of 0.1463, and it ranked first in relative importance. Social dimension: Table (2) indicates a good arithmetic mean of 2.462 and a low standard deviation of 0.1547, ranked second in relative importance. This result indicates the interest of public universities in social responsibility. Economic dimension: Table (2) indicates a good arithmetic mean of 2.460 and a low standard deviation of 0.1593, ranked third in relative importance. This result indicates that public universities protect working individuals from poverty and provide them with a decent living.

P-ISSN 2518-5764
E-ISSN 2227-703X

Table 2: Descriptive statistics of the Sustainable development variable

Dimensions	Ques. No.	No	Neutral	Yes	*Mean*	*Standard deviation*	*Coefficient of variation*	Relative importance
		Freq.	Freq.	Freq.				
Economic Dimension	17	4	37	45	2. 476	. 5886	0. 1593	The third
	18	2	44	40	2. 441	. 5445		
	19	2	42	42	2. 465	. 5466		
	20	6	35	45	2. 453	. 6260		
	21	3	40	43	2. 465	. 5677		
Social Dimension	22	3	38	45	2. 488	. 5686	0. 1547	The second
	23	1	43	42	2. 476	. 5252		
	24	5	41	40	2. 407	. 6015		
	25	2	41	43	2. 476	. 5472		
	26	3	40	43	2. 465	. 5677		
Environmental Dimension	27	3	45	37	2. 400	. 5606	0. 1463	The first
	28	3	41	42	2. 453	. 5668		
	29	3	44	39	2. 418	. 5628		
	30	3	43	40	2. 430	. 5644		
	31	3	46	37	2. 395	. 5589		
Sustainable Development						. 2973	0. 1175	

4.3. Hypothesis test:

Testing the (main) hypothesis, which states: (There is a significant effect of strategic information systems on sustainable development).

sustainable development = 0.917 + 0.639 (strategic information systems)

Table (3) shows the results of the impact analysis of the dimensions of strategic information systems in sustainable development, as the extracted (F) value achieved a value of (31.411). The result indicates the existence of an effect between the behaviors of strategic information systems in sustainable development, and in light of this result, we reject the null hypothesis and accept the alternative hypothesis, i.e. (There is a significant effect of strategic information systems on sustainable development), as the results showed that enhancing the behaviors of strategic information systems can have a positive and robust effect on the performance of the organization in general as the strategic information systems variable was able to explain (27%) of the changes that occur in sustainable development. As for the level of dimensions individually using the equation (simple linear regression), the results showed the following:

The first sub-hypothesis states (There is a significant effect of information on sustainable development).

sustainable development = 1.973 + 0.228 (information)

Table (3) shows the results of the analysis of the effect of information on sustainable development. The extracted value (F), amounting to "8.105", showed a significant effect of the dimension of information on sustainable development. Based on this result, we reject the null hypothesis and accept the alternative hypothesis, which means (There is a significant effect of information on sustainable development). The results indicate that enhancing information within the organization can positively and strongly affect its overall performance; it was found that information explains "9%" of the changes that occur in sustainable development.

The second sub-hypothesis states (There is a significant effect of I.T on sustainable development).

P-ISSN 2518-5764
E-ISSN 2227-703X

sustainable development= 1.345+0.252 (I.T)

Table (3) shows the results of the analysis of the impact of I.T on sustainable development. The extracted (F) value, amounting to "7.946", significantly impacted I.T and sustainable development. Based on this result, we reject the null hypothesis and accept the alternative hypothesis, which means (There is a significant effect of I.T on sustainable development). The results indicate that enhancing I.T within the organization can have a positive and substantial impact on its overall performance; it was found that I.T explains "10%" of the changes in sustainable development.

The third sub-hypothesis states that there is a significant effect of People on sustainable development.).

sustainable development= 1.83+0.456 (People)

Table (3) shows the results of the analysis of the effect of People on sustainable development. The extracted (F) value, amounting to "10.563", showed a significant effect of the People dimension on sustainable development. Based on this result, we reject the null hypothesis and accept the alternative hypothesis, which means (There is a significant effect of People on sustainable development, as the results indicate that promoting People within the organization can have a positive and strong effect on the overall performance of the organization., it was found that People explains "20%" of the changes that occur in sustainable development.

Table 3: Simple linear regression test

Ind. Variable	Dep. Variable	a	β	R2	F	Sig.
information	SD	1. 973	0. 228	0. 097	8. 105	0. 008
IT		1. 345	0. 252	0. 102	7. 946	0. 009
people		1. 834	0. 356	0. 203	10. 563	0. 000
SIS		0. 917	0. 639	0. 272	31. 411	0. 000

5. Conclusions:

The paper concluded that public universities rely on computers as a basis for the completion of their work. However, its technologies should be more advanced, and the software support university employees in completing their work efficiently and quickly. The university has its own SIS network with a central control unit but does not have external communication networks with other universities and colleges. Moreover, the university administration is interested in holding training courses to develop the skills of workers using computers due to their importance in completing and improving the work efficiently. Moreover, the university administration has qualified and skilled staff to maintain computers.

Furthermore, SIS has contributed significantly to improving SD and raising its level. The paper also concluded that there is a close correlation between the variable of SIS and the variable of SD at the level of macro and sub-dimensions. It also became clear that SIS brings about tangible changes in SD at the level of the university administration's need to rely on computers to complete office procedures and correspondence to carry out work efficiently and effectively. Also, the university must equip and purchase advanced modern computers to acquire and store data and information faster and use them to develop performance and communicate with other universities. The scope of the communication network should be expanded to include internal and external networks due to the need for closer relations and exchange of information with counterpart universities.

The university administration should hold more courses, workshops, and seminars to develop workers' knowledge, skills, and capabilities to use advanced programs to accomplish business and develop performance. The university administration should also attract new skills and adopt digital means in selection, appointment, employment, and performance evaluation. The university must review the software and methods used in its work and replace them with more advanced and modern programs. Moreover, the university adopts the administrative

P-ISSN 2518-5764
E-ISSN 2227-703X

rotation principle to allow workers to acquire various skills, enrich their experiences, and distribute workloads fairly. It is necessary to increase investment in the relationship between SIS to promote SD at all levels and increase interest in computer and network technologies to improve SD.

Moreover, to pay more attention to the development of SIS in all its elements, as this contributes effectively to improving SD. In light of these conclusions and recommendations. The research paper proposes several proposals that researchers can adopt in their future studies, as follows: Conducting a study with the same variables and dimensions in a different industrial environment in the production or service fields, such as the banking or educational sector while comparing the results with the current study to consider the possibility of circulating it to other Iraqi universities. Furthermore, encouraging researchers to use the same variables but with different dimensions is not covered by the study to find out which of the dimensions are compatible with the Iraqi environment or to use an intermediate variable such as the organizational climate, leadership style, or organizational culture with the variables of information technology and organizational performance.

Authors Declaration:

Conflicts of Interest: None

-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved by The Local Ethical Committee in The University.

References:

Al-Janabi, A. S. H. and Mhaibes, H. A. (2019). Employing marketing information system for the success of small and medium enterprises: A field study of some Tourism and Travel companies in Baghdad. *African Journal of Hospitality, Tourism and Leisure*, vol. 8, no. 4.

Al-Janabi, A. S. H., Almado, A. A. G., Mhaibes, H. A., & Flayyih H. H. (2024). The role of strategic agility in promoting organizational excellence: A descriptive analytical study. Corporate & Business Strategy Review, 5(2), 129–138. https://doi.org/10.22495/cbsrv5i2art11

Al-Janabi, A. S., H, Mhaibes, H. A. and Hussein, S. A. (2022). The role of learning organizations in crisis management strategy: A case study. *Corporate & Business Strategy Review*, vol. 3, no. 1, pp. 8–21.

Al-Janabi, A. S., Hussein, S. A., Mhaibes, H. A., & Flayyih, H. H. (2024). The role of entrepreneurial leadership strategy in promoting organizational sustainability: A descriptive and analytical study. Corporate & Business Strategy Review, 5(3), 62–71. https://doi.org/10.22495/cbsrv5i3art6

Al-Kaabi, J. A. H. H. and Al-Taie, B. F. K. (2016). The impact of the independence of the auditor to practice accounting conservatism Applied research in the financial sector companies listed on the Iraq Stock Exchange. J*ournal of Economics and Administrative Sciences*, vol. 22, no. 89. https://doi.org/10.33095/jeas.v22i89.669

Al-Mobaideen, H. O. (2014). The impact of change management on the application enterprise resource planning system (ERP) effectiveness: Field study in Jordan Bromine company. *Journal of Management Research*, vol. 6, no. 4, pp.79.

Arnott, D. and Gao, S. (2022). Behavioral economics in information system research: Critical analysis and research strategies. *Journal of Information Technology*, vol. 37, no. 1, pp. 80–117.

Beiler, M. O., Marroquin, L. and McNeil, S. (2016). State-of-the-practice assessment of climate change adaptation practices across metropolitan planning organizations pre-and post-Hurricane Sandy. *Transp Res Part A Policy Pract*, vol. 88, pp. 163–174.

Bélanger, F. and Crossler, R. E. (2011). Privacy in the digital age: a review of information privacy research in information system. *MIS quarterly*, pp. 1017–1041.

Blut, M. (2021). Meta-analysis in information system research: method choices and recommendations for future research. *Industrial Management & Data System*, vol. 121, no. 1, pp. 12–29.

Chaffey, D., Hickie, S., Greasley, A., & Bocij, P. (2006). *Business information systems: Technology, development and management for the e-business*.

Cobbinah, P. B., Erdiaw-Kwasie, M. O., & Amoateng, P. (2015). Rethinking sustainable development within the framework of poverty and urbanisation in developing countries. *Environmental Development*, *13*, 18-32.

Haag, S. M., Cummings, M. and Mc Cubbrey, D. J. (2003). *Management information systems for the information age*. McGraw-Hill Higher Education.

Hahn, T., Figge, F., Pinkse, J. and Preuss, L. (2018). A paradox perspective on corporate sustainability: Descriptive, instrumental, and normative aspects. *Journal of Business Ethics*, vol. 148, pp. 235–248.

Hansmann, R., Mieg, H. A. and Frischknecht, P. (2012). Principal sustainability components: empirical analysis of synergies between the three pillars of sustainability. *International Journal of Sustainable Development & World Ecology*, vol. 19, no. 5, pp. 451–459.

Hariyati, Tjahjadi, B. and Soewarno, N. (2019). The mediating effect of intellectual capital, management accounting information system, internal process performance, and customer performance. *International journal of productivity and performance management*, vol. 68, no. 7, pp. 1250–1271.

Hussein, D. F. and Shaker S. O. (2022). The inseparable relationship between the blue ocean strategy and organizational permanence / an exploratory study of the opinions of workers in the Asia Cell Company for Mobile Communications in Iraq / Anbar Governorate. *Tikrit Journal of Administrative and Economic Sciences*, vol. 18, no. 59, 1, pp. 397–416.

Hussein, M. K., Krmln, N. Q., Flayyih, H. H., & Noori, R. B. (2024). Harnessing Technological Innovation and Artificial Intelligence in Iraqi Commercial Banks to Achieve Sustainability. In Lecture Notes in Networks and Systems: Vol. 1033 LNNS.

Ismagilova, E. Hughes, L., Dwivedi, and Raman, K. R. (2019). Smart cities: Advances in research—An information system perspective. *Int J Inf Manage*, vol. 47, pp. 88–100.

Khosrow-Pour, M. (2006) *Emerging trends and challenges in information technology management*. Idea Group.

Lassala, C. Orero-Blat, M. and Ribeiro-Navarrete, S. (2021). The financial performance of listed companies in pursuit of the Sustainable Development Goals (SDG). *Economic Research-Ekonomska Istraživanja*, vol. 34, no. 1, pp. 427–449.

Laudon, K. C. and Laudon, J. P. (2015). *Management information system*. Pearson Education India.

Liu, J., Kitamura, Y. and Savelyeva, T. (2022). Building an 'Ecosystem' for transforming higher education teaching and learning for sustainability. *Asia Pacific Education Review*, vol. 23, no. 4, pp. 539–542.

Lopes, C. M., Scavarda, A., Hofmeister, L. F., Thomé, A. M. T. and Vaccaro, G. L. R. (2017). An analysis of the interplay between organizational sustainability, knowledge management, and open innovation. *J Clean Prod*, vol. 142, pp. 476–488.

Maseer, R. W., Zghair, N. G. and Flayyih, H. H. (2022). Relationship Between Cost Reduction And Reevaluating Customers' Desires: The Mediating Role Of Sustainable Development. *International Journal of Economics and Finance Studies*, vol. 14, no. 4, pp. 330–344. doi:10. 34109/ijefs.20220116

Moldavanova, A., Thompson, L. and Burkart, K. (2017). Investigating Public Access to Cultural Organizations in the Urbanized Counties of Metropolitan Detroit: Does the Urban Environment Matter?. .

Munck, L., & Borim-de-Souza, R. (2012). Sustainability and competencies in organisational contexts: a proposal of a model of interaction. *International Journal of Environment and Sustainable Development*, *11*(4), 394-411.

O'brien J. A. and Marakas, G. M. (2006) *Management information system*, vol. 6. McGraw-Hill Irwin New York, NY, USA.

Paulraj, A. (2011). Understanding the relationships between internal resources and capabilities, sustainable supply management and organizational sustainability. *Journal of Supply Chain Management*, vol. 47, no. 1, pp. 19–37.

Rieckmann, M. (2017). *Education for sustainable development goals: Learning objectives*. UNESCO publishing".

Rzemieniak, M. and Wawer, M. (2021). Employer branding in the context of the company's sustainable development strategy from the perspective of gender diversity of generation Z. *Sustainability*, vol. 13, no. 2, p. 828.

Sachs, J. D., Kroll, C., Lafortune, G., Fuller G., and Woelm, F. (2022) *Sustainable development report 2022*. Cambridge University Press.

Saeed, H. S., Hasan, S. I., Nikkeh, N. S. and Flayyih, H. H. (2022). The mediating role of sustainable development in the relationship between producer cost expectations and customer desires. *J Sustain Sci Manag*, vol. 17, no. 10, pp. 13–21.

Sanghera, K. K. (2009) *Value addition in information technology and literacy: An empirical investigation*. Capella University.

Seghezzo, L. (2009). The five dimensions of sustainability. *Env Polit*, vol. 18, no. 4, pp. 539–556.

Spangenberg, J. H., & Bonniot, O. (1998). *Sustainability indicators: a compass on the road towards sustainability* (No. 81). Wuppertal Papers.

Stair, R. and Reynolds, G. (2015). *Fundamentals of information system*. Cengage Learning.

Stair, R., Moisiadis, F., Genrich, R. and Reynolds, G. (2011). *Principles of information system*. Cengage Learning Australia.

Steininger, D. M. (2019). Linking information system and entrepreneurship: A review and agenda for IT-associated and digital entrepreneurship research. *Information System Journal*, vol. 29, no. 2, pp. 363–407.

Stubbs, W. and Cocklin, C. (2008). Conceptualizing a "sustainability business model". *Organ Environ*, vol. 21, no. 2, pp. 103–127.

Turban, E., Rainer, R. K and Potter, R. E. (2001) *Introduction to information technology*. John Wiley & Sons New York, NY.

Wales, T. (2013). Organizational sustainability: What is it, and why does it matter. *Review of enterprise and management studies*, vol. 1, no. 1, pp. 38–49.

Ward, J., Griffiths, P. M. and Whitmore, P. (2002) *Strategic planning for information system*, vol. 3. Wiley Chichester.

WCED, S. W. S. (1987). World commission on environment and development. *Our common future*, vol. 17, no. 1, pp. 1–91.

Yang, X., Zhang, M., Dou, H. and Yang, J. (2011). Neighborhood system-based rough sets in incomplete information system. *Knowl Based Syst*, vol. 24, no. 6, pp. 858–867.

Yuan, X. and Zuo, J. (2013). A critical assessment of the Higher Education for Sustainable Development from students' perspectives–a Chinese study. *J Clean Prod*, vol. 48, pp. 108–115.