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This paper focuses on the implementation of accounting information systems (AIS) and information technology (IT) in the sustainability of developed economic units. The objectives of this study are to characterize economic units, study the application of AIS, explain the effectiveness of AIS and IT on economic units, and investigate the role of IT specialists. To achieve these objectives, a comprehensive analysis is conducted to understand the nature, structure, and operations of developed economic units. The study explores how AIS are implemented and utilized within these units, examining the processes, procedures, and technologies involved in collecting, storing, processing, and reporting financial and non-financial data. Additionally, the impact and effectiveness of AIS and IT on the overall performance and sustainability of economic units are assessed, highlighting the benefits and challenges associated with their adoption and integration. The results obtained demonstrate the positive impact of effective AIS and IT implementation on economic unit performance, including improved decision-making capabilities, streamlined operations, and enhanced financial reporting. However, limitations such as sample size and data reliability should be acknowledged. To overcome these limitations, future research should consider larger and more diverse datasets, longitudinal studies, and the involvement of multiple stakeholders. In conclusion, this research provides valuable insights into the implementation of AIS and IT in developed economic units and highlights their significance in ensuring sustainability. The findings can inform decision-makers and practitioners in optimizing the

Keywords: information systems, accounting information systems, sustainability units, developed economic units

# UDC 657.1

DOI: 10.15587/1729-4061.2023.286380

# IMPLEMENTATION OF ACCOUNTING INFORMATION SYSTEMS AND INFORMATION TECHNOLOGY (IT) IN THE SUSTAINABILITY OF THE DEVELOPED ECONOMIC UNITS

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Received date 11.05.2023 Accepted date 22.08.2023 Published date 31.08.2023

utilization of AIS and IT

How to Cite: Zwaid, J. G., Kareem, H. B., Abed, R. A., Fatima, K. (2023). Implementation of accounting information systems and information technology (IT) in the sustainability of the developed economic units. Eastern-European Journal of Enterprise Technologies, 4 (13 (124)), 79–86. doi: https://doi.org/10.15587/1729-4061.2023.286380

# 1. Introduction

Due to limited financial resources, economic units face many challenges to their sustainability, survival, continuity, and growth. The most significant of these challenges is the weakness of the accounting system on which these units are based, as they lacked sufficient awareness of the importance of the accounting system in many areas, and how using accounting information to improve their work and make decisions can lead to the best possible use of the available resources. Because small economic units frequently lack an accounting information system [1, 2], the job of accounting may be restricted to recording the processes that take place inside the unit.

This will require a combination of inductive and deductive reasoning on the part of scientists using theoretical and field study approaches, with the former involving the presentation of preliminary data and information pertinent to the research problem and the latter involving the distribution of survey lists to a representative cross-section of Iraqi business owners. The researcher found statistically significant cor-

relations between the characteristics of the units (number of workers, capital, age of unit, characteristics of owner of unit ownership and management, specialization of qualification of owner of unit, and degree of use of accounting information systems in the economic units in Iraq) but found no correlations between the qualifications of the owners.

There are a number of difficulties that the economic units must deal with, the most significant of which being the inadequacy of the accounting information systems that they often use. One element that hinders the expansion and development of these economies is the poor quality of their accounting systems. The study's overarching goal is to learn more about how accounting information systems are really being put to use in Iraq's various economic institutions, and to stress the significance of having access to such a system in ensuring the long-term viability of those institutions.

Companies under extraordinary pressure to not just perform in today's fast-paced markets, but to continue doing so tomorrow as well. Recent years have seen a surge in interest in the topic of corporate sustainability as businesses, investors, and consumers realize its growing importance. Businesses nowadays are required to consider economic, environmental, and social sustainability alongside traditional measures of financial success [3]. Future market leadership requires, rather than encourages, the development of corporate strategies to do "well" by doing "good," and the transformation of businesses into environmentally and socially responsible enterprises [4].

Putting future generations' needs ahead of our own is the definition of sustainability [5]. Sustainability in business involves considering not just the bottom line in terms of profits, but also the social and environmental impacts of an organization. As businesses fight for survival in fluid marketplaces, they've realized that it takes more than just a strong bottom line to succeed.

Therefore, researches that are devoted to using an approach that is based on information technology in order to analyze the function that accounting information systems play in assuring the continuous sustainability of established economic units are scientific relevance.

# 2. Literature review and problem statement

According to [6], an accounting information system is a method of collecting, organizing, and making accessible financial and accounting data for management use in running a business. It is possible to find this information in many places, such as spreadsheets, databases, and guides. Accounting information systems are increasingly automated in order to keep track of accounting transactions and related data. There are many different ways to implement such monitoring. Managing financial and accounting data requires a system of accounting information, which [7] defined as "a collection of physical and non-physical constituents that are interrelated and united with each other in harmony [8]. This collection of physical as well as non-physical constituents is referred to as the system of accounting information. A reliable accounting information system is made up of four different apparatuses: information technology, people, procedures, and configurations. In terms of the connection between sustainability and financial success, it's possible that the absence of universality is not as much of an issue as it seems to be when it comes to a diverse variety of business types and types of sectors [9].

The accepted standard of literature on the topic is still quite young. In reality, academics have not yet settled on a single definition of corporate sustainability or agreed-upon set of financial metrics that can be used to evaluate the effectiveness of sustainability initiatives [10]. In terms of the connection between sustainability and financial success, it's possible that the absence of universality is not as much of an issue as it seems to be when it comes to a diverse variety of business types and types of sectors [11].

Sustainability's effect on a company's bottom line is often described by two opposing theories: value creation and value destruction [12]. According to proponents of the value-creation strategy, companies may better manage their risks by embracing ESG principles. The value-destruction argument, on the other hand, claims that ESG-focused businesses sacrifice shareholder value in favor of public relations and public approval. There are a number of competing hypotheses that try to account for the correlation between environmental friendliness and profit margins at corporations. The direction of causation and the strength of the re-

lationship's impact determine which theories are applicable. The trade-off hypothesis, like the value-destruction theory, predicts a negative correlation between prioritizing sustainability and maximizing profit.

The accounting information approach may be understood as a tactic that aids board members in strategic planning and corporate governance by supplying them with timely and accurate financial data on which to base their decisions [13]. It is argued that the purpose of accounting information systems extends beyond the generation of financial reports. Because the function of accounting information systems extends beyond than this narrow definition suggests. Large corporations in particular have benefited from the increased efficiency brought about by the widespread use of accounting information systems. This led to better management of resources and reduced costs, both of which increased the company's worth [14]. In addition, [15] the accounting information system may provide numerical data on both actual and anticipated information, which is useful for setting up shop and running an enterprise efficiently. Accounting information systems are becoming increasingly popular in business and play an important role in the value creation process. The data gathered by accounting methods should be utilized in business strategy and management. Because of this, a firm's full adoption of accounting information systems is required to reap all of the competitive benefits these tools provide. Researchers in this area have drawn different conclusions about the relationship between business acceptance of accounting information systems and the quality of accounting information [16]. Some argue that an organization's culture is a key factor in either direction. Then, let's go into the connections between company culture, accounting information system acceptance in the corporate world, and the reliability of financial statements. The quality of judgments made may suffer if only partial, inaccurate accounting data is available, as shown by [17]. For example, [18] pointed out that inaccuracies in inventory databases could lead to improper business decisions by executives, which could result in either an overstock or an understock of the product. This can have a significant impact not only on the performance of the organization but also on the happiness of its customers. Accuracy, timeliness, completeness, and consistency are the four criteria that could be used to evaluate the quality of the accounting information. [19] conducted research on the most important components of achievement regarding the quality of accounting information. The research accepted four distinct sorts of participants - directors, clients, custodians, and manufacturers — and focused its attention on each of these groups. An organization's culture may be characterized as its common meanings, patterns of beliefs, rituals, symbols, and myths, all of which undergo progressive change over the course of time, according to [20]. The goal of organizational culture is to solve problems relating to both the organization's internal integration and its external adaptability by locating answers to such problems. Controlling and shaping the behavior of individuals working inside a corporation, as well as limiting the amount of individual variation among employees, are other objectives of organizational culture. According to their findings, there are a number of challenges associated with adopting internet integration, including IT, within businesses.

[21] Researchers researched the link between the cultural traits of organizations and the performance of such

organizations. Their findings revealed that organizational culture pervades all aspects of organizational activity and has an influence on the business as a whole. Organizational culture plays a vital role in the process of generating and controlling behavior since it serves as the internal basis of the organization. Some authors [22] were of the opinion that organizational culture is the primary basis upon which the morals and convictions of a company's employees, managers, customers, investors, traders, and any other stakeholders are constructed. This view was supported by evidence. The findings of the research indicate that the culture of an organization can be dissected into four distinct components: the organization's primary goal, the degree to which its members participate in the organization's activities, the organization's ability to change, and its level of consistency. According to the viewpoint that is offered in organizational culture plays an important part in the development of managerial systems; as a result, it may assist companies in reaching the highest possible degree of effectiveness that is available to them. The gap in research may be summed up as follows: there is no accounting information system being implemented in management systems. the management process is still managed through the use of traditional approaches.

According to [23], accounting statement quality may be enhanced by the use of active systems of accounting information, such as training programs to develop fundamental expertise in this area. Accounting statement enhancements were also suggested in [23]. In addition, top-level management must endorse the use of accounting information systems for organizations to realize the full potential of these tools. According to [24], a company's accounting information system may provide value by, among other things, making it easier to complete key activities along the value chain, boosting productivity, and enhancing accuracy. They found that a lack of qualified accounting information was a result of the fact that the system of accounting information had not been certified in a number of Indonesian organizations. It turned out that this understanding was accurate. The author made reference to organizational culture as a binding element that ties political debate and develops common understandings while talking about the use of accounting information systems in company. The author brought this up as part of a larger debate on accounting information systems. The quality of accounting information and the adoption of accounting information systems in the business sector have both been demonstrated to be influenced by a company's organizational culture. Furthermore, [25] shown that the use of accounting information systems improved the quality of financial reports. It was also suggested that this culture could have played a role in the development of accounting information systems in the past. One way to characterize the research gap is to say that it is difficult to use IT in conjunction with AIS in business enterprises in order to improve the quality of their financial outcomes.

Organizational culture is shown to have an impact on both the quality of accounting information and the system of accounting information within a company, and the resulting implications for both management and shareholders are discussed. Furthermore, [26] emphasized that the organizational culture of the firm is one of the factors that affects the accounting information system. The degree to which an accounting information system is embraced by employees is positively influenced by the company's culture. The development and implementation of an accounting information

system in a corporation requires an awareness and understanding of the company's standards, values, and beliefs. The most trustworthy and efficient information accounting system should be built on the firm's organizational culture, according to experts. As a result, the organizational culture of a corporation has an impact on how well accounting information systems are received inside that business. In sum, it may imply that company culture affects the adoption of accounting information systems, which in turn determines the quality of accounting information, or it may demonstrate that company culture affects accounting information quality. Furthermore, it is believed that the adoption of accounting information systems in business organizations may have the capacity to mediate the link between organizational culture and the quality of accounting information, as stated in [27].

All this allows to assert that it is expedient to conduct a study on analysis of the role that accounting information systems play in sustaining the sustainability of established economic units throughout the course of time.

# 3. The aim and objectives of the study

The aim of the study is identifying the role of accounting information systems and information technology (IT) in the sustainability of the developed economic units.

To achieve this aim, the following objectives are accomplished:

- to characterize the economic units;
- to study the application of the accounting information systems;
  - to investigate the role of IT specialist;
- to explain the effectiveness accounting information systems and IT on the of the economic unit.

# 4. Materials and methods

# 4. 1. Object and hypothesis of the study

The object of this research is to examine the ways in which large, well-established businesses are utilizing information and accounting technology to their advantage. The study's overarching goal is to provide light on how technology progress contributes to the sustainability, expansion, and versatility of established enterprises and economies.

An economic unit's characteristics, such as its employee numbers, are significantly correlated with the extent to which it uses accounting information systems in Iraq. The extent to which Iraqi economic units employ accounting information systems is correlated with the characteristics of the economic unit in terms of the number of workers.

It has been shown that the extent to which accounting information systems are employed in economic units in Iraq is correlated with various capital-related aspects of such units. This correlation analyses the extent to which Iraqi economic entities employ computerized accounting information systems.

# 4. 2. Framework of the research

In the framework of applying the sustainability methodology to the process of producing an analysis of the economics units, four elements were taken into consideration. The effect that these parameter adjustments had may be seen in Fig. 1, which depicts the outcome of the experiment.

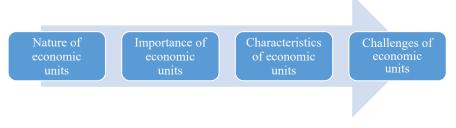


Fig. 1. Conceptual framework of the economics units

Difficulties that are presented to economic units themselves as a result of the characteristics of economic units

In order to perform and analyze the data that was provided, four parameters were considered. The results of the experiment may be seen in Fig. 1, which provides a visual representation of the impact that these parameter alterations made.

# 4. 3. Nature of economic units

first of all, all units in which ownership is not separated from management are considered small projects, i.e. their manager is their owner). Thus, economic units are considered all projects that do not take the form of joint-stock companies, but rather take the form of a sole proprietorship, a one-person company, or partnerships of all kinds. Some economic units in which ownership may be separated from management.

There is a set of quantitative criteria on which the classification of these economic units is based. These criteria are:

- the amount of employment, which is the most comprehensive criterion for classifying these economic units;
  - the amount of money;
  - the amount of sales;
- the method of production used (technological advance level).

These standards are relative and of a local nature that differ from one country to another, and may even differ from one sector to another within the country.

There is no doubt that the definition cannot be separate from the uses for which it was developed, so a unified definition of economic units must be used so that clear standards can be set in various political and organizational fields in order to improve the consistency and effectiveness of measures to support these units and use them to support and move the wheel of economic development , and increasing the domestic product, and activating its role in social development and reducing unemployment, and the unified definition is considered the basis for unifying the official treatment of these units, however, there are many countries that have not legislated an official definition of economic units.

In Iraq, there is no unified definition that is recognized in the legislative texts. There are three definitions developed by the central agency for public mobilization and statistics (capmas), and the definition of the Iraqi small companies law, and the definition of the central bank, and each institution applies a different definition, "every individual company or establishment that carries out a productive, commercial, or service economic activity, and its paid-up capital is not less than one million dinars, and the number of workers does not exceed fifty.

# 4. 4. The importance of economic units

The importance of economic units stems from the vital and effective role they play in the field of economic and social

development. In the country, as it works to raise the level of productivity and create new job opportunities. The importance of economic units is as follows: in many countries of the world, whether developed or developing, and with different stages of growth, economic units represent more than 90 % of the total companies in most economies of the world, and these projects contribute more

than 46 % of global GDP (source), and economic units absorb what between 30 to 35 % of the total workforce, and the number of economic units that accommodate less than 10 workers represents 90 % of companies in Iraq:

- 1. Economic units work to combat poverty and unemployment and reduce the negative social effects in many countries, especially those characterized by an increase in population.
- 2. Economic units adapt to remote areas, thus reducing the problem of migration from the countryside.
- 3. Economic units support large projects and thus achieve economic integration.
- 4. Economic units operate in multiple and diverse fields, thus achieving economic diversification and expanding the productive structure. the economic units include many groups with different levels of education, and they also open an increasing field for women to work and thus contribute to the empowerment of women.

Raising the standard of living of the individual and then the economic level of the state.

# 4. 5. Characteristics of economic units

Economic units are characterized by many characteristics, the most important of which are:

- it is not necessary a lot of money to set it up;
- not utilizing the full production capacity;
- interdependence and understanding between the owner, workers and suppliers;
  - wages are relatively low;
  - financial funding is limited.

The units follow the central system in decision-making.

# 4. 6. Challenges facing the economic units

Among the most important challenges facing the growth of economic units in Iraq:

- 1. Capital: these units lack sufficient financing that allows them to expand and grow, and the financing policies and regulations by the various parties (banks and the social finance fund) impose many obstacles that limit the use of them.
- 2. Government work projects have to deal with many ministries and agencies such as the ministry of finance and commerce in order to be able to register and work legally, and these represent very complex and expensive procedures, and then it may be difficult to complete them easily, which may create many unofficial illegal activities, which represent about 60 %. To 70 % of the Iraqi market.
- 3. Management and marketing: many unit owners lack the management knowledge and experience that allows them to work well and comfortably, and they also lack marketing for products in a way that achieves higher efficiency.
- 4. Database: there is no doubt that the lack of sufficient information about these units directly affects the ability to assist them. On the other hand, the units themselves lack

legal and economic information, such as how to register and obtain the correct licenses.

# 5. Results of the role of accounting information systems and information technology (IT) in the sustainability of the developed economic units

# 5. 1. Characteristics of economic units

Tables 1, 2 contain extensive information on the characteristics of the research sample, respectively. The research was carried out in two parts, which can be summarized as follows

The characteristics of the economic unit will be discussed in the first half of this article. After that, the economic units will be segmented according to the age of the unit, the quantity of money it possesses. The number of workers it employs and total amount of money it has. The characteristics of the owners of the economic unit are the topic of the second component, which focuses on the characteristics of the owners, and the findings have demonstrated that there is sufficient influence of IT on the characteristics of the economic units. The character-

reality of how information systems are utilized in the context of Iraq's environment, elucidates this fact in a way that is very evident. The great majority of economic units in Iraq do not have access to accounting information systems, and those who do have access to them do not make any use of them at all. This is a significant problem for the Iraqi economy. This is a serious problem in the country. 11.11 % of the overall sample size is represented by it, and 20 % of the samples contain some tangible components such as bills, exchange vouchers, and accounting

Percentage of using databases/accounting information systems

Availability of accounting information systems	The number	The ratio
There is no accounting information systems	15	11.11 %
There are some physical accounting information system components	27	20 %
There is a manual accounting information system	68	50.38 %
There is an electronic accounting information system	5	3.70 %
There is a mixed accounting information system manual and electronic	20	14.81 %
Total	135	100 %

Table 1

Characteristics of economic units

The number of employees and workers		Funding economic relief			Lifetime of the economic unit				
	Number of employees	The number	The ratio	Capital	The number	The ratio	Unit lifetime	The number	The ratio
	Less than 10 employees	13	9.62 %	Less than 1,000,000,000 dinars	37	27.40 %	Less than 5 years	7	5.1 %
	From 10 to 50 employees	67	49.62 %	From 1000000000 to 5000000000 dinars	71	52.59 %	From 5 to 10 years	64	47.40 %
	From 50 em- ployees and over	55	40.74 %	From 500,000,000 di- nars or more	27	20 %	From 10 to 15 years	31	22.97 %
	Total	135	100 %	Total	135	100 %	From 15 years and over	33	24.44 %

Table 2

# Characteristics of owners of economic units

Academic Achievement			Owned	Academic Specialization				
Number of employees	The number	The ratio	Property type	The number	The ratio	Specializa- tion	The number	The ratio
Prep	20	14.81 %	What is with you	67	49.63 %	Accounting	55	40.74 %
Bachelor's	73	54.07 %	Boss	53	39.25 %	Economy	58	42.97 %
Master's degree	42	31.12 %	Owner and manager	15	11.11 %	Other	22	16.29 %
Total	135	100 %	Total	135	100 %	Total	135	100 %

istics of the owners of the economic unit are the subject of the second component. These qualities include the owners' degrees of education. Their responsibilities in ownership and management, as well as their fields of scientific knowledge.

The entire amount of money the company possesses as well as the number of workers it uses. The second component, which focuses on the characteristics of the owners, examines the qualities of those who own the economic unit.

# 5. 2. Application of accounting information systems

A five-element strategy was utilized in order to evaluate the impact that an accounting information system that is predominately dependent on IT can have. Table 3, which outlines the

records. Only a portion of organizations are making full use of the accounting information systems available to them; specifically, 50.38 percent of companies utilize a manual accounting system, while only 3.70 percent use an electronic system.

The reality of the usage of information systems in the environment of Iraq is presented in Table 4, which makes this point abundantly obvious. The vast majority of economic units in Iraq do not have access to accounting information systems, and those that do have access to them do not use them at all.

# 5. 3. Role of IT specialist

Because the proportion of 0% of the sample indicates that the economic

units have an accountant who is responsible for performing the accounting task, it is clear that the study was conducted successfully. The extent to which owners of economic units of size use professional accountants to carry out accounting work is made abundantly evident by Table 4, which presents this data in tabular format. The proportion of economic units in the sample in which there is a specialized accountant who performs accounting work is estimated to be 45.93 %, whereas the proportion of economic units in which those who perform accounting work are not specialized in accounting, also known as unqualified, is estimated to be 54.07 %, regardless of whether they are owners or employees. It is projected that 45.93 % of all economic units that

use IT also have a specialized accountant who handles the accounting task. It is anticipated that 45.93 % of economic units have a specialized accountant who is accountable for carrying out accounting activity in such units. In order to put the study hypothesis to the test, which is based on the discovery that there is a relationship between the features of the economic unit and the effect of accounting information systems, the research will be conducted in this manner. By putting an emphasis on an IT strategy, the goal of this study is to either confirm or refute the hypothesis.

The role of IT specialists

Table 4

·		
Carrying out accounting work by specialists	The number	The ratio
A professional accountant who performs accounting work	62	45.93 %
Whoever does accounting work is not specialized in accounting	73	54.07 %
Nobody does the accounting work	0	0
Total	135	100 %

The proportion of economic units in the sample in which there is a specialised accountant who performs accounting work is estimated to be  $45.93\,\%$ , while the proportion of economic units in which those who perform accounting work are not specialized in accounting, i.e. unqualified, is estimated to be  $54.07\,\%$ , regardless of whether they are owners or employees. The proportion of economic units in which there is a specialized accountant who performs accounting work is estimated to be  $45.93\,\%$ . And to put the study hypothesis to the test, which is predicated on the observation that there is a connection between the features of the economic unit and the influence of accounting information systems.

# 5. 4. The effectiveness accounting information systems and IT on the of the economic unit

It is clear from looking at Table 5 that there is a correlation that can be considered statistically significant between the degree of accounting information systems and the features of the economic unit as assessed by the number of workers and employees. Both the amount of money that is symbolized by capital and the age of the economic unit are factors that lend support to the veracity of the idea. In addition, it is apparent from looking at Table 5 that there is a statistically significant association between the unit characteristics of in terms of the number of employees and workers. This demonstrates that the hypothesis is correct and gives support for it.

Table 5
The relationship between the impact of accounting information systems and the characteristics of the economic unit

Unit properties	Degree of correlation	Moral score
The number of employees and workers	0.203	0.000
Funding sources	0.249	0.000
Lifetime of the economic unit	0.188	0.000

The volume of funding represented by capital and the age of the economic unit, and this provides support for the validity of the hypothesis. Additionally, it is evident from

Table 6 that there is a statistically significant relationship between the unit characteristics of in terms of the number of employees and workers. This provides support for the validity of the hypothesis.

Table 6
The existence of a relationship between accounting information systems and the characteristics of the owners of the economic unit

Unit properties	Degree of correlation	Moral score
Academic achievement	0.020	0.000
Ownership and management	0.036	0.000
Academic specialization	0.106	0.000

The data presented in the table above makes it abundantly clear that there is a correlation that can be considered statistically significant between accounting information systems and the characteristics of the owners of the economic unit. These characteristics include academic accomplishments, faculty, management, and academic specialization. Things are put to use in these individual components.

# Discussion of the role of accounting information systems and information technology (IT) in the sustainability of the developed economic units

The rationale for the findings in this research may be ascribed to the proficient integration of accounting information systems and information technology (IT) inside advanced economic entities. Characteristics of economic units has been carried using the number of employees and workers which it reached 13 persons as shown in Table 1. The funding economic relief is 1000,000,000 IQD. Also, five-element strategy was utilized when using accounting information systems as shown in Table 3. Manual Accounting Information System is reaching the maximum number with ratio 50.38 %. IT specialist has a significant role in the firms, where the results in Table 4 revealed that 45.07 % of employees are not specialized in accounting.

The use of these technologies improves the precision of data, streamlines financial processes, promotes decision-making abilities, and ultimately enhances overall operational performance. To evaluate the enduring viability of the established economic entities, the latest findings have been juxtaposed with those of the preceding investigation [27].

The ultimate results can be influenced by several factors, including the extent of information technology (IT) implementation, the prevailing organizational culture, and the proficiency of information technology professionals employed by economic entities. The assessment of the influence that information technology and accounting information systems have had on the economic entity has been conducted, and the findings may be observed in Tables 5, 6, respectively.

The proposed method in this study involves characterizing economic units, studying the application of accounting information systems, explaining their effectiveness, and investigating the role of IT specialists. The features of this method include a comprehensive analysis of various factors contributing to the sustainability of developed economic units. The results obtained can be compared with existing

practices and highlight the benefits and challenges associated with the implementation of accounting information systems and IT in these units. This comparison can provide valuable insights into the effectiveness of the proposed method in improving performance and sustainability.

Some limitations of this study may include a limited sample size or geographical scope, which may impact the generalizability of the findings. Additionally, the study may rely on self-reported data or subjective assessments, which could introduce biases. Other limitations could include time and resource constraints, which may limit the depth of analysis or restrict the scope of the study to specific aspects of accounting information systems and IT.

Disadvantages of this study could include potential data limitations, such as incomplete or inaccurate data. To address this, future studies could employ larger and more diverse datasets to enhance the robustness and reliability of the findings. Additionally, the study could consider incorporating a longitudinal approach to examine the long-term effects of implementing accounting information systems and IT on the sustainability of economic units. Engaging multiple stakeholders, such as management, IT specialists, and users of the systems, in the research process could also help provide a more comprehensive perspective.

The development of this research could involve exploring advanced mathematical models or analytical techniques to gain deeper insights into the relationships between accounting information systems, IT, and the sustainability of economic units. This could include incorporating predictive modeling, data mining, or artificial intelligence techniques to identify patterns, trends, and potential future challenges. Difficulties that could be encountered might include data complexity, the need for specialized expertise in advanced analytics, and the integration of different data sources or systems. Additionally,

conducting field experiments or case studies could provide more practical insights into the implementation and effectiveness of accounting information systems and IT in real-world economic units.

### 7. Conclusions

- 1. The explanation of the economic units has been completed by taking into consideration the number of employees, the amount of financing for economic relief, and the length of time that the economic unit has existed.
- 2. Five different aspects of the implementation of accounting information systems have been scrutinized in this study. According to the findings, the manual accounting information system has a ratio that is 50 % higher than any other.
- 3. The use of both specialists and non-specialists in the accounting system has been taken into consideration for the examination of the part that IT specialists play. This demonstrates that 54 % are not specialists in the field.
- 4. Described the impact that accounting information systems and information technology have had on the economic unit. It has been completed with a degree of freedom of 0.249, and it was done based on the financing source.

# **Conflict of interest**

The authors declare that they have no conflict of interest in relation to this research.

# **Financing**

ally, The study was performed without financial support. References

- 1. Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Kabra, Jawahar. D. (2019). The Role of Accounting Information System (Al-Hattami, H. M., Landami, H. M., Landami, H. M., Landami, H. M., Landami, H. M., La
- 2. Al-Ogaili, A. F. (2020). Nature of the Economic Units Investment Activity and Its Reflection on the Accounting System: A Comparative Analytical Study. International Journal of Innovation, Creativity and Change, 14 (7), 99–109.
- 3. Almagtome, A., Abdlazez, M. (2022). Energy Accounting and Performance: A theoretical Perspective. Akkad Journal Of Contemporary Accounting Studies, 1 (4), 232–245. doi: https://doi.org/10.21003/ea.v193-03 10.55202/ajcas.v1i4.88
- 4. Ahmed Ebraheem Alobaidy, R. J. (2019). Integration of lean accounting techniques and balanced scorecard to evaluate the performance of economic units: An exploratory or applied study in Iraq. Periodicals of Engineering and Natural Sciences (PEN), 7 (4), 1812–1820. doi: https://doi.org/10.21003/ea.v193-03 10.21533/pen.v7i4.882
- 5. Arif, D., Yucha, N., Setiawan, S., Oktarina, D., Martah, V., Muttaqiin, N. (2020). Applications of Goods Mutation Control Form in Accounting Information System: A Case Study in Sumber Indah Perkasa Manufacturing, Indonesia. The Journal of Asian Finance, Economics and Business, 7 (8), 419–424. doi: https://doi.org/10.21003/ea.v193-03 10.13106/jafeb.2020.vol7.no8.419
- 6. Cavalletti, B., Di Fabio, C., Lagomarsino, E., Ramassa, P. (2020). Ecosystem accounting for marine protected areas: A proposed framework. Ecological Economics, 173, 106623. doi: https://doi.org/10.21003/ea.v193-03 10.1016/j.ecolecon.2020.106623
- 7. Elsharif, T. A. (2019). The Elements of Accounting Information Systems and the Impact of Their Use on the Relevance of Financial Information in Wahda Bank Benghazi, Libya. Open Journal of Business and Management, 7 (3), 1429–1450. doi: https://doi.org/10.21003/ea.v193-03 10.4236/ojbm.2019.73098
- 8. Ginevičius, R., Szczepańskawoszczyna, K., Szarucki, M., Stasiukynas, A. (2021). Assessing alternatives to the development of administrative economic units applying the FARE-M Method. Administratie Si Management Public, 36, 6–26. doi: https://doi.org/10.21003/ea.v193-03 10.24818/amp/2021.36-01
- 9. Salman, S., Sharaf, H. K., Hussein, A. F., Khalaf, N. J., Abbas, M. K., Aned, A. M. et al. (2022). Optimization of raw material properties of natural starch by food glue based on dry heat method. Food Science and Technology, 42. doi: https://doi.org/10.21003/ea.v193-03 10.1590/fst.78121

- 10. Almagsoosi, L., Abadi, M. T. E., Hasan, H. F., Sharaf, H. K. (2022). Effect of the Volatility of the Crypto Currency and Its Effect on the Market Returns. Industrial Engineering & Management Systems, 21 (2), 238–243. doi: https://doi.org/10.21003/ea.v193-03 10.7232/iems.2022.21.2.238
- 11. Ashham, M., Sharaf, H. K., Salman, K., Salman, S. (2017). Simulation of heat transfer in a heat exchanger tube with inclined vortex rings inserts. International Journal of Applied Engineering, 12 (20), 9605–9613.
- 12. Raheemah, S. H., Fadheel, K. I., Hassan, Q. H., Aned, A. M., Turki Al-Taie, A. A., Sharaf, H. K. (2021). Numerical Analysis of the Crack Inspections Using Hybrid Approach for the Application the Circular Cantilever Rods. Pertanika Journal of Science and Technology, 29 (2). doi: https://doi.org/10.21003/ea.v193-03 10.47836/pjst.29.2.22
- 13. Subhi, K. A., Hussein, E. K., Al-Hamadani, H. R. D., Sharaf, H. K. (2022). Investigation of the mechanical performance of the composite prosthetic keel based on the static load: a computational analysis. Eastern-European Journal of Enterprise Technologies, 3 (7 (117)), 22–30. doi: https://doi.org/10.21003/ea.v193-03 10.15587/1729-4061.2022.256943
- 14. Sharaf, H. K., Alyousif, S., Khalaf, N. J., Hussein, A. F., Abbas, M. K. (2022). Development of bracket for cross arm structure in transmission tower: Experimental and numerical analysis. New Materials, Compounds and Applications, 6 (3), 257–275.
- 15. Huterski, R., Voss, G., Huterska, A. (2020). Professional Ethics in Accounting as Assessed by Managers of Economic Units. European Research Studies Journal, XXIII (1), 720–731. doi: https://doi.org/10.21003/ea.v193-03 10.35808/ersj/1788
- 16. Nitsenko, V. S., Mukoviz, V. S., Sharapa, O. M. (2017). Accounting of transaction expenses of economic entities. Scientific Bulletin of Polissia, 2 (4 (12)), 71–78. doi: https://doi.org/10.21003/ea.v193-03 10.25140/2410-9576-2017-2-4(12)-71-78
- 17. Stanescu, S. G., Cucui, I., Ionescu, C. A., Paschia, L., Coman, M. D., Nicolau, N. L. G. et al. (2021). Conceptual Model for Integrating Environmental Impact in Managerial Accounting Information Systems. International Journal of Environmental Research and Public Health, 18 (4), 1791. doi: https://doi.org/10.21003/ea.v193-03 10.3390/ijerph18041791
- 18. Tilsted, J. P., Bjørn, A., Majeau-Bettez, G., Lund, J. F. (2021). Accounting matters: Revisiting claims of decoupling and genuine green growth in Nordic countries. Ecological Economics, 187, 107101. doi: https://doi.org/10.21003/ea.v193-03 10.1016/j.ecolecon.2021.107101
- 19. Tupman, W. (2015). The characteristics of economic crime and criminals. Research Handbook on International Financial Crime. Edward Elgar Publishing, 3–14. doi: https://doi.org/10.21003/ea.v193-03 10.4337/9781783475797.00009
- Warnell, K. J. D., Russell, M., Rhodes, C., Bagstad, K. J., Olander, L. P., Nowak, D. J. et al. (2020). Testing ecosystem accounting in the United States: A case study for the Southeast. Ecosystem Services, 43, 101099. doi: https://doi.org/10.21003/ea.v193-03 10.1016/j.ecoser.2020.101099
- Rosa, D., Purfini, A. P. (2019). Analysis Effect Quality of Accounting Information Systems to Support Company Performance. IOP Conference Series: Materials Science and Engineering, 662 (3), 032015. doi: https://doi.org/10.21003/ea.v193-03 10.1088/1757-899x/662/3/032015
- 22. Rika Gamayuni, R. (2020). Accounting information technology and village finance management in Indonesia. Journal of Administrative and Business Studies, 6 (1). doi: https://doi.org/10.21003/ea.v193-03 10.20474/jabs-6.1.1
- 23. Mitrović, A., Knežević, S. (2020). Fraud and forensic accounting in the digital environment of accounting information systems: focus on the hotel industry. Tourism International Scientific Conference Vrnjačka Banja-TISC, 5 (1), 281–295.
- 24. Kadhim, H. O., Latif, A. Z. (2019). The impact of supply chain accounting information systems harmonization on creating a competitive advantage for the Iraqi general commission taxation. Journal of Supply Chain Management, 8 (2050-7399), 448–452.
- 25. Idris, I., Barusman, A. R. P., Evana, E., Widiyanti, A., Mirfazli, E. (2020). Development of the Accounting Information System as Teaching Content to Improve Information Technology Competency in Graduates. Test, Engineering & Managemen, 82 (1), 9897–9907.
- 26. Zwaid, J., Mhawesh, A., Hussein, A. (2020). Confidentiality, integrity and availability of accounting information reflected in enhancing the quality of financial inspections by using hotels as a case study. African Journal of Hospitality, Tourism and Leisure, 9 (2).
- 27. Zwaid, J. G., Bari, A. H. A., Rashed, R. N. (2021). The role of financial statements in predicting the changes of prices and production cost of oil. Economic Annals-XXI, 193 (9-10), 25–33. doi: https://doi.org/10.21003/ea.v193-03 10.21003/ea.v193-03