

Management of Accounting in Strategic Decision-Making for Enterprises

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ABSTRACT

Introduction: Current business practice convincingly demonstrates the significant impact of accounting and controlling activities on management processes. The overall increase in financial instability complicates the dynamics of micro- and macroeconomic processes at the national and global levels, leading to new financial risks and challenges.

Objectives: This research is dedicated to substantiating the role of accounting in the strategic management of an enterprise in modern economic conditions.

Methods: The work's methodological and theoretical foundation was formed considering the priority principles of implementing systematic research based on a comprehensive approach, analysis and synthesis, the comparison method, deduction and induction, abstract-logical and dialectical methods of scientific cognition and the formalisation method.

Results: The article identifies the current context of the essence of accounting in terms of management decision-making. The relevant functions of accounting are systematised. The role of accounting in ensuring the reliability of strategic management decisions in crises and instability is considered. Potential risks of improper implementation of audit of financial statements or neglecting the need for its conduct are highlighted. It is established that the primary negative consequences of such phenomena are practically reflected in investment planning and financial stability. In an unstable economic environment, practical accounting is a prerequisite for improving the quality of financial reporting and optimising the strategic management paradigm. The leading role of accounting in ensuring the completeness, reliability, and dependability of financial reporting, which prevents potential operational risks or erroneous management decisions, is substantiated.

Conclusions: The practical significance of the research results lies in the feasibility of their application to improve the effectiveness of the financial activities of enterprises by increasing the level of reliability of reporting, analysing the reasons for its discrepancy with reality, as well as controlling financial performance, which synergistically serves as the basis for making effective strategic management decisions.

Keywords: Management Accounting, Accounting Paradigm, Bioenergy Assets, Enterprise Management, Assets, Strategic Management, Management Decision.

INTRODUCTION

In the current market dynamics, the enterprise, as an individualised component of the overall economic system, actively interacts with business partners and various levels of budgetary organisations, highlighting the need for synergy between strategic and financial management vectors. These vectors involve principles and tools for regulating financial and resource potential to achieve strategic and operational goals. Rational resolution of issues

related to loss risks, financial instability, and audit activities is a prerequisite for forming well-founded, effective management decisions at the enterprise.

In this context, the object of management is positioned as the financial capital of business entities, including its size, sources of formation, and the relationships that arise in forming and utilising resources. The results of management decisions are reflected in the dynamics of cash flows that form between the enterprise and its counterparties, capital owners, the budget, and other market agents. Such information is generated and accumulated within the accounting system.

LITERATURE REVIEW

The issues of the place, role, and functions of accounting in the management paradigm of a modern enterprise are quite debatable and have been researched by several contemporary scholars. Numerous publications on the subject can be found in scientific professional journals. Specific elements of innovative mechanisms for automating accounting processes and their impact on strategic management are examined in studies by contemporary Ukrainian scholars [1, 2, 3]. Other researchers [4, 5, 6, 7] investigate the growing informational potential of the digital economic space in the context of modernising accounting. Several scientists [8, 9, 10, 11] have developed algorithms for the digitalisation of accounting financial processes and updated the hub of technological means of digitalisation and electronic document management in the accounting field.

Several leading contemporary scientists have made significant contributions to studying the impact of accounting processes on the enterprise management system [12, 13, 14, 15]. Some researchers have thoroughly established the foundations of a system for identifying discrepancies in reporting realities, analysing them, and assessing them as a basis for making effective strategic decisions [16].

Several studies by contemporary foreign scientists are devoted to identifying priority areas for improving accounting efficiency [17, 18]. Individual scholars have also addressed the feasibility of digitalising part of the financial reporting algorithm [19, 20, 21]. However, the practical impact of accounting functions on strategic enterprise management has been studied fragmentarily.

The article aims to substantiate the role of accounting in enterprise strategic management in the current economic environment.

METHODS

The work's methodological and theoretical foundation was formed considering the priority principles of implementing systematic research based on a comprehensive approach. Analysis and synthesis were used to highlight significant aspects and main elements of the object under study. The comparison method was employed during the research to determine the specifics of the impact of accounting on making strategic management decisions. Deduction and induction were applied in developing proposals for optimising management processes in synergy with accounting processes as interconnected and interdependent components of the economic activity system. Abstract-logical and dialectical methods of scientific cognition were used to clarify the conceptual framework, highlight key concepts and categories, form theoretical generalisations and conclusions of the research, and form the concept of an integrated digital optimisation process of accounting processes. The formalisation method was applied to identify priority vectors for optimising the system and structuring the accounting principles, functions, tasks, and priorities in the enterprise's management paradigm.

RESULTS

The reliability of financial reporting, effective identification of discrepancies with the entity's economic realities, operational analysis of the reasons for these discrepancies, and control over the effectiveness of financial and economic activities are positioned as the basis for making effective strategic management decisions at the enterprise.

The Law of Ukraine "On Accounting and Financial Reporting in Ukraine" [22] defines accounting as a process of identifying, measuring, accumulating, summarising, and providing information to external and internal users about the activities of an enterprise for further decision-making. At the same time, the accounting phenomenon is systemic, where the system of economic operations is expressed in labour, natural, and monetary terms. The accounting system's primary functions that directly or indirectly influence management activities can be highlighted by

summarising scholars' opinions. Among them are control, analytical, informational functions, property preservation and feedback provision.

A quality accounting system allows for control, analysis of received information, justification, and appropriate management decisions at different levels. An inventory of the enterprise's property serves as a tool for practically implementing the property preservation function, allowing for the identification and preventive warning of risks of embezzlement and theft.

The informational function is ensured by systematically accumulating various synthetic and analytical information in planning and forecasting the enterprise's development strategy. Meanwhile, the feedback function is implemented by controlling the fulfilment of planned indicators, adherence to the resource usage regime, and identifying potential production reserves.

Implementing the analytical function allows for analysing the use of resources, production and sales costs, pricing policy, and inflation processes. To successfully perform its functions, accounting must present data transparently and accessibly for shareholders, investors, and other interested parties, fully characterising the enterprise's performance results.

The main structural elements of financial reporting are the balance sheet and the statement of the enterprise's financial results. Internal users of financial reporting (enterprise management, owners, and employees) use the reports for internal control, making strategic management decisions, and evaluating the company's performance. External users (current and potential investors, customers, suppliers, banks, and government agencies) consider financial reporting an essential source of information for assessing the stability and solvency of the entity. At the same time, the primary functional direction of financial reporting is to provide information whose reliability must be confirmed by audit practices.

The accounting system thoroughly analyses the interrelationship of its components, including assets, capital, liabilities, income, and expenses. This allows for the structuring of reporting data and identifying necessary audit procedures. All reporting elements must be integrated into a coherent system.

Emphasising the role of accounting in ensuring the effectiveness of strategic management decisions requires guaranteeing the audit process's effectiveness. The role of the audit significantly increases with several prerequisites, including the implementation of high national quality standards for audit activities and the implementation of international audit standards; effective control of audit organisations' activities; unification of qualification requirements for auditors; and establishing clear rules for the independent activities of audit organisations. Additionally, particular attention should be paid to the audit risk factor while verifying financial reporting.

In forming conclusions about the reliability of financial reporting during accounting audits, it is essential to understand the correctness of form preparation and summarise the compliance of each element's content presented by the enterprise with the established information task. Developing the role of accounting audits in enhancing strategic management efficiency requires strengthening their functional effectiveness. The requirements for audit evidence are regulated by established financial reporting preparation algorithms.

Using digitalisation tools allows for the almost complete automation of the accounting process. Specifically, digital optimisation enables the quick receipt of current accounting information in real-time, saving time and resources in report preparation. Moreover, thanks to the advantages of modern password protection systems in most accounting software, informational data is kept confidential. The main effect of using digitalisation tools is the timely prevention of risks. The impact of accounting digitalisation on the strategic management system is characterised in Table 1.

Table 1: Impact of Accounting Digitalisation on the Strategic Management of an Enterprise

Impact aspect	Dynamics of strategic management decisions
Digitalisation of accounting processes	Implementation of cloud processes, artificial intelligence tools, and blockchain minimises the risks of error in strategic decision-making
Human resources	Development of accounting specialists in the direction of synergy of financial and strategic management through analytical and critical thinking techniques, optimisation of accounting skills, communication competence, and management decision-making skills
Current functionality	Implementation of a part of routine tasks through cloud processes and automation, independent control and performance evaluation systems

Source: compiled by the author

Various types of information systems integrated into accounting are being improved. In addition to the standard functionality of financial analytics, they form management decisions (Figure 1).

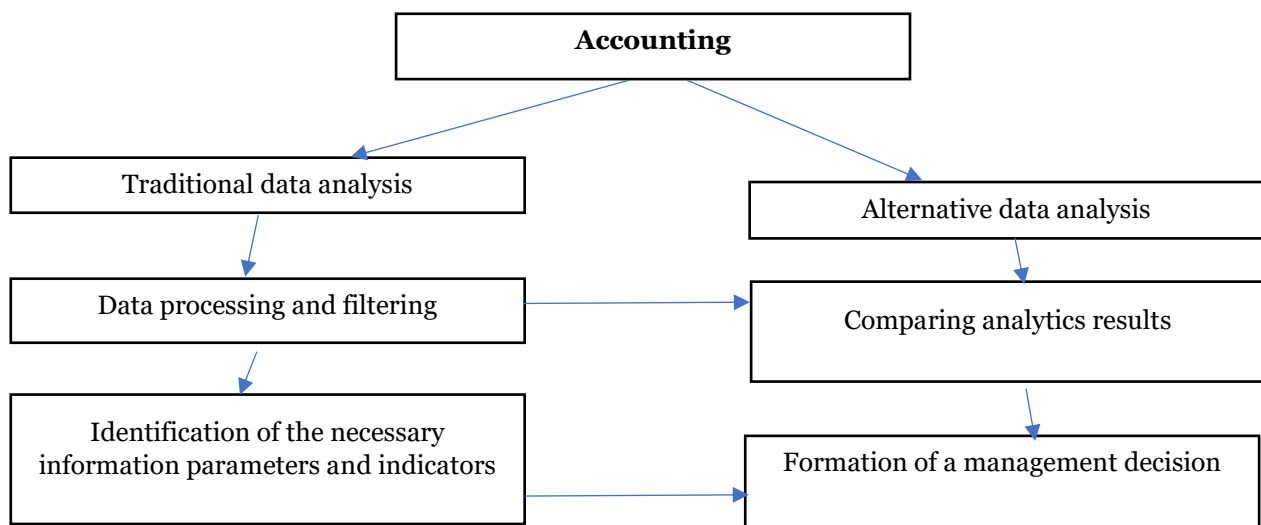


Figure 1: Algorithm of Accounting Influence on Financial and Analytical Activities

Source: compiled by the author

Based on a critical study of existing strategic management models (Table 2), an optimal synergistic concept can be formed regarding the impact of accounting processes on strategic management decision-making at the enterprise.

Table 2: Analytics of Strategic Management Models in the Synergy Context

Strategic management model	Shortcomings in the synergy context
Formalisation strategy	Excessive formalisation of the strategic planning process and detailed planning guidelines exclude creative solutions, intuition, and synthesis. Extrapolation creates preconditions for the strategy's vulnerability in the face of uncertainty.
Analytics strategy	Focusing on external factors and levelling down internal potential leads to ignoring the creativity factor. Focusing on the selection of strategic market positions minimises attention to strategic prospects.
Forecasting strategy	The basis is intuition and life experience, and resources are concentrated in a monopolistic direction, ignoring diverse development opportunities.
Strategy of continuous development	Continuous process learning leads to replacing innovative tactical manoeuvring with a solid strategic perspective, which provokes significant resource losses and an erroneous choice of development direction.

Adaptation strategy	The organisation is characterised by a passive response to the situation's dynamics, with strategy selection narrowed to identifying and adapting changes without considering the possibilities of choosing a strategy.
Transformation strategy	It cannot ensure a balance of stability and dynamics, ignoring the problem of accumulating transformational potential in the current configuration.

Source: compiled by the author

The synergistic concept of the impact of accounting on the strategic management of a modern enterprise requires the activation of the development of an integrative model of management activity configuration. The concept of synergy is positioned as one of the most promising and effective platforms for such development. As a hub of financial and economic information regarding business activities, accounting should be the foundation for forming innovative approaches to strategic decision-making. In this regard, the necessity of synergising the strategic and financial vectors of enterprise management is emphasised, which involves rationally addressing issues related to loss risks and financial instability of enterprises and is positioned as a prerequisite for forming well-founded and effective management decisions.

Accounting can be effectively used in enterprises' operation and strategic management and for assessing climate change and anthropogenic impact, particularly in the context of greenhouse gas emissions. The task of accounting for environmental activities is to generate information about the presence (in quantitative and cost terms), the degree of development, and the ecological state (quality) of natural resources; the presence of impacts (positive and negative) of the business entity on the natural environment; the implementation of environmental protection measures by the business entity, and the evaluation of their effectiveness.

Additionally, environmental accounting is an integral part of enterprise management. Accounting processes should be complemented by analytical processes that show the amount of additional revenue generated by the enterprise through the sale of environmental products or the implementation of environmental technologies. This would stimulate the formation of a favourable investment climate to ensure sustainable development and achieve the principles of a "green" economy.

Ensuring climate neutrality is one of the global goals of the European Union and the whole world. International agreements confirm this, according to which climate change is one of the priority global issues that must be addressed. In particular, the Paris Climate Agreement (November 4, 2016) contains norms that each state must follow to reduce harmful emissions into the atmosphere [23].

The European Commission adopted the European Green Deal (December 11, 2019) to create a climate-neutral strategy in Europe by 2050 [24]. One of the most significant international agreements is the United Nations Climate Summit (December 13, 2023), where countries unanimously adopted a plan to phase out fossil fuels such as oil, gas, and coal and outlined a strategy for transitioning to renewable energy sources [25].

Over the past 100 years, the scale of CO₂ emissions in the world has been impressive (Figure 2). According to data from the International Energy Agency (IEA), in 2022, carbon dioxide emissions from energy combustion increased by 321 Mt (0.9%) to reach a new historical maximum of 36.8 Gt.

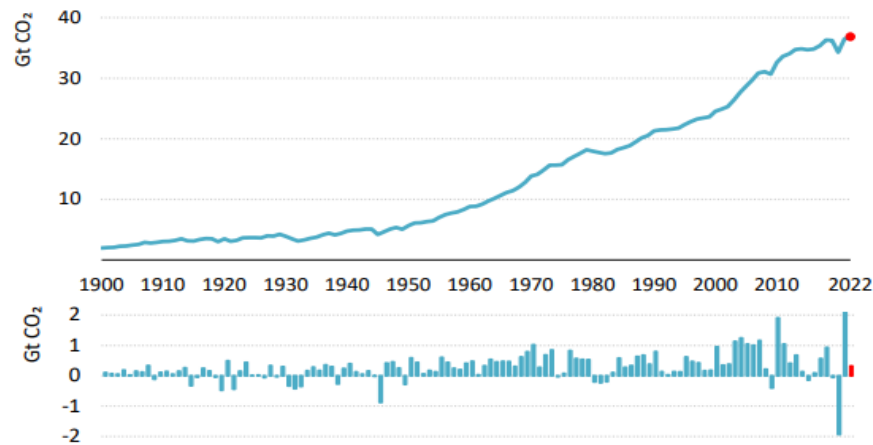


Figure 2: Global CO₂ Emissions from Energy Combustion and Industrial Processes and their Annual Changes, 1900–2022

Source: IEA [26]

Every branch of science must develop measures to ensure climate neutrality and “green” energy use. As an information support tool, accounting is an effective mechanism for developing the state's energy and climate policy, making it a macroeconomic factor of influence. Bioenergy assets are an innovative accounting object that allows for the correct representation of the main elements of bioenergy (biofuels and biomass) in the enterprise's information system [27].

Accounting for bioenergy assets enables strategic management of the enterprise in the following aspects:

1. Control the use of natural and energy resources in production and service delivery.
2. Determining the relationship between the natural resources used and the increase in enterprise profitability.
3. Avoiding fines for violations of environmental legislation.
4. Increasing the effectiveness of enterprise management decisions due to the continuous accounting of bioenergy assets and determining the consequences of their use.
5. Reducing energy consumption and increasing the bioenergy potential of the enterprise.
6. Creating an information base for energy and environmental calculations, determining their impact on profitability.
7. Implementing the principles of sustainable development by the enterprise in terms of using clean, renewable energy, innovations, and mitigating climate change.
8. Forming a positive image of the company as a responsible user of natural and energy resources.

DISCUSSION

Research by contemporary scientists indicates that the prerequisites for the synergy of accounting audit and strategic management are positive economic development dynamics, legitimacy, and responsiveness to the challenges of crisis periods of instability. Some scientific papers explore the possibility of implementing a system of selective audits with increased frequency to promptly mitigate risky situations in a business entity's financial and economic activities, utilising modern digitalisation tools [28, 29].

Modern scholars [30, 31] emphasise that innovative technologies and automated solutions are implemented only fragmentarily in accounting and financial processes. Some researchers [32, 33] believe that the demand for various cloud service variations will rapidly increase, as the development of cloud technologies can significantly impact the adaptive dynamics of software for solving accounting tasks.

Authors Agostino et al. [34] study digital technologies, social media, clouds, sensors, and artificial intelligence, which have led to the impact of digital waves at different levels and with varying intensity on strategic management.

Subsequently, Kovalevska et al. [35] and Shaukat et al. [36] address the issues of accounting digitalisation in the context of overall business process digitalisation.

Most authors assert a close connection between the accounting system and strategic management. At the same time, scientists' conclusions regarding the practical tools for implementing the functions of such a dependency need to be more consistent.

CONCLUSION

Accounting is positioned as the most critical element of effective enterprise management. The information obtained from accounting is used in management practice to form and justify operational, tactical, and strategic decisions; therefore, poor-quality accounting information can lead to erroneous conclusions.

A well-established accounting system is positioned as one of the primary sources of information regarding enterprises' financial and economic activities. It allows for effective strategic management of the enterprise's activities. Additionally, accounting ensures control over the preservation of the enterprise's assets, making it an essential means of improving its financial condition.

The research has proven that the primary consequences of unreliable accounting are reflected in investment planning and the strategic financial decisions of the business entity. Among the risks that arise in business activities due to neglecting the quality of accounting are potential reductions in economic efficiency and the loss of investment attractiveness. The accounting system is crucial in confirming the reliability and impartiality of the information provided to internal and external users, helping to form effective decisions within the strategic management framework. This increases trust in the business entity from partners and investors, establishes its positive image, and simplifies the process of establishing new contacts, all of which synergistically contribute to the successful prospective development of the enterprise.

Promising directions for further research include developing an algorithm for forming strategic management decisions based on the results of financial audits.

REFERENCES

- [1] Derkachenko, Yu.; Matiukha, M. The role of accounting and auditing standards in the context of societal changes. Dominants of socio-economic development of Ukraine in new realities. Kyiv National University of Technology and Design, 2023, pp. 217–218. https://er.knutd.edu.ua/bitstream/123456789/23994/1/DOMIN_2023_P217-218.pdf
- [2] Onyshchenko, V.; Marinova, V. Internal control as a factor of efficiency of the accounting information system. Economy and Society, 2022, 40. <https://doi.org/10.32782/2524-0072/2022-40-60>
- [3] Orlov, I., & Zakharov, D. Research on the problem of ensuring the reliability of integrated reporting. Problems of theory and methodology of accounting, control and analysis, 2023, 1(54), 46–51. [https://doi.org/10.26642/pbo-2023-1\(54\)-46-51](https://doi.org/10.26642/pbo-2023-1(54)-46-51)
- [4] Oneshko, S.; Drozdova, O.; Ivanova, N. On the growth of the information potential of the digital economic space: modernisation of accounting and auditing in Ukraine. Academic Visions, 2023, 21. <https://academy-vision.org/index.php/av/article/view/446>
- [5] Nazarenko, O. Features of the formation, consolidation and audit of financial reporting indicators of business entities in the context of international standards. Transformation of social relations in the context of civilisational changes: a collective monograph. (pp. 275–299). Kharkiv: SG NTM “New Course”, 2023. <https://repo.snau.edu.ua/handle/123456789/10684>
- [6] Levytska, S.; Pershko, L.; Akimova, L.; Akimov, O.; Havrilenko, K.; Kucherovskii, O. A risk-oriented approach in the internal auditing system of the subjects of financial monitoring. International Journal of Applied Economics, Finance and Accounting, 2022, 14(2), 194–206. <https://doi.org/10.33094/ijaefa.v14i2.715>
- [7] Danyliuk, V.; Riepina, I.; Shafalyuk, O.; Kovylyna, M.; Nitsenko, V. Functional and investment strategies for the technical development of enterprises. Scientific Bulletin of the National Mining University, 2020, (3), 115–121. <https://doi.org/10.33271/nvngu/2020-3/115>
- [8] Mironova, N.; Koptieva, H.; Liganenko, I.; Sakun, A.; Chernyak, D. Modelling the selection of innovative strategies for the development of industrial enterprises. WSEAS Transactions on Business and Economics, 2022, (19), 278–291. <https://doi.org/10.37394/23207.2022.19.26>

- [9] Holovchak, H.; Shepel, I.; Shysh, A. Modernisation of accounting and audit of Ukraine in the context of the growing information potential of the digital economic space. *Academic Visions*, 2023, 23. <https://www.academy-vision.org/index.php/av/article/view/563>
- [10] Sakun, A.; Prystemskyi, O. Argumentation of the role of accounting policy as a system-forming tool in the accounting space of entrepreneurship. *Scientific Collection "InterConf+", 2023, 30(143), 80–90.* <https://doi.org/10.51582/interconf.19-20.02.2023.009>
- [11] Liubymov, M. O.; Kulyk, V. A. Opportunities, threats and prospects for the use of cloud technologies in accounting. *Scientific Bulletin of PUET. Series "Economic Sciences", 2020, 2(93).* <https://dspace.pdau.edu.ua/server/api/core/bitstreams/2af59db1-51a8-4e63-84cb-39e2827252a7/content>
- [12] Spivak, S.; Panchyshyn, D.; Skochyliash, M.; Yaremchuk, K. Digitalisation of accounting processes. *Electronic scientific professional edition "Socio-economic problems and the state", 2021, 2(25), 113–119.* <https://doi.org/10.33108/sepd2022.02.113>
- [13] Mykhailovyna, S. O.; Matros, O. M.; Polishchuk, O. M. Cloud technologies as an important aspect of the development of the accounting and taxation system. *Effective Economy*, 2021, 8. <https://doi.org/10.32702/2307-2105-2021.8.86>
- [14] Tomchuk, O. F.; Hradomska, I. O. The use of strategic management analysis methods in management decision-making. *Market infrastructure: electronic scientific and practical journal*, 2020, 41, 307–312. <https://doi.org/10.32843/infrastructure41-50>
- [15] Borysiak, O.; Manzhula, V.; Bila, Y.; Petryshyn, N.; Vovchuk, D. Verifying the Economic Potential of Low-Carbon Energy Using Artificial Intelligence in Transport. *The First International Workshop of Young Scientists on Artificial Intelligence for Sustainable Development; May 10-11, 2024. Ternopil, 2024.* <https://ceur-ws.org/Vol-3716/short2.pdf>
- [16] Florou, A.; Morricone, S.; Pope, P. F. Proactive financial reporting enforcement: Audit fees and financial reporting quality effects. *The Accounting Review*, 2020, 95(2), 167–197. <https://doi.org/10.2308/accr-52497>
- [17] Elliott, W.; Fanning, K.; Peecher, M. Do Investors Value Higher Financial Reporting Quality, and Can Expanded Audit Reports Unlock This Value? *The Accounting Review*, 2020, 95(2), 141–165. <https://doi.org/10.2308/accr-52508>
- [18] Firnanti, F.; Karmudiandri, A. Corporate Governance and Financial Ratios Effect on Audit Report Lag. *Accounting & Finance Review*, 2020, 5(1), 15–21. [https://doi.org/10.35609/afr.2020.5.1\(2\)](https://doi.org/10.35609/afr.2020.5.1(2))
- [19] Assad, N.; Alshurideh, M. Financial reporting quality, audit quality, and investment efficiency: Evidence from GCC economies. *WAFEN-UND Kostumkunde Journal*, 2020, 11(3), 194–208. <http://surl.li/rfsay>
- [20] Endrawes, M., Feng, Z., Lu, M., & Shan, Y. Audit committee characteristics and financial statement comparability. *Accounting & Finance*, 2020, 60(3), 2361–2395. <https://doi.org/10.1111/acfi.12354>
- [21] Lohapan, N. Digital Accounting Implementation and Audit Performance: An Empirical Research of Tax Auditors in Thailand. *The Journal of Asian Finance, Economics and Business*, 2021, 8(11), 121–131. <https://doi.org/10.13106/JAFEB.2021.VOL8.NO11.0121>
- [22] The Law of Ukraine "On Accounting and Financial Reporting in Ukraine" No. 996-XIV of 03.09.2024. *Bulletin of the Verkhovna Rada of Ukraine (VVR), 1999, No. 40, p. 365.* <https://zakon.rada.gov.ua/laws/show/996-14#Text>
- [23] The Paris Agreement. UNFCCC secretariat (UN Climate Change), 2016. <https://unfccc.int/process-and-meetings/the-paris-agreement>
- [24] The European Green Deal. European Commission, 2019. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
- [25] Climate Change Conference – United Arab Emirates. UNFCCC secretariat (UN Climate Change), 2023. <https://unfccc.int/cop28>
- [26] CO2 Emissions in 2022, IEA, Paris. IEA, 2023. <https://www.iea.org/reports/co2-emissions-in-2022>
- [27] Bila, Yu. Bioenergy Assets as an Innovative Accounting Object: Definition and Recognition Criteria. *Accounting and Finance. Institute of Accounting and Finance*, 2023, 4, 5–10. [https://doi.org/10.33146/2307-9878-2023-4\(102\)-5-10](https://doi.org/10.33146/2307-9878-2023-4(102)-5-10)
- [28] Ma, D.; Fisher, R.; Nesbit, T. Cloud-based client accounting and small and medium accounting practices: Adoption and impact. *International Journal of Accounting Information Systems*, 2021, 41. <https://doi.org/10.1016/j.accinf.2021.100513>

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- [29] Appelbaum, D.; Nehmer, R. A. Auditing cloud-based blockchain accounting systems. *Journal of information systems*, 2020, 34(2), 5–21. <https://doi.org/10.2308/isisys-52660>
- [30] Coman, D. M.; Ionescu, C. A.; Duică, A.; Coman, M. D.; Uzlau, M. C.; Stanescu, S. G.; State, V. Digitisation of accounting: The premise of the paradigm shift of role of the professional accountant. *Applied Sciences*, 2022, 12(7). <https://doi.org/10.3390/app12073359>
- [31] Mansoor, M. A.; Salmanand, E. M.; Al-Sartawi, A. Transformation of Managerial Accounting Trends in the Era of Digitalization. *Lecture Notes in Networks and Systems*, 2023, 557. https://doi.org/10.1007/978-3-031-17746-0_57
- [32] Andreeva, S. V. The Accounting System of the Company in the Context of Digitalization. *Lecture Notes in Networks and Systems*, 2022, 304. https://doi.org/10.1007/978-3-030-83175-2_54
- [33] Haje, P.; Arystanbaeva, A.; Oralbaeva, Z.; Kупenova, Z. The role and importance of accounting information systems in the context of digitalisation. *Farabi Journal of Social Sciences*, 2019, 5(1), 64–73. <https://doi.org/10.26577/CAJSH-2019-1-s8>
- [34] Agostino, D.; Saliterer, I.; Steccolini, I. Digitalisation, accounting and accountability: A literature review and reflections on future research in public services. *Financial Accountability & Management*, 2022, 38(2), 152–176. <https://doi.org/10.1111/faam.12301>
- [35] Kovalevska, N.; Nesterenko, I.; Lutsenko, O.; Nesterenko, O.; Hlushach, Y. Problems of accounting digitalisation in conditions of business processes digitalisation. *Amazonia Investiga*, 2022, 11(56). <https://doi.org/10.34069/AI/2022.56.08.14>
- [36] Shaukat, K.; Luo, S.; Varadharajan, V.; Hameed, I.; Xu, M. A Survey on Machine Learning Techniques for Cyber Security in the Last Decade. *IEEE Access*, 2020, 8. <https://doi.org/10.1109/ACCESS.2020.3041951>