FUTURE SCENARIOS AND FORECASTS FOR THE EVOLUTION OF ACCOUNTING AND AUDITING IN UKRAINE POST-WAR 🔓 Crossref

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ABSTRACT

Scenario analysis is widely applied in strategic economic planning to explore alternative futures under varying assumptions and uncertainties. Originating from decision theory, systems thinking, and complexity science, it supports informed judgment in uncertain environments. Despite its broad application, previous research on accounting and auditing reforms has predominantly concentrated on stable economies, with minimal emphasis on countries recovering from conflict. This study examines the future trajectories of accounting and auditing practices in post-war Ukraine using a scenario analysis framework. Data were collected through the Delphi method, incorporating expert interviews and survey questionnaires. Analytical techniques included the Statistical Package for the Social Sciences (SPSS) and Partial Least Squares Structural Equation Modelling (PLS-SEM), supplemented by bootstrapping for result validation. The analysis reveals that Scenario 1, referred to as "Digital Reinvention," has a statistically significant impact on the projected development of accounting and auditing in Ukraine's post-war context. In contrast, Scenarios 2 and 3, labeled "Gradual Compliance" and "Regulatory Stagnation," do not exhibit significant associations with the evolution of the field. The findings indicate that the three exogenous variables together explain approximately 41.2% of the total variance in the endogenous variable, demonstrating a moderate predictive capacity of the model. This suggests that Ukraine's post-conflict financial landscape is likely to be influenced predominantly by digital transformation, institutional modernization, full adoption of International Financial Reporting Standards (IFRS), and the implementation of artificial intelligence and blockchain technologies to enhance financial transparency and audit reliability in the emerging economic environment.

INTRODUCTION

Ukraine's accounting and auditing systems have been transformed due to the war and the postwar reconstruction. Previously, Ukraine has been trying to move towards convergence with the international financial reporting standards in the process of European integration. However, the war has led to significant changes in the economic stability, regulatory environment and corporate governance (Mehran & Stulz, 2007). Demolition of the physical facilities, loss of investors' interest, and sanctions on Russia have devastated Ukraine's financial sector and, therefore, its accounting and auditing (Umut, 2023). However, according to Kocherov et al. (2023), Ukraine will have advantages and disadvantages in the post-war economic situation. Economic reconstruction will be a process of considerable financial discipline and sound auditing to guarantee the proper use of the funds injected into the economy for reconstruction. Furthermore, the war has also exposed the weaknesses of Ukraine's financial regulatory system, and therefore, changes are needed to enhance corporate governance, risk management, and compliance with international accounting standards. Also, the war has fast-forwarded the need for digital transformation

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in auditing, as the conventional approaches are not feasible due to physical access and security threats. Auditors and other financial professionals will have to shift to working from home, improve cyber security and comply with new regulations to avoid embezzlement of funds or mismanagement (Kravets et al., 2024).

The paper purpose is to provide a conceptual framework for understanding the impact of war on financial regulations, accounting and auditing to inform the future of Ukraine's financial sector. In its quest to achieve financial stability and integration with the European Union, Ukraine's accounting and auditing system will be essential in restoring investors' confidence and stability. Due to several reasons, including political, economic, and technological shifts brought on by the post-war recovery, the future of accounting and auditing in Ukraine is uncertain. Financial reporting, assurance services, and corporate governance face opportunities and problems due to the ongoing economic transition, European integration, and legislative reforms. However, how much of this will impact the profession is unclear. Political instability and changing government policies bring unpredictability to the regulatory frameworks for accounting and auditing standards. According to Kovacs-Rump et al. (2021), Ukraine's financial reporting system must be aligned with International Financial Reporting Standards (IFRS) and European Union (EU) directives requiring structural changes. Still, the speed and effectiveness of these changes are unknown. Moreover, weak institutional capacity and economic constraints may hinder audit regulations and enforcement. Economically, post-war recovery is marked by volatile inflation, foreign investment and structural economic shifts. These factors impact financial reporting requirements and risk assessment processes, making it challenging for auditors and accountants to operate effectively. External forces, such as foreign investors and the international financial system, can significantly influence the regulatory setting, compounding the uncertainty (Kovacs-Rump et al., 2021). Technological developments in data analytics, blockchain technology, and artificial intelligence are revolutionizing the accounting and auditing industries. Although these advancements can increase productivity, the rapidity of their development makes it difficult to modify regulations, particularly in security-related fields and causes gaps in professional competency.

Digitalizing financial reporting and audit processes further complicates the regulatory and operational framework. The above-stated challenges and uncertainties necessitate this study to urgently examine the effect of political, economic, and technological developments on the future of accounting and auditing in Ukraine. The study's outcome will assist policymakers, regulators, and professionals' advance strategies that ensure that accounting and auditing remain strong, adaptive, and aligned with global best practices.

A robust accounting system and a comprehensive auditing regime must be in place post-war to help stabilize the economy and address the economic difficulties. This study is of utmost importance as it helps the key stakeholders, such as the accountants, auditors, regulators, and investors, understand the critical areas that allow the reconstruction and fortification of Ukraine's financial system during the post-war period. Accountants, being the first-level analyzers of financial information, are tasked with ensuring that they adapt to changing regulations and international standards. The war has caused severe economic disruptions and is bound to require adaptive accounting during times of asset impairments, debt restructuring, and loss recognition. This study fosters the growth of emerging trends in financial reporting, regulatory changes, and the new norm of accountants as soldiers to fight economic adversities.

Significantly more financial risks, deceitful activities, and corporate governance issues emerge post-war, resulting in an exceptionally challenging and high-risk environment for auditors. This study investigates these risks and encourages a shift toward new audit procedures with a greater focus on the audit strategy, forensic audit, and audit assurances. Financial misstatements can be mitigated by strengthening the processes surrounding audits, which helps rekindle investor confidence. With the reinstatement of financial laws and policies, regulators facilitate financial compliance and restore economic stability. The research details the importance of regulatory changes, the adoption of global standards in accounting and auditing, and measures that can improve transparency while mitigating corruption in the financial sector. To put money in a recovering economy, investors need reliable financial information and a thorough understanding of the available risks and opportunities. This research examines financial disclosures, risk assessment models, and the influence of window-dressed policies of wartime on investment decisions. By determining salient financial indicators of economic recovery and corporate performance stability, the study seeks to provide investors with tools to navigate uncertainties. This research contributes to the understanding of Ukraine's post-war reality and what accounting and auditing reforms are needed to meet the challenges of economic recovery and transparency of Ukraine's financial information.

The aim of the study is to explore potential scenarios for the future evolution of accounting and auditing in Ukraine. It seeks to identify the key drivers that may influence these changes, including economic, regulatory, and technological factors. By analyzing these drivers, the study intends to provide valuable insights for policymakers and accounting professionals to support strategic adaptation. This forward-looking approach is designed to help stakeholders prepare for emerging challenges and opportunities, ensuring the continued development and relevance of accounting and auditing practices in Ukraine.

The structure of the paper is organized as follows: Section 2 presents a comprehensive literature review, including the conceptual framework of scenario analysis; Section 3 outlines the research methodology, detailing the research design, data collection procedures, and data analysis techniques; Section 4 reports the main findings of the study and provides a discussion of the results; Section 5 concludes the paper with a summary.

LITERATURE REVIEW

Scenario analysis is used in strategic planning in economics and other fields to project potential futures based on differing assumptions and uncertainties (Wiebe et al., 2018). Its concepts stem from decision-making, systems thinking, and complexity science, allowing policymakers, businesses, and researchers to foresee various possibilities and improve their strategic decisions (Maier et al., 2016). According to Ramirez et al. (2010), scenario analysis's decision-making aspect looks

at how decisions are made when there is a certain level of uncertainty surrounding the outcome. Understandable risks, which are quantifiable, and unknown factors are part of the categorization of uncertainty.

Scenario analysis helps depict those uncertainties so stakeholders can develop a range of possible outcomes and their respective consequences to make the most efficient decisions. On the other hand, systems thinking focuses on the elements within a system and their interdependencies. Scenario analysis acts as a catalyst in helping thinkers grasp the interactions and impacts by considering broader economic, social, political, and other technological factors. It also identifies loops in which decisions can yield further problems or advantages, making it easier to determine long-term consequences (Lindgren & Bandhold, 2003; Yoe, 2019).

Furthermore, Scenario analysis draws upon the intriguing non-linearity of complex systems, which can behave in nondeterministic and unpredictable ways. Instead, with systems as a whole, we adjust our focus to a system where feedback loops are easy to understand as they arise from interdependencies of evolved objectives (Gallegati et al., 2024). Strategic foresight is the combination of scenario analysis and forecasting. It uses exploratory scenarios to analyze possible outcomes and normative scenarios, which are essentially desired outcomes (Sossa et al., 2021). Developing a shared understanding among the stakeholders significantly increases support for strategic initiatives within a scenario (Nayev et al., 2023). Scenario analysis is helpful for policy formulation, investment planning, and risk management within the economic sphere. Decisions by policymakers, businesses, and even investors influence how these actors take advantage of a decision. Business firms may take risks related to some market fluctuations, while investors might examine the profitability and risks to better position themselves in a dynamic economy (Cordova-Pozo & Rouwette, 2023; Tokarski et al., 2021).

Theoretical foundation of scenario analysis of this study is anchored on three theories: The Rational Expectations theory, uncertainty and game theory, and Complexity Theory and Systems Thinking. According to Zhang et al. (2021), the rational expectations theory classifies economists into two groups: those who differ in how they combine economic policy changes with hopes for the future and those who, driven primarily by changes in hopes, do not consider policy changes. From a broader framework, it applies the scenario to analyze how monetary and external policy alterations affect the economy. During the building of the various scenarios, it is assumed that economic actors build mental models based on the information available to them and the assumptions of their framework policy, which determines what kind of powers the modeler can or cannot wield (Cordova-Pozo & Rouwette, 2023).

From a predictive and informative perspective, uncertainty and game theory narrow the possibilities and balance the probability of various outcomes (Jing et al., 2022). If the best or the worst-case scenarios occur, decisions will have already been made, and the models will set expectations that encourage or force people to wake up and move into action. These actions will have irreversible consequences that few would wish to experience. Gallegati et al. (2024) posit that markets are subsystems of the economic system, and as such, they are subject to simulation and forecasting. These seemingly endless relationships and dependencies require systems thinking, where one has to let the whole rather than the sum of the parts govern because it would take a million years to gather all possible streams of hypotheses with predictive models of anticipated outcomes. Such is a scenario analysis that integrates systems reasoning by considering feedback effects.

Krichen et al. (2024) maintain that analyzing possible scenarios may shed light on potential paths toward achieving economic recovery and even self-sustained growth, considering the ongoing instability in Ukraine's economy. According to Blythe et al. (2021), some possible scenarios include optimistic and pessimistic. The optimistic scenario hopes that international assistance, investment, and policy reforms lead to economic growth. The pessimistic scenario, on the other hand, assumes that weak regulation and geopolitical issues lead to an economic standstill. This research offers a comprehensive solution for evaluating the prospective developments of Ukraine's accounting, auditing, and financial regulation in the economic conditions of the post-war period. This has been achieved by enriching traditional economic research with a scenario analysis approach. In line with Laborde et al. (2021), Liu and Wu (2022), and Wambui et al. (2022), the study considers three scenario models: Shell scenario planning, PESTEL-based scenario construction, and the Global Business Network (GBN) scenario planning.

Royal Dutch Shell established Shell scenario planning and remains one of the most preferred models for long-term strategic forecasting. It approaches the issue of uncertainty by building plausible future scenarios from the key drivers of change. Instead of focusing on predicting the future, this model's objective is to equip decision-makers with the tools to make sense of a myriad of possible outcomes. In the context of Ukraine, this model can be applied to assess various foreign investment recovery econometric models when considering the influences of foreign investment, regulatory changes, and geopolitical conditions. The PESTEL (Political, Economic, Social, Technological, Environmental and Legal) examines macro-environmental conditions of economic and business activity (Khan et al., 2023; Paramadita et al., 2024). It involves factors of different dimensions and helps integrate the examination of these various sections while being specifically valuable for scenario planning.

In the post-war setting of Ukraine, a PESTEL-based analysis would examine how the degree of political stability, the stringency of legal reforms, and the range of economic policies a country adopts will affect the financial transparency of a country and the level of confidence investors have (Eichhorn et al., 2024). The GBN scenario planning, on the other hand, considers scenario planning as critical in dealing with critical uncertainties in the environment through disciplined imagination. Instead, it employs more rational determinism, concentrating on thinking, deciding, and acting.

Ukraine's post-crisis recovery presents a multifaceted institutional and economic landscape characterized by infrastructural and financial challenges (Aleksin, 2024). The conflict destabilized economic activities, hence the need for supervisory oversight to reinstate economic solidity. This can be explained as follows.

Physical Recovery: The demolition of structures and industrial facilities resulted in immense economic sabotage and contractions. Rebuilding the economy involves the participation of all stakeholders, including policymakers, the public and private sectors, and foreign interventions.

External Actors: Through financial aid, debt restructuring, and policy support, foreign financing partners such as the World Bank and the IMF play significant roles in stabilizing the economy of Ukraine. Monetary and Fiscal Adjustments: There's a need for the central bank of Ukraine to develop war-related fiscal policies while nurturing a sustainable economic recovery.

Regulatory Reforms in Financial Reporting: The aftermath of the war requires stronger regulatory oversight and a transparent financial reporting system. Ukraine must also align with the IFRS and EU regulations to boost investors' confidence. Governance and Anti-Corruption: To combat corruption and improve corporate governance, post-war Ukraine needs institutional reforms that guarantee accountability in the public and private sectors. Auditing and Assurance Services: Auditors and regulators must enhance oversight mechanisms in post-war Ukraine to mitigate fraud and ensure compliance with emerging financial regulations.

In the aftermath of the Bosnian War (1992–1995), Bosnia and Herzegovina witnessed a disjointed economic setting, with its financial segment divided into two political units: The Federation of Bosnia and Herzegovina and Republika Srpska (Basic, 2024). As part of its reform efforts, Bosnia began aligning with IFRS to meet its EU integration objectives (Vignini, 2023). To enhance the quality of financial reporting in line with the World Bank, the country adopted the International Standards on Auditing (ISA). In addition, organizations like the World Bank and the IMF offered technical support to enhance accounting education and professional certification. These reforms enabled Bosnia to shift from a socialist-style accounting system to one that aligns with global financial standards, promoting foreign investment and financial stability (Bolesta, 2022). Similarly, after the 2003 crisis, Iraq witnessed major economic chaos and destabilized the financial sector and banking institutions (Hinrichsen, 2022). Consequently, fixing the accounting and auditing framework becomes imperative for revamping the economy. Significant reform efforts include transitioning from Soviet-style accounting methods to IFRS to enhance transparency and attract international investors (World Bank). Furthermore, the Central Bank of Iraq (CBI) collaborated with global financial institutions to create independent audit oversight bodies. After World War II, Germany witnessed a significant economic turnaround. This was made possible through intentional reform efforts, including implementing the German Commercial Code (HGB), which was in line with Generally Accepted Accounting Principles (GAAP) and later incorporated IFRS for publicly listed companies. In addition, under the Allied Banking Laws, Germany's banking sector was rebuilt after the war. Furthermore, commercial banks were separated from investment banks (Kortl & Chbib, 2024).

To enhance efficiency, transparency and compliance, accounting and auditing regulatory reforms must be aligned with digital technology advancements, such as artificial intelligence and deep learning (Yarmoliuk et al., 2024). According to Yaacob et al. (2023), the latest regulatory and technological trends include new legislation and standards to be developed to cater to digital assets, Artificial Intelligence, and cybersecurity in accounting and auditing. Similarly, auditors must verify environmental, social, and governance (ESG) disclosures to guarantee transparency. On the other hand, distributed ledger technology (blockchain) enhances auditing and reduces financial fraud. These inclinations signify a move towards a robust, regulated, and digital accounting environment that guarantees data safety and accurate accounting and auditing reports. On the other hand, the lessons learned from financial instability and the need for greater accountability and transparency formed the foundation for the evolution of financial reporting standards post-war in Ukraine. Significant developments post-war include adopting principles-based standards instead of rigid rule-based ones. Principles-based enhances flexibility and relevance in financial reporting. Similarly, to improve the comparability of financial statements, reduce earnings management, and restore investors' confidence, there is a need to fully adopt the IFRS and the generally accepted accounting principles (GAAP). Furthermore, as a consequence of the financial crunch, regulatory bodies need to develop a more robust reporting framework and enhanced disclosure mechanisms.

The accounting profession is experiencing an essential revolution due to rapid technological advancements. Digitalization, artificial intelligence (AI), and blockchain technologies are redesigning the modes of operations of accounting and auditing, which are essential for Ukraine's post-war recovery efforts. Integrating digital technologies into everyday practices is commonly referred to as digitalization. In accounting, this includes using cloud computing, automated systems, and software solutions that streamline processes such as bookkeeping, invoicing, and reporting. AI includes a variety of technologies that mimic human acumen. AI can be used in accounting for risk assessment, financial modeling, and data analysis. The prospects of blockchain technology in accounting are indeed promising. It is a distributed journal technology that offers transparency, accuracy and data security (Kulikov et al., 2022). This section examines recent empirical studies in different contexts to ascertain the gaps in the literature. Raji et al. (2024) investigate how national cultural values affect financial inclusion in 40 countries, utilizing Hofstede's cultural dimensions from 2012 to 2021.

Their findings reveal that higher power distance and uncertainty avoidance are linked to lower financial inclusion, while greater individualism and masculinity are associated with increased inclusion. The authors emphasize the importance of policymakers considering cultural values to foster financial inclusion and achieve sustainable development goals. However, their dependence on secondary data may miss essential nuances and changes in cultural attitudes over time. Similarly, Zaichko et al. (2024) analyze the financial development of small businesses in Ukraine before and during the war, highlighting the significant effects of conflict on economic conditions. Their study, which spans from 2013 to 2022, shows a decline in small enterprises, sales, and profitability due to disruptions caused by the war, predicting ongoing difficulties. They stress the necessity for coordinated state support but recognize that their focus on small businesses may overlook specific dynamics within different sectors. More so, Yarmoliuk et al. (2024) explore the transformative impact of digital technologies on accounting in the context of the 4th industrial revolution. They point out the potential advantages and risks, underlining the need for accountants to enhance their digital skills. However, their qualitative approach may not adequately capture the full extent of these technologies' impact.

Oneshko et al. (2024) examine Ukrainian enterprises' challenges under martial law, advocating for a transition to proactive auditing to boost investor confidence despite ongoing disruptions. They rely on secondary data, indicating a need

for primary data collection to better understand the current challenges. Umut (2023) discusses the financial repercussions of the Russia-Ukraine conflict on businesses, particularly the rise in costs and difficulties in revenue recognition under IAS. The study highlights the importance of conducting sensitivity analyses but does not delve into the broader socio-economic effects. Furthermore, Shkola (2023) explores how social indicators can be integrated into accounting practices. The research shows that while many companies recognize the significance of social performance, they encounter difficulties with current standards. It emphasizes the necessity for enhanced accounting frameworks, although it primarily focuses on companies already engaged in social performance, which may skew the findings.

On the other hand, Korniienko and Petrunenko (2023) examine the impact of international sanctions and cyber warfare on Ukraine. They observe a strong awareness of sanctions but a lack of understanding regarding cybersecurity. Their findings highlight the urgent need for educational programs and further studies to grasp the long-term effects. Zhuk et al. (2023) created an accounting toolkit to evaluate war-related losses in Ukraine's agribusiness sector, suggesting a structured method for documenting damages. Their results indicate that losses are more significant than global estimates, but the emphasis on agribusiness may limit the applicability of their findings to other industries. Golubeva (2023) also assesses the implementation of IFRS in countries of the former Soviet Union from 2005 to 2020. She notes that the impact has generally been minimal, although some regions have experienced positive outcomes. The review highlights a significant sampling bias, which could obscure the varied challenges faced by less-studied nations. Tumalavvicius (2022) investigates the relationship between blockchain technology, cryptocurrencies, and sustainable development. He stresses the importance of establishing regulatory frameworks to tackle legal issues and promote sustainability. The study advocates for continued research to ensure that technological progress aligns with sustainable objectives, recognizing the ever-evolving landscape of the cryptocurrency market.

Among the identified gaps is that most prior research on accounting and auditing reforms focused on stable economies. There is sparse literature that explores how these reforms can be specifically directed at meeting the needs of nations coming out of crisis. The literature often ignores the challenges of adopting these reforms in post-war countries. According to Yarmoliuk et al. (2024), some challenges include organizational culture, costs and limitations of accounting software, and the availability of digital skills and competencies. In addition, there are limited studies on how these reforms influence interest groups, including investors, practitioners, and regulators. Considering the views of these groups is essential for ensuring cooperation and collaboration.

MATERIALS AND METHODS

This study adopts the scenario analysis approach. This method combines qualitative and quantitative techniques to develop comprehensive insights into probable prospects based on changing expectations and circumstances. Given that Ukraine's post-war accounting and auditing frameworks are faced with enormous uncertainty and difficulties, scenario analysis is deemed appropriate for this study as it permits scholars to discover numerous conceivable futures that can accommodate the different issues that might affect the development of accounting practices, including advancement in technology, economic circumstances and changes in the regulatory framework.

The study gathered the required data through expert consultation (Delphi Method). The Delphi Method is an organized communication system that collects expert opinions through surveys from previous researchers, including Tumalavvicius (2022) and Shkola (2023). This study used this method because it allows for modifying thoughts and agreements on composite subjects.

This research conducted three expert surveys with different interest groups, such as academicians, practitioners, and policymakers. The experts were selected based on their expertise and experience in accounting, auditing, and digitalization, as well as their experience in post-war economies. In addition, like Tumalavvicius (2022), the study considered diverse perspectives to have a balanced representation from different quotas: the public sector, investors, academia, and technocrats. The interview and a five-point Likert scale questionnaire collected data from 200 experts. The study analyzed two sets of data: experts' opinions (responses to questions) and economic and regulatory data over 10 years. According to Castleberry and Nolen (2018), thematic analysis is used to find and report themes in qualitative data from expert interviews or focus groups. This approach simplifies complex insights into practical themes.

RESULTS AND DISCUSSIONS

The key insights from experts on three study themes (regulatory challenges, technology adoption and economic recovery) are summarized in Table 1.

Table 1. Thematic analysis of qualitative insights from experts

Themes	Key insights
Regulatory challenges	Experts emphasized serious regulatory challenges hindering the development of accounting and auditing in post-war Ukraine. They are obsolete rules, erratic implementation, and non-compliance with international standards.
Technology adoption	Notwithstanding the potential benefits of new technologies, experts highlighted the slow pace of the digital revolution in accounting and auditing.
Economic recovery	Experts are optimistic about the potential for growth in post-war Ukraine. They also identified key obstacles that may retard economic recovery.

This study considered five variables over ten years (2015 - 2024). These variables are: Economic growth (ECG) (Gross Domestic Product – GDP), unemployment rate (UNER), investment rate (INVR), foreign direct investment (FDIR),

and inflationary trend (INFR). Trend analysis looks at past data to find patterns or trends in economic and regulatory settings, helping to understand what might happen in the future (Edwards et al., 2018). The trend is presented in Figure 1.
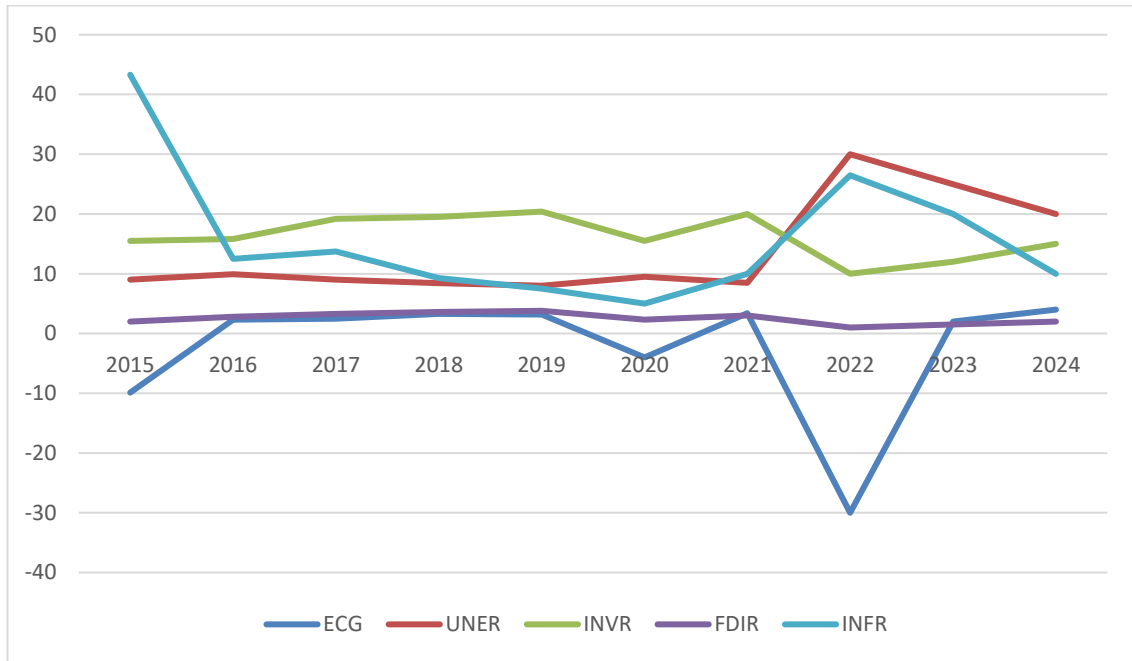

Figure 1. Economic trend analysis

The study further utilized descriptive statistics to discuss the trend analysis, as presented in Table 2 below.

Table 2. Summary of trend analysis

Variable	N	Minimum	Maximum	Mean	Std. deviation
ECG	10	-30	4	-2.32	10.669
UNER	10	8	30	13.73	8.144
INVR	10	10	20	16.29	3.505
FDIR	10	1	4	2.53	0.923
INFR	10	5	43	15.78	11.541

As shown from Table 2 the economic growth (gross domestic product) has a mean value of -2.32%, with a minimum value of -30% (in the year 2022, due to the war), and a maximum value (projected growth rate) of 4% (year 2024). On the other hand, the unemployment rate was at an average of 13.73% between 2015 and 20024, with a minimum and maximum value of 8% and 30%, respectively. The investment rate has an average value of 16.29%, with minimum and maximum values of 10% and 20%, respectively. The foreign direct investment rate has an average value of 2.53%, a minimum of 1% and a maximum of 4% between 2015 and 2024. Lastly, the inflation rate stood at an average value of 15.76%, with the lowest value of 5% and at its peak in 2015 (43%).

The summary statistics (mean, standard deviation, minimum and maximum values) of responses acquired by the study are presented in Table 3.

Table 3. Descriptive statistics

Construct	N	Mean	Std. dev.	Minimum	Maximum
Evolution of Accounting & Auditing	200	3.903	1.347	1	4
Digital reinvention	200	3.955	2.026	1	4
Gradual compliance	200	6.450	2.496	1	5
Regulatory stagnation	200	8.470	2.216	1	4

According to Table 3, regulatory stagnation has the highest mean of 8.470 but with a standard deviation of 2.216, which is far from the mean. This indicates a wide disparity in experts' opinions regarding regulatory stagnation and the evolution of accounting and auditing in post-war Ukraine. Digital reinvention and gradual compliance have their standard deviation closer to the mean, which signifies less dispersion in experts' opinions.

The outcome of the partial least squares-structural equation modeling (PLS-SEM) algorithm used in Gorondutse and Hilman (2017) is presented in view of the measurement model in Figure 2 and also summarized in Table 4.
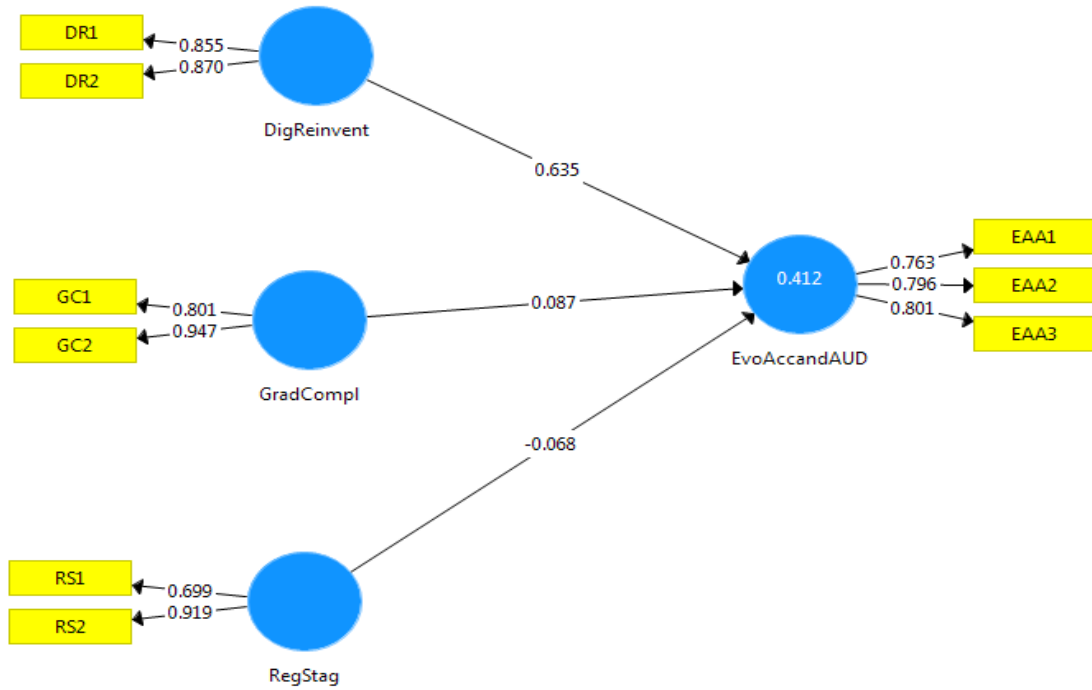
Figure 2. Measurement model

Table 4. Convergent validity of research constructs

Construct	N	Mean	Std. dev.	Minimum	Maximum
Digital Reinvention	DR1	0.855	0.656	0.853	0.744
	DR2	0.870	-	-	-
Gradual Compliance	GC1	0.801	0.722	0.869	0.769
	GC2	0.947	-	-	-
Regulatory Stagnation	RS1	0.699	0.530	0.797	0.666
	RS2	0.919	-	-	-

From Table 4, it is evident that the loading for all the constructs is well above 0.5. Thus, all the constructs surpassed the recommended loading (Hair et al., 2018). Similarly, the least average variance extracted (AVE) is 0.666, above the threshold of 0.5 (Gorondutse & Hilman, 2017). Furthermore, Figure 2 reveals that the model has a moderate R-squared (R2) value of 0.412, which signifies that the three exogenous variables (Digital reinvention, DR; Gradual compliance, GC, and Regulatory Stagnation, RS) accounted for about 41.2% of the total variations in the endogenous variable (Evolution of Accounting and Auditing, EAA) in post-war Ukraine.

The study utilized the PLS Bootstrapping function to test the effects of the three different scenarios. The results are summarized in Table 5 as follows:

Table 5. Summary of PLS bootstrapping

Scenario	Path coefficient	p-value	R^2	Decision
DR → EAA	0.635	0.000***	0.412	Supported
GC → EAA	0.087	0.431	-	Not supported
RS → EAA	-0.068	0.494	-	Not supported

Note: *** indicates significant at 1%
DR = Digital reinvention (Scenario 1)
GC = Gradual compliance (Scenario 2)
RS = Regulatory stagnation (Scenario 3)

The results of Bootstrapping in Table 5 indicate that the relationship between Digital Reinvention (Scenario 1) and the EAA in post-war Ukraine is positive and statistically significant (supported). This implies that the evolution of a high-tech future, strong institutions, full implementation of the IFRS, and the adoption of AI-driven auditing tools and blockchain technologies contribute significantly to the evolution of accounting and auditing in Ukraine's post-war economy.

This finding agrees with Buriak and Petchenko (2021), who posit that accountants should not rely on traditional skills but must embrace modern technologies in the accounting profession.

On the other hand, the association between Gradual Compliance (Scenario 2) and the EAA in post-war Ukraine is positive, though not statistically significant (not supported). This indicates that slow progress (mixed regulation), partial alignment with EU regulations, and gradual adaptation to digital reporting (with resistance from traditional institutions) can potentially enhance the EAA in post-war Ukraine.

Lastly, Table 5 also reveals that the interaction between Regulatory Stagnation (Scenario 3) and the EAA in post-war Ukraine is negative and statistically insignificant (not supported). This demonstrates that Regulatory Stagnation - weak oversight, economic instability, limited enforcement of international standards, and the situation where accounting remains paper-based with minimal digital transformation significantly retards the EAA in post-war Ukraine.

This finding contradicts Yarmoliuk et al. (2024), who conclude that digital transformation is a reagent for reliability and innovativeness in accounting.

CONCLUSIONS

This study explored the future scenarios and forecasts for the evolution of Accounting and Auditing in Ukraine Post-War. The study utilized the Delphi research design and formulated three scenarios. The findings indicate that the three exogenous variables accounted for about 41.2% of the total variation in the endogenous variable. The findings also reveal that while digital reinvention (scenario 1) has a positive and significant effect on the evolution of accounting and auditing in post-war Ukraine, scenario 2 (Gradual compliance) and scenario 3 (regulatory stagnation) have an insignificant statistical relationship with the evolution of accounting and auditing in post-war Ukraine.

The study concludes that the main drivers of accounting and auditing in post-war Ukraine remained digital reinvention (High-tech future, strong institutions), full implementation of IFRS, and adoption of AI-driven auditing tools and blockchain for financial transparency. Thus, digital reinvention is the best alternative to the evolution of accounting and auditing in post-war Ukraine, with regulatory stagnation as the worst scenario, as it can drag the nation backward economically. In line with the findings, the study recommends that policymakers enact laws that guarantee adaptable financial regulations and promote the digitalization of financial reporting systems. In addition, accounting educators and practitioners should embrace the digital transformation of the accounting and auditing profession.

The outcomes of this study provide valuable insights for policymakers as it highlights the importance of aligning with international accounting standards. Similarly, for practitioners, particularly Accountants and Auditors, the study's findings pinpoint the need for acquiring the necessary skills (e.g., digital literacy, regulatory knowledge) for adapting to a tech-based rather than paper-based accounting system. More so, the study's findings underscore the need for companies to align their accounting system towards digitalization and keep them in line with global best practices.

This study, just like every other study, is not free of limitations. First, it should be noted that the study utilized scenario analysis based on data obtained from Expert Consultation. Consequently, Expert bias in scenario construction cannot be ruled out. In addition, the study's outcome may not be generalized to other contexts or nations due to differences in legal, technological, economic, and socio-cultural settings. Furthermore, uncertainties in long-term economic forecasts can be affected by various factors, including changes in governance structure, policy direction, and the influence of international actors. Therefore, there is a need for constant updates in line with changes in policies.

The study further suggests that, in the event of weak oversight and/or economic instability, accounting should remain paper-based with minimal digital transformation to ensure transparency and security of records. The study also recommends that future researchers conduct a comparative study of different post-war economies around the globe. Furthermore, unlike the current study that utilized the Delphi research design, future studies can consider AI-driven forecasting techniques for accounting trends.

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