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APPLICATION OF EUROPEAN EXPERIENCE IN FINANCIAL REPORTING AND ACCOUNTING IN UZBEKISTAN BASED ON IFRS USING ARTIFICIAL INTELLIGENCE

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Abstract. The modernization of financial reporting and accounting systems has become an important component of economic development, particularly for countries seeking greater integration into international financial and investment markets. The adoption of International Financial Reporting Standards (IFRS) provides a common framework for preparing reliable, comparable, and transparent financial information. At the same time, the rapid development of artificial intelligence (AI), machine learning, data analytics, and digital accounting technologies is creating new opportunities to improve the efficiency and reliability of financial reporting.

This thesis examines the experience of European countries in implementing IFRS and considers how selected elements of this experience can be applied to the modernization of accounting and financial reporting in Uzbekistan. Particular attention is given to the interaction between IFRS implementation and artificial intelligence. The study applies comparative, analytical, and institutional approaches to examine differences between European and Uzbek accounting environments, regulatory frameworks, professional development systems, and levels of digitalization. The analysis demonstrates that the successful integration of IFRS with modern digital technologies can reduce routine accounting workloads, improve the accuracy and timeliness of reporting, strengthen internal controls, and support management decision-making. However, implementation in Uzbekistan requires further development of technological infrastructure, professional competencies, regulatory mechanisms, and digital accounting education. The thesis proposes measures aimed at strengthening IFRS education, encouraging AI-based accounting solutions, developing cooperation with international professional organizations, and supporting research in digital financial management.

Keywords: IFRS, financial reporting, accounting, artificial intelligence, digital transformation, European experience, Uzbekistan, financial transparency.

Introduction. The development of international economic relations has substantially increased the importance of reliable and transparent financial information. Investors, financial institutions, government authorities, international organizations, and other stakeholders require high-quality accounting information to evaluate the financial position, performance, risks, and future prospects of organizations. Consequently, the quality of financial reporting has become an important factor influencing investment decisions, corporate governance, and confidence in financial markets. International Financial Reporting Standards have

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emerged as one of the most important international mechanisms for improving the comparability and transparency of financial information. IFRS establishes principles for recognizing, measuring, presenting, and disclosing financial information, thereby providing stakeholders with a common accounting language. The literature considered in the underlying study indicates that IFRS adoption can contribute to greater transparency, comparability, and quality of financial information and can reduce information uncertainty for investors. Uzbekistan has been undertaking reforms aimed at modernizing its accounting and financial reporting system and gradually increasing its alignment with international financial reporting practices. The transition toward IFRS-based reporting is particularly important for organizations that participate in international markets and require greater access to foreign investment. However, the modernization of accounting should not be limited to changes in accounting standards. It should also involve improvements in professional education, digital infrastructure, auditing, information systems, and mechanisms for ensuring compliance. At the same time, digital transformation is fundamentally changing the accounting profession. Artificial intelligence can process large volumes of financial information, identify patterns, classify transactions, detect anomalies, automate repetitive procedures, and support analytical decision-making. The integration of AI with accounting information systems therefore creates an opportunity to move from predominantly manual accounting procedures toward more automated, data-driven financial management. The source article emphasizes that AI can reduce manual workload, accelerate financial data processing, and support compliance through predefined rules and automated controls. European countries provide a particularly relevant example because IFRS implementation has been accompanied by the development of regulatory institutions, professional accounting organizations, digital reporting practices, and continuous professional education. The European experience therefore provides useful lessons for Uzbekistan in determining how international accounting standards and digital technologies can be integrated into a national accounting environment. The purpose of this thesis is to analyze the European experience in IFRS-based financial reporting and identify opportunities for applying relevant practices in Uzbekistan through the use of artificial intelligence and digital accounting technologies.

Literature Review. IFRS was developed to establish a common framework for financial reporting across different jurisdictions. Its fundamental purpose is to provide users of financial statements with useful information concerning an organization's financial position, financial performance, and cash flows. The underlying literature emphasizes that standardized financial reporting improves comparability and enables stakeholders to make more informed economic decisions. The adoption of IFRS has also been associated with increased disclosure concerning financial performance and risk exposure. From an international perspective, comparable financial statements can facilitate investment decisions because investors are better able to compare organizations operating in different countries. The literature reviewed in the source article includes the work of Ball (2016) and De George, Li, and Shivakumar (2016), which examine the broader consequences and evidence surrounding IFRS adoption. These studies demonstrate that the effects of IFRS depend not only on the standards themselves but also on the institutional environment in which they are implemented. The European Union has played an important role in the international development

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and implementation of IFRS. The source study notes that in 2005 the European Union introduced requirements for publicly listed companies to prepare consolidated financial statements in accordance with IFRS. This reform contributed to the development of a more unified financial reporting environment within European capital markets. An important feature of European experience is that IFRS implementation was supported by institutional development. Regulatory authorities, professional accounting organizations, universities, and professional training institutions all contributed to the implementation process. Accounting professionals were provided with training, certification opportunities, methodological guidance, and continuing professional development. This experience is particularly important for Uzbekistan. The transition to IFRS cannot be regarded simply as a technical replacement of one set of accounting rules with another. It requires accountants, auditors, managers, educators, regulators, and information-technology specialists to understand and apply international principles effectively.

Artificial intelligence represents one of the most significant technological developments affecting contemporary accounting. AI-based systems can process large datasets and identify relationships and patterns that would be difficult to detect manually. In accounting, these capabilities can be applied to transaction classification, invoice processing, reconciliation, anomaly detection, financial analysis, and risk assessment. Previous research cited in the source article identifies the growing role of AI and related technologies in accounting and auditing. AI-based systems can potentially reduce repetitive manual activities while allowing accounting professionals to concentrate on analytical, interpretive, and decision-support functions. However, technological implementation also introduces risks. These include concerns about transparency, explainability, cybersecurity, algorithmic bias, regulatory compliance, and the professional responsibility of accountants. Therefore, AI should not be viewed as a complete replacement for accounting professionals. Instead, it should be considered a technological instrument that supports professional judgment and improves the efficiency of accounting processes.

Research Methodology. The study uses qualitative research supported by comparative and analytical evaluation. The research is based on academic publications concerning accounting reforms, international reports related to IFRS adoption, regulatory documents, and analytical materials concerning digital transformation in accounting.

Three principal methodological approaches are applied.

First, comparative analysis is used to identify similarities and differences between European accounting systems and the accounting environment of Uzbekistan. The comparison focuses on IFRS implementation, regulatory supervision, professional development, financial reporting, auditing, and digitalization.

Second, analytical analysis is used to evaluate the potential contribution of artificial intelligence to financial reporting. The source study identifies five major evaluation criteria: efficiency, accuracy, transparency, compliance, and innovation. These criteria can be used to assess whether AI-based accounting systems provide measurable improvements compared with traditional approaches.

Third, institutional analysis is used to examine the role of regulatory authorities, professional organizations, educational institutions, and international organizations in the modernization of accounting systems. Such an approach makes it possible to

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consider accounting reform not only as a technical process but also as an institutional and professional transformation.

Comparative Analysis of European and Uzbek Accounting Systems. The comparison presented in the source article indicates several important differences between European countries and Uzbekistan. In European countries, financial reporting is strongly integrated with international accounting requirements and European regulatory mechanisms. IFRS provides a common basis for the preparation of financial statements, while regulatory and professional institutions contribute to enforcement, education, and professional development. In Uzbekistan, accounting practices remain influenced by the national regulatory framework, although the country has begun increasing alignment with IFRS. The source article notes that the national framework remains significant and that reporting requirements differ depending on the type of organization. A further difference concerns digital reporting. European organizations have increasingly adopted advanced digital technologies, including XBRL-based approaches, to facilitate the exchange and processing of financial information. Uzbekistan is described in the source article as being at an earlier stage of digital transformation, with significant attention still focused on legal adaptation and modernization of the national accounting system. The comparison suggests that Uzbekistan can benefit from the European experience by strengthening not only IFRS implementation but also the supporting institutional infrastructure. These improvements include professional education, independent auditing, digital reporting, information exchange, and cooperation among regulators and professional organizations.

The Role of Artificial Intelligence in IFRS-Based Reporting. The integration of AI into IFRS-based accounting can create several practical benefits.

First, AI can automate routine accounting activities. Transaction classification, invoice processing, reconciliation, and other repetitive procedures can be supported by intelligent systems. This reduces the time spent on manual data entry and allows accountants to concentrate on more complex professional tasks.

Second, AI can strengthen the accuracy of financial information. Automated systems can apply predefined rules consistently and identify unusual transactions or inconsistencies. Machine-learning technologies can identify patterns associated with potential errors or financial irregularities.

Third, AI can strengthen internal control and fraud detection. Systems capable of continuously analyzing transactions may identify unusual patterns more quickly than traditional periodic procedures. Such capabilities can provide additional information for auditors and management.

Fourth, AI can support financial analysis and decision-making. Historical financial information can be analyzed to identify trends and potential future developments. Managers can use these analytical capabilities when evaluating financial performance, planning activities, and assessing financial risks.

Nevertheless, the implementation of AI must be accompanied by appropriate governance mechanisms. The source article specifically emphasizes transparency, compliance, cybersecurity, bias, and regulatory risks as important factors that must be considered when evaluating AI adoption.

Therefore, AI-based financial reporting should operate within a clearly defined system of human oversight. Professional accountants should remain responsible for

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interpreting financial information, evaluating unusual circumstances, and making professional judgments where automated systems cannot adequately capture the economic substance of transactions.

Opportunities and Challenges for Uzbekistan. The transition toward IFRS and the development of digital accounting create significant opportunities for Uzbekistan. AI-based accounting systems can potentially increase reporting efficiency, reduce operational costs, strengthen internal controls, and improve the quality of financial information. However, several challenges may limit the speed and effectiveness of implementation. The source article identifies three major challenges: limited technological infrastructure, a shortage of specialists with digital accounting expertise, and the need to further develop the regulatory framework.

The first challenge is technological infrastructure. AI-based accounting requires reliable digital systems, integrated databases, secure information exchange, and appropriate software. Organizations that lack adequate technological capacity may find the transition difficult.

The second challenge is human capital. Accountants must increasingly combine traditional accounting knowledge with IFRS expertise, data analysis, information technology, and an understanding of AI systems. Consequently, universities and professional training institutions should adapt their curricula to the changing requirements of the profession.

The third challenge is regulation. The increasing use of AI creates new questions concerning responsibility, data security, auditability, transparency, and the reliability of automated decisions. Regulatory institutions therefore need to develop appropriate mechanisms that encourage innovation while maintaining the quality and reliability of financial information.

Recommendations. Based on the European experience and the potential contribution of AI, several measures can be proposed for Uzbekistan.

First, IFRS and digital accounting education should be strengthened. Universities, technical institutions, and professional training organizations should provide integrated education covering IFRS, accounting information systems, data analytics, AI applications, and digital reporting. Second, organizations should gradually introduce AI-based accounting technologies. Rather than attempting immediate full-scale automation, enterprises can begin with selected routine processes such as invoice processing, transaction classification, reconciliation, and anomaly detection. Third, cooperation with international accounting organizations should be expanded. International cooperation can support professional certification, methodological development, training, and the exchange of European experience. Fourth, digital financial reporting should be developed further. The use of standardized digital reporting technologies can improve the accessibility, comparability, and efficiency of financial information exchange. Fifth, research on AI and accounting should be encouraged. Universities and professional institutions should conduct empirical studies evaluating the effects of AI on reporting time, error rates, compliance, costs, and professional decision-making. Sixth, appropriate governance and risk-management mechanisms should accompany AI implementation. Automated systems should be subject to human oversight, audit trails, cybersecurity controls, and procedures for identifying and correcting errors.

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Conclusion. The modernization of financial reporting and accounting is an important component of Uzbekistan's economic development and integration into the international financial environment. The experience of European countries demonstrates that successful IFRS implementation requires more than the adoption of accounting standards. It depends on a broader institutional environment involving regulators, professional organizations, educational institutions, auditors, accountants, and modern digital technologies. Artificial intelligence creates additional opportunities for improving the efficiency and reliability of IFRS-based financial reporting. AI can automate repetitive accounting processes, improve transaction analysis, identify anomalies, strengthen internal controls, and provide analytical support for management decisions. At the same time, AI implementation creates challenges related to transparency, cybersecurity, professional responsibility, regulatory compliance, and technological infrastructure. For Uzbekistan, the European experience provides a useful direction for combining international financial reporting standards with digital transformation. The development of professional competencies, modernization of accounting infrastructure, strengthening of independent auditing, expansion of digital reporting, and introduction of AI-supported accounting systems can contribute to a more transparent and competitive financial reporting environment. The central conclusion of this thesis is that IFRS adoption and digital transformation should be considered as interconnected components of accounting modernization. A coordinated approach that combines international standards, professional development, institutional reform, and responsible use of artificial intelligence can improve the quality of financial reporting and strengthen confidence in financial information in Uzbekistan.

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