

ACCOUNTING, ANALYSIS AND AUDIT

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WAYS TO IMPROVE ACCOUNTING, AUDITING AND TAXATION OF BUSINESS ENTITIES IN THE CONTEXT OF IMPLEMENTING EUROPEAN MANAGEMENT PRACTICES AND INTRODUCING ARTIFICIAL INTELLIGENCE INTO ACCOUNTING

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Introduction. Ukrainian companies cooperate with European businesses. In the process, issues of accounting for business transactions, avoidance of double taxation and, of course, auditing arise. In many situations, European Union member states have mixed accounting systems at the public and private sector level. They do not always reflect full accrual accounting. Ukraine has set an example of implementing electronic document management with the Diia application. Such an automated financial accounting system would help to keep records, compare data, and receive regular and understandable reports. Moreover, if to combine artificial intelligence in accounting with a centralised data centre, one can set up their firm for greater accuracy. It will be possible to always use the figures from the accounting program in real time, to perform various tasks. This will help save time and reduce human error. This definition of the research problem determines the relevance of the chosen research topic.

Analysis of recent research and publications. In the scientific articles there are different points of view on cloud-based predictive accounting platforms, AI and improvement of efficiency with the help of an accounting system. The prospects of information technologies in accounting were studied by V.O. Osmyatchenko, V.S. Oliynyk, who described the existing concepts of information processing and transmission, "cloud technologies" of computing, and also indicated innovative technologies (blockchain, artificial intelligence) [4]. The Information Technology Faculty Chartered Accountants' in London explains three characteristics of models and the algorithms they contain: large volumes of data, complex and changing patterns, and consistency. They can process huge amounts of data (structured and unstructured) – much more than humans ever could. Therefore, machines can perform better in conditions that people consider less predictable. Where feedback loops can be built into the models, they can also be highly adaptive, learning from mistakes or new cases. They can be much more consistent decision makers. They do not suffer from fatigue or boredom [1].

According to the work of American scientist Blake Oliver Chat, GPT can follow one's instructions with a reasonable degree of accuracy. Many accountancy firms are open to more automation. In the US, 24% of the top performing accountancy firms are already using artificial intelligence [3].

Objectives of the article. The aim of the study was to find out how AI-based solutions can speed up computing, data analysis and reporting, following best practices for using automation to increase efficiency. To achieve this goal, the following objectives were set:

- To research the improvement of accounting practices;
- to propose a plan for providing better services to clients and increasing the profitability of firms;
- to analyse the tools that can optimise work;
- to explore real examples of accountants using AI systems, including specific benefits and limitations, to help develop a long-term vision.

The main material of the study. In its new management strategy, published on 10 March 2020, the European Commission puts a strong emphasis on strengthening strategic management to better grasp the opportunities offered by new digital technologies [2]. It will require a purpose-built system that produces a wide range of statistics, accounts and indicators with many different potential analytical applications. It will be a flexible system that can be adapted to countries' priorities and policy needs, while providing a common framework, concepts, terms and definitions. The digitalisation of strategic management will be supported by a network of 240 Digital Innovation Hubs in every region of Europe. These hubs will provide opportunities to test new technologies, access funding advice and market intelligence, as well as networking opportunities. The Commission will focus on developing digital skills through digital crash courses for workers to learn about artificial intelligence, cybersecurity or blockchain. There is a need to explore the top five cloud accounting software options [6].

Table 1

Overview of cloud accounting platforms

№	Cloud-based accounting platforms	Software options
1.	Xero	Firms can easily manage their finances in different currencies, and the software automatically converts amounts based on current exchange rates. This can save time and reduce the risk of errors.
2.	QuickBooks	Companies can create reports that meet their specific needs, including balance sheets, income statements and cash flow statements.
3.	Zoho Books	Businesses can create tasks, assign them to team members, and track their progress – all through the software. This can help firms stay organised and on top of client projects, increasing their overall efficiency and profitability.
4.	FreshBooks	Allows users to track the time spent on various tasks and projects, which facilitates project management.
5.	Sage Business Cloud Accounting	Offers an interesting bank feed feature for accounting firms. This feature automatically imports bank and credit card transactions into the software, saving time and reducing the risk of errors that can occur when manually entering data. The bank feed feature also allows users to quickly reconcile accounts and track their business finances in real time.

The future is for a centralised, cloud-based predictive accounting platform because different accounting rules apply to different types of organisations. And companies have to comply with EU or national accounting rules. For example, small companies with no more than 50 employees use simplified accounting rules, and micro-enterprises use even simpler rules – depending on where the company is based [3]. Listed companies whose securities are traded on a regulated market must prepare their consolidated accounts in accordance with a single set of international standards, the International Financial Reporting Standards (IFRS) [5]. Although accounting rules vary according to the size of the company, all financial statements must include at least the following documents: balance sheet, income statement and notes.

Thus, the automated system should first of all contain these sections. In addition, the electronic application should include the names of the individual countries of the European Union with their specific accounting, tax, legal and financial regulations. Electronic recording of data in a single accounting system between countries will have a positive impact on the accounting system thanks to the possibility of performing several business tasks efficiently and quickly without human error. And an automated audit system will help prevent financial losses.

The implementation of an electronic system will change financial indicators due to its efficiency and effectiveness. A simple random sampling mechanism can be used to distribute data collection tools to a manager making decisions to improve the efficiency of an accounting system. The introduction of voluntary electronic data exchange can have a significant impact on accounting systems by improving efficiency, accuracy and accountability. In addition, accounting systems can be used to automate the flow of financial transactions

between organisations, such as invoicing, ordering and payments. Technologies such as barcodes, electronic signatures and e-invoicing will also help.

Additionally, the specialised staff of each system must check, enter and process the necessary data in its database and, if possible, new indicators must be processed simultaneously with the existing data by the counterparty's subsystem. This ensures the quality of the accounting information.

The accounting application must generate accurate, timely or on-demand information and transmit online data according to standard structures established in situations such as: electronic invoice messages, payroll information, payment instruments and journals. Such functions will allow business partners from European partner countries as well as interested national and state or European institutions (e.g., customs authorities, tax and budget institutions, statistical institutions) to update information in their own applications in a timely manner and online. This will create a real repository of qualifications at national and European level. A complex, dynamic, open and interactive database will be used. Accounting systems must meet the needs of small businesses, providing the necessary information while avoiding unjustified administrative burdens. It is important to carry out studies on accounting legislation applicable to strategic management in order to find ways to improve the regulatory environment.

Today, artificial intelligence offers many benefits to accountants. This technological trend is reshaping the way accountants do their jobs, offering unprecedented opportunities for efficiency, accuracy and strategic decision-making [2]. It can automate and enhance various accounting processes such as financial reporting, audit and compliance, fraud detection and data analysis. Furthermore, AI's ability to quickly analyse data enhances the ability to predict and identify trends, helping to manage financial data more efficiently. An enterprise-wide data strategy using AI can enable organisations to make automated decisions and predictions in real time. However, while AI can facilitate repetitive tasks, reduce human error and improve productivity, it cannot replace the human judgement, communication and critical thinking skills that are essential in accounting.

On a cloud-based predictive accounting platform, artificial intelligence will be able to handle tasks such as data entry, expense categorisation and account reconciliation that are traditionally time-consuming. This automation allows accountants to focus on more strategic activities [7].

Artificial intelligence will analyse patterns in financial data to identify unusual transactions that may indicate fraud. This is particularly useful in large data sets where manual detection would be impractical. It will be able to analyse historical data and market trends to make more accurate predictions about future revenues, helping businesses with planning and budgeting. It will increasingly be used to extract valuable information from unstructured data such as contracts, emails and notes. This can help with compliance checks and a deeper understanding of financial documents.

Nowadays, AI is being used to solve real business problems, such as optimising cash flow, identifying cost-saving opportunities and providing strategic financial advice based on data analysis. Accountants will need to upskill to work alongside it, focusing more on strategic and advisory roles. Financial accountants will need to embrace this technology and develop relevant skills. They should seek training in artificial intelligence and related areas such as data analytics. Human input means it's inherently prone to error when dealing with sensitive financial information and strict compliance protocols, and errors are costly. They can lead to the need to re-perform tasks, pay fines, or have the client terminate the contract with the firm.

Artificial intelligence can be used to automatically flag any inconsistencies to allow for verification. All that's required is to review all the proposals, reject them, or create a task. Artificial intelligence algorithms can examine financial transactions and reconciliations to quickly identify anomalies, patterns, and unexpected values that may indicate discrepancies or areas that need further investigation. In addition, automated reports save time, allowing accountants to focus on analysing and interpreting data. This leads to improved decision-making, personalised customer service and unmatched productivity.

Kashif Ali, CEO of TaxGPT, which automates tax filing, says he's seen a tenfold increase in productivity using GPT. Ali compares it to a "second brain or co-pilot" with whom one can talk and solve problems together. It can also be prompted to give a confidence score for each decision, which can be used to flag questionable expenses to a human reviewer for a second opinion [2].

Conclusions. Hence, modern accounting requires tools for its maintenance, verification and analysis that can be used by entrepreneurs in all European countries. In addition, they must be modern, cloud-based and able to apply artificial intelligence functions.

Consequently, to improve accounting, the following is necessary:

1. Computer software should be used to code accounting entries and improve the accuracy of calculations based on the accounting rules of a particular EU country, providing greater automation of processes.
2. Cloud solutions should be designed to centralise, optimise and automate compliance processes.
3. Integrated software should be used.
4. Access to and analysis of unstructured data should be improved.

Artificial intelligence and cloud-based systems can significantly reduce workload, increase efficiency and accuracy.

Improving accounting and reporting will involve providing users with multidimensional structures of aggregated accounting data – reporting standardised databases. This will provide reporting users with an operational software solution to any analytical tasks and processing of enterprise reporting samples.

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Alla Dmytrenko, Candidate of Economic Sciences, Docent, Professor at the Department of Finance, Banking and Taxation, National University "Yuri Kondratyuk Poltava Polytechnic". **Anastasiia Loza**, Student, National University "Yuri Kondratyuk Poltava Polytechnic". **Ways to improve accounting, auditing and taxation of business entities in the context of implementing European management practices and introducing artificial intelligence into accounting.**

The article outlines the challenges of improving accounting practices, providing better services to clients, and increasing the profitability of companies. It also analyses how AI-based solutions can speed up calculations, data analysis and reporting, as well as increase efficiency. Furthermore, there was a need for a targeted cloud-based system that generates a wide range of statistics, accounts and indicators with many different potential analytical applications between EU countries and the ability to access them by entrepreneurs from other countries. In a cloud-based predictive accounting platform, artificial intelligence will be able to perform traditionally labour-intensive tasks such as data entry, cost categorisation and invoice reconciliation. As a result, such automation will allow accountants to focus on more strategic activities. In turn, artificial intelligence will analyse patterns in financial data to identify unusual transactions. This is particularly useful in large data sets where manual detection would be impractical. Artificial intelligence and cloud-based systems can significantly reduce staff workload, as well as increase efficiency and accuracy.

Key words: cloud target system, artificial intelligence, data analysis, EU accounting rules.

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Дмитренко Алла Василівна, доктор економічних наук, доцент, професор кафедри фінансів, банківського бізнесу та оподаткування. **Лоза Анастасія Володимирівна**, студентка, Національний університет «Полтавська політехніка імені Юрія Кондратюка». **Шляхи вдосконалення обліку, аудиту та оподаткування діяльності суб'єктів господарювання в контексті впровадження європейської практики управління та впровадження в облік штучного інтелекту.**

Проблемні питання, які розглядаються: вдосконалення практики бухгалтерського обліку, надання кращих послуг клієнтам і підвищення прибутковості фірм за допомогою створення інтерактивної бази даних на основі хмарної технології на національному та європейському рівнях. Зазначено про необхідність використання спеціального програмного забезпечення, яке б вирішувало цілі імпортування господарських операцій підприємства в програмне забезпечення, заощаджуючи час і знижуючи ризик помилок, які можуть виникнути під час введення даних вручну. У свою чергу, користувачі зможуть швидко звіряти рахунки та відслідковувати свої бізнес-фінанси в режимі реального часу і, що особливо важливо, правильно сплачувати податки згідно правил бухгалтерського обліку у певній країні. Проаналізовано питання, як рішення на основі штучного інтелекту можуть прискорити обчислення, проведення аналізу даних і звітності, підвищити ефективність роботи бухгалтерів. Розглянуто питання необхідності введення цільової системи фінансового обліку на основі хмарної технології, яка генерує широкий спектр статистичних даних, облікових записів і індикаторів з багатьма різними потенційними аналітичними застосуваннями між країнами Євросоюзу і можливістю доступу підприємців з інших країн. І як результат на хмарній платформі прогнозного обліку штучний інтелект зможе виконувати такі завдання, як введення даних, категоризація витрат і звірка рахунків, які традиційно займають багато часу. Штучний інтелект буде автоматично позначати спеціальними знаками будь-які невідповідності. Все, що потрібно зробити бухгалтеру – це переглянути будь-які пропозиції, відхилити або створити нові завдання. У результаті такої автоматизації управлінський персонал зосередиться на більш стратегічних видах діяльності. Крім того, штучний інтелект аналізуватиме шаблони фінансових даних, щоб виявити незвичні транзакції. Це особливо корисно у великих вибірках даних, де виявлення вручну було б недоцільним. Штучний інтелект і хмарні системи зможуть значно зменшити навантаження на роботу персоналу, а також підвищити ефективність і точність розрахунків. Підприємства зможуть керувати своїми фінансами і проектами у режимі реального часу, підвищуючи прибутковість.

Ключові слова: цільова система на основі хмарної технології, штучний інтелект, аналіз даних, правила бухгалтерського обліку ЄС.