

## Boosting Accounting: How Artificial Intelligence Automates and Improves Services

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### Abstract:

The research focuses on improving accounting processes in businesses through Artificial Intelligence (AI), specifically by reducing human errors and optimizing decision-making. The main objective is to explore how AI can automate repetitive tasks and minimize errors in accounting processes. The integration of AI not only saves time by quickly processing financial documents but also enhances the accuracy of data analysis and forecasting. As a result, businesses can make more informed and strategic decisions. This development aims to strengthen the efficiency of accounting processes while ensuring high levels of compliance and transparency. AI thus emerges as a valuable tool for enhancing the overall performance of accounting departments and supporting business growth.

**Keywords:** Artificial Intelligence; Improves Services by IA; Accounting software by IA, errors

**JEL Classification Codes :** M41, O33, I28

ملخص:

يركز البحث على تحسين عمليات المحاسبة في الشركات من خلال الذكاء الاصطناعي (AI)، وتحديداً عن طريق تقليل الأخطاء البشرية وتحسين عملية صنع القرار. الهدف الرئيسي هو استكشاف كيف يمكن للذكاء الاصطناعي أتمته المهام المتكررة وتقليل الأخطاء في العمليات المحاسبية. لا يوفر تكامل الذكاء الاصطناعي الوقت من خلال المعالجة السريعة للمستندات المالية فحسب، بل يعزز أيضاً دقة تحليل البيانات والتنبؤ بها. نتيجة لذلك، يمكن للشركات اتخاذ قرارات أكثر استنارة واستراتيجية. ويهدف هذا التطور إلى تعزيز كفاءة العمليات المحاسبية مع ضمان مستويات عالية من الامتثال والشفافية. وبالتالي، فإن الذكاء الاصطناعي يبرز كأداة قيمة لتعزيز الأداء العام للإدارات المحاسبية ودعم نمو الأعمال

**كلمات مفتاحية:** ذكاء اصطناعي؛ تحسين الخدمات المقدمة؛ برمجيات المحاسبة، أخطاء محاسبية

**تصنيفات JEL:** M41, O33, I28

## 1. Introduction

Artificial intelligence (AI) is becoming a real and pervasive part of our daily lives, especially for many of us working in the accounting industry. AI has the potential to replace manual tasks and engage people in innovation and creativity.

Artificial intelligence is already helping accountants' process incoming documents, fill in the details, process payment orders, and promptly unload documents for verification. The key word here is "help". This is important because artificial intelligence comes into our everyday lives to facilitate or speed up some operational processes. Digital accounting has no mission to replace or displace an accountant. The aim is to relieve professionals of the daily routine that takes most of their time.

In this case, we see only the pluses. First, you will have more time to solve critical tasks, and secondly, it will reduce the number of mistakes that a person makes because of the large number of routine and monotonous work. You are not relieved of your responsibility, and you are still at the forefront of decision-making.

There are already many successful cases in which artificial intelligence has proven very effective. It increases the speed of processing documents, reduces the risk of their loss, and makes their storage more reliable. In general, the work of the accountant is so diverse that even errors can occur when switching between tasks. Artificial intelligence, in turn, is recognized to minimize them.

In terms of forecasting and analytics, artificial intelligence tools will only help you cope with a huge amount of data, organize it, and quickly see the result.

Artificial intelligence will certainly relieve accountants from routine and help them save a lot of time. The solution is up to you. Would you trust the implementation of important business processes to artificial intelligence, or would you be more comfortable doing it yourself?

Artificial intelligence in accounting mainly involves data and automation. Technologies and applications such as machine learning can equip accounting with new and improved data analysis techniques.

As accounting, finance, and racing heavily depend on technology, data becomes clearer and more complete. Quick access and understanding are key benefits of artificial intelligence.

In addition to data processing, AI can also improve audit and financial processes. Organizing information using technological tools can save a lot of time and reduce the risk of human error in these important processes.

The World Economic Forum (WEF) has published numerous reports predicting the impact of artificial intelligence on global employment. In fact, their analysts predict that automation will create 58 million jobs, two-thirds of which will be highly skilled.

They compared the current climate of change to similar times in the past. For example, in the early days of accounting software, accountants' tasks changed

dramatically. The launch of Intuit in 1983 and Microsoft Excel in 1985 did not really lead to the disappearance of the human accountant, as many feared. Instead, the estate grew by 75% over the decade.

The result of the introduction of new accounting technologies is that the quality of the work done by accountants and cashiers is better than before. This will continue as AI and automation grow.

## **2. Research Issue:**

Research problems are as follows: how AI can help reduce mistakes and improve the company's decision-making. Therefore, the overall objective is to explain the role of artificial intelligence in the development of accounting processes in companies.

## **3. Purpose of the study**

The study aims to explore how artificial intelligence (AI) optimizes and transforms accounting and financial services, focusing on intelligent automation to improve efficiency, accuracy, and decision-making. It investigates the ability of AI to accelerate processes, reduce human error, and analyze large volumes of data to deliver valuable insights. It also examines its impact on regulatory compliance and risk management and the innovation opportunities it presents in the sector. This study highlights both the advantages and challenges of integrating AI into accounting and finance, proposing a practical and ethical implementation framework.

## **4. Research questions**

Research questions aim to explore AI's impact on accounting and financial services, including its benefits, challenges, ethical considerations, regulatory implications, and implementation strategies.

How does integrating AI in accounting and financial services reduce human error, and what are the potential risks associated with overreliance on AI-driven systems?

How does AI innovation in accounting and financial services create new business opportunities and reshape traditional business models within the sector?

What are the critical components of a practical and ethical implementation framework for integrating AI into accounting and financial services, and how can organizations ensure responsible AI usage?

## **5. Study hypothesis**

### **5.1 Hypothesis 1:**

Integrating AI into accounting processes significantly reduces the rate of human error while increasing the speed of data processing, leading to measurable improvements in the quality of accounting services and financial decision-making.

### **5.2 Hypothesis 2:**

The adoption of AI in accounting services is leading to a fundamental transformation of traditional business models, creating new business opportunities

while requiring the establishment of a robust ethical and regulatory framework.

## **6. Literature Review**

### **6.1 Artificial intelligence to support the work of the accountant**

The current panorama is characterized by spectacular digital development spanning all spheres of society. This technological revolution not only fundamentally changes the way we work but also entails significant shifts in traditional occupations, such as accounting. As digital technologies continue to advance, brand-new opportunities for accountants can revolutionize the industry.

The implementation of artificial intelligence revolutionizes the management of organizations' financial and accounting processes (ECA, 2006)

These advanced solutions enable you to automate routine and iterative tasks, such as data entry and account resolution, and save time and resources for professionals to focus on high-value strategic activities. Using machine learning algorithms, artificial intelligence can analyze large amounts of financial data and identify patterns and trends that help make informed decisions. In addition, it also improves AI (Vasarhelyi & Alex Kogan, 1998)

by reducing human errors in accounts and operations, which in turn enhances the integrity of financial reporting and regulatory compliance.

This technological shift increases efficiency in financial and accounting management (Antón, 2021). Artificial intelligence can predict demand for products and services, improve the supply chain, and predict cash flows, giving companies a competitive advantage by responding more quickly and accurately to market changes. Automation of accounting functions reduces the possibility of errors, accelerates the closure of books, and improves transparency and accuracy in financial reporting. However, ethical and privacy challenges in the implementation of these technologies need to be addressed to ensure however, it is necessary to address ethical and privacy challenges in the implementation of these technologies and to ensure the protection of sensitive data and decisions based on artificial intelligence are understood and accountable. Integrating artificial intelligence and new technologies into finance and accounting redefines operational efficiency and decision-making in the business world.

The National Institute of Contadores Poplicos (INCP) (2020) , states that accounting requires changing and adapting the new tools offered by artificial intelligence, which allows processes to be improved for real-time results, Minimize accounting errors and improves financial operations, Provides real data, detect anomalies and reduce the operational burden of recurring tasks We are at a point of change, where meters must be supported in these key transformations of artificial intelligence and automation, be flexible in changing and allow these learning models.

The Universal (2023), which cites information from FORBES (2022), ensures that in the case of accountants, the question of occupations that may face a complete

replacement of artificial intelligence, the perspective is not about a complete replacement of artificial intelligence, but rather an integration in which this technology becomes a complementary tool. Its principal function is to enrich the work of accountants and perform monotonous and repetitive tasks. This collaboration with AI significantly improves the efficiency and accuracy of their work. The focus is on freeing professionals from inventory of routine tasks, allowing them to focus on aspects requiring interpretation, analysis, and informed decision-making.(Oldemeyer, Andreas Jede, & Frank Teuteberg, 2024)Indicates that AI will not have the possibility of disappearing accountants since they have a quality that AI lacks, which is professional judgment. This is the ability to apply their knowledge to decision-making training in certain circumstances where the accountant is obliged to make such decisions, and somehow this technology will support activities or the processing will help facilitate the assumption of counter functions, but the final word will be the accountant.

In addition, according to Albert J (Artificial Intelligence Index, 2023), a large proportion, equivalent to 53%, of accounting activities can be subject to automation. He also noted, however, that given this automation perspective, it was important for accounting professionals to draw their attention to the remaining 47 percent of activities. This approach aims to provide a more customer-oriented service and special needs.

Instead, Frías G (2023), quoting Soto E (2023) during the interview, explained that using artificial intelligence by meters can automate up to 85% of tasks, regardless of the company's size. This interview also highlights that AI will not replace the public accountant; on the contrary, it will change the acquisition of new skills, which is the same as being more efficient. The meter can traditionally spend up to 60% or more on a recurring task, But with the help of artificial intelligence, this time, it can drop to only 30% of the meter by writing the data. The meter will have to analyze this input data the rest of the time (Sarmah Simanta Shekhar Artificial Intelligence in Automation research review , 2019).

On the other hand, focus on the importance of implementing artificial intelligence in Cuba's business administration. Analyzing and automating routine tasks provides significant advantages in informed decision-making and resource improvement. In addition, the combination of artificial intelligence and accounting converges at a point where technology and human experience integrate to achieve greater accuracy and Effective. Implementing accounting artificial intelligence in Cuba can be an important step toward obtaining high-quality accounting information. Integrating AI-based systems into accounting processes will not only allow greater automation of routine tasks but can also generate timely data. (Flores & Lilia Esther Fernández López , 2018)

Also, Matt (2023) concludes that using AI-powered automation can make you a

big corporate ally in handling very large amounts of data (Talan, 2021). This not only helps companies improve their accounting but also reduces costs and increases the efficiency of their operations. One aspect to consider is that AI-based accounting systems are accessible to both large and small companies, thus balancing opportunities for optimal management of their financial resources.

Companies face a changing environment. This requires them to be able to adapt quickly to new positions and make informed decisions. Financial and accounting management is a crucial area of success for any company, and it is vital that companies have effective and accurate processes for managing their finances. AI helps us streamline workflows and implement process automation, and companies can free their employees from manual and repetitive tasks, allowing them to focus on higher value-added activities. This not only improves efficiency and productivity but also encourages creativity and innovation within the Organization.

The implementation of artificial intelligence to support the work of the public accountant in accounting processes changes the accounting profession. In the digital business world, efficiency and accuracy are critical; this is where artificial intelligence plays a key role. With its ability to process large amounts of data quickly and accurately, AI simplifies tasks such as account reconciliation and financial reporting. This not only frees accountants from repetitive work but also reduces human error while maintaining the integrity of financial information.

AI is not limited to efficiency but also to efficiency and brings a deeper analysis of accounting. By identifying patterns and trends in financial data, AI provides valuable information to public accountants to help them make strategic decisions. By discovering the unclear relationships of humans, accountants can provide more informed recommendations and advice in real-time. This makes the accountant a strategic partner that directly contributes to the company's growth.

In addition to influencing decisions, Amnesty International also addresses the growing complexity of accounting standards and regulations. Keeping up with regulatory changes presents an ongoing challenge for accountants. In this regard, AI can be an ally by automating the compliance process and ensuring compliance with all transactions.

This not only guarantees accurate reporting but also reduces the risk of penalties for non-compliance. Despite the benefits, it is necessary to consider concerns about the implementation of artificial intelligence in accounting. Resistance to change and fear of professional aging are understandable concerns. However, it is important to understand that AI does not replace accountants; instead, it helps them. Humanity's ability to interpret context and make ethical decisions remains essential. Data security is also a crucial point. Artificial intelligence involves handling sensitive financial data, so it is critical to ensure you are protected from cyber threats and comply with privacy

regulations. Proper implementation of cybersecurity and security measures is essential to preserve the most sensitive information among accountants and stakeholders.

## **7. Artificial Intelligence**

The concept of artificial intelligence was first discussed in 1956 at an event focused on projects and applications aimed at driving significant technological advances. One of the highlights of the event was the presentation of the idea of artificial intelligence before

John McCarthy is widely known as the leader in the field and is called the "father of artificial intelligence" (Rouhiainen, 2018). It is not new for people to seek support from technology for basic or complex functions, as it has long been thought to be looking for "something" that could replace or assist the functions we perform in society, giving more excellent added value to the work done, whether in terms of quality, effectiveness or efficiency; Thus, provide better results in all areas.

Artificial intelligence refers to the ability of machines to learn from data and make decisions, similar to humans, but without having to rest and with fewer errors. This technology is overgrowing and allows machines to perform tasks previously performed only by humans (Holmes, Persson, Chounta, Barbara Wasson A, & Vania Dimitrova, 2021) Artificial intelligence is mainly based on machine learning and systematic decision-making, which has been exceptional in various economic activities. Those that stand out today are companies like Google and Facebook, where the user experience is highly customized, thanks to the continuous improvement of their AI-driven products. This technology allows you to accurately adapt the services and content provided; ensuring that every user finds what really matters and suits them, thus providing a very satisfying and personal experience.

Since the advent of artificial intelligence, efforts have been made to streamline the tasks usually performed by humans. To achieve this, learning techniques capable of automating processes covering data analysis and arduous tasks are used. Some of these tasks require the ability to examine and make decisions based on logic. (Rouhiainen, 2018). The growing demand for support in AI is due to the need to improve day-to-day tasks and improve performance in various professions.

This trend has led to the adoption of techniques such as machine learning, which include supervised and unsupervised learning. In addition, enhanced learning has become a key element, enabling process automation and more efficient decision-making. All this is enhanced using deep learning, which Tess Analyze large amounts of information and open up new possibilities for obtaining superior results in the tasks performed.

Although technology will optimally support and improve the work of accountants, it is undeniable that professionals in this area will need to acquire skills adapted to the prevailing technological era. This means deep recognition and use of

technological tools, as well as solid data analysis capability, among other vital competencies. AI has its limits, and man will continue to play an important role in the accounting profession. However, he will have to adapt to new technologies and acquire additional skills to stay competitive in the labor market. This is all done in order not to replace human action with the work of artificial intelligence but to help itself achieve better results and, therefore, to serve society better.

## **8. Improve the financial and accounting processes of artificial intelligence:**

Improved processes focus on improving efficiency and productivity by eliminating waste of time and resources, unnecessary costs, obstacles, and errors in work. Their main goal is to achieve the process's objectives more effectively. This may include consolidating and automating functions such as consolidating and reconciling financial statements. Process improvement is a vital strategy for organizations that want to operate more effectively and competitively in a changing business world. It helps maximize available resources and achieve the targets set more efficiently.

In accounting, many AI-based technologies, such as artificial neural networks, are used to recognize patterns and process data. Artificial intelligence frameworks, such as MATLAB, are also used to create mathematical and statistical models that help predict financial trends and assess risks. In addition, platforms like Botkeepers combine artificial intelligence with human counters to process large amounts of data quickly and accurately, allowing you to make agile and accurate financial decisions. In this sense (RUBINI & V.NITHYA, 2021) States that Amnesty International.

It plays a vital role in accounting, whether through machine learning algorithms, programming tools such as Python, mathematical modeling with MATLAB, or platforms such as Botkeepers that combine artificial intelligence with human experience to improve accounting efficiency.

Improvement is achieved effectively through automation, which depends on the automatic execution of tasks to streamline processes. This leads to improvements in the company's price, service, and quality. Automation plays a crucial role in improving work processes. This is achieved through the implementation of systems and technologies that can function efficiently and without mistakes, which has several advantages, such as increased efficiency, reduced costs, improved quality, increased response, and improved prices. For example, "BC Rims," which performs an investigation into the company's operations and functions using surveys and timetables, concludes that the company was losing revenue due to a lack of improvement in its operations, which in turn adversely affected its productivity. This is a common problem in many organizations and can significantly impact their profitability and efficiency (Sundaram, 2023).

Improving business processes is a long-term project that is divided into multiple phases. Its objective is to achieve significant improvements in aspects such as time

efficiency, material resource management, staff productivity, information management, and cost reduction, among others. This process involves a continuous and detailed review of the company's operations to identify improvement areas and apply solutions that yield significant benefits. By using the process improvement strategy at Financiación Comercial S.A., it was able to streamline its internal operations, which in turn provided time and resources for collaborators to focus on more important tasks for the organization. In addition, continuous measurement of results would provide information on constant adjustment and improvement.

## **9. Analysis and discussion of results**

The following standard addresses a critical assessment of the significant differences between traditional accounting and AI-based accounting systems. First, it highlights Amnesty International's corporate financial management's efficiency, safety, and quality. This has a significant impact on the opportunity to make business decisions; while accelerating the organization and analysis of information, decisions can be made with more details and higher quality. Secondly, although companies need investments to acquire these technologies, their acquisition can reduce investment costs through improved operations and, consequently, a time of dedication that can be used in formulating strategies rather than in operational activities. This result

It supports discoveries (RUBINI & V.NITHYA, 2021) that highlight how AI-led technologies can automate recurring tasks. In addition, these tools free up accounting professionals, allowing them to focus on more complex and strategic decisions.

One of the most notable differences in comparison is the ability of AI-based accounting systems, such as QuickBooks, Xero, and Sage Intacct, to provide superior automation and efficiency in the billing accounting process. These are

In stark contrast to traditional accounting. Automation simplifies invoice management, especially in more complex business environments, saving valuable time and resources.

Another important point is the enhanced ability of AI accounting systems, embodied by Sage Intacct, to detect and prevent anomalies and fraud. These systems include advanced AI capabilities that allow identifying unusual patterns or suspicious activities, thereby enhancing companies' financial security. This ability reduces reliance on manual revisions, which, as documented, are prone to errors in traditional accounting. Early detection of financial problems can have significant implications for risk mitigation and business asset protection.

A salient aspect of comparison relates to financial reporting, where AI systems allow for highly customizable real-time reporting. This feature is of great importance for informed decision-making, providing companies with a more accurate and timely view of their development.

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allow for highly customizable real-time reporting. This feature is important for informed decision-making, providing companies with a more accurate and timely view of their financial situation. The ability to adapt reports to each entity's specific needs provides a strategic advantage in a competitive business environment.

Account reconciliation automation, a key element of accounting, is another area where AI systems excel. Reducing the need for manual adjustments minimizes the likelihood of error, which is particularly valuable in terms of the completeness and accuracy of the financial statements.

It is important to note that, despite the remarkable advantages of AI-supported accounting systems, traditional accounting still retains its relevance in specific contexts. This is especially true when AI systems are unavailable or expensive to implement. Choose between the two.

It should be based on accurately assessing each organization's specific needs and resources.

The following table represents the results obtained from the questions posed in our construction capacity.

The integration of AI into accounting has attracted increased attention due to its ability to improve processes and improve corporate decision-making. This survey, which includes 97 responses from various accounting professionals, provides valuable insight into the perception and impact of AI in accounting. This analysis aims to answer the research question: How can artificial intelligence help reduce errors and improve the company's decision-making? This seeks to understand the fundamental role of artificial intelligence in transforming organizations' accounting processes.

## **10. Accounting software with artificial intelligence**

Companies of all sizes use accounting platforms such as QuickBooks, Xero, Sage Intacct (D & Omojoye Elizabeth O, 2021), and many more on a daily basis. Almost all have elements of artificial intelligence.

Accounting software makes it easy for an accountant to think critically, understand a company's finances, and work vertically to get results.

Artificial intelligence supports the management and processing of data that takes the time of many people and presents it in an exploitable (sometimes immediate) way. AI wizards and platforms can create huge competitive advantages for companies, and the companies of the future already adhere to them.

Future accountants will also need to be aware of technology, learn to adapt, and seize opportunities.

**Table01: comparative study of accounting software with artificial intelligence**

Feature	QuickBooks	Xero	Sage Intacct	Traditional Accounting
Account Reconciliation	It offers more advanced and automated account reconciliation, enabling more efficient reconciliation, identifying discrepancies, and reducing the need for manual reconciliations.	Account reconciliation is manual and may be prone to errors. Users need to manually compare bank transactions with accounting records.	Automates invoice accounting with workflows and approvals, reducing manual intervention and useful for businesses with complex approval requirements.	Account reconciliation is manual and may be prone to errors.
Tax Declaration Processing	Provides basic tax declaration functionality, which may sometimes require additional software or the assistance of a tax professional.	It offers tax declaration preparation in some countries, but its availability may be limited elsewhere.	Integrates advanced tools for tax preparation, enabling efficient management of tax obligations.	Tax preparation is an independent process, often requiring the assistance of an accountant or the use of separate tax software.
Bank Reconciliation	QuickBooks and Xero offer tools for bank reconciliation, but the experience may vary depending on the complexity of transactions and account setup. Users can compare bank transactions with accounting records to ensure accuracy.	Users must manually compare bank transactions with accounting records.		
Invoice Accounting	It provides a feature for easy-to-use invoice downloading and accounting but may require manual intervention.	Allows users to enter invoice data, categorize expenses, and assign accounting accounts easily. Automation is limited.	Allows for automatic invoice accounting and payable account management, with improved automation through rule configuration.	Invoice accounting is manual, error-prone, and time-consuming, especially with a large volume of invoices.
Anomaly and Fraud Detection	Provides basic features for anomaly detection, such as alerts for unusual transactions. However, these features are limited.	Includes audit reports and the ability to set up rules for anomaly detection, improving security and fraud detection.	It offers robust fraud detection and advanced audit capabilities, which are crucial for financial asset protection.	Anomaly and fraud detection relies on manual reviews, which are less effective and more prone to errors.
Accurate and Real-Time Financial Reporting	Provides essential and real-time financial reports, but customization options may be limited.	Offers customizable and real-time financial reports, enabling users to create custom reports according to their needs.	Provides highly customizable and real-time financial reports with advanced analytics capabilities.	Report generation is a manual process that can lead to delays and errors.
Account Reconciliation (duplicate for emphasis on various aspects)	Offers more advanced and automated account reconciliation, enabling more efficient reconciliation and identification of discrepancies and reducing the need for manual reconciliations.	Account reconciliation is manual and may be prone to errors, with users needing to compare bank transactions with accounting records manually.	Automates invoice accounting with workflows and approvals, reducing manual intervention and useful for businesses with complex approval requirements.	Account reconciliation is manual and may be prone to errors.
Tax Declaration Processing (duplicate for emphasis on various aspects)	Provides basic tax declaration functionality, but preparation and filing may require additional software or the assistance of a tax professional.	It offers tax declaration preparation in some countries, but its availability may be limited in others. Users can prepare basic tax declarations directly from the platform.	Integrates advanced tools for tax preparation, enabling efficient management of tax obligations.	Tax preparation is an independent process, often requiring the assistance of an accountant or the use of separate tax software.
Bank Reconciliation (duplicate for emphasis on accuracy)	QuickBooks and Xero offer tools for bank reconciliation, but the experience may vary depending on the complexity of transactions and account setup. Users can compare bank transactions with accounting records to ensure accuracy.	Users must manually compare bank transactions with accounting records.		

Source: prepared by the researcher

In 2018, researchers evaluated the growing impact of artificial intelligence applications on the development of the accounting sector. They genuinely realize that artificial intelligence has the potential to reverse the traditional development model and usher in an era of innovation for the accounting industry.

Since 2016, the four major Deloitte companies have successively announced the introduction of artificial intelligence in the areas of taxation, accounting, and auditing. In fact, Deloitte, KPMG, Ernst & Young, and PwC have all been involved in AI projects since then.

Renowned experts in machine learning and artificial intelligence continue to join the movement to transform finance and technology through technology. In this particular paper, the researchers concluded:

A 2020 study on technology-driven accounting transformation identified emerging accounting technologies, including artificial intelligence, big data, cloud, and blockchain. It analyses how these technologies are used in traditional accounting practices and examines how technological transformation is accelerating.

The researchers found that the combined use of artificial intelligence, robotic process automation (RPA), and machine learning (ML) can produce more relevant information that helps business leaders make better decisions.

From established accounting firms to innovative fintech companies, all sectors are looking for technology opportunities. Far from replacing all accounting jobs or posing a significant threat to the industry, AI can potentially change the status quo. An in-depth study conducted by Sage Research in 2019 involved a significant number of people employed in the accounting sector. According to the results, a majority of 58% of participants expressed confidence in the potential of artificial intelligence to improve their business operations in the coming years. The implementation of innovative technologies can optimize productivity and generate unprecedented prospects. As a result, the accounting landscape is continuously evolving, which requires a transformation of accountancy responsibilities.

To be at the forefront of the AI-driven future, accountants need a diverse set of skills that go beyond basic accounting. This is precisely why the Certified Management Accountant (CMA) degree has seen significant growth in recent years and remains a great way to stand out from the competition.

## 11. Effects of artificial intelligence on accounting

### 11.1. Improving accounting efficiency (Chen, Minghua Lin, & Long Chen, 2023)

- The accounting operation can improve the level of accounting efficiency, section Simplify the content of accounting work and accounting performance over the corresponding working hours to ensure
- Specialization of work related to accounting for the company to save a certain amount of labor expenses.
- Accounting staff can use AI technology when processing financial statements The ability to store and place logical thinking, thorough analysis of financial statements in the company
- Build a database of the internal structure of the industry, introduce more and more new database system solutions

- Solve all kinds of complex problems. Application of software tools in the artificial intelligence Period
- Degree to fill gaps in traditional accounting methods, overall improvement of the Conference
- Accounting performance assessment for company accounting data processing methods and management decisions a higher level of digital service.

## **11.2. Reducing the Likelihood of Corporate Fraud**

The accounting industry often tends to make mistakes, some of them even at the beginning of the actual process by the source, such as changing the number in the primary accounting references. According to, some data are substituted by other data or directly on them .Unauthorized identifiers plus. Some items are even new and cannot be counted as income .Objectives are defined as profits, which significantly influence corporate profits .The reliability of the reporting data prompts the investor to submit an erroneous financial report .An ineffective business strategy is costly for investors. The use of artificial intelligence in accounting can prevent this type of problem . Document situation. AI also can differentiate tax receipts based on initial accounting references .The reliability and speed of download on the system make it possible to generate accounting references, thus ensuring the protection of the company .In the accounting industry, the interests of the industry and investors decrease the risk of fraud. Artificial intelligence can be used for different tasks of accounting staff in various forms of management .To some extent, the strength of personnel prevents synthetic agents from making mistakes. Conventional methods on the other hand, AI technology promotes a rational distribution of work and collaboration between different parties . Management of each other's accounts and reasonable oversight, resulting in the individual not exercising authority general gaps in comprehensive accounting information (Amrane-Cooper, 2023)

## **11.3. The negative impact of AI technology on accounting**

With the advent of artificial intelligence technology in accounting (Hussin, Nurul Ain Nadiah Mohd Bukhari, & Nurul Hani Azyyati Nor Hashim, 2024), The field has been widely used, and traditional repetitive work is slowly being replaced .Such things will inevitably reduce the need for people in the accounting industry .Many accountants may lose their jobs. Although most accounting work People can adjust their level according to changing times to better Adapt to the development needs of companies, a small number of accounting staff have No awareness or capacity for innovation. With the decrease in the number of accounting positions, these workers will be slowly eliminated by the company, which will not only affect this type of person. Economic sources of swarms are also sensitive to social instability. In addition, the network's diversity of information resources can also increase the security risks of accounting data, including illegal workers very quickly using professional software to steal the main business letters. Data of interest poses a significant threat to the business. If the business is not practical, Protecting the information security of accounting networks will reduce the application of artificial intelligence. The rise of high efficiency in accounting

## **12. Challenges for the Accounting Industry under Artificial Intelligence**

## **12.1. Accounting information security is at risk**

Obstacles facing the accounting industry in the field of AI 3.1 The security of risk accounting information the use of artificial intelligence technology increases accounting efficiency while preserving the importance of not forgetting that periodic individual participation in the financial system is low. Assess in detail the value of accountants with respect to audit authorization and certification. Saving paper financial statements for later storage; and however, there is a gap in AI technology. Save on computer bandwidth .

Extreme complexity and specific requirements can easily undermine the security of accounting information. Companies frequently use advanced offers in their financial systems.

In the absence of maintenance or server operation errors, it is extreme to make errors in a subunit that may result in the falsification of code and accounting data or the loss of financial statements. Programs that seriously jeopardize the credibility of accounting documents and the confidentiality of business are failures that cause unexpected losses for the company.

## **12.2. Reduced requirements for basic accountants**

Big data and fixed financial participation require an intelligent operating system. Accounting robots will be used extensively by current accountants (Jonick, 2017) Selectivity. Traditional accounting requires a large amount of staff, time, and improvement in updating certain input information, performing calculations, and verifying data. The monotony and boredom of work, but with the help of AI robots . Before, it was possible to quickly and clearly design your model in a short time or to analyze comparisons of data classes. LIKE different categories of computer accounting. They are used in different areas of accounting. For example, leading companies in many fields, such as Sinopec and Sinopec, use Ali servers. Carnival 2015 "Double Eleven" supports the server Ali Profits, which generated 9.12 billion individuals out of 140,000 orders sold per second registered. That is a certain distance. Good human resources management also ensures accuracy. You just have to customize that .The calculation of the data is not an error in the process. This intelligent needle control device's accounting functions do not require a large number of employees, and the staff remains at this stage.

There is always a risk of unemployment. Intelligent accounting robots are needed at this point .Using AI technology for financial management systems, identification is verified.

Until then, the functions of the counting robot will be gradually integrated into the system .It is no longer essential to have intelligent accounting robots and the cashier and other professions will make a significant breakthrough .This change harmed the employment of accountants (Guanliang & Tang Dapeng, 2021)

## **12.3. Analysis of countermeasures to the development of the accounting industry in the artificial intelligence environment**

### **12.3.1. Ensure mastery of essential AI technologies and take into account data security.**

In the fields of accounting, finance, file storage, and statistical analysis, the solution is closely linked to profiling and other industrial sectors. At that time, artificial intelligence technology was the implementation and evolution of the accounting market, which was mainly manifested in file management and information analysis. As for solutions, this suggests that artificial intelligence is still at the beginning of accounting applications. To foster a healthy development of the accounting industry during the period of artificial intelligence, it is essential to do everything possible. Use the fundamental methods of artificial intelligence to improve the analysis of financial data and statistics. Precision in the exploration of effective improvement measures to ensure efficient accounting. This may seem obvious. In the age of artificial intelligence, the growth of the accounting sector is facing challenges in terms of data security. Complete challenges, such as loss and leakage of information, can easily affect financial data with value. In AI, data security should be highly valued and promoted—Accounting Information Content Data Security Concept and Accounting Staff's Comprehensive Capabilities Security of accounting information and data.

### **12.3.2. Improvement of working capacity**

With the application of artificial intelligence technology in most companies applying measures in work, tedious and complex accounting work is slowly becoming artificial intelligence. After replacement, the company reduces the cost of labor to achieve the economic efficiency of the company. Advantages: usually, some of the accounting staff, at the same time, the company's commercial thinking of accounting staff imposes higher requirements. Accounting staff Not only assist the organization in the preparation of financial statements and other accounting matters but also Align financial fundamentals with the current state of each business sector. Sustainable development is the main objective of all institution areas, and it is used to make management decisions. Develop a policy that will simultaneously help businesses gain accumulated practical experience. Strategies for future development. At this stage, due to the relative investment of resources related to education, It is easy to start low and beginner accounting, and accounting has already become saturated—Institute of Accounting Status of field staff, accounting floor saturation, medium to high. There are vacancies in the class. In the future, determine the qualifications of accountants constantly improving to become a high-end accounting specialist.

Accountant Employees must constantly enhance their business capabilities and proactively modify the traditional meeting.

Accounting responsibilities so that you can record, audit, accounting management methods, etc. Do work that the AI cannot do in-depth. Learn the basics of new areas, such as intelligent contemporary systems and productivity improvement. You can have

### **12.3.3. Make a quick transition to the management accounting role.**

Artificial intelligence technology (Dahal, 2023) is still booming, but it is also very competitive in accounting. Use AI software for specific applications. Accounting can efficiently substitute these cumbersome accounting numbers. According to the field of information accounting, it is also possible to ensure optimal completeness and integrity in the data. At the same time, the evolution of accounting requires information. We support information-sharing platforms and a diversity of accurate and

efficient data .Artificial intelligence is the application of artificial intelligence software that responds to this feature.

The benefits of energy. By using high-performance artificial intelligence systems, the company can support business development and strategy. Another option .On the one hand, artificial intelligence can represent work management tasks related to accounting.

With this in mind, it is essential to associate it with experienced accountants. From the outset, it can give a reasonable scientific dimension to the perspective of changing management decisions .Manipulation. In summary, the development of artificial intelligence in the accounting field is at this stage .It is not necessarily a substitute for human resources management but rather an element of stimulation .Therefore, in the field of accounting, it is essential that its internal accountants lead .Improve institutional reform and gradually move towards management, which promotes success .The accounting sector is more suitable for development management throughout the period.

### **13. CONCLUSION**

Innovative accounting methods that leverage AI technology Thanks to the emergence of artificial intelligence, the classic accounting industry has evolved. The atmosphere has been completely changed, and traditional accounting information processing techniques have long been inappropriate. The need for social growth. Accountants must be aware of the current state. Society is a society where technology and talent compete and lack the ability to follow current trends .It will be substituted. If you do not have the resources to control the AI Exposition, you could be eliminated by the company and society. To make artificial intelligence more practical, the advancement of energy technologies requires accounting professionals to strengthen their skills in accounting software and Internet technology.

Study the art program and demonstrate flexible use of work software and system methods. It is essential to ensure that the use of artificial intelligence technology plays a vital role in the accounting field—the future perspective of artificial intelligence. The infiltration of AI in the accounting field can help accounting staff slow down and relieve the stress of work from tedious mathematical calculations and accounting work. The field of accounting should not discourage the emergence of artificial intelligence. It should combine high-speed development times, constantly improve the self, and innovation in the profession. The integration of AI in the accounting field can help slow down the work of accounting staff. Eliminate the stress of monotonous math and accounting tasks. Get out of there. It is important that the field of accounting is not disappointed by the advent of artificial intelligence. It should merge. In the context of high-speed development, it is essential to constantly improve oneself, innovate in the profession, and reform in order to take into account the challenges posed by artificial intelligence in accounting positions. And. We need to pay attention to AI and take more effective precautionary measures. This prevents attacks on data the two hypotheses are validated by significant results. First, AI has led to a substantial improvement in the quality and efficiency of accounting services. It optimizes processes, reduces human errors, and automates repetitive tasks, resulting in more accurate and faster services.

Second, the introduction of AI has brought about a transformation of traditional business models. By changing accounting practices and enabling new business models based on real-time data analysis, AI is redefining the sector. Finally, these changes have had a positive impact on the overall performance of accounting services. AI enables more precise data management, improves financial forecasting, and reduces costs, thus increasing overall efficiency. These results confirm that AI plays a crucial role in the transformation of accounting services, both operationally and strategically.

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