

# Application of Technology in Accounting System

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## Abstract:

Technology has evolved over the decade and has rapidly taken over all the spheres including the domain of Accounting. Technology advancements has changed the transaction process and its application to achieve smooth and effective functions of accounting. Always, one thought Accounting is only an information system, but this thought has totally changed due to development of technology. As one needs to adapt oneself for the changes, an organisational also has to adapt to the technological changes in the field of accounting and being competitive in the world of business. Accounting practitioners and educators have taken up new efforts as a result of the need to stay updated with the industry's shifting dynamics. The present research paper aims is to identify the various technological advancements on the accounting systems used in the businesses during the period of pre- and post-Covid eras, which is focused primarily on how the accounting systems changed from the traditional method to the modern application method. The research includes data from survey reports, papers, and reports of reputable international and professional accounting organisations. The paper will also examine the main benefits and drawbacks of using these applications in business, as well as its results and how they may affect other fields and which impacts on upskilling the stakeholders accounting knowledge.

**Key Words:** Accounting System, Technology, Conventional Technology, Modern Technology.

## Introduction:

Changes are always difficult, especially for professions like accounting, where traditional, established rules and procedures prevail. As an accountant, there is a requirement to update and upgrade himself with characteristics to evaluate, interpret information, to draw attention to issues and determine information necessary for manager and present it and to be able to use information and communication technologies well of individuals to operate as accountant.

Nowadays, most businesses, from large enterprises to small and medium entities, are using accounting information systems in managing their financial operations. Information

technology use is not just used by businesses. Globalization, the expansion of information and communication technologies with reducing prices and rising effects, as well as more information exchange, have all contributed to the expansion of computerised tax management applications in our nation and throughout the world. Many applications are increased the adoption of technology in accounting systems. (W Duff, 2000)

Emerging technology, dynamic organisations, and the consequences of globalisation on the economy and society, as well as the rapid pace of communication development all point to profound changes that call for defining document and archive studies in ways that go beyond conventional paradigms. The use of Enterprise Resource Planning (ERP) for effective business operations, assistance with supply chain management, and other compensations is one of the advantages of information technology. Modern life involves nearly constant use of technology, from business and education. As technology develops, it presents both new opportunities and difficulties for the general public. (Duren., 2002)

Technologies like the internet, intranet, and extranet are frequently employed in technology utilisation. The term "Internet" refers to a collection of global information sources. The Internet is a communication network that connects a large number of interconnected computers and is widely used around the world. Internet is a technology that developed in response to people's growing need to save, share, and instantly access newly created information. (MacKenzie, 1999)

The term "intranet" refers to networks that are primarily TCP/IP based and link computers, local networks (LAN), and wide networks (WAN) solely within a single enterprise. (Akgül, 1997) One may claim that the internet has played a significant part in the growth of international trade. Similar to how businesses that launched their own websites and promoted their own goods and services made a cautious transition to intranet technology. Only workers of the business may access the intranet and gather information from it.

Extranets are open-to-cooperation networks that link businesses with their customers, suppliers, or other businesses that have similar goals to their own while also by using internet technology to accomplish it. (S.Algan, 1997) Extranet and intranet concepts can be regarded as internet subsystems. So, these are not brand-new technologies; rather, just their names and functions have changed. These information technologies, nevertheless, are complementary to one another.

Organization of businesses and the general public with an information management function is largely required for digital information and technology to be transformed into a key strategy in competitions. In order to generate information for management purposes on the basis of an integrated information system for accounting information, systems relating to the use of computer technology needed to be configured. The primary goals of information processing and transmission technology development are to improve the quality of life for individuals, businesses, institutions, and ultimately for society.

### **Review of Literature:**

The study on Information Technology's Impact on the Accounting System aimed at measuring the effect of information technology (IT) on the accounting system, where IT helps to improve the quality and performance of accounting transactions in a transparent and safe manner in good security ways. The study provided a detailed theoretical analysis of the subject discussed by focussing on the principles of the organization historically and reporting directly. The researchers also have tested and obtained satisfactory results depending on the question tested and the hypotheses framed. The findings of the work are satisfactory and, the results indicate the role of computing information technology in reducing time, costs and improving health. (Yaser A. Jasim, 2020)

Technological developments nowadays have a significant impact on both the economic sector and our social lives. Accounting method is effectively used within our nation when it comes to accounting. Several accounting software packages designed for unified accounting structures are available on the market. Together with unified accounting, computerised accounting programmes have grown significantly, and nearly all businesses have begun using them to maintain their records. (Alp, 2007)

As a result, keeping track of and monitoring transactions got simpler. In parallel with developments in technology, computer use in accounting expanded further and simultaneously got more technical. Before simple accounting tasks like computing wages and pursuing debts and receivables were automated with the use of computers, ongoing operations like data invoicing, management of inventory, and customer information emerged. (Turner & Apelt, 2004)

Due to the recent development of technology post the Covid-19 pandemic, the accounting technological tools are classified as Conventional and Modern tools. Conventional is referred to the pre-Covid era and Modern is post-Covid time. (Güney, 2014)

The study demonstrates the influence of information technology on the field of accounting in Iran. It focuses on improving accounting process accuracy to provide appropriate developed reports for decreasing the accrual cost on collecting data, and providing developed reports for managing accounting, and offering the needed framework for carrying out costing techniques. (Ali Taghavi Moghaddam, 2012)

The research aims to show the effects of information technology on Kosovo's accounting systems. The primary data was collected from the Employees of Accounting companies of Kosovo through structured questionnaire and processed through SPSS software. The study highlighted the requirement of different processing system of Accounting incorporating information technology. (Ma. Edona Sekiraça, 2018)

The goal of the study was to ascertain how the worldwide system's accounting line of business was affected by information technology. Also, the study demonstrated how the usage of information technology has significantly impacted on the accounting field, which has transitioned from traditional to current applications of technology in accounting systems. It also suggested that if technology were permitted to take over accounting procedures in business houses, the accounting line of work would be improved greatly. (Akabom I. Asuquo, 2020)

The function of accounting in business and the duties of accountants have evolved as a result of technological advancement. It also acknowledged the significance of calls for better technical skill sets in accountants from a number of employer organisations and certified professional associations providing thorough learning, contextual awareness, and appreciation of the technological difficulties in the accounting context, it is also crucial to integrate some excellent comparable IT tools or concepts into the currently accessible accounting units. (Seethamraju, 2010)

### **Methodology:**

The research paper aims is to identify the various technological advancements on the accounting systems used in the businesses during the period of pre- and post- Covid eras, which focused primarily on how the accounting systems changed from the traditional method to the modern application method. The research examines the ways in which businesses might improve their productivity, decision-making, security, and accessibility. To offer a variety of tools and methods for using a variety of accounting firms and experts for improved business performance.

The research follows rapid review methodology wherein, the information is gathered from secondary sources as per the prevailing latest trends of technology. The approach for this

study was based on an analysis of publications and journals, and the data were taken from articles that were posted on valid websites.

### **Research Outcome:**

Conventional accounting technology was already developing quickly, and a number of tools and software options were readily accessible to assist businesses in managing their financial data more successfully. The conventional accounting technological tools used are as follows:

- Tax software: The process of preparing and filing tax returns has made much easier by the usage of tax software like TurboTax and H&R Block.
- Expense management software: Businesses were able to expedite the process of monitoring and classifying spending using software like Expensify and Receipt Bank, which made it simpler to manage budgets and expenses.
- Cloud-based accounting: Businesses were able to access their financial data from anywhere and work in real-time with their accountants or bookkeepers thanks to cloud-based accounting solutions like QuickBooks Online and Xero.
- Digital payment platforms: Organizations now find it simpler to maintain and balance their accounts as well as accept payments online thanks to digital payment services like PayPal, Square, and Stripe.
- Accounting software: To manage bookkeeping, invoicing, and other financial chores, accounting software like QuickBooks, Xero, and Sage were often utilised.

The advantages of accounting technology over conventional applications include;

- Further efficiency: Businesses may automate many of their financial procedures thanks to accounting technology, saving time and money on jobs like data input and reconciliation,
- More accuracy: By eliminating the need for human data input, accounting technology helps reduce financial reporting errors, which can result in expensive errors and audit problems,
- Greater data availability: Cloud-based accounting tools give firms real-time access to financial data from anywhere, enabling them to make choices based on the most recent information,
- Better collaboration: Accounting technology makes it possible for groups to work together more successfully by giving them a common location to view and discuss financial data,

- Secured authentication: To guard against unwanted access to sensitive financial data, cloud-based accounting solutions provide strong security features including encryption and multi-factor authentication.
- Savings: Companies may cut back on the requirement for human work and save personnel expenses by automating financial procedures. Technology has been a major contributor to the numerous improvements in the accounting industry that have been brought about by modern accounting applications. The accounting technologies used in current accounting technology are listed below:
- Cloud Computing Standard: The development of cloud computing and the better programmes that came along with it has been one of the major strides forward in accounting and technology. New technologies are developed every year to make your work simpler, and current systems get tweaks and redesigns to stay competitive. As a result, you'll spend less time interacting with humans and more time instructing your AI on how to display data and identify trends. Even for the least seasoned expert, today's systems are absurdly user-friendly and capable of expediting the accounting process. Moreover, they are hosted in the cloud, which increases their security and makes it possible for any internet-connected device to access them.
- "Internet of Things" (IoT): The term "Internet of Things" (IoT) depicts the large network or system of interconnected objects. It often means relying on a range of mobile devices in a corporate setting, but also on automated scanners, RFID chips, and other internet-connected sensors and gadgets that bring their technological infrastructure to life. This frequently entails giving accountants access to real-time data and allowing the data to be collected automatically without continuing human involvement.
- Big Data: Data has proven to be so important to modern business that it almost acts as money. All throughout the world, businesses are working to incorporate more big-data technologies in order to collect data, evaluate the data, and make better strategic decisions. Data may be utilised in the accounting industry for many different things, including transaction analysis, the detection of unexpected occurrences, and a better knowledge of clients, partners, and suppliers. Although evaluating figures on spreadsheets has been a popular method of data analysis for accountants for a long time, they are now expected to use big-data tech tools to evaluate significantly larger amounts of unstructured data.
- Remote Working (AKA Agile Working): As a result of the COVID-19 epidemic, accounting is moving towards more remote work (also known as agile working). Agile

working is also a developing trend as a result of cloud computing and storage software (working from many different locations, including a home office, business office, and coffee shop). Employers can broaden their hiring efforts to include non-local candidates thanks to this new technology, and employees are now able to take a more flexible approach to work and make work fit in with their lifestyle rather than basing their lifestyle off of their work. This new technology enables accounting professionals to effectively and securely perform their jobs from a remote location. Employee happiness increases as a result of this trend without affecting productivity.

- **Block chain Technology:** During the past ten years, the block chain has evolved as one of the most popular technologies. It's possible you've heard of it in relation to Bitcoin and other virtual currencies. So-called cryptocurrencies rely on the block chain as its backbone—the mechanism that makes permitted transactions possible. The block chain essentially relies on a ledger that is distributed across numerous nodes in a larger network; if a transaction is attempted, all the nodes in the block chain cooperate to validate the transaction. This makes it possible to process transactions in the world of digital money in an extremely safe and private manner. Technology is being investigated for its potential to improve security, speed up transaction processing, and reduce costs all around in the area of accounting. Because transactions can be recorded in a personal but open joint register, record keeping is also changed. The major benefit of block chain for accountants is its ability to keep a trustworthy record of safe transactions.
- **Real-Time Analytics:** Historical reviews of the information you've previously collected are insufficient in the modern business environment. You must consider the content you are currently gathering—and base your judgements on the most recent data you want to maintain your competitive edge and operate at your top productivity. Real-time analytics are useful in this situation. Accounting professionals may view how a company's figures change in real time and base choices on changes in current patterns with the correct digital tools and dashboards.
- **Artificial Intelligence (AI):** Artificial intelligence (AI) has become increasingly popular, and this growth is helping to advance the accounting area. To complete complex tasks, including those that were long believed to be solely humanly possible, AI depends on machine learning and cutting-edge algorithms. Accounting departments are better equipped with cutting-edge AI to examine data more thoroughly and quickly. In fact, AI may even be found

in the form of personal digital assistants, which aim to increase productivity among accountants by assisting them, offering advice, and performing some work on their own.

- **Automation:** Although automation technology has its own category, AI is sometimes utilised for it. The goal of automation is to provide a machine or algorithm the ability to perform activities that previously required humans to execute them manually. Consider greater machine precision and less human mistake. Technology has a number of benefits, but perhaps the most significant one is that it frees up time so that people aren't weighed down by tedious manual labour and can instead concentrate on more crucial issues. So, you should do less calculation and manual labour and focus more on theory and comprehending high-level decision making. Also, it improves accuracy because an algorithm has a considerably lower error rate than a human does. If you're concerned that automation will completely replace accountants, that worry is unfounded.
- **Social Media:** Clients are now looking for a company they can trust, instead of just one that can execute the job effectively and with greater precision thanks to AI. Social media is one of the most popular rising technological trends for this reason. It is the crucial tool businesses will employ to introduce themselves to clients and establish that they are a reliable and valuable partner. In order to communicate with current customers and draw in new ones, social media will be emphasized as a crucial sales and marketing tool.
- **New Skillsets:** Accounting professionals will be asked to exhibit new skillsets as the role of technology in the industry continues to grow. To collect the data you need, you must first grasp how to handle AIs and instruct them on how to perform off complex assignments like forecasting financial information. Also, you'll need to grasp how to interpret the way the AI displays that info. Hence, among the most sought-after new skillsets for accountants today, are technology talents. Modern accountants will now need to exhibit new soft skills in addition to technical skills. Today's accountants will be expected to analyse data and take on higher-value jobs like advising as technology replaces more number-crunching and data processing tasks. This includes competencies like critical thinking, emotional intelligence, communication, and the need for strong judgement has increased. (Natalya Melnyk, 2020)

Through the adoption of modern application tools, accounting technology has expanded, but it has also attracted downsides such as:

- **Risks to cybersecurity:** Wherein the danger of cybersecurity breaches rises as more organisations rely on technology to conduct accounting functions remotely. The Cyber



criminals can steal financial data using sophisticated techniques including phishing schemes, virus assaults, and ransomware.

- Minimal interpersonal contact: By reducing the need for face-to-face communication resulting in a lack of respect and comprehension, which might obstruct clear communication.
- Elimination of a personal touch: The Modern Accounting technological tool automated many duties that accountants used to perform by hand. This might reduce the human touch that customers cherish in their contacts with their accountants, even while it might increase efficiency and accuracy.
- Dependency on technology: Accounting procedures may be delayed or disrupted if accounting technology falters or encounters technological issues. To avoid these problems, businesses would need to spend money on backup systems and emergency plans.
- Adoption and training: Using modern accounting technology may necessitate time-consuming and expensive adoption and training initiatives. Certain accountants may not even feel at ease using new technology, which can cause resistance and a reluctance to accept new systems.

## **Conclusion**

In light of the digital period we are in and the growing level of competition, businesses must cut expenses in order to stay in business. Using emerging technology into businesses regularly in this expanding period is another strategy for winning this battle. Modern technology allows it to be possible to electronically record, distribute, and save files and documents. Costs can be significantly decreased in this respect through judicial improvements to be made about the use of information technology and improvements that businesses will make to their business procedures. Establishing a method for searching books and accounting papers in electronic media has benefits beyond only assisting businesses in cutting expenses. Also, it will make financial and other court oversight simpler and more effective. It is vital to determine the electronic data standards for books and documents and to take an inventory of the books and documents that will be used in the accounting system. Also, active learning in accounting education, employing computers and package software to train people to execute this profession, and explaining how records of all accounting-related papers would be stored on electronic media are all important. Curriculums should be adjusted to reflect this, and trained staff should be familiar with the laws governing technology and also be ready to using it.

## **References**

## References

- Akabom I. Asuquo, N. O. (2020). Impact of Information Technology on Accounting line of works. *International Journal of Recent Technology and Engineering (IJRTE)*, 9.
- Akgül, M. G. (1997). İnternet ve ilgili konularda çokça sorulan sorular. *INET-TR.CSS*, 2.5.
- Ali Taghavi Moghaddam, S. J. (2012). The Impact of Information Technology on Accounting Scope in Iran. *Middle-East Journal of Scientific Research* 12 (10), 1344-1348.
- Alp, A. (2007). Muhasebede kullanılan defter ve belgelerin elektronik ortamda izlenmesi. (Master's thesis).
- Duren., A. Z. (2002). Management in the 2000s. *Alpha Publications*, 338.
- Güney, A. (2014). Role of technology in accounting and e-accounting. *Procedia - Social and Behavioral Sciences* 152 ( 2014 ), 852 – 855.
- Ma. Edona Sekiraça, P. a. (2018). The Impact of Information Technology in Accounting in Kosovo. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 01-11.
- MacKenzie, G. (1999). A new world ahead: international challenges for information management. *Informational Managment Journal*, 24-34.
- Natalya Melnyk, D. T. (2020). ACCOUNTING TRENDS IN THE MODERN WORLD. *INDEPENDENT JOURNAL OF MANAGEMENT & PRODUCTION (IJM&P)*, 9-11.
- S.Algan. (1997). Bilgi yolunda bildik yeni bir durak. *Bilgi yolunda bildik yeni bir durak: Ekstranet, BT Haber*, 111, 54-55, 54-55.
- Seethamraju, D. R. (2010). INFORMATION TECHNOLOGIES IN ACCOUNTING EDUCATION. *IAIM Conference at AIS Electronic Library (AISeL) (SIGED)*, 12.
- Turner, L., & Apelt, C. (2004). Globalisation, Innovation and Information Sharing in Tax Systems: the Australian experience of the diffusion and adoption of electronic lodgement. *eJournal of Tax Research*, 241.
- W Duff, & S. (2000). Metadata and ISO compliance. *Information Management Journal*, 4-15.
- Yaser A. Jasim, M. B. (2020). Information Technology's Impact on the Accounting System. *Cihan University-Erbil Journal of Humanities and Social Sciences*,, 50-57.
- <https://www.efficientlearning.com/cpa/resources/accounting-technology-trends/>