Assesing The Impact of Emerging Technologies on The Accounting and Finance Profession

Kaviya.B[#1], Rohan Williams.H[#2]

[#1]Assistant Professor, Department of BCom Accounting and Finance, Sri Ramakrishna College of Arts and Science, Coimbatore, Tamil Nadu, India
[#2]Student, Department of BCom Accounting and Finance, Sri Ramakrishna College of Arts and Science, Coimbatore, Tamil Nadu, India.
[#1] bkaviya@srcas.ac.in, ,[#2] wrohan856@gmail.com

Abstract—The accounting and finance industry is presently undergoing a major shift because of the increasing adoption of emerging technologies such as artificial intelligence, blockchain technology, cloud computing, big data analytics, and automation. This research paper investigates the effect of these emerging technologies on the current practices of accounting and finance by comparing them with the conventional practices. The objective of this research paper is to evaluate the effect of emerging technologies on the efficiency and decision-making processes of accounting and finance practices. The primary data was collected from 100 respondents using a structured questionnaire, and secondary data was collected from journals, articles, and existing research papers. Simple random sampling was used, and the data was analyzed using SPSS software with techniques such as correlation and chi-square test. The results show that the regular use of emerging technologies has a significant effect on the efficiency of accounting and finance, but it does not have a significant difference in the effect of decision-making through data analytics on accounting practices

Keywords—*Emerging Technologies, Accounting and Finance, Artificial Intelligence, Decision-Making Efficiency, Financial Reporting Accuracy, Workload Reduction*

Introduction

The accounting and finance industry is currently experiencing a major shift due to the increased use of new technologies. The old ways of accounting and finance, which were manual and involved simple software, are being replaced by new technologies. New technologies such as artificial intelligence, blockchain, cloud technology, and data analytics are changing the way financial data is recorded, processed, and analyzed. New technologies not only make the work process easier but also make financial reporting more transparent, accurate, and reliable. In addition, new technologies enable better decision-making through real-time data, forecasts, and risk management. As a result of the shift to new technologies, it is important for accounting and finance professionals to understand the effects of these new technologies

Objective of The Study

- Comparing traditional accounting and finance practice with emerging technologies and new practices in accounting
- To study these technologies, enhance, transparency, accuracy, and decision making in accounting and finance

Scope of The Study

The scope of this research work is to analyze the impact of emerging technologies on the revolutionization of accounting and finance practices. The scope encompasses a comparison between the conventional accounting and finance practices and technology-based accounting and finance practices in modern organizations. The scope of this research work encompasses the impact of the following emerging technologies on accounting and finance practices: artificial intelligence, blockchain technology, cloud computing, big data analytics, and automation. The scope of this research work is limited to understanding the impact of technology adoption on accounting and finance professionals, organizations, and stakeholders, and does not encompass the development of technology-based systems and the implementation of software in any industry.

Statement of The Problem

The accounting and finance sectors are undergoing a rapid technological shift due to the adoption of new digital technologies. Although the traditional accounting and finance system has been effective for several decades, it is currently being threatened by problems such as human error, the absence of real-time data, a lack of transparency, and inefficient decision-making processes. Although emerging technologies such as artificial intelligence, blockchain technology, cloud computing, and data analytics have the potential to solve these problems, there are challenges associated with the adoption and effective implementation of these technologies in the accounting and finance sector. There is also a lack of clarity about the effect of these technologies on accuracy, transparency, and the accounting and finance

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profession. Thus, the purpose of this study is to investigate the impact of emerging technologies on the accounting and finance profession and to determine the degree to which these technologies enhance transparency, accuracy, and decision-making compared to the traditional approach.

Research Methodology

PRIMARY DATA: The primary data is collected by the questionnaire method through Google Forms.
SECONDARY DATA: For secondary data, the related journals, articles, websites, and past thesis were referred to for this project.
SAMPLING TECHNIQUE
The Sampling technique used for this study is Simple Random Sampling.
SAMPLE SIZE
The sample size used for the study is 100 respondents.
TOOLS USED FOR STUDY
SPSS Software is used for the analysis part of the study.

- CHI-SQUARE
- CORRELATION

LIMITATIONS OF THE STUDY

- The area of the study is restricted within the city of Coimbatore.
- Only 100 respondents have been taken for the study. If the responses increase, the result may differ.

Review of Literature

Olayemi, Oluseyanu Olamide; Oyelakun, Bukunmi Oyetola and Ibrahim, Abdul-lateef Ayomide (2025)[2], in their study "Emerging technologies and accounting functions in Deposit money banks in Nigeria" Existing literature highlights the transformative impact of emerging technologies—such as Artificial Intelligence (AI), block chain, and robotics—on business operations, particularly in enhancing efficiency, accuracy, and real-time decision-making. In the banking sector, these technologies are increasingly applied to automate routine accounting tasks like data entry, bank reconciliation, and financial reporting. However, most studies focus primarily on non-accounting functions such as fraud detection, customer relationship management, and credit risk analysis. There is a noticeable gap in research exploring the deployment and effectiveness of these technologies in core accounting functions within Deposit Money Banks (DMBs), especially in Nigeria, where high data volumes and individualized reporting demands intensify the need for automation (Anzor et al., 2024;

Adeyemo & Okoronkwo, 2024; Olumoyegun et al., 2024 A mixed-methods approach was adopted—quantitative data was analyzed using descriptive statistics, and qualitative data was analyzed using Braun and Clarke's six-step thematic analysis framework, with a focus on latent themes to uncover deeper insights. The study found that AI, RPA, and blockchain enhance accounting functions in DMBs and recommends increased adoption to improve data processing, reconciliation, and financial record management

Data Analysis and Interpretations

CHI-SQUARE

Null Hypothesis(H0): There is no significant relationship between emerging technologies and decision making through data analytics.
Alternate Hypothesis (H1):. There is significant relationship between emerging technologies and decision making through data analytics.

CHI-SQUARE TEST

	VALUE	DF	ASYMPOTIC SIG
Pearson chi square	11.668[a]	16	.766
Likelihood Ratio	13.596	16	.629
Linear association	.444	1	.505

Table 1

INTERPRETATION:

From the above table, A Chi-square test was conducted to examine the relationship between accounting areas impacted by emerging technologies and decision making through data analytics. The Pearson Chi-square value is 11.668 and the significance value (p-value) is 0. 766.Since the p-value 0.766 is greater than 0.05, It is not statistically significant

In conclusion, the analysis indicates that although emerging technologies impact various accounting areas, their influence on decision making through data analytics does not

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significantly vary across different accounting functions in this sample. Hence, the null hypothesis is accepted, and the alternate hypothesis is rejected.

CORRELATION

Null Hypothesis(H₀): There is no significant relationship between frequent usage of emerging technologies and improvement of efficiency in accounting and finance

Alternate Hypothesis (H₁): There is a significant relationship between frequent usage of emerging technologies and improvement of efficiency in accounting and finance

	CORRELATION	Frequently usage of emerging technologies	Improve efficiency accounting and finance
FREQUENTLY USAGE OF EMERGING TECHNOLOGIES	Pearson's correlation	1	**.308**
	Sig(2-tailed)		**.002**
	N	**100**	**100**
IMPROVE EFFICIENCY IN ACCOUNTING AND FINANCE	Pearson's correlation	**.308**	1
	Sig(2-tailed)	**.002**	
	N	**100**	**100**

Table 2

INTERPRETATION:

For the above table, A Pearson correlation analysis was conducted to examine the relationship between frequent usage of emerging technologies and improvement in efficiency in accounting and finance. The results revealed a moderate positive correlation between the two variables ($r = 0.308$, $p = 0.002$, $N = 100$). Since the p-value is less than 0.05, the relationship is statistically significant.

Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted. This indicates that increased usage of emerging technologies is significantly related with improved efficiency in accounting and finance

Findings

1. The Pearson correlation coefficient ($r = 0.308$) indicates a moderate positive relationship between the frequent usage of emerging technologies and improvement in efficiency in accounting and finance.
2. The significance value ($p = 0.002$) is less than 0.05, confirming that the relationship between technology usage and efficiency improvement is statistically significant.
3. The results imply that increased adoption and regular use of emerging technologies contribute positively to

enhancing operational efficiency in accounting and finance functions.
4. The Chi-square test results ($\chi^2 = 11.668$, $p = 0.766$) show no significant association between accounting areas impacted by emerging technologies and decision-making through data analytics.
5. Since the p-value is greater than 0.05, the impact of emerging technologies on decision-making does not significantly differ across various accounting functions such as financial reporting, auditing, taxation, budgeting, and payroll.
6. The acceptance of the null hypothesis suggests that while emerging technologies are applied across multiple accounting areas, their influence on data-driven decision-making remains uniform and statistically insignificant within the scope of this study.

Suggestion

1. Organizations should encourage uniform adoption of emerging technologies across all groups, as perceptions of accuracy are already consistent among respondents.

2. Training and skill development programs should be conducted regularly to increase the frequency of technology usage, which can further reduce manual workload.

3. Accounting and finance professionals should be motivated to integrate automation tools, AI-based systems, and cloud platforms into routine operations to improve efficiency.

4. Management should invest in user-friendly and accurate digital tools, ensuring ease of use and minimizing resistance to technology adoption.

5. Future initiatives should focus on enhancing the depth of technology usage, as higher levels of engagement may lead to stronger reductions in manual workload.

Conclusion

The research conclusions are that emerging technologies like Artificial Intelligence, Blockchain, Big Data Analytics, Cloud Computing, and Robotic Process Automation have greatly impacted accounting and finance practices. The research findings indicated that there is a uniform perception among respondents in relation to the reliability of financial information produced by emerging technologies. The research findings also indicate that there is a positive relationship that exists with technology use and minimization of manual work. The benefits associated with emerging technologies outweigh their limitations like high cost, lack of required skills, and security risks that come with technology use. Therefore, for one to realize benefits as a professional, they need to use appropriate technology to move from a routine work approach to analytical work.

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