



A Study on Use of Artificial Intelligence in Accounting and Finance Profession

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1. Introduction

Introduction:

The integration of AI technology with accounting and finance is changing the way organizations manage financial transactions, make strategic decisions, and interact with customers. While it provides many benefits, it also creates important practices and controls such as data privacy, algorithmic bias, and cybersecurity. As AI continues to evolve, its impact on financial markets and businesses is expected to deepen, spurring innovation and further change. AI at the same time may require less human interference and may replace the talented individuals. As AI technology automates routine tasks and processes, there is a risk that some accounting and finance tasks will become obsolete. This could lead to job losses for workers whose jobs are automated, especially those involved in manual data entry, transaction processing, and basic analytics. This research paper is to draw a conclusion whether the AI replace the respective jobs and its drawbacks.

1. Background of the Topic:

AI streamlines operations, enhances accuracy, and reduces costs through automation of tasks like data entry, analysis, and decision-making. It facilitates real-time market analysis, personalized financial advice, and fraud detection, augmenting professionals' capabilities. Despite its transformative potential, ethical considerations regarding privacy and bias arise. AI's increasing role prompts a shift towards strategic insights and value-added services by accountants and finance professionals. Embracing AI entails acquiring new skills and adapting to evolving technological landscapes, ensuring the profession's relevance and competitiveness in the digital age. At the same time, the rise of artificial intelligence (AI) prompts concerns about its impact on employment opportunities across various industries. As AI technologies advance, automation threatens to replace certain roles traditionally performed by humans. While AI offers potential benefits such as increased efficiency and productivity, it also raises fears of job displacement and economic inequality. Industries ranging from manufacturing to service sectors face the prospect of significant workforce changes.

2. Need/Importance of the Topic:

Understanding the implications of artificial intelligence (AI) in the accounting and finance profession is crucial for professionals, businesses, and policymakers. AI integration promises increased efficiency, accuracy, and cost savings, revolutionizing traditional practices. However, it also raises concerns about job displacement and ethical considerations. By studying AI's impact on accounting and finance, stakeholders can anticipate changes, adapt skill sets, and implement strategies to leverage AI's benefits while mitigating risks. This knowledge is essential for navigating the evolving landscape, ensuring the profession remains relevant and competitive in the digital age, and maximizing the potential of AI to drive innovation and strategic decision-making in financial sectors. Recognizing the importance of this topic entails addressing concerns of job displacement, economic inequality, and societal impacts. By studying how AI reshapes employment landscapes, policymakers, businesses, and individuals can proactively prepare for the transition. This includes investing in education and training programs, fostering innovation, and implementing policies to ensure equitable access to opportunities.

3. Theoretical Implications of the Topic:

The study of artificial intelligence (AI) in the accounting and finance profession holds significant theoretical implications. It offers insights into how technological advancements reshape traditional practices, affecting roles, tasks, and skill requirements for professionals. Understanding AI's theoretical implications enables scholars to explore its impact on organizational structures, decision-making processes, and regulatory frameworks. Moreover, it contributes to theoretical frameworks in fields such as ethics, governance, and risk management, as AI integration introduces new challenges and considerations. By examining the theoretical implications of AI in accounting and finance, researchers can inform future studies, policies, and practices in adapting to the evolving digital landscape.

4. Recent Trends Related to the Topic:

In recent years, the integration of artificial intelligence (AI) in the accounting and finance profession has rapidly accelerated, driven by technological advancements and evolving business needs. One prominent trend is the increasing adoption of AI-powered tools and platforms by accounting firms and financial institutions. These tools streamline processes such as data entry, analysis, and reporting, enhancing efficiency and accuracy in financial tasks. AI algorithms can process large volumes of data at unprecedented speeds, enabling real-time insights and decision-making.

Overall, recent trends in the use of AI in the accounting and finance profession underscore its transformative potential in enhancing efficiency, accuracy, and decision-making processes. As AI technologies continue to evolve, accounting and finance professionals must adapt to leverage these advancements effectively, ensuring they remain competitive and capable of meeting the evolving needs of businesses and stakeholders in the digital age.

2. Literature review

“The Robots are Coming ... But Aren't Here Yet”: The Use of Artificial Intelligence Technologies in the Public Accounting Profession, by Patrick E

This paper surveys 90 public accounting professionals to assess the current utilization and perceptions of Artificial Intelligence (AI), specifically Robotic Process Automation (RPA) and Machine Learning (ML). Findings reveal limited current usage of these technologies, with firms providing some but not extensive training. However, respondents anticipate significant AI impact on daily responsibilities within five years, indicating high receptiveness to change. Firm size emerges as a key factor influencing responses, suggesting imminent significant changes in the public accounting sector.

"Embracing the role of artificial intelligence in accounting and finance: contemplating the changing skillset expectations", by Bhumika Gambhir

This paper explores the transformative impact of Artificial Intelligence (AI) on the accounting and finance (A&F) profession, emphasizing the evolving expectations for professionals. It advocates for embracing technology and acquiring skills to collaborate effectively with AI. The paper discusses challenges and opportunities AI brings, offering insights on how A&F professionals can adapt and thrive in a tech-driven landscape. We observe AI's transformative impact on accounting and finance, stressing the need for professionals to adapt to evolving technology. It discusses challenges and opportunities AI presents, advocating for skill acquisition and collaboration with machines to meet changing employer expectations effectively.

“Harnessing the Power of Artificial Intelligence in the Accounting Industry: A Case Study of KPMG, Padmalini Singh

This study investigates how KPMG utilizes artificial intelligence (AI) in the accounting industry, based on responses from 39 employees. Analysis reveals a significant positive relationship between AI adoption and accounting tasks. The findings aim to raise awareness and encourage the adoption of AI applications at KPMG, enhancing productivity. Accountants can glean insights on leveraging AI to improve accounting standards. The study explores how KPMG utilizes AI in accounting, based on feedback from 39 employees. Findings indicate a significant positive correlation between AI adoption and accounting tasks. Recommendations based on the results aim to enhance awareness and adoption of AI for improved productivity and accounting standards.

“ROBOT HUMAN INTERACTION: ROLE OF ARTIFICIAL INTELLIGENCE IN ACCOUNTING AND AUDITING ”, BY Dr. Om Prakash

Gusai, The author investigates the impact of artificial intelligence on accounting and auditing operations, highlighting its role in enhancing accuracy, precision, and efficiency. By complementing human efforts, AI aids in navigating vast amounts of data and allows professionals to focus on problem-solving and planning. Ultimately, it aims to assess how AI streamlines complex tasks and improves overall performance in these fields. This study investigates how artificial intelligence enhances accounting and auditing by improving accuracy, efficiency, and focusing human efforts on problem-solving. AI's role in streamlining complex tasks aims to elevate performance in accounting and auditing operations.

“UNVEIL THE SCOPE OF ADOPTION OF COMPUTER ASSISTED AUDIT TOOLS AND TECHNIQUES”, BY Dr. Shurveer S. Bhanawat,

This study aims to uncover the scope and determinant factors influencing the adoption of Computer-Assisted Audit Tools and Techniques (CAATs). Data from 80 audit experts were analyzed using descriptive statistics and ANOVA tests. Findings indicate significant independent impacts of various audit areas and determinant factors on CAATT adoption, with notable factors including training, staff interest, skills, cost, attitude, awareness, and client size. Study examines CAATs adoption determinants via survey of 80 audit experts. Descriptive stats, ANOVA, and Cronbach's Alpha tests analyze data. All audit areas show significant independent impacts of CAATs. Determinant factors vary in significance, with crucial ones including training, staff interest, skills, cost, attitude, awareness, and client size.

“The changing face of accounting: Prospects and issues in the application of artificial intelligence”, BY Panna Lal,

This study explores the transformation of accounting through AI adoption, encompassing its potential for competitive advantage and its adaptability to diverse data sources. It delves into prospects and challenges in AI application, alongside highlighting popular AI-based accounting programs. The aim is to provide insights into AI's role in shaping the future of accounting practices. Study explores the evolution of accounting with AI integration, highlighting its potential for competitive advantages and adaptability to diverse data sources. It discusses prospects and challenges in AI application, along with popular AI-based accounting programs, foreseeing widespread AI adoption across industries.

Measuring Accounting Professionals Perception on use of AI Based Accounting Practices in India, BY M. L. Vasita and Punam Chand, This research explores the integration of artificial intelligence (AI) in accounting, auditing, and recruiting, emphasizing its role in enhancing human skills and

decision-making processes. Using a sample of 104 accounting professionals, regression analysis with SPSS software uncovers AI's benefits and challenges. The study highlights AI's potential to transform the accounting profession while improving efficiency and decision-making capabilities. This research highlights AI's role in enhancing human skills and decision-making in accounting. It analyzes AI's use in accounting, auditing, and recruiting, uncovering benefits and challenges through regression analysis of data from 104 accounting professionals, showcasing AI's potential in the field.

"Role of artificial intelligence in operations environment: a review and bibliometric analysis", BY PAVITRA DHAMJI, The author depicts the review of selected studies which offers valuable insights for operations managers and policymakers. Cluster analysis identifies key themes in artificial intelligence research, guiding present and future researchers. Emergent clusters encompass topics such as optimization, industrial engineering, operational performance, sustainable supply chains, technology adoption, the Internet of Things, and reverse logistics. These findings provide a framework for addressing pressing issues and driving innovation in the field of artificial intelligence. Cluster analysis reveals key themes in artificial intelligence research, guiding present and future researchers.

Education of Accounting & Major Trends in Accountancy in India, Dr. Bhuvnesh Kumar, Assi stant Professor, This paper delves into the evolution of accounting education in India amidst changing trends and challenges, influenced by WTO reforms, information technology, and globalization. It emphasizes the need for customizing education to meet diverse economic systems. While accounting education is imparted at various levels, there's a disconnect between academic and professional institutions. This paper highlights evolving trends in accounting education in India due to WTO reforms, IT, and globalization. It stresses the need for tailored education to economic systems, urging collaboration between academia and professional institutes for practical, industry relevant training.

"Change In The Indian Accounting Profession: Three Studies Related To The Entry Of The Big Four Accounting Firms In India, Vikram G. Desai, This dissertation investigates the entry of the Big Four accounting firms into India post-1990s economic and political reforms through three interconnected studies. It analyzes local firms' responses to competition, changes in the organizational field of the Indian accounting profession, and the impact of globalization on the profession. The studies aim to inform the Big Four about pricing strategies, professional associations' roles, and disparities in global accounting markets. This paper examines the entry of the Big Four accounting firms into India post-1990s reforms through three interconnected studies. It analyzes local firms' adaptation to competition, changes in the organizational field, and globalization's impact, providing insights for the Big Four and highlighting market disparities

Economics of Artificial Intelligence: Implications for the Future of Work, DANIEL SAMAAN, This paper explores the impact of artificial intelligence (AI) on job displacement and inequality, contrasting it with previous waves of automation. While AI offers productivity gains, it also poses risks of exacerbating inequality. The paper advocates for skills policies and new regulations to address these challenges, promoting profit sharing, digital taxation, and reduced working hours to ensure broad-based benefits from AI advancements. This paper delves into the implications of AI-driven technological advancements, acknowledging both opportunities and risks. It emphasizes the need for policies addressing skill development and regulatory frameworks to mitigate inequality and ensure equitable distribution of benefits from AI progress.

3: COMPANY PROFILE (Include Industry profile at the beginning of the chapter)

A Chartered Accountant (CA) firm is a professional services firm that provides accounting, auditing, tax, financial advisory and consulting services to individuals, businesses and organizations.

1) Services rendered:

- ❖ Accounting and financial reporting: preparation and maintenance of financial statements, accounting and financial reporting services.
- ❖ Audit and Assurance: We audit, review and prepare financial statements to provide independent assurance of their accuracy and compliance.
- ❖ Tax services: tax planning, tax return preparation, compliance with tax laws and tax audit assistance.
- ❖ Financial Consulting: Provides financial consulting services, budgeting, cash flow management and investment consulting.
- ❖ Corporate secretarial services: assistance in complying with company laws, corporate governance and company secretarial duties.

2) Clients:

- ❖ CA firms serve a different client base, including people, little and medium-sized endeavors (SMEs), enormous companies, non-benefit associations, and government elements.
- ❖ Clients might come from different enterprises like assembling, retail, IT, finance, land, medical care, and expert administrations.

3) Innovation Reception:

- ❖ CA firms have embraced innovation to work on functional proficiency, smooth out cycles, and upgrade client administration.
- ❖ Bookkeeping programming, charge consistence programming, record the executives frameworks, and information examination apparatuses are ordinarily used.

4) Group Construction:

- ❖ CA firms comprise of accomplices, partners, and care staff.
- ❖ Accomplices are regularly capable Contracted Bookkeepers answerable for dealing with the firm, client connections, and managing commitment.
- ❖ Partners and care staff aid different jobs, for example, examining, charge planning, monetary examination, and managerial capabilities.

5) Industry Patterns:

- ❖ Expanding interest for warning and counseling administrations because of changing business scenes, complex administrative conditions, and developing innovation.
- ❖ Accentuation on specialization in specialty regions like global tax assessment, risk the executives, legal bookkeeping, and supportability revealing.
- ❖ Joining of innovation driven arrangements like robotization, information investigation, cloud-based stages, and man-made reasoning to upgrade proficiency and administration quality.
- ❖ Proceeded with center around proficient turn of events, staying up to date with changes in bookkeeping norms, charge regulations, and arising patterns.

6) Administrative System:

CA firms work inside an administrative system represented by the INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA (ICAI) and other administrative bodies. Consistence with proficient norms, morals, and set of rules is obligatory for CA firms.

4: RESEARCH DESIGN

1. STATEMENT OF THE PROBLEM

The implementation of AI in the accounting and finance profession may exacerbate concerns about job displacement and workforce automation. While AI technologies can streamline repetitive tasks and improve efficiency, they also have the potential to replace certain roles traditionally performed by humans. This raises questions about the future of employment in the accounting and finance sector and the need for reskilling and upskilling initiatives to ensure the workforce remains relevant in an AI-driven environment. Additionally, the rapid pace of technological innovation in AI presents challenges for regulators in keeping pace with emerging risks and developments, necessitating agile and adaptable regulatory frameworks.

2. RESEARCH GAP

These days there are a lot of controversies that the AI is going to replace human talents in the upcoming years. Most of the papers have worked on how AI can be beneficial to the current generation, their complexity, adaptation by the accountants. But the major gap is, researchers have not specified the implications to the respective country's economy if there is a case in the future wherein AI is replacing accounting professionals. If this happens, it will have a retrospective impact on all the age groups who are pursuing or graduating in the accounting field.

HYPOTHESIS OF THE STUDY

Hypothesis 1

H0: There is no significant relationship between AI as Opportunity Creator and accounting professionals

H1: There is significant relationship between AI as Opportunity Creator and accounting professionals

Hypothesis 2

H0: The integration of artificial intelligence (AI) technologies does not significantly impact the efficiency and effectiveness of accounting and finance process.

H1: The integration of artificial intelligence (AI) technologies significantly enhances the efficiency and effectiveness of accounting and finance process.

Hypothesis 3

H0: There won't be an unemployment situation if AI takes over accounting professional.

H1: There will be an unemployment situation if AI takes over accounting professional.

Hypothesis 4

H0: If AI is used predominantly by the companies, there won't be an impact on the economy.

H1: If AI is used predominantly by the companies, there will be an impact on the economy.

Hypothesis 5

H0: Accounting and finance professionals who don't acquire additional training and expertise in artificial intelligence (AI) technologies lead to higher levels of job satisfaction

H1: Accounting and finance professionals who acquire additional training and expertise in artificial intelligence (AI) technologies lead to higher levels of job satisfaction

3. OBJECTIVES OF STUDY

- To evaluate the impact of AI on the workforce.
- To determine the dominance of artificial intelligence and their dependency.
- To evaluate the information from various accounting professionals by using questionnaire.
- To review and improve the workforce and changes to be brought in the dynamic environment.

4. SCOPE OF THE STUDY

This research aims to explore and analyze the use of artificial intelligence (AI) in the accounting and finance profession, which is of fundamental importance in shaping the future of these fields and the wider business environment. First, understanding the implications of integrating AI is essential for accounting and finance professionals to remain competitive and relevant in an increasingly digital world. Artificial intelligence technologies offer transformational potential to streamline processes, increase accuracy and enable real-time insights, revolutionizing traditional accounting and finance practices. By studying the use of artificial intelligence in these professions, stakeholders can identify opportunities to use the technology to drive innovation, improve efficiency, and better serve clients and stakeholders.

RESEARCH METHODOLOGY AND DATA COLLECTION

This paper can be differentiated into two parts. The first part mainly focuses on the artificial intelligence and importance of an accounting professional. All the information regarding to this will be collected using secondary sources such as webpages articles journals and research papers. This will be studied and only the required information would be extracted and tailored as per the needs.

The second part focuses on importance of employment in India in order to avoid the replacement of AI with employment, through a questionnaire opinions will be collected from various accounting professionals which will be floated across individuals. This information will be later evaluated and few statistical tools will be used for evaluation and according to research done and information collected conclusion will be provided and interpreted accordingly.

A. Data collection method

1. Primary Data

The primary data pertaining to this research will be collected using a questionnaire and it will be interpreted accordingly.

2. Secondary Data

All the information regarding to this will be collected using secondary sources such as webpages articles journals and research papers. This will be studied and only the required information would be extracted and tailored accordingly.

3. **Population:** Accounting and finance professionals around Karnataka
4. **Sampling size:** 50-100
5. **Sampling method:** simple random sampling
6. **Instrument for data collection:** Questionnaires will be used for data collection

B. Tools for Data collection

Surveys and online and web surveys, Research paper, journals and articles

C. Data analysis plan

The primary data collected will sorted and interpreted using excel. Graphical representation of reviews will be done using pie charts and bar charts. After interpreting findings will be given for each graph. There will also be a hypothesis study which will be conducted and according concluded The secondary data will be collected using internet which will be extracted and tailored according to the needs of the research.

D. Statistical tools for analysis

Graphs, hypothesis using excel.

5. LIMITATIONS OF THE STUDY

- This study focuses on small sample size of Individuals and businesses for data collection through questionnaire.
- This study does not focus on all the professions which will be affected by AI.
- This study is restricted to individuals and businesses only Karnataka.
- This study might not be useful for capital intensive countries.

5 FINDINGS

The emergence of artificial intelligence in the accounting and finance professions is a transformative trend that promises to change the way these industries operate. However, alongside the potential benefits, there are also concerns about attrition of professionals in these fields. A survey conducted to gauge respondents' sentiments revealed mixed opinions about the impact of artificial intelligence on accounting and finance jobs.

- **Negative Opinion(45%):** Almost half of respondents expressed negative feelings, citing concerns about job losses due to increased adoption of AI technology. This concern is understandable, as automation has historically changed job roles and responsibilities. There are concerns that artificial intelligence, which can automate routine tasks such as data entry, reconciliation and basic analysis, may render some traditional accounting and finance roles redundant. This sentiment reflects widespread anxiety in the workforce about the potential loss of livelihoods and the need to adapt to an increasingly automated environment.
- **Neutral feeling (39%):** A significant portion of respondents (39%) took a neutral stance, recognizing that the impact of AI on accounting and finance jobs may vary depending on its implementation. They point out that while AI has the potential to streamline processes, improve efficiency and create new opportunities for innovation, its increased adoption could lead to a changing role. This nuanced view shows the complexity involved and the need to carefully consider how AI is integrated into the accounting and finance workflow.
- **Positive feelings (14%):** Despite concerns about job losses, a minority of respondents (14%) expressed positive feelings about the rise of artificial intelligence in accounting and finance. They see AI as an opportunity to gain productivity and create innovation in their industry. By automating repetitive tasks and leveraging advanced analytics capabilities, AI frees up valuable time and resources, allowing professionals to perform more valuable tasks such as strategic decision-making, data interpretation, and analysis.

The survey results reflect a variety of opinions about the impact of artificial intelligence on accounting and finance jobs. While some respondents expressed concern about job losses, others recognized the potential benefits of AI in increasing efficiency and innovation. The mixed feelings highlight the complexity of the issue and the importance of attention and strategic planning to maximize the benefits of AI adoption while minimizing potential negative impacts on employees.

6: SUGGESTION

The role of accounting and finance professionals is changing as artificial intelligence increasingly automates routine tasks. Professionals must actively invest in learning new skills to stay relevant and competitive. This includes skills in data analysis, interpretation, strategic planning and advisory services to clients. Enhancing analytics capabilities enable professionals to extract valuable insights from data and provide strategic guidance and decision support to organizations. Additionally, cultivating expertise in client advisory services strengthens client relationships, positions professionals as trusted advisors, and adds tangible value beyond traditional transactional roles.

Instead of seeing AI as a threat to their profession, accounting and finance professionals should embrace working with AI tools and systems. By processing large amounts of data quickly and accurately, artificial intelligence increases human capabilities and leads to improved productivity and decision-making. Using AI technology, professionals can automate repetitive tasks, reduce errors, and focus on higher-value activities that require human judgment and expertise. This symbiotic relationship between humans and artificial intelligence fosters a culture of innovation and efficiency and drives continuous improvement in the profession.

7: CONCLUSION

The integration of artificial intelligence (AI) in the field of accounting and finance promises to bring about significant changes in traditional practices, increasing efficiency, accuracy and costeffectiveness. However, this transformative potential also brings with it a range of challenges and considerations that require thoughtful navigation by professionals and organizations. The emergence of artificial intelligence in these professions requires a fundamental paradigm shift that prioritizes the coexistence of human expertise and technical capabilities. One of the main promises of AI lies in its ability to automate routine tasks and free professionals from mundane and time-consuming tasks, allowing them to focus on more strategic initiatives. Through advanced algorithms and machine learning capabilities, AI can quickly process vast amounts of data with unparalleled accuracy, improving the quality and timeliness of financial reporting and analytics. By using AI-based tools, accounting and finance professionals can streamline operations, reduce errors, and accelerate decision-making processes, ultimately creating greater agility and adaptability in their organizations

8: EXECUTIVE SUMMARY

This is an attempt to know how the theories can be applied to practical situation. As a student of B.Com 6th semester, it is a part of study for everyone to undergo the project work at a good organization. So, for this purpose I got the opportunity to do my project work at ANKJ & ASSOCIATES on the topic "A STUDY ON USE OF ARTIFICIAL INTELLIGENCE IN ACCOUNTING AND FINANCE PROFESSION" This paper can be differentiated into two parts. The first part mainly focuses on the artificial intelligence and importance of an accounting professional. All the information regarding to this will be collected using secondary sources such as webpages articles journals and research papers. This will be studied and only the required information would be extracted and tailored as per the needs. The second part focuses on importance of employment in India in order to avoid the replacement of AI

with employment, through a questionnaire opinions will be collected from various accounting professionals which will be floated across individuals. This information will be later evaluated and few statistical tools will be used for evaluation and according to research done and information collected conclusion will be provided and interpreted accordingly.