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A Changing Role of Artificial Intelligence in the Function of an Accountant since Ancient Times in the Perspective of International Accounting Standard

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Abstract
Artificial intelligence (AI), with AI chatbots and product recommendation engines already in broad usage, is quickly becoming a part of more everyday corporate processes. Now, prominent accountants see how artificial intelligence changes company accounting. This study aims to know the use of AI tools in accountancy and their functioning. The primary aim of this study is to find out the ease that the accountants will have through the use of Artificial Intelligence tools.

As already noted, there are teachers and students from Delhi University. To safeguard the confidentiality of their information, the respondents claimed that they were anonymous. The study was carried out with 150 participants. Analyses were carried out using a quantitative, qualitative, or mixed technique. In the practical discussions of this study, qualitative research techniques are employed. Quality research was conducted by eight specialists who interviewed AI's effect on management accounting. Depending on the number of answers and the time available, the interview might take 7 to 35 minutes.

The semi-structured interview in the study revealed the implications for accounting students of false information and the actions of the Faculty. The Faculty Analysis also found that recognized Artificial Intelligence requirements in the Faculty.

Keywords: management**,** accountants, artificial intelligence, big data, cloud

Introduction

Artificial intelligence (AI) is quickly altering the way financial institutions work. It is projected to take over fundamental activities as cost reductions progressively, and operational efficiency becomes more apparent Dilek et al. (2015). Artificial intelligence (AI) has advanced significantly in recent years, "particularly as it applies to the accounting profession, which has shifted its focus from paper and pencil input to computer and software entry." Greenman, C. (2017). Artificial intelligence (AI) applications in accounting have a long history extending back more than 25 years, mostly in financial reporting and auditing. "The greatest danger of Artificial Intelligence is that people assume they comprehend it too soon. Artificial

intelligence (AI) is now used in almost all parts of accounting operations, causing experts to be concerned about the future use of human accountants in an organization's scheme of things. As per Yudkowsky, E. (2008), according to a 2015 study conducted by the University of Oxford, accountants have a 95% chance of losing their employment as robots take over data analytics and number crunching. However, Griffin O. (2016) pointed out that this same research revealed that some jobs are lost when technology advances while others are created. It indicates that artificial intelligence will make accounting services more efficient by reducing the profession's rigorous, laborious, and time-consuming character."

AI functioning in accountancy

"Artificial Intelligence (AI), Big Data, and Cloud have become the cornerstones of the Industry 4.0 era in recent years". Greenman C. (2017) suggests that new tendency has decreased the necessity for certain types of work, and the prospect of altering industrial structures has been substantially addressed. "According to PwC's Global Industry 4.0 Survey (2016), initiatives to adapt to Industry 4.0 will have substantial benefits across the board, including cost reduction, efficiency improvements, and profit expansion. For example, AI contains features such as Robotic Process Automation (RPA) and Deep Learning (DL), which will greatly increase computer processing power". A procedure that used to take a long time can now be completed in seconds (Frey, C. B., & Osborne, M. A. (2017).

According to PwC. Global Industry 4.0 Survey. 2016, these new technologies have already impacted a variety of fields. Piccarozzi et al. (2018) examined management literature on "the issue of Industry 4.0 and concluded that the Fourth Industrial Revolution led to the use of information technology in manufacturing and services in the private sector". However, this same research revealed that some jobs are lost when technology advances while others are created (Robson, K. (1992). It indicates that artificial intelligence will make accounting services more efficient by reducing the profession's rigorous, laborious, and time-consuming character.

According to Oldroyd D. (1995). "The introduction of new technology has also drastically altered the accounting process. Previously, most accounting procedures were done by hand or with just little computer use for bookkeeping Heeffer, Albrecht (November 2009). However, as ICT has progressed, technologies such as artificial intelligence (AI), cloud computing, and big data have become more extensively and actively employed in accounting operations. This study is referred to as the digital "transformation" of accounting." Willekens, M., &Lauwers, L. (1994).

Historical background of accountancy

Perks, R. W. (1993) and Makridakis, S (2017), in their study, discuss accounting's origins may be traced back to ancient Mesopotamia, and it is strongly linked to advances in writing, counting, and money. The ancient Egyptians and Babylonians had early auditing systems. The government possessed precise financial statistics by the time of the Roman Empire. Parloff, R (2016)

During the Mauryan Empire in India, Chanakya composed a text comparable to a financial management book. "Few details about keeping books of accounts for a sovereign state are included in his work Arthashastra. Luca Pacioli, known as the Father of Accounting and Bookkeeping, was the first to publish a book on double-entry

bookkeeping and bring it to Italy" Griffin, O. (2016.

In addition to previous studies, Greenman C. (2017) highlights that Scotland gave birth to the contemporary profession of a chartered accountant in the nineteenth century. Accountants were frequently members of the same professional societies as attorneys, "who frequently provided accounting services to their customers. Creswell, J. W. (2003) further discusses early modern accounting was quite similar to forensic accounting today". Local professional associations in England merged to create the Institute of Chartered Accountants in England and Wales in 1880, making accounting the first structured profession in the nineteenth century. Harmon, P. and King, D., (1985).

Present scenario

Al-Htaybat, K., von Alberti-Alhtaybat, L., &Alhatabat, Z. (2018) find out that today, without artificial intelligence (AI) solutions, as per Patton, M.Q. (1990), we can scarcely picture our existence. Automobiles have become real. Our smartphones can interpret words, write words, and offer advice in language. Indeed, AI has made enormous development owing to the untiring efforts of computer scientists. AI is advancing due to profound learning algorithms and significant data science from Deep Blue to Watson computing, AlphaGo, and DeepMind. Can teach these computers of the past generation via the idea of "software writing." The notion of AI originated in the fifties, but significant technological advancements happened later in the eighty-nineties. AI is applied to every method that enables computers to imitate human intellect and includes machine learning as a subset of it.

In nearly all accounting elements, the anxiety and nerves of accountant experts concerning human participation in accounting and financial concerns of a firm have now been integrated into artificial Intelligence. A 2015 research by Oxford University suggests a 95% chance of accountants losing their employment because of robots taking charge. At the same time, the same report also projected the addition of new job creation and the removal of others, thereby improving the efficiency and effectiveness of the artificial intelligence sector by removing the repetitive and challenging duties of its lack. The field of finance and accounts may substantially benefit from the introduction of AI instruments and approaches that allow jobs to be automated, increasing the analysis capacity compared to earlier, rapidly obsolete ways.

Benefits to the accountants

Automation in a process saves time, which contributes to the company's substantial value. It assists the firm in saving time for a more productive job by utilizing simple data processing methods and eliminating manual labor King, M., Lee, B., Piper, J. and Whittaker, J. (1991). The most crucial benefit of Automation for accountants is financial closure. Using a spend management software, for example, may help you control spending and other costs (helps the company track its fees and additional charges) Yap, C., Ryan, S., & Yong, J. (2014). An employee from a team might request payment by inputting the needed information, such as receipts, papers, etc. It all contributes to making things simple and quick, Brown and O'Leary (1994).

As time is saved, greater productivity may be achieved, allowing for more time with Automation. Accounting software can quickly report numerous ledger entries, ensuring that data is not mishandled. There are days when accountants have to dig through a big stack of paperwork in the storage rooms, and retrieving

and reviewing documents takes longer. But with modern tools, it's much better because Automation makes it simple to save, organize, and locate ledger items. Government tax offices and numerous businesses have reduced Hartherly and Fraser's (1991) Data storage on paper records.

Luo, Meng&Cai, (2018) in his paper say, data storage has become simple to do using digital methods or copies. Cloud storage has taken the role of USB sticks and floppy drives, giving remote access to software and information anywhere. It is always feasible to digitize a company's procedures with an IT system. Parham, P. (2014). A platform for accounting Payroll, for example, can be linked to expenditure management software. Permitting accurate and timely data integration from one area to another, RPA has the ability for business processes, IT processes, and workflow processes to be rethought. May keep the financial process and accounting systems simultaneously to make procedures simple on cloud storage.

Objective

- To know the use of Artificial intelligence tools in accountancy.
- To see the functioning of Artificial intelligence tools in the working of accountants.
- To witness the ease of work that accountants will have through AI tools.

Methodology

This study's theoretical discussions employ conceptual and constructive research methodologies. "The goal of employing these techniques is to hypothesize and build new conceptual frameworks that can subsequently be tested in practice. Similarly, one can observe how constructive theoretical discussion is utilized to generate practical new models or structures for questionnaire creation", with some reasonings being reused. Overall, the goal of the theoretical debate is to develop a qualitative understanding for use in real-world observation.

A quantitative, qualitative, or mixed technique approach has been used in a study. When analyzing research issues that need numerical data, quantitative research methodologies are utilized. This analysis quantifies the data and subjects "it to statistical analysis to refute or validate alternative research findings. A qualitative method or approach is one that is used to examine and better comprehend things in their natural surroundings, attempting to make sense of events or interpret them in terms of the meaning that people assign to them". Qualitative research, often known as the qualitative technique, is an exploratory approach for gaining the right viewpoint or comprehending underlying ideas, reasoning, and motives. It gives an in-depth understanding of the topic at hand or aids in developing hypotheses or concepts for quantitative research projects. The qualitative research technique is used in the practical talks of this study. "Eight experts were called for an interview about the influence of AI on

Accounting during the qualitative study. The interview can last anywhere from 7 to 35 minutes, depending on the number of responses and the available time".

Study Population

As mentioned above, the population consists of lecturers and students at the University of Delhi. The respondents stated to remain anonymous in order to protect the confidentiality of their information. The study has been conducted on 150 respondents.

The choice to choose the participants

An interview was held with eight accounting and management professionals. Five of the 8 experts are students with an MA in management accounting in the second year and three of them are faculty leaders, professionals, and senior accounting teachers. These experts were selected for the study because the requirements for the specified study were fulfilled. These experts are senior lecturers, academics, and professional accountants who fulfill the requirements for an expert with knowledge in theory and with more than 10 years of practice. Academic instructors have an average of 13-25 years of experience, whereas students have an average of 5-6 years of study experience. The specialists had been briefed beforehand, and the research project had been outlined to them. "Interviews took place at a location chosen by the interviewees". The goal is to eliminate distractions. The interview was terminated when the interviewer determined that no further information was required.

Data Collection

As a data collecting technique, a semi-structured questionnaire was created and employed. Three qualitative interview elements have been proposed. These are casual interviews, standardized, open-ended, and guided interviews. Even if the form and format of the questionnaire differ from each of these qualitative interviews, the replies to all the interviews are in line with the choices provided by the interviewer, which remain open and unrestricted. Both taped audios and conventional note-taking were recorded from the interviews. The responders were accounting professionals with extensive expertise and "exposure in my field of study, and they held respectable positions at the University of Delhi, including head of the department, dean of students, senior lecturers, and students". The interview lasted anything from 10 to 20 minutes on average. The interviewees were contacted, and the date and time of the interview were confirmed. For optimal audio recording, the interviews were done in a peaceful atmosphere free of distractions and impediments. Face-to-face interviews were chosen because they offer more flexibility than other interview methods. Because of the intricacy of the questions, the sensitivity of the subject matter, and the length of the interview, a face-to-face method was chosen for this study. The respondents or interviewers were given advance notice of the objective of the interviews, which allowed them to fully prepare and react quickly to the questions. During the interview, respondents were also given the chance to suggest fresh ideas that may assist solve the challenges at hand. For adequate analysis, the interview replies were codified, written, and verified.

Results and Discussions

The majority of students are aware of AI through seminars, AI-related accounting courses, journal publications, and the internet, according to the students' results. This demonstrates that the pupils are aware of the trend and its worldwide implications. According to the survey, the majority of students are eager to learn and use AI skills and expertise. The majority are ignorant of the need to develop and use AI skills and expertise.

The majority of the students have also attended accounting courses linked to AI. Furthermore, the majority of students have little experience in database management. This issue must be addressed in order to adequately equip pupils. According to the data, the majority of the students have attended faculty-led AI seminars. This demonstrates that

students are interested in learning more about artificial intelligence (AI) and its implications for the accounting field. According to the findings, the majority of pupils have learned the fundamentals of database management.

The survival of the accounting profession is still undermined by artificial intelligence. “It disrupts accountants with many years of training and expertise. Generally, people and organizations”, due to their comfort in the way they do old things, prefer to reject or oppose change. The fact is that for those who are ready to pay the price by obtaining the information and skills needed is the future of technology. Preparation is achieved by gaining the proper skills and information for the future. “This will assist people, organizations, and institutions in remaining relevant in the changing times and gaining a competitive advantage over their competitors in the twenty-first century and beyond”.

The semi-structured interview from the study identified the consequences of fake information on accounting students and the actions taken by the faculty. Faculty analysis also indicated that the Faculty acknowledged AI requirements. A study indicates that academic institutions' offered accounting programmes need to be refurbished in order to fill the gap between academic accounting studies and professional careers, so that graduates can work ready to meet the employer's needs and help to reduce the shortfall in the accounting profession.

According to a faculty analysis. AI is integrated in the accounting curriculum. “The integration of AI into the management accounting education of external and internal impact experts from the academic world must be sufficiently motivated”. According to King and Whittaker (1991)Changing the curriculum is exceedingly challenging, particularly in the areas of microcomputer integration. Their aversion to changing their curriculum is also investigated. They stated that two approaches to make AI knowledge recognized and relevant to academics are to disseminate important information about AI and to provide practical examples of its effective usage in the business sector. “According to faculty comments, while there are some excellent textbooks that bring AI into accounting, there aren't nearly enough that combine AI with management accounting”.

According to (Yap, Ryan, and Yong, 2014), improvements in accounting education are needed to meet the needs of businesses, educate students for market demands, and help them thrive in a changing environment. Business organizations in today's world want experts who have learned new skills that are in accordance with current expectations. It is the responsibility of academics to be aware of the situation ahead of time and to provide proper instruction to their pupils. Other instructional texts recommended as supplemental materials for AI coverage in accounting are Brown and O'Leary (1994). Faculty awareness and motivation were demonstrated through seminars, according to an analysis of faculty responses.

According to a study performed by Hatherly (1988), “accounting students should get familiar with expert system skills since they are highly valued in the accounting industry. Faculty research indicates that there is insufficient competence to influence students with AI knowledge and abilities”. According to Luo, Meng, and Cai (2018), university communities must continually assist instructors in improving the quality of their instruction. “Teachers must keep up with the latest developments in international financial standards in the accounting field. This will assist teachers in bringing accounting classroom and practical instruction up to date

as time passes". Only by striving to enhance their teaching skills will teachers be able to generate ready-made accounting students who can compete in global job markets. According to student surveys, the majority of them are willing and ready to learn AI capabilities.

A small percentage of students are hesitant to apply AI knowledge and skills. The majority of students are familiar with AI because of lectures, journals, and the media. In addition, "the majority of the students had studied AI-related courses during their undergraduate studies, according to the research". Students, must assess abilities that will be useful in the future. Students must have strong writing and vocal communication skills, as well as decision-making, motivation, financial analyst, and professional judgment. Furthermore, the majority of pupils have gained fundamental database administration expertise, according to student study. Many accounting firms are seeking a management accountant that is comfortable with technology, inventive, and creative, as well as open-minded. They must also have the ability to use technology to deal with the data that is accessible.

Conclusion

The conclusions point to the fact that the faculty integrated AI in the accounting curriculum, good AI and accountancy textbooks but the lack of textbooks that combine AI with accounting management, awareness of AI in the seminars and related AI (AIT) courses, the availability of teaching expertise and impact on AI students. A review of the teaching information reveals that the faculty has a good part to play in impacting the AI's qualifications and expertise. However, based on the information obtained, more seminars should be held to educate students, more teachers should be assisted in gaining AI knowledge, and textbooks that integrate AI and management accounting should be enhanced.

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