

“ARTIFICIAL INTELLIGENCE AND ACCOUNTING PROFESSION”

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Abstract:

In order to make better decisions accounting professionals use their financial expertise and accounting knowledge to carry out business and help the shareholders. They require financial as well as non-financial related information to support their decision-making. This is generally shown in a broad array of accounting roles across trade and industry to acquire, organize, ensure and exchange information, to do analysis, and to carry out decision making process for trade and business. The paper tries to study the impact of AI on computing and accounting work; to study the impact of AI on the financial market; and to find out how accountants face the impact of artificial intelligence. The paper concludes with the fact that the system of AI is advancing very fast and can be proved powerful. The output provided by AI is more accurate which replaces the human efforts. But AI cannot imitate the intelligence of human being. There is a need to identify the power and limitations of AI and understand the efficient ways where machines and human beings can work hand in hand.

Key words: Artificial intelligence, robots, accounting, machine learning

INTRODUCTION

Artificial Intelligence leads to the increase in the capability of accounting as well as computing to new height. It makes the computers capable to carry out machine oriented work which earlier was carried out by human beings. In accounting profession where accountants deal with similar work, AI replaces the human expertise which leads to better output. In the coming years to come, AI will acquire tasks especially decision oriented from human beings. Now the accounting professionals need to focus on the key business related problems to solve and see in which manner new expertise can alter the approach.

In fact, as per leading research firm, Gartner, Artificial Intelligence is set to create more jobs than it will replace, leaving workers, including accountants with options. In so many ways, artificial intelligence will help accountants to improve their services and this technology will improve the data entry accuracy and lower the liability risk for accountants.

Accounting Problems:

In order to make better decisions accounting professionals use their financial expertise and accounting knowledge to carry out business and help the shareholders. They require financial as well as non-financial related information to support their decision-making. This is generally shown in a broad

array of accounting roles across trade and industry to acquire, organize, ensure and exchange information, to do analysis, and to carry out decision making process for trade and business.

Accounting Professionals generally use expertise and technology for several years to assist themselves in making better advice and decisions. AI technology can assist them to do this phenomenon by resolving 3 wide problems:

- i. providing accurate data to enable decision making process;
- ii. creating new awareness from the data analysis; and
- iii. getting more time to do other important work i.e.:
 - process of decision making,
 - process of problem solving,
 - work related to strategic development,
 - advising,
 - building of relationship and

Finance Jobs And Functions:

a) Potential for Artificial Intelligence Growth

- Accounting
- Auditing
- Investment advisor
- Compliance
- Fraud detection
- Quarterly close
- Intercompany reconciliations
- Earnings reporting
- Financial analysis
- Reporting
- Interpretation of financial statements

(b) Potential for Human Growth

- Financial engineering
- Fintech
- Financial operations and analytics
- Business strategy and planning
- Financial data science

REVIEW OF LITERATURE

The first step is to differentiate similar tasks and non similar tasks. Jobs that require critical thinking and human contact will not be automated soon (Oschinski et al., 2017). These occupations need high-level creativity and training. Jobs that generally consist of similar work don't need any degree of higher education and only little human interaction is needed compared to non-routine tasks. Non-routine tasks can be divided into manual occupations and intellectual occupations. Manual occupations generally require lower qualifications than cognitive jobs that generally require a high level of education (Oschinski et al., 2017).

Herbert et al. (2016) explored the possibilities for transforming the way professional work in the future, by using automation. The study describes that since automation is used to eliminate similar work, it will allow professionals to concentrate on creative work as well as on unstructured job that require assessment skills. While focusing more on creative, non-structured tasks, the value of the accountant's contributions will increase. Kim et al. (2017) examined the comparative jobs that are vulnerable to become computerized in near future and concluded that jobs that require less or no creativity or intricate guidance (routine occupations), are most likely to be replaced. Jobs that require critical thinking and human contact will not be easily automated. These jobs need high creativity and skilled training. Cole et al. (1992) published an article describing the benefits of automation. According to the authors, automation might eliminate some tasks and by reducing the number of employees the labour costs of the company will decrease. The system could be useful in situations where a human intervention is costly or in situations where a human expert is not available.

METHODOLOGY

The research objectives are:

- To study the impact of AI on computing and accounting work;
- To study the impact of AI on the financial market;
- To find out how accountants face the impact of artificial intelligence

Area of Study

The paper is not confined to any particular area; but it is relevant to whole World. The opinion of experts of artificial intelligence in Districts Moradabad and Bijnor in the state of UP has been studied about the relationship between artificial intelligence and accounting. The opinion of these experts has been included in this research paper. The study also includes the references of few research papers written by authors on artificial intelligence.

RESULT

Artificial Intelligence: Impact on Accounting Work :-

In the age of AI, traditional accounting professional will leave a few more complicated tasks to the accounting software to complete, thereby improving the working efficiency, reducing the working error, enhancing the competitive strength of the organisations, this will also be conducive in promoting the transformation of the accounting work.

- 1) **Avoiding financial fraud:** In old age accounting process, unsuited posts are not separated, particularly in medium and small organisations. Financial professionals will have access in both cash flow and the bookkeeping, so there were chances of disorder accounts in financial accounting, and of course financial fraud, self-serving criminals are given the chance to benefit themselves. In the era of AI, majority of accounting related work will be acquired by computer; accountants have to verify and confirm it. On the last day of the accounting period, the computer system will settle the bill automatically & get ready the Trial Balance. Every accounting professional has its own corresponding privileges, a clear separation of responsibilities, and has different Id and passwords, in order to ascertain that financial frauds are reduced. However, the financial frauds cannot be removed completely, because any system has to be controlled by people, eventually the settings of permissions are done through people. But artificial intelligence can reduce the financial frauds to a great extent.
- 2) **Improve the quality of accounting information:** In the traditional accounting process the accounting personnel have to check all the procedures such as making of accounting vouchers, registration of accounting books, formation of statements, etc. This results in engagement of lot of executives, infrastructure and finance, also efficiency is low, tasks won't be finished in time. When an organisation uses accounting software to do accounting, all financial tasks can be completed in time, which improves the efficiency of the work. Financial personnel only need to do the audit in the accounting system. Also accounting personnel only need to input data, then leave the process to the computer to complete, even if wrong data is entered by the accountant the accounting software will automatically report the error, which will greatly reduces the working error and improve the quality of accounting information.
- 3) **Promote the reform of traditional accounting and auditing:** In the traditional accounting system, the job duties of accounting professionals are divided according to the business process, but under the system of artificial intelligence, artificial intelligence will take the place of traditional accounting and auditing work, which will improve the work efficiency to a great extent, change the method of separation of traditional accounting and auditing work. This leads to improvement in the quality of work and ability of the accounting personnel.

Accountants Face the Impact of Artificial Intelligence:-

Though artificial intelligence cannot replace the accounting to a great extent, there is a need of an hour that accountants should respond actively to the impact of artificial intelligence. Accountants should keep themselves updated in order to improve their professional skills.

- 1) **Professional Ability:** An accountant must possess the professional ability relating to accounting, financial statements and taxation. Lack of professional ability results in low quality of work. Therefore, accountants should keep learning and be updated in order to improve their abilities.
- 2) **Computer Skills:** Cloud computing is the hallmark of present period of Big Data. The computers' magnitude has been reflected in the past paper accounting, the present paperless office and the computerized accounting. So, in addition to some simple computer operations, accountants must be an expert in certain computer programming techniques so that their own data processing capabilities can be enhanced.
- 3) **Management Skills:** In the short term, learning management skills may not have much effect on accountants but accountants will realize its significance when they take on positions of financial manager or higher level.
- 4) **Decision Making Ability:** During the work financial personnel is responsible for financial management based on the economic environment of the country or the region and determine the condition of the competition, coupled with its own finances. The decision making ability provides reference for organisation's short-term and long-term project decisions.
- 5) **Analytical Capability:** Accountants can analyse lot of financial information through the accounting statement. Therefore, it is very important to analyze and evaluate risks reasonably and accurately. Financial statements analysis such as Cash Flow Statement, Balance Sheet, Income Statement, annual reports is an order of a day. Accountants should know how to analyse and interpret the data.
- 6) **Prediction Ability:** This ability deals with the cost of overall planning, fiscal and tax capacity, etc. Here, the financial manager monitors the cost, provide valuable advice to reduce the cost of operations and predict the future economic trend and degree of risk to the organisation.
- 7) **Thinking Ability:** This ability deals with reducing cost for the organisation such as, avoiding tax liability, improving the efficiency in utilizing the funds and so on.

In general, the basic accounting personnel and the entire accounting industry should take the following counter measures in the future:

- 1) **Adapt to the changes of computing and accounting work situation:** Now in the reign of AI, robot can efficiently and accurately provide a huge financial data, for which the accounting staff requires the financial analysis skills. Also the computer can extract huge

amount of data which is to be identified for the organisation's future development. Therefore, the accountants must cultivate the ability of management analysis, actively engage in economic activities, strengthen the awareness of enterprise management and provide constructive suggestions to the organisation.

- 2) **Adapt to the development of information:** It is a fact that the application of artificial intelligence will make the work of accountants more valuable, rather than doing the simple accounting work. Accountants must possess the ability to quickly learn and accept new knowledge and make full use of artificial intelligence. They should keep in mind that the development of science and technology is inevitable. On one hand, the use of robots is very much beneficial to the development of the accounting profession, on the other, the accounting industry also need the assistance of AI in the process of its development.
- 3) **Adapt to the Advancement of Technology:** Due to rapid growth of artificial intelligence, need for interdisciplinary talents has been greatly increased in the accounting industry. As accounting personnel, one should know how to use artificial intelligence along with acquiring corresponding ability of financial data analysis and be an expert in relevant knowledge of the business.

DISCUSSION

Accounting Tasks Which Machines Can Do

Artificial intelligence helps in relieving human beings from difficult work as well as assisting businesses in improving their activities. Accounting professionals who accept the up to date innovations in science and technology will be able to gain proficiency that makes them precious in the changed business environment.

- 1) **Periodically procedure of closing:** As soon as the financial data is received, the sufficient time the organisation has to work on strategic development regarding dealing with the financial data. Artificial intelligence can help in collecting financial data from diverse means which is consolidated and merged by it. This will lead to the speeding up the periodic process as well as more accurate because of use of scientific machines.
- 2) **Buying Process:** The buying method of various organisations involve lot of paper work and involvement of variety of formats which are generally incompatible. However, artificial intelligence helps in the integration and processing of unstructured data. This leads to the buying process becoming easier and paperless. Also, executives can easily track the ups and down in the prices among the multiple suppliers.

- 3) **Accounts payable/receivable:** Artificial intelligence with the help of powered invoice management digital workflow process make accounts payable/receivable process more streamlined with the help of accounting code of the particular invoice.
- 4) **Audit Process:** Artificial Intelligence helps in identifying which file was opened by which professional and at what time. This leads to securing the files and data in the computer. Audit professionals while auditing can have an access to the files which are digitally managed so while documentation, there is no requirement for searching the file cabinets This leads to the efficiency and accuracy of the audit work.
- 5) **Management of Expenses:** Previously it took huge time in verifying and approving the expenses of the organisation as per the policies of the company. With the help of Artificial Intelligence it is easy for computing machines to verify receipt and payment and notify concerned people in case of breach.

Artificial Intelligence: Impact on Financial Market

As per the applications of AI in different business value chains of the financial sector, we see three main types of impact of artificial intelligence on the financial job market:

- 1) **Job Cuts:** In existing positions artificial intelligence may be able to replace some aspects of the work. If core value creating activity is manual work that can be carried out by artificial intelligence, then the various job positions can be replaced by artificial intelligence and existing executives/employees can be shifted or transferred to supervision, management or other positions. So, now the accounting professionals should be updating and training ahead to avoid the risks of outdated.
- 2) **Job Creation:** While artificial intelligence replaced some jobs, it also creates a large number of jobs in development, operations and applications. Artificial intelligence will create three types of new jobs such as:
 - Technical Positions – System architects, data scientists, algorithms and system testers, development engineers, etc.
 - Operational Positions – Operations and maintenance of systems related to big data, ensure consistent quality product, legal and business compliance.
 - Business Jobs – Business development specialists, positions involving combinations of technology and business activities.
- 3) **Increasing efficiency of existing job posts:** When a work cannot be replaced by artificial intelligence, and artificial intelligence mainly plays an auxiliary role, then the position will not be replaced and artificial intelligence will mainly help reduce working hours and thereby improve efficiency.

CONCLUSION

The widespread adoption of artificial intelligence is in early stage with reference to accounting and computing, although machine learning is old, and the speed of change is rapid. There is a need for building a positive attitude for deep understanding of the working of AI and how it can resolve business tasks especially accounting work.

The system of AI is advancing very fast and can be proved powerful. The output provided by AI is more accurate which replaces the human efforts. But AI cannot imitate the intelligence of human being. There is a need to identify the power and limitations of AI and understand the efficient ways where machines and human beings can work hand in hand.

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