IMPACT OF ADVANCED TECHNOLOGIES ON THE ACCOUNTING SECTOR IN DEVELOPING NATION: EVIDENCE FROM FIJI

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ABSTRACT: *The emergence of advanced technologies (blockchains, machine learning, data mining, cloud computing) in Fiji's accounting sector have revolutionized how accounting works. It has increased data accuracy, human efficiency, enhanced real time data exchange and risk management and reduced costs. However, there have also been some negative impacts such as redundancy of basic accounting roles, increased data security threats, increased set up and training costs. This study examines the positive and negative impacts of adoption of new technologies by the accounting industry in Fiji and puts forward some recommendations on how these challenges could be effectively addressed so that, rather than being perceived as a threat, humans' partner with these software and tools to reap the maximum benefits. Practical Contribution: The findings help stakeholders to implement effective business strategies to enhance positive impacts and mitigate negative impacts of advanced technologies especially in developing nations. Theoretical Contribution : This research contributes an empirical study to the literature on advanced technologies and accounting in developing nations.*

KEYWORDS: Advanced technologies, Accounting, Industry, Threats, Risk management, Developing nation.

INTRODUCTION

Financial accounting is defined as the process of recording, summarizing, interpreting, and reporting financial transactions and events of an organization (Schroeder et al., 2022). It has traditionally been considered a slow-paced industry. In the last decade, the swift and accelerated growth and progression of advanced technologies have permeated and disrupted almost all the industries (Hecht, 2018), among the other sectors such as hospitality, logistics, finance, healthcare, transportation, food etc. Accounting industry has also witnessed a profound impact on how the accounting industry operates. With the adoption of Enterprise Resource Planning (ERPs), the accounting systems saw dramatic changes. Similarly, accounting has wholly embraced the new advanced technologies coming year after year. These include robotics, artificial intelligence, machine learning, block chain technologies, cloud accounting etc. From automated data entry to auto-generation of reports and tax workflow automation to streamlining of accounting information using cloud-based software, accounting data and decision making have never been this accurate and effective. By handling and managing the repetitive tasks on their own, advanced technologies have freed up the workforce for focusing and performing the tasks that require additional analysis, advisory and consultancy. The producers and users of accounting data can access the accounting information of an organization and can access the information whenever and wherever they want, making data readily available. While the overall impact of the new advanced technologies on the accounting industry has been favourable, there have also been some adverse impacts. Higher training costs associated with learning new technologies, redundancy of older technologies, security threats, and the need for regular upgradation of skills by accountants are some notable negative impacts. Thus, to explain these debates this article aims to examine both the positive and negative impacts of the emerging technologies on the accounting sector in Fiji including accounting skills and roles.

LITERATURE REVIEW

Accounting industry today now has the capability of unmatched levels of accessibility as well as data exchange because to technology. Accountants can get all the data required for accounting purposes from the client without even contacting them. Blockchain, a decentralized ledger, is used by accountants to maintain details of financial transactions and events amongst multiple computers for authentication. It changes how they keep client accounting data for evaluation (Schmitz et al., 2019). The blockchain offers an inexpensive, decentralised accounting procedure with the ability to significantly enhance standard accounting operations. It has transformed accounting by making it easier to track transactions, retain documentary proof and create a safe atmosphere for managing corporate operations (Abdennadher et al., 2022). The automation and simplification of accounting processes related to legal reporting obligations is also made possible using blockchain technology. The activities that need to be undertaken by the accountant shift because of distributed ledger technology, moving away from the increasingly time-consuming and standard documentation and drafting of financial reports, into the assessment and validation of the original records and the execution of smart contracts (Secinaro et al., 2021). Another development that has transformed the way external and internal audit services are provided is cloud-based accounting. Cloud accounting enables several users to gain access to secure web-based or off-site files (Khanom, 2017). Users have an instant understanding of the business's present financial standing rather of having to look

over past records which may be weeks, or even months old. When assessing cash position, budgeting for upcoming expenses and significant capital asset choices, this up-to-date information and insight of accounts is essential. This enables enhanced planning, oversight, and reporting. Big data clearly enhances the precision of forecasts and decision-making processes (Westland, 2018). A huge quantity of raw accounting information can be transformed by data visualisation programmes into understandable information that helps assist in the process of making informed and sound decisions. It helps to find trends and patterns in the past data that is invisible to the naked eye (Hoelscher & Mortimer, 2018). Machine learning is used in management accounting to help categorize events under the purview of the function control (Zhang, 2021). It enables the categorisation of transactions to be expected by using historical transaction analysis. But the dataset's quality and built-in prejudices determine how reliable the predictions are (Cockcroft & Russell, 2018). Accountants and data scientists should work in collaboration. Accountants should be at the forefront of evaluating both structured and unstructured information that is focused on solving problems and to assist data scientists in generating benefits through interactive study of data (Richins et al., 2017), as they have extensive knowledge of business, experience with analysing and dealing with well-organized information. Similarly, accountants are well-versed with the financial data and know the source of their generation, they can construct reliable data mining and analytics scenarios, analyse the outcomes, and draw judgements from them (Pickard & Cokins, 2015). Highlighted about the preventative mechanisms to detect financial statement fraud and proposed that data mining software act as an effective solution (Segal, 2016). From being known as the boring guys sifting through spreadsheets all day long, accountants can play a strategic role in their organisations by assisting them in being highly data driven. This article aims to explain the relevant impacts of advanced technologies with respect to the developing nations.

METHODOLOGY

Research Design

Quantitative or qualitative methods are common in secondary research. The information gathered from peer-reviewed articles that have been published, meta-analyzed, or public or private databases and datasets (George, 2023). To discover new meaning, describe what already exists, ascertain how frequently something occurs, and/or categorize information, descriptive research must provide an accurate portrayal of the characteristics of a specific person, circumstance, or group (Dulock, 1993). The secondary research approach was utilized to gather data in this study. The availability of secondary data were online data, public data, government data, academia data and published data. The primary mode of research was personal experience and observation.

Data Collection Methods

The following methods were used to collect data for this study: Online sources, government sources, published sources and academia sources. Textual data format was used to organize the data.

Data Analysis

Narrative analysis techniques were used to analyse the data. Although data were collected from secondary sources, personal experiences and observation contributes to the relevance and reliability of the data.

RESULTS AND DISCUSSION

In the past, there was a lot of documentation produced by the manual handling of financial information. Most accounting data is being recorded using computers and wide area networks. The face of accounting has undoubtedly altered because of technology. It is uncertain if technology has had a beneficial or bad impact on accounting, but it is obvious that technology has fundamentally altered the accounting field. A technical advancement is frequently both an asset and a liability for the company's accountant. For instance, information can be sent more quickly and accurately, but at the expense of secrecy. Some of the effects of technology are merely changes rather than good or negative effects. Technology has essentially had three effects on accounting: positive, negative, and neutral. However, each effect requires the profession to adapt to the new reality. The numerous tools that technology has produced are clearly a benefit. These are only a few attitudes of numerous technological devices whose goal is to deliver more thorough and accurate information quickly. Thus, this study describes the relationship between technological advancements and changes in the accounting industry.

Positive impacts of new technologies on the accounting industry in Fiji.

I.   Enhanced Accounting Accuracy

The appealing attribute of automation is that they rarely make minor computation mistakes. Accounting software allows for the quick creation of countless entries in the ledger with little chance of data manipulation. Users only need to feed the software the data and in turn, the software prepares all the necessary reports or financial statements at the end of the time. In contrast, the traditional accounting system requires manual preparation of reports, increasing the chances of making errors.

II.   Minimize frauds.

Emerging technologies are fully incorporated into the business's thorough risk management and compliance structure. Transferring a significant portion of accounting work to computers reduces human involvement and thus frauds. The price of services and products is determined using verification method based on AI, increasing the competitiveness of the purchasing process. Based on the sector and the requirements of the company, analytics are employed to inspect for bid manipulation, duplication of bills, travel costs, memberships, and others. Data visualisation aids in identifying signs of dishonest behaviour in transactions, whereas data mining is applied in identifying red flags of acquisition fraud, dispositions towards collusion, and misleading data.

III.   Auditing

Facilitate and provides relevant information for internal as well as external audit. Auditors utilise the data techniques used in risk assessment and controls testing, to arrive at decisions

and judgements. When there is no connection between the corporate systems where the data is stored, robotic process automation (RPA) is utilized to gather evidence for auditing. The level of accuracy and efficiency of audits are currently being redefined by automated devices.

Negative impacts of new technologies on the accounting industry in Fiji.

The new advanced technologies have changed how accounting tasks are carried out. The adoption of modern technology in the accounting sector has improved several processes. But, despite these advantages, the use of advanced technology in accounting has some drawbacks.

I.   Redundancy of previous technologies

Rapid technological advancements render the systems obsolete. The outdated accounting systems perform worse than the older ones, making it challenging to keep using them. The regular upgradation to the latest technology comes with additional expenses, leading to reduced profitability of an organization. It is a challenge to transfer the data from the prior system when transitioning to an entirely new accounting software.

II.   Limitations of Automation

Automation allows transfer of data in the form of payments and invoices automatically to many users simultaneously. Although it reduces time, if data is supplied incorrectly at one level, the errors build up in the following level.

III.   Security Threats

Softwares store the data and information in the electronic form, which is convenient to store and retrieve, given the large volume of data. On the other side, the accounting system is susceptible to cybercriminals if the network's safety measures are not sufficiently thorough, which lead to the leakage of sensitive financial data and trade secrets. Similarly, the unlawful access of accounting data during information exchange may have serious repercussions for the firm or the client.

IV.   Impact on accounting jobs

It is obvious that incorporating advanced technologies in accounting procedures has the potential to drastically transform the accounting tasks. Certain actions which are usually carried out by an entry-level accounting professional have become fully automated. These include purchasing, billing, order entry, reporting on costs, accounts payable, and accounts receivable. Since simple accounting activities are automated, new advanced technologies put entry-level accountants at risk of getting redundant. This results in the reduced demand for fresh accounting graduates. According to projections, at least 50% of the service that accountants and other professionals perform can be automated using the technology available at the present, and another 15% can be automated using new developments in technology.

CONCLUSION AND RECOMMENDATIONS

New technologies in the majority of the accounting sector in Fiji have revolutionized the way the accounting industry works. From blockchain to robotics and machine learning to data mining, the benefits have been tremendous. It may make some basic accounting roles redundant, but the accounting profession will stay in demand as always. The overtake of mundane and repetitive tasks by these technologies have reduced costs and freed up time for accounting professionals to focus more on analytical tasks that need real problem solving and human judgement skills. Programming and data analytics are crucial for professionals to keep themselves in demand and relevant. In addition to crunching numbers, the future accountant needs to be skilled in new software and applications to increase efficiency. Additionally, to better prepare graduates for successful careers, the accounting curriculum needs to be reviewed and new courses adapted to learning new technology introduced.

The emergence of advanced technologies and its subsequent adoption by various users to increase efficiency, reduce time and costs, has transformed how various accounting tasks are carried out. The benefits of the new technologies in the accounting sector clearly outweigh some of its drawbacks. Therefore, the following recommendations should be adopted to address the challenges and negative effects that come with the application of technology.

Upgradation of skills

New technologies will automate the mundane and repetitive accounting tasks carried out by the accounting professionals at the lower levels. They have transformed the existing business models. For entry level accountants to stay in demand and relevant in the accounting industry, they need to keep up with the latest technology. They are expected to acquire programming and data analysis and learn to work with the new tools to get the maximum benefits from these software and applications. Developing strong analytical and problem-solving skills will aid accountants to focus more on the complicated tasks that need human judgement. Even though the auditor's position regarding verification is diminished, the importance of judgement, oversight, and vision will increase. Auditors should therefore concentrate on comprehensive review, risk evaluation, predictive auditing, and identifying fraudulent activity in the light of advances in technology.

Enhanced Security

Since most of these technologies need to be conducted over the internet, corporations should invest in setting up strong security measures to prevent their systems from cyber-attacks and information theft. Preventive measures are the foundation of the best defensive techniques. Corporations must set up backup systems that recover and restore data in the real time. It is a recommended practice for businesses to establish separate accessibility of data, both digital and actual, within the framework of the usual control procedures.

Introduction of new technologies in accounting curriculum

Most of the educational institutes and accounting bodies in Fiji have not yet introduced courses related to advanced technologies that are pertinent to the accounting studies. The traditional practice of imparting accounting education continues. Educational institutes should change their mind-set and implement courses that include these new technologies. This will result in

the employment of ready accounting graduates, who can take on the challenges of advanced technologies.

Limitations

Limited sample size.

Data availability Statement

The participants of this study did not give written consent for their data to be shared publicly, so due to the sensitive nature of the research supporting data is not available.

Conflict of Interest

The author declares no conflict of interest.

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