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INFORMATION TECHNOLOGY AND THE ACCOUNTANT TOMORROW: What Can We Expect?

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ABSTRACT

Technology has affected the norm for accountants in recent years and this is evident in their ways of doing things. This paper reveals that traditionally, accountants are responsible for reparation and presentation of financial statements, and to achieve this, a lot of tasks are carried out by Accountants throughout the accounting process. However, with the emergence of IT in the form of hardware and software, accountants now prepare and present financial statements more timely and accurately, while the existence of internet has also increased access to financial reports by external users. This paper further argues that as a result of the continuous advancement in technologies, accounting functions in the nearest future are likely to; be cloud-based- i.e. accountants will beeffectively harnessing the potentials in cloud computing for achieving accounting and auditing tasks; communicate with and through machines- i.e. artificial intelligence; invest in the big data and cyber security- as data will become increasingly vital; and explore virtual reality and augmented reality in meeting users' information needs. Hence, accountants and accountancy firms are advised to start investing big in IT knowledge, skills and tools, become highly cyber-security conscious, keep up with technological trends and relate with IT experts in order to remain relevant and competitive.

Keywords: Accountants, Information Technology, Cloud Computing, Artificial Intelligence and the Big Data, Virtual Reality and Cyber Security

INTRODUCTION

The emergence of technology and its continuous advancements has been a game changer in the field of accounting as reflected in theory and practice. The potential capabilities of these technologies and how pre-defined business routines, accounting and auditing tasks have been digitalized has compelled us to dance in the uncertain direction of the trends. First was the emergence of computer-enabled software that could handle some of the tasks of accountants such as payroll, invoice generation and disbursement and large payment systems. However, recent breakthroughs in the digital world have created the platform for digitalizing every aspects of the daily routine of accountants and auditors around the globe. When applied in the field of business in general and accounting in particular, precisely, these technologies impose major changes in the routines of accounting information systems (AIS) such as methods of data collection, processing and report. It may also affect the elements of these systems by addition, dispensing or modification, especially accounting information systems.

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The accounting profession has changed a lot in the past few decades, especially following the introduction of technology. Technology has changed the traditional system of accounting which was previously characterized by series of paper-based processes that take longer periods to effectively and efficiently complete into an entirely new IT-based model that gets the job done more effectively, efficiently and timely. Today, technology has successfully penetrated all parts of the business world and there is hardly any aspect of business that has not be automated, such that, as simple as placing an order for materials required for production, the use of technology in this aspect has automated the inventory control system and hence, machines now independently place orders at certain re-order levels even without frequent intervention from management (Ghasemi et al., 2011). This and many more file-related worries of Accountants have been completely erased by technologies today and these technologies are still evolving, which raises a lot of questions about the position of accountants in this technological age.

Traditionally, accounting is the art of recording, classifying summarizing and reporting information (in terms of money, transactions and events), and interpreting the results in a manner that will facilitate decision making by users (Dandago and Rufai, 2013). Accounting has also been perceived as an information system that measures, processes and communicates financial information about an economic entity (Ballada and Ballada, 2011).The accounting system works in cyclic manner, collecting information about transactions and events through various documents issued and received. These documents are traditionally referred to as source documents, carrying information that accountants collect and compile into the yearly financial statements that are used for decision making by internal users (i.e. management and employees) and external users (Hall, 2008; 2013). However, traditionally, this process encompasses a lot of activities that requires time to complete, and the fact that organizational operations are continuous makes the task of accountants even more demanding. Furthermore, apart from providing information for external users, accountants are also obligated to provide information for internal consumptions. One can begin to imagine how cumbersome the traditional or file-based accounting system would have been.

When we talk about technologies, it is important we demystify the concept to facilitate its contextual usages. Technologies are either in the form of hardware (i.e. physical devices through which accountants input data, process the data and obtain information in form of reports), or software (i.e. computer programs installed into the hardware to enable accountants to perform their tasks effectively and efficiently). The advancement in technologies generally covers both hardware and software. However, the rate of advancement in software technologies is faster given that software development depends more on skill and not capital. Accountants today depend on both hardware and software technologies to carry out major accounting functions and ensure timely reporting.

Today accountants are exploiting emerging technologies to help them complete their tasks more effectively, efficiently, accurately and timely, from the incised clay tablets of the Sumerian scribes, through the adding machines of the 19th century, to the calculators and computers of the 20th century. However, all these technological developments were simple propositions by comparison with the well sophisticated current technologies that are now rapidly reshaping the accounting profession in general and accountants in particular. Accountants in practice are now changing the ways in which they communicate and collaborate with stakeholders they work with and for, shaping new working patterns that are technologically driven and redefining their knowledge to cope with new demands (ACCA, 2013). This trend has also provided accountants with the opportunity to get things done and earn more within a shorter period.

Prior studies have explored the importance of technologies in the accounting profession and a lot has been said of the benefits of these technologies to accountants in practice. However,

not much has been said about the future of the accounting profession and the uncertainties lying the aftermath of this on-going digitalization. The accumulation of units of information into what is now called the *big data*, the emergence of *cloud computing technologies*, *artificial intelligence (AI)* and *virtual realities* as well as *augmented realities (VR & AR)* are grey areas that are yet to be discussed despite the potentials of these technologies and their capability in changing what we do, how we do them and when we do them. This study however provides a glimpse of what we may face as accountants and auditors in the nearest future and what we need to do to cope with those trends. The remainder part of this study will be organized into discussions on the implications of technologies for practicing and aspiring accountants.

ACCOUNTANTS TODAY: What is Obtainable Now…

Today, the entire accounting and financial reporting process has been automated. Technologies have been designed to enable accountants carry out major tasks and execute complex operations more effectively, efficiently and timely (Shanker, 2013). The numerous tasks completed by accountants in the pre-IT era which required a rigorous process, more personnel and much time have been simplified into technologies that accountants can easily operate. These technologies today are in two forms; the software technologies and the hardware technologies (Kemani, 2013). The simple difference between these technologies is that while the accountants interact with the later directly and physically, their relationship with the former is only through the later. The technologies are further explained in paragraphs below.

Hardware Technologies

Hardware technologies are the "physical, tangible devices that form the computer" (Hejase and Hejase, 2011, p. 8). Accountants are required to effectively perform and complete tasks by directly interacting with these technologies (Ballada and Ballada, 2011). These technologies range from simple devices like smart phones to computers and other more complex devices such as input devices, processing devices and output devices that accountants use in the preparation and preparation of financial statements, and auditors also use in auditing. These hardware technologies will be discussed in further paragraphs of this paper.

Software Technologies

These are "program essentials for the startup, control, and management of the computer system" (Hejase and Hejase, 2011, p. 9). These programs actually enable accountants to perform specific tasks or group tasks through the hardware technologies. Some examples of such software technologies are accounting software for payroll, inventory management, enterprise resource planning (ERP) and others.

Accounting Software

It is important to note that the combination of software and hardware technologies in the IT-era has changed the routine of accountants and also simplified the accounting and financial reporting process. From the point of recognizing transactions and events to the preparation of the financial statements, the numerous process involved as experienced in the pre-IT era has been simplified with just a click of the button. Today, accountants are able to get access to any information or prepare any form of internal or external report with just a click of the button. The IT-Accountant is now aware of the following;

Personal computers (PCs): this consists of devices ranging from desktop computers to laptops, tablets and smart phones which accountants now use to collect and process and also report information to users. The emergence of computers and other electronic devices have simplified the tasks of accountants especially in the area of transaction processing, recording, storage of large information, elimination of files, preparation and presentation of financial statements to users. Today, the accountant has the opportunity of meeting the information needs of all stakeholders in the financial reporting process more effectively and efficiently. Furthermore, the connection of computers through an information system within and outside the organization gives the accountants exclusive access to the right information at the right time.

Internet, intranet and extranet: the intranet is a type of network built to facilitate communication between computers and other electronic devices within an organization. This type of network enables communication and transfer of information between users within a single organization- so accountants are able to get access to information on transactions and events from any part of the organization with just a click of the button. The extranet unlike the former connects computers and other electronic devices between two or more organizations. Extranet is built to facilitate communication and corroboration between organizations- so accountants are able to get access to information on third-party transactions and events. The internet, unlike the other types of network is a network of computers around the world. It gives accountants unrestricted access to external information and also facilitates preparation and presentation of financial statements (Dandago and Rufai, 2013). The internet has made it possible for accountants to implement digital financial reporting, and it has also facilitated distribution of financial reports to all stakeholders.

Accounting software: this is an application computer program designed to execute, manipulate and manage (Hejase and Hejase, 2011) the basic accounting functions through a simplified 3-stage process of input, processing and output. All the processes involved in the accounting and financial reporting process have been built into the software, and therefore, accountants only need a computer device through which the software will work, and the skill required to execute tasks through the software. Furthermore, accounting software can be classified as *low-end* or *high-end*. The low-end software is "all-in-one" software, such that all functions of an accounting system are performed within the software- hence, it is mostly used by accountants in small firms. On the other hand, the high-end software creates a separate module for each accounting function, and each module checks data for correctness, processes it, and updates all relevant accounts, and finally, produces outputs such as documents and reports. The high-end software is often used by large organizations because it enables separate modules such as payroll, fixed assets management, inventory and so on to be handled by separate individuals in the accounting department

Tax preparation software**:** one of the most demanding aspects of accountants' job is tax planning and preparation. The continuous adjustment in tax laws in Nigeria makes it an exceedingly difficult task for accountants to deal with. Manually, the process has become more difficult and time consuming. Hence, with the availability of tax preparation software to accountants, this task can be performed easily and faster through the computer. As a result, even complex calculations can be performed via computers in a short period of time. It is important to note that some highly sophisticated high-end accounting software provides a separate module for this task.

Auditing software: like the accounting software, technology has also facilitated the auditing process through the creation of auditing software. This is because if auditors perform auditing

functions manually, it takes a lot of time and energy. However, audit software packages are currently available for auditors in low-end (for auditing small firms) and high-end (for auditing larger firms). For example, the trial balance software is a module under the high-end audit software that enables auditors to input the working trial balance, handles all adjusting entries, and automatically computes the adjusted trial balance. Furthermore, these audit software packages can access customer's files, select a statistical sample of the accounts, and print a working paper sheet.

***Word processing*:** word processing is computer-assisted creation, editing, correcting, manipulation, storage, and printing of textual data (Ghasemi et al, 2011). Today's Accountants use word processing software to prepare reports, billings, memos, and financial statements.

***Graphics software*:** the use of graphic software enables accountants to aestheticize the financial report. The graphical outputs can be printed on paper or displayed on slides, transparencies, and photos. It is important to note in practice today, auditors and managerial accountants use the graphics software to analyze financial reports into graphs and tables to facilitate decision making by users.

Database Management Software: one aspect of accountants' task is called record keeping. This means that accountants are custodians of information on transactions and events, and as a firm expands, so does the volume of transactions processed and stored by accountants. The emergence of database software systems reduces inefficiencies and information redundancies. In fact, relational database systems such as enterprise resource planning (ERP) depart from the accounting equation method of organizing data- such that it enables accountants to captures both financial and non-financial data, and also, it facilitates storage of large files in simpler forms.

Payment technologies: the emergence of payment technologies (such as Remita) has enabled firms to connect to banks and implement electronic transfer of funds. Hence, firms are able to execute receipts and payments functions electronically, thereby reducing the risks that accountants face by holding cash (Shanker, 2013). The accountant today has been relieved of the burden of carrying physical cash or keeping cash (a function which accountants are traditionally known for).

The use of the computerized systems mentioned above has led to the automation of accounting information system. Accounting information systems equipped with these kinds of technologically advanced tools can now perform accounting functions more effectively and reduce costs. Hence, accountants are now required to work in a digitalized environment with exclusive access to information with the click of a button. As a result of interactions between accountants and technologies (hardware and software), valuable opportunities became available to improve the services delivered to their business clients as a result of reducing and possibly eliminating those repetitive, time-consuming, and menial tasks (Rkein, Issa, Awada and Hejase, 2019, p. 373). The following can be observed of accountants in the IT era;

1. Digital Recognition and Adjustment of Transactions and Events

Accountants today recognize transactions and events digitally as opposed to the traditional file-based method. The recognition of transactions and events digitally has also enhanced fast and easy adjustments in accounting figures due to subsequent events.

2. Timely Preparation of Reports

Today, the combination of hardware and software technologies enables accountants to easily generate financial reports with a simple click of the button on the computer. However, this simplified task required a very long process that involves review of numerous files and a long period of time to achieve generate.

3. Record Keeping and Data Storage has been Simplified

One of the obvious benefits of IT adoption by accountants is the enhancement of record keeping and storage. IT has made it easier for accountants to store large data in simpler forms by converting most documents from paper to electronic forms.

4. Transaction Processing is now Faster

Transaction processing is now easier and faster for accountants in the IT era. For example, the credit worthiness of customer can be determined by retrieving the customer's information through the click of a button.

5. Timely Preparation and Presentation of Financial Statements

When it comes to preparation and presentation of financial statements, IT has enhanced the entire financial reporting process (Moscove, Sinkin and Bagranoff, 1999). Accountants (in small firms) are now able to generate final reports quickly and easily with just the click of a button on their computer, while accountants in large firms are able to access all information required for compiling the final accountants easily and faster.

6. Improved Accuracy and Financial Reporting Quality

The emergence of IT has helped accountants to reduce or eliminate completely the problem of material errors and misstatements in financial reporting (Salehi, Rostami and Moghada, 2010). The problems of inaccuracy that are peculiar with the file-based accounting system have been completely taken care of (Shanker, 2013). However, one limitation of the IT-based based system is that output depends of input. Hence, accountants must ensure that correct and accurate information are put into the system.

7. Increased Access to Financial Reports by External Users

The existence of special IT tools has enabled accountants to effectively and efficiently make financial reports available to external users such as shareholders, creditors, the media and regulatory institutions. This has been facilitated through the use of internet and social medial channels such as emails, twitter, and Facebook page and so on (Moradi, Salehi and Ariyanpour, 2011).

8. Enhanced Auditing and Investigation

The existence of special IT tools for auditors (e.g. the audit software) has helped to simplify the auditing process, and in turn enabled auditors work effectively and efficiently. Today's auditors are IT-based accountants that execute tasks using computer languages.

ACCOUNTANTS TOMORROW: What we can expect…

While accountants around the world have witnessed a dramatic change in the ways of doing things in practice, we cannot but imagine what the future holds for accountants in practice. Technologies are evolving every day, and by implication, accountants in practice will continue to witness new technologies that can do more than the existing ones. However, for the purpose of this study, we have gathered evidences on possible expectations for accountants in practice, in relation to technological advancements. This is expected to give accountants a sense of what is to come and how they can prepare towards it.

The Cloud-Based Accountants

This is one of the current technological trends and it has enjoyed wider acceptance in the business world due to the numerous opportunities accompanying its adoption. Cloud computing is a technological platform that enables available, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, services) that can be rapidly provisioned and released with minimal management effort or service provider interaction (Wang, 2011; Mell and Grance, 2011). It is a computing resource deployment and procurement model which enables an organization to obtain its computing resources and applications from any location via an Internet connection" (Chan, Leung and Pili, 2012). The uniqueness of cloud computing is that it provides a three-dimensional cloud services models: Software as a service (SaaS), Platform as a service (PaaS), and Infrastructure as a service (IaaS). This means that users of cloud computing will be able to reduce costs by eliminating physical infrastructures, and tasks can be executed from any part of the world. Hence, we can boldly say that accountants in the future may be able to perform accounting functions on cloud without being limited by physical structures.

> *"We foresee that accountants and the organizations they work with and/or for will be exploiting the cloud as a result of the opportunities that comes with it. Accounting systems were among the first software to become available online, and joined by a growing range of business 'software* (ACCA, 2013)."

Source: WhaTech (2019)

Cloud-based accounting systems are capable of raising the prospects of an agile and competitive service delivery. Also, with the increasing reach of the internet, cloud computing is edging closer to ubiquity. In Autralia, most accountants have started embracing these technologies; this is also the case for CPAs in the U.S. furthermore around the world, organizations of all sizes and accountancy firms are beginning to recognize its benefits, as increased adoption allows them to reduce their technology infrastructures and move away from expensive hardware storage solutions. Hence, it is expected that in the nearest future, accountants will be fully cloud-based and accounting services will also be fully cloud-based.

Accountants and the Big Data

One thing is certain of the business world, this is fact that in the nearest future, following the converging technological trends, the shift from analogue to digital, widespread mobile device adoption, internet-connected systems and 'exhaust data' from physical objects (the internet of things), a vast amount of structured and unstructured data will be created. Hence, this will place more responsibility on future accountants as they attempt to collate, manage and analyze it effectively, for better decisions and to generate a competitive advantage for business. It is also important to note that the technology to achieve this is becoming more accessible and affordable.

> *"Vendors of software for business intelligence, enterprise resource planning, sales management and more are adding the capability to analyze vast amounts of data 'in-memory', and cloud-based platforms are emerging to provide on-demand access to the tools that "accountants" need to tap into the 'internet of things' and unlock the power of big data in the nearest future* (ACCA, 2013)."

Source: AeoLogic (2020)

It is important to note that the "big data" is undeniably gaining popularity, as the vast amount of data being collected and stored is reshaping the business world in general. Firms are now creating data-driven goals, measuring these goals accurately through analytics, while many firms are now listing data as an asset. Hence, where accountants can make their mark is with distilling data - that is turning information into actionable insights.

Accountants and Artificial Intelligence (AI)

Artificial intelligence (AI) describes a machine or software that can demonstrate behaviour indistinguishable from that of the human brain. Also, according to Hejase & Hejase (2011), "Artificial intelligence is the sciences of making machines imitate human thinking and behaviour" (p. 147). This is not yet possible but there are many examples of software that can demonstrate limited 'intelligence' (depending on how you define this). Most of us have used software that can emulate the decision-making processes of an expert: lots of software now has expert knowledge built in and the capacity to 'learn' how to improve its own processes and performance. The internet is awash with software agents (bots) that mimic human behaviour as they make independent decisions, learn and interact with each other.

> *"It is predicted that by 2030, accountants will increasingly rely on the expert knowledge built into software in a range of scenarios. Given that auditors use smart software to automate parts of the auditing process, and there are other specialist applications to help with compliance in areas ranging from financial reporting to international tax* (Yanian, 2018)."

Source: Ace Cloud Hosting (2018)

AI systems can be very powerful and are improving quickly. They provide outputs that can be extremely accurate, replacing and, in some cases, far superseding human efforts. However, they do not replicate human intelligence (ICAEW, 2017). We need to recognize the strengths and limits of this different form of intelligence, and build understanding of the best ways for humans and computers to work together. Hence, Yanian (2018) noted that there have been recent emphases on AI by the big-4 accountancy firms as revealed below;

PwC has conducted a global AI study ***"Sizing the Prize"*** in 2017. They discovered that 45% of the world's total economic gains by 2030 will be attributed to product enhancements and stimulating consumer demands. This is because AI will drive greater product variety, with increased personalization; attractiveness and affordability over time (PWC, 2019).

EY is set to launch its first AI Center in India. This center will bring together teams of multi-disciplinary practitioners, combining expertise in AI, Robotics etc. along with domain experience in sectors to achieve more in the accountancy profession (Ernst & Young, 2017).

KPMG is said to have been using innovations from McLaren Applied Technologies (MAT) in its audit processes since 2015. The firm also has an alliance with IBM's cognitive computer known as *"Watson"*. This means that the firm has already introduced AI into its operations (O'Neill, 2016).

Deloitte on the other hand already uses an AI platform called "Kira Systems" to enhance its assurance services (O'Neill, 2016).

Accountants and Cyber Security

As the world is moving to a small global village and more data are made available as discussed earlier (the big data), we cannot over-emphasize the importance of cyber security to accountants. Cyber security is the protection of computers, networks, programs, and data against unauthorized access or attack. Accountants are, by nature, custodians of information, and by implication, they are expected to ensure that such information are secured. Therefore, it is evident that accountants and accountancy firms in the future will be investing in cyber security to protect their interests and the interest of their clients.

> *Individuals tasked with securing the IT system face a daunting challenge in today's world full of rapid technological advances," says Frank Colantonio, CPA, CA, CITP, and a director with CPA Canada. "A security breach can trigger unpredictable costs so it is not surprising to see professional accountants wanting companies to dedicate resources aimed at protection."* (AICPA, 2015)

Source: Trending Accounting (2020)

Security is the number one issue facing accountants in this IT-era, and it is evident that as accountants' use of technology increases further, investment in cyber security will become inevitable; and in fact, some accountants will be forced to specialize on cyber security, especially for digital reporting purposes. According to Hejase, Hejase and Hejase (2015), "as information

technology companies are improving the vulnerability of their software and hardware products, hackers, malicious intruders, and above all cyber warriors are targeting the weakest link of the chain: the operating people" (p. 484). Hence, it will be a bad idea if accountants and accountancy firms ignore cyber security and its potential danger. If accountants don't have a plan in place, in all likelihood, their services may be breached at some point in the future.

Accountants and Virtual Reality (VR)/Augmented Reality (AR)

Accounting and financial reporting has been about representing reality with numbers for the purpose of enhancing the decision of those affected by such reality. This means that accounting numbers have been the closest measure of reality prior to this time. However, the existence of virtual and augmented realities and their potentials can be seen as a promising ground for accountants to improve financial reporting. Virtual reality (VR) is simply a computer-generated simulation of a three-dimensional environment or image where a person can interact in what seems like a real or physical way by using special electronic equipment, such as a head-mounted display (HMD) helmet or sensor gloves. A space flight simulator is an example of VR (Bellini, 2016). While VR places a person in an artificial, computer generate world, AR technology combines the real world with images, video and information that enhance or supplement the person's experience.

> *"As virtual experiences become more immersive and interactive, accountants will face new opportunities and new challenges. "* (ACCA, 2013)

Source: 123RF (2020)

With the existence of VR and AR as emerging technologies, it is certain that users' expectations will increase in the nearest future, and one of the resulting effects will be demand for more disclosures (something more than just numbers). Accountants can explore these technologies to provide users of accounting information a closer touch to the economic reality being measured by reporting numbers. Special VR and AR reports can be prepared to facilitate users' understanding of what is, why and what will be- in relation to the reporting entity.

WHAT'S NEXT FOR ACCOUNTANTS

Early accountants were awakened by new technologies that reshaped clients' demands and users' expectations, and as a result, many were forced to retirement (to pave way for the new generation "technology-driven" accountants), while others were forced to embrace IT knowledge in order to cope in the industry. This is because as much as accountants cannot control the pace of technological advancements, there is always a way out. The implication of technology for accountants today and those who wish to be relevant in the future is that accountants need to;

Investment in IT knowledge and skills

Following the growth in technology and its capabilities, it has become evident that accounting and finance knowledge and skills are not enough for the accountant today. There is need for accountants or accountancy firms to invest in acquiring IT knowledge and skills, for the purpose of being relevant in this IT-era, and to be able to withstand the wave of the post-IT era. The accountant of the future will need to know more about technology. In fact, ACCA in 2013 revealed that unless accountants embrace technology they will follow the dinosaur into extinction – individually and as a profession.

Investment in IT Tools

The accountant today needs more than just the ability to get the work done, but the right tools that will enhance the working process. Along with acquiring IT skills, accountants will also need to invest in IT tools that will enhance their work, in order to remain competitive and meet the demand of clients and expectation of users in the future (Salehi & Huisi, 2011). In fact, according to ACCA (2013), it will be no surprise that accountancy firms will begin to give clients mobile applications to access their services and engagements.

Be Open to IT Ideas

The traditional accountant is known to be a very strict and forward person, not really open or friendly due to the nature of their job and the need to maintain confidentiality. However, the emergence of IT and its importance to accountants have compelled accountants in theory and practice to rely on relationships with IT experts and their supports to get tasks completed effectively and efficiently. Accountants need to be open to ideas from IT experts and software designers in order to solve on-the-job technological challenges.

Be Cyber-Security Conscious

As explained earlier, one of the challenges of IT adoption by accountants is the existence of cyber threats. Hence, accountants must become increasingly aware of this threat and how to ensure maximum data security. This is a very important responsibility, as accountants are now custodians of sensitive information that must be proposed.

Accountants must be Trendy

Today's accountants need to be trendy technologically, keeping touch with latest technological advancements that affect their jobs. This is because staying on the job and being competitive requires accountants to do so. For example, it is assumed that by 2020, audits may well be real-time and as a result, accountants will be required to pull data in from business

systems and sensors embedded in everything (including from stock to livestock and even human beings)- (ACCA, 2013).

Accountants must work closely with IT Experts

Accountants and Chief Financial Officers (CFOs) will also need to work closely with IT experts and consultants to coordinate multidisciplinary teams for in-depth analysis. This is because accountancy firms (like the big-4) may require the help of IT-experts to complete certain engagements of tasks. In short, big data provides the perfect platform for accountants looking to develop an increasingly strategic relationship with their clients.

SUMMARY

We cannot effectively discuss the impact of information technology on the daily operations of modern professional accountants through a single paper. However, through this paper, we have been able to create a link between advancements in technologies and changes in the way accountants discharge their professional duties and responsibilities. We have also presented the accounting profession as one evolving with technology, and as a result, accountants (individuals and corporate) are required to embrace this trend and be equipped intellectually and with the right tools.

At the moment, it seems very clear that, with technological advancements such as cloud computing, artificial intelligence, and virtual reality (VR) and augmented reality (AR) finding their way into the accounting profession, accountants in the future will require more than financial literacy (i.e. basic accounting knowledge) to meet their professional demands. Therefore, accountants must begin to think IT and invest in IT skills and tools, as they have a significant role to play in this increasingly connected and interconnected business environment. The internet and cloud-based technology resources are reshaping myriad aspects of business: from the way we finance, resource and develop new and existing enterprises, to the way we create, buy and sell products and services. Nothing in the future is certain, and the unforeseen interactions between these technologies promise to be both interesting and challenging.

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