

**FINANCIAL TECHNOLOGY AND ACCOUNTANCY PROFESSION:
STAKEHOLDERS' PERSPECTIVE IN AKWA IBOM STATE,
NIGERIA**

BY

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The study examined the influence of financial technologies (FinTech) on the accounting profession. It surveyed the perspectives of experts on the impacts of digital technologies on the accounting profession. The impacts on skills, tasks and work environment as well as the challenges of adoption of digital technologies by accountants in Akwa ibom state were studied. The descriptive survey research design was employed for the study. 127 certified accounting experts in Akwa ibom state were sampled for the survey. The researcher developed instrument titled “Digital technologies and Accounting professionals Questionnaire” was used for data collection. The study made use of primary data. Frequencies and descriptive statistics were used for answering the research questions while simple linear regression was used to test the hypothesis at .05 level of significance. Findings of the study showed that the digital technologies impacting the accounting professions are artificial intelligence, enterprise resource planning, internet of things (IoT), blockchain technology, cloud accounting technology and big data analysis. It was also established that audit technology has a significant positive effect on the accountancy profession. Also, disruptive technologies has a significant positive effect on the accountancy profession. It was recommended that in order to keep adding value for the company, accountants need to developed new skills and acquire new knowledge regarding the use of artificial intelligence and other digital solutions in modern business environment. Audit technologies should be increasingly embraced by accountants and accounting firms.

Keywords: *Financial technology, Accountancy profession, Stakeholders' perspective.*

INTRODUCTION

Financial technology (Fintech) is an amalgamation of the words “financial” and “technology”. It refers to the use of new technologies in the financial services industry to improve operational and customer engagement capabilities by leverage of analytics, data management, digital innovation and in some instances exponential technologies. The proliferation of new capabilities has not been limited to Fintech. There are also development in areas such as regulatory technology “Regtech” and medical technology “Medtech” as well as applications for accounting and audit. This study focuses on the accounting and audit applications of fintech.

Fintech (financial technology) is a thriving and diverse sector covering a range of areas such as on-line or neobanks, payment systems, application programming interfaces (APIs), investment banking, back-end infrastructure, insurtech, wealthtech and regtech. It also covers more frontier areas like central bank digital currencies, cryptocurrencies, and non-fungible tokens. Organisations are harnessing new technology to transform financial services and driving the growth of the ‘fintech’ sector which presents huge opportunities for accounting and finance professionals(Choudhary, 2021).

Fintech is changing the way businesses manage their money and approach their bookkeeping for good. Technological trends have changed how professionals conduct business and will continue to shape the future of every industry, including accounting. Leading technologies revolutionizing accounting are artificial intelligence, blockchain, cloud accounting, internet of things and enterprise resource planning.

Uwah, Udoayang, and Uklala (2022) opine that accounting, once considered a staid profession, with practitioners who apply tried and tested processes but rarely challenged the status-quo, is reinventing itself. It is now embracing efficiency, technology and automation. The rise of cloud accounting, artificial intelligence, internet of things and big data has put accountants at the forefront of a new range of technologies, which empower them to streamline work flows and apply new layers of commercial insight to their work. Adoption of these technologies is becoming mainstream. These tools require a new breed of

accountant who are embodied with superior client-facing skills, a passion for technology and commercial savvy (Accountingcloud, 2021).

Schimitz and Grayston (2020) explained that with technology expanding in almost every industry today, the accounting sector is also going through significant transformation by evolving through traditional methods. The adoption of modern technology in the accounting profession has significant benefits for accountants and the accounting profession generally. It begins from finding new and more efficient ways of working or delivering better services to clients, to reorienting work procedures. In this wise, technology allows accountants to achieve more with less, and provide outstanding services and help to fuel business growth.

Technology in accounting has helped accountants make statistical analyses, financial forecasts and calculations with great efficiency. Accounting technology has allowed the accountant to move from a desk, covered with papers, making calculations that took hours to be completed, to more dynamic ways of performing and, it has allowed the accountant to find new challenges and much more to offer than in the past (Pepe, 2011). Highlighting the impacts of technology in the accounting profession, Kaplan (2018) stated that technology has effect on three broad areas of accounting. First, the work is being changed with the increase in automation, cognitive, and other advanced technology. Second, the workforce is and skills mix is also changing with demands placed on technological and soft skills. Third, the workplace is being restructured to better suit collaboration virtually and physically. In the future, everyone will be working alongside smart machines and technologies; as such, an alliance between the two is critical for success.

There is an envisaged problem that digital technologies were not initially designed for a particular financial sector, but were adopted by financial institutions and are renamed financial technologies (Fin Techs), with more specialization and sophistication that has seen it adapted for accounting. While the challenge of integrating technologies in the accounting remains, the emerging issue has been that of accountants and accounting making the most of financial technologies. More and more areas of accounting are imbibing Fin-techs in Akwa Ibom State, Nigeria and globally, from fraud detection, auditing to everyday accounting services. However, there are mixed feelings on the sustainability of this mode of accounting and its effect on financial reporting and financial statement analysis. This study, therefore, sought to provide an insight into the issues, effect and prospects of financial technologies in the accounting profession. The gap to be filled in this study is to show how

the changes in the financial technology is impacting the accounting system in the private and public sector service.

The broad objective of this study is to investigate the effect of emerging financial technologies on the accounting profession, and to specifically examine the effect of audit technology on financial reporting; identify the challenges of digital disruption on financial statement analysis; and examine the benefits of emerging digital technologies on the accounting profession.

Literature review

Conceptual framework

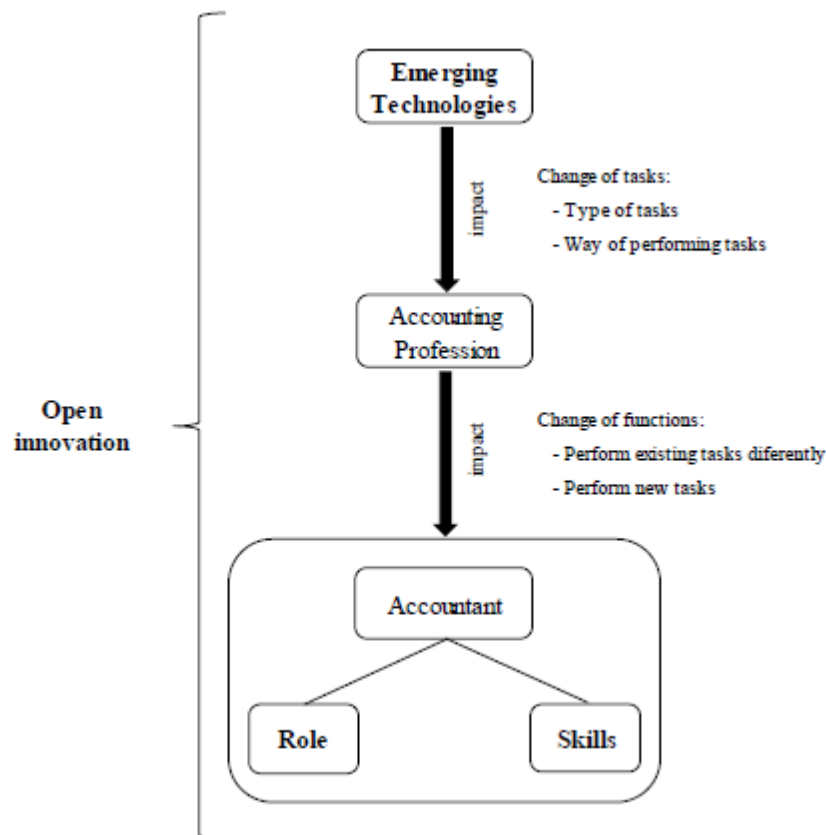


Figure 1: Conceptual framework on How emerging technologies impact accountants' role and skills (Adopted from Kroon, Alves, & Martins, 2021).

The first effect of financial technology on the accounting profession is changing tasks or the way things are performed. These changes affect the accountants' functions and skills, as they may have to adopt a parallel approach to complete existing tasks and perform new tasks (Kroon, Alves, & Martins, 2021).

Concept of Financial technology (Fintech)

Financial technology (better known as Fintech) is used to describe emerging technologies that seeks to improve and automate the delivery and use of financial services. At its core, fintech is utilized to help companies, business owners, and consumers better manage their financial operations, processes, and lives by utilizing specialized software and algorithms that are used on computers and, increasingly, smart phones. The word, Fintech, is a combination of "financial technology," which refers to the integration of technology into offerings by financial services companies in order to improve their use and delivery to consumers (Kagan, 2022).

Fintech is a term that is often used to describe digitization that occurs in the financial sector. According to Dapp, Slomka, and Hoffmann (2014) this term is generally referred to new and very innovative companies engaged in information technology with the aim to change the traditional financial sector in the banking sector. Dinardo (2015) in his thesis emphasizes accordingly that fintech comes from two words: finance and technology, and refers to all companies that apply technological innovations to the financial services industry. In cases of financial services, fintech is in the alternative financial sector that brings the most important and new innovation by utilizing an online market that works by meeting the needs of borrowers with offers from investors and fund owners. Alternative financial services here consist of Crowd funding, On-line Invoice Trading, Merchant Finance, Payments, and Trade Finance. Although they differ in the form of business models they have, the various forms of fintech share the same features which are: web-based and not the bank. They offer products and services similar to a bank but use the influence or strength of the experience of its consumers. It can be concluded that financial technology (fintech) is the use of technological innovation in the financial sector by using the on-line marketplace as a place to offer solutions to various financial problems experienced by digital consumers (Juita, 2019).

Emerging digital technologies impacting on the accounting profession

Cloud accounting has to do with performing basic accounting tasks, like managing and balancing the books, using software that resides in the cloud and is often delivered in an as-a-service model. Staff or third-party accountants can manage accounts payable, accounts receivable, the general ledger and much more within the application. Just like other cloud-based systems, cloud accounting software runs on a cloud provider's platform rather than on a local hard drive or server. Users access the tools they need through the internet, meaning employees or third-party accountants do not need to be in a certain location to understand the financial state of the business (Ian, 2021). The cloud

offers the accounting industry a new way of doing business. Some of the advantages are Real-time services to clients-financial reporting and other services. It also offers increased collaboration between accountants and their clients. Furthermore, files can be viewed, shared, edited from anywhere and at any time.

Big data is a collection of very large and complex data coming in various forms gathered from different sources that it becomes difficult to process by using only one of the database management tools or by using traditional data processing application. Big data is all about complexity and speed and is therefore often characterized by volume, velocity, and variety, the ‘three Vs’. Volume represents large volumes of data; Velocity represents the high-velocity data flow; and variety represents a wide variety of data, especially in an unstructured or semi-structured form such as images and texts (Watson, 2022). Big data was also defined by (Gartner, 2018) as being specialized information technology researches suitable for large-scale, fast flowing and highly diversified information bases, which require economically feasible and innovative processing methods. (Suleiman 2021) in his work defines big data as a set of financial and non-financial data, structured and non-structured that are obtained from internal and external sources of the organization, which time series models can be used to convert informal data into structured information useful to stakeholders and relevant to the decision-making process.

Maryville University (2019) summarises the goal of big data in accounting as the collection, organizing, and tapping data from a variety of sources to gain fresh business insights in real time. It is asserted that instead of relying on monthly financial reports for their analyses, accountants and financial analysts have access to up-to-the-minute information from any location with a network connection. Unstructured data, such as audio, video, and images, as well as email and text files, social media posts, website content, and information gleaned from mobile devices are used in big data analysis.

Data analysis is enhanced by using visualization software that offers accountants and their clients unique views of the data that supports their decisions. Similarly, auditors are now able to process larger amounts of accounting data in a variety of formats simultaneously, which means their work is done more quickly and is more accurate. Big data improves risk analysis by providing accountants with access to more timely data with advanced analytic tools which allow accountant and auditors to process the data quickly (Giuseppe & Taylor, 2019).

The impact of big data on the roles of accountants, big data and commercial analysis affects the roles of accountants in the coming years as provide an opportunity for accountants to move to strategic and effective roles in business organizations. Accountants use data analytics to help businesses uncover valuable insights within their financials, identify process improvements that can increase efficiency, and better manage risk. Accountants will be increasingly expected to add value to the business decision making within their organizations and for their clients (Kennan, 2020). Accountants who assist, or act as, investment advisors use big data to find behavioral patterns in consumers and the market. These patterns can help businesses build analytic models that, in turn, help them identify investment opportunities and generate higher profit margins. The ability to use big data analysis tools to gain insights about business issues such as customer payment behaviour, seasonal variation in demand for products and services and customer complaints will be critical to this. It is evident that accountancy and finance professionals will need to bridge the gap between the IT department (that traditionally manages data and tools) and the business (that needs insight to improve processes and develop new products (Kennan, 2020).

Artificial intelligence (AI) is a computer science term describing a computer's ability to replicate the learning, assessment, problem-solving and decision-making abilities of humans. The purpose of artificial intelligence in accounting is to increase efficiency in essential and foundational routines and practices in a way that ultimately leads to better business decisions (Mac, 2019). Its capabilities can be embraced in the business world because they point to the creation and development of a more efficient corporate community. AI also offers the opportunity to extend the senses, which can have numerous business applications, such as ability to deploy machine vision which can allow it to make informed decisions for a positive impact on quality control and other supply chain elements that are important to business efficiency. Mac (2019) therefore emphasized that artificial intelligence programs do more than perform advanced mathematical calculations, and can also leverage their ability to parse news articles, emails, web links and legal documents to choose and present the most salient parts to comprehend. This same ability can be used to gather and analyze information to produce written content that can accurately summarize data.

Artificial intelligence can help accountants to be more productive and efficient. An appropriate reduction in the time it normally would take to do tasks will

allow human accountants to be more focused on providing counsel to their clients. Adding artificial intelligence to accounting operations also increases quality service, because errors will be reduced (Bernard, 2020). Data as a foundational element in artificial intelligence (AI) and accounting gives AI the capacity to gather, organize, analyze and interpret numerical information and so make it a valuable tool for the accountant. When its capacity is utilized fully and properly, artificial intelligence in accounting makes it possible for a company to build a more holistic accounting strategy, one that can be built on more efficient bookkeeping and financial accessibility (Mac, 2019).

Robotic process automation (RPA) allows machines or AI workers to complete repetitive, time-consuming tasks in business processes such as document analysis and handling that are plentiful in accounting. Once RPA is in place, the time accountants used to spend on these tasks is now available for more strategic and advisory work. Intelligent automation (IA) is a more sophisticated version of RPA. IA can mimic human interaction in many cases, such as understanding inferred meaning in client communication and using historical data to adapt to an activity. There are multiple applications of RPA and IA in accounting work (Bernard, 2020).

In accounting, there are many internal corporate, local, state and federal regulations that must be followed. AI-enabled systems help support auditing and ensure compliance by being able to monitor documents against rules and laws and flag those with issues. It can often provide real-time status of financial matters since it can process documents using natural language processing and computer vision faster than ever making daily reporting possible and inexpensive. This insight allows companies to be proactive and adjust if the data show unfavourable trends. Automated authorization and processing of documents with artificial intelligence (AI) technology will enhance several internal accounting processes including procurement and purchasing, invoicing, purchase orders, expense reports, accounts payable and receivables, and more (Bernard, 2020).

Internet of Things (IoT) is basically a system of interconnected devices, machines, appliances, among others which interact, connect and communicate with each other and exchange data using the internet, without any human intervention or interaction. In other words, IoT is an extended application of the internet, where any device or appliance that one can think of, is connected to each other and share information and data over the internet (Accountingweb, 2016).

The accounting process involves the collaboration of different departments for the collection of financial information. This information is collected by the departments and sent electronically or manually to the accounting departments for bookkeeping. However, any misinformation or delay in the transmission of data can hamper the accounting process, and lead to inaccurate financials, according to Watson (2020). It is expected that proper implementation of IoT will expand in some cases, change the sources as well as the flow of data, from billing, resource planning, and core accounting systems. This will consequentially change the way audits are carried out for each of these aspects of business. With IoT assisted accounting, accountants will automatically receive all associated data through a digital system, rather than having to go to a bookkeeper to gather client information. Accountants will also gain access to real-time transactional data, along with many controls and exposures in the existing operations, increasing the need for continuous auditing processes. This will also allow a wider and more comprehensible risk evaluation, which will help to quicken issue assessment and intermediation. It will also offer real-time management which will enable businesses and accountants alike to respond to issues immediately (Accountingweb, 2016).

The accountants in advisory roles need to make important financial decisions for their clients. They make these decisions on the basis of in-depth data analytics, business patterns, and market research. The accountants are responsible for drafting strategies for growth of the business. When they combine internet of things (IOT), along with artificial intelligence (AI) and cloud, accounting professionals take informed business decisions (Watson, 2020).

Internet of things can help in efficient workforce management. Managing accountants and keeping track of their activities is paramount to every accounting firm. Moreover, it can be quite difficult to know about an accountant's whereabouts all the time as they have to meet up with their clients regularly. The accountant's themselves want to track their performance to improve their process and optimize their efficiency. IoT makes it possible for accountants to track their efficiency during the day. The IoT devices can tell you the hours you have been the most alert and the most unproductive. Hence, it helps you work accordingly and get the most out of your day. This data can be sent to the employer in real-time who can track your performance accordingly. In addition, with IoT, employers can also view your health condition and offer you with benefits (Watson, 2020).

A blockchain is a type of database used to register transactions through a distributed system. All participants such as individuals or companies using the shared database, are “nodes” connected to the blockchain, each keeping an identical copy of the ledger. Each entry into a blockchain is a transaction that represents a value change between participants. In practice, many varied types of blockchains are being developed and examined. Nevertheless, most of blockchains track this common frame and approach (CpaCanada, 2018).

Blockchain is a technology that effectively connects people or companies in a direct way or on a peer-to-peer basis. Blockchain is also known as distributed ledger technology (DLT), a digital system that records asset transactions and their details in multiple locations simultaneously. Blockchains are building blocks of interactions and transfers. These blocks can be assets of any digital kind, for example, money, securities, land titles, information on identity, health and other personal data (ACCA,2021).

The key feature in blockchain is that anything that is stored on the blockchain is there forever, the information is immutable and cannot be erased. The information that is stored on the blockchain offers us a level of transparency that has not previously been seen. It means that if (Person A) owns something and transfers the ownership or value of it to (Person B) there will always be a record in the blockchain that (Person A) owned it. It also guarantees that the record cannot be manipulated—no one can change the record. This level of immutability is why blockchain technology is commonly referred to as a “trust machine” (Singer & Kusz, 2021). Another key feature of the technology is its decentralized nature. No one person, entity, or government owns or controls the information. This effectively means that Person A has a copy of all of their information as does Person B, and as does the next person. In a decentralized environment, all participants have access to the same information and users can then choose to share it or not. Information will no longer need to be aggregated and stored in central databases as it will be stored everywhere at once and, if desired, under direct user control rather than the company offering the service (Singer & Kusz, 2021).

According to research findings by Abdennadher, Grassa, Abdulla, and Alfasasi (2022), blockchain impacts on the accounting profession in terms of recording of transactions, storing evidence and providing a secured environment for conducting business transactions. For the auditors, the results indicate that the blockchain changes their audit process and strategy. The blockchain has great

potential to supplement traditional auditing by providing a low-cost and decentralized audit process and automated audit evidence.

The use of block-chain technology especially in accounting and auditing functions has come into prominence as a result of expansion of usage areas in financial markets and becoming an important technological solution for many business functions (Özdoğan & Kargin, 2018). Block-chain is an advanced technology converts invoicing, payment transactions, contracts and documentation with significant implications for accountants, finance specialists and regulators (Kokina, Mancha & Pachamanova, 2017). An important innovation introduced by the blockchain technology to accounting applications is the conversion to the triple-entry bookkeeping system from the traditional double-entry bookkeeping system (Uçma & Kurt, 2018).

Advantages of Digitalisation in Accounting

One of the most important and challenging task that professionals must contend with in the knowledge economy is to understand how new technological revolution is impacting on their professions and transforming societies as well. The term digitalisation refers to the innovation of the business models and processes that exploit digital opportunities. This means that the user takes benefit of the digitized products. The digitalisation is the activation, the improvement and the transformation of the business operations or functions, models, processes or activities, using digital technologies and data, actionable towards a predetermined goal. The digitalisation in the accounting field is about incorporate disruptive technologies and transform the accounting processes to be much more agile, practical and assertive. All this effort is made to improve quality of the customer's service an accountant can offer, and, of course, productivity and the efficiency of the accounting activity overall. Digitalisation is the way to make the accounting an innovative science and a useful part of the business (Ferry, George, & Christian, 2016).

The impact of digital technologies on the accounting profession has been huge. The digitalisation made possible the transition from a traditional accounting, to an agile and digitized one. There are several advantages having a digitized accounting, these includes costs reduction and elimination of errors, more accurate and automated transaction processing, asset tracking which lead to reduced downtime, improved information quality and lower audit costs, automated stock checking, asset location, improved assets analysis, improved assets utilisation through developed process and asset sharing, cost optimisation through analysis and preventative maintenance, improved pricing

through better cost data generated and analysed, quantified employees through improving health and safety, forecasting and budgeting improvements (ICAEW, 2019).

Digital Technologies and Financial Reporting

Financial reporting is the process through which a company discloses its financial information concerning its performance to current and possible investors and to other users of the information to make informed decisions regarding investing into the company (Ferry, George & Christian, 2016). Financial reports are usually communicated to the users annually or quarterly. As implied by Mohammed (2021), there are different users of financial reports who have diverse needs for the financial accounting information. Users of financial reports are investors, employees, creditors, analyst, suppliers, customers, competitors, the public and the government.

Uford (2018) opines that old way of financial reporting had changed completely in some parts of the world while in other parts it is gradually changing. Technology helps firms maintain data flow, track processes and maintain employee records. Technology makes it possible for firms to operate efficiently and effectively with minimal manpower and helps to reduce operating costs. Because of its ability to minimize errors and reduce human interventions, technology delivers instant financial reports with accuracy and reliability.

The use of computers, servers, the internet, wireless and digital technologies has changed the way accounting and companies handle their financial affairs and report same (Shagari, Abdullah, & Mat, 2015). Furthermore, the use of software packages has tremendously enhanced the traditional and production processes and has improved the quality and accuracy of financial reporting. Software packages have diverse features and are customized to suit the business operation of the firms. This is because firms normally select accounting programs according to their operation size and system rights which are given to the end users. Information technology has provided substantial economic benefits to the accounting profession (Vitez, 2017). Firms can build and use the accounting system to monitor and record every financial transaction. Both information technology networks and computer systems have significantly reduced the length of time required by accountants to communicate financial information to management, investors and other users of the information.

The Association of Chartered Certified Accountants [ACCA] (2020) maintains that another benefit that financial technology has contributed to financial reporting is that it has created the opportunity for accountants to automate financial reporting processes, thereby alleviating the handling of repetitive tasks which has afforded accountants the opportunity to concentrate on tasks of higher value such as advisory. The computerization of accounting systems has also improved the quality of reports presented to investors and stakeholders. For example, when firms communicate improved financial reports, it sends a good signal to investors and potential investors, thereby, increasing investors' trust. (Shagari et al., 2015). Moreover, the authors argued that the digitalization of accounting systems have also improved accuracy, faster processing and increased functionality. Also, financial technology adoption has assisted firms in lowering operational cost. It has also enhanced controls by recognizing any material weaknesses that may be found in financial reporting and assures reasonable assurance on all reporting functions (Jorge de Jesus, & Eirado, 2012). Technological trends in big data, automation, cloud accounting, mobile, internet of a thing and social co-operation have transformed the methods of how information technology resources are used. It has also changed the approach of how knowledge and understanding are shared and how products and services are accessed (Uwah & Akininyi, 2020).

Thanks to the increase in software that reduces the time spent on data entry and other menial tasks, accountants now have more time to spend analysing that data and reporting their findings back to clients. However, as **Ken and Jeff (2018) stated**, it is vital that they can go beyond reporting. The ability to report, interpret and then advise clients based on their interpretation is what will make accountants stand out from the crowd, these skills are in high demand. It is about being able to talk to the clients about what insights you're getting from the data, as well as talking to the data scientist team and interpreting what the needs are Chris (2020). Accounting professionals' ability to use technology effectively to maintain operations and adapt business models by fast-tracking digital transformation will be more secure and more competitive. For both aspects of the profession, this will place greater value on professionals with hybrid skillsets. This means being digitally and technologically savvy can extend beyond being able to read and write a code, but also simply understanding a software's organisational and commercial purpose and being able to work with it. It is being able to see the broader organisational picture and how financial information fits within it and can add value to it, and then being able to effectively communicate your insights to key stakeholders (**Ken & Jeff, 2018**).

Exploring the Nexus of Financial Technology and Auditing

Audit technology is the use of computer technology to improve an audit. Audit technology is used by accounting firms to improve the efficiency of the external audit procedures they perform. Audit technology is a general term used for computer-aided audit techniques (CAATs) used by accounting firms to enhance an engagement. These techniques improve the efficiency and effectiveness of audit findings by allowing auditors to analyze much larger sets of data, sometimes using entire populations of data, rather than taking a sample. As information technology has grown and developed in recent years, so has audit technology. With more advanced programs, artificial intelligence, and stronger computing power, audit technology has allowed for more informed decision making and determinations during an engagement (Debreceeny, Lee, Neo, & Shuling Toh, 2005).

Audit technology used today is the computer-aided auditing tools (CAATS) used in public accounting that help improve the overall effectiveness and efficiency of an audit. More specifically, auditors can use their arsenal of information generated by this software to more effectively perform risk assessments, design more appropriate auditing procedures and strategies, and help investigate outliers in the data in a more timely fashion that may have been left unseen if the auditor were to resort to sampling instead. Auditing technology software use CAATS according to their audit strategy to aid in their overall audit. CAATS provide many advantages compared to typical audit techniques and improve overall efficiency of the audit by continuously monitoring large amounts of data in limited time. There are many different types of CAATS that a firm can use when completing their audit (Demirkan, Demirkan, & McKee, 2020).

Under the conditions of digital economy shaping the traditional model of audit activities is transformed into the model of intelligent audit “AI-audit”. Its information technological provision is based on artificial intelligence technologies for the cognitive tasks at all stages of financial audit. AI-audit is semi digital set of technologies (intelligent data analysis, speech recognition, machine learning, pictures and sentiment analysis) that complete and advance processes of audit activities (Ukpong, Udoh, & Essien, 2019).

Contextually, Artificial Intelligence (AI) with respect to auditing is defined as a hybrid set of technologies supplementing and changing the audit process. Audit procedures are a direct consequence of available technologies. The

advent of computers changed the scope and the methods of examination. The advent of analytics is predicted to change the time scope of the audit (more proactive than reactive), the efficiencies, and the cost as well as the benefits of the work. The advent of AI will embed human-like activities into automation. In general, it is thought that technology applied to audit allows activities to be performed more effectively and more efficiently (Ukpong, et al, 2019; Deloitte, 2016; Morrison, 2016).

Financial organizations are generating and collecting large amounts of data on a continuous basis, from points of sale, other transactions up to inventory counts all in real time. Additionally, information from exogenous sources, in the form of social media and news feeds to name a few, is readily accessible and available for analysis. It is, in fact, the application of AI to this type of Big Data that is expected to take the auditing profession a step forward. With such large databases, traditional audit procedures become less effective and efficient, which necessitates a rethinking of the way audits are conducted (Dai & Vasarhelyi, 2016). A number of studies in the social sciences literature have found that humans perform poorly in the complex tasks that require the collection and aggregation of excessive information from multiple sources (Kleinmuntz in Ukpong, et al, 2019).

It has been well documented in the accounting and auditing literature that exposure to large amounts of information can potentially lead to increased ambiguity, information overload, difficulty identifying relevant information and patterns and, consequently, lead to suboptimal audit judgment (Brown, Issa, & Lombardi, 2015; Alles, Kogan, & Vasarhelyi 2008). This problem is exacerbated by the unstructured nature of Big Data and the high level of complexity and ill structure involved in certain audit tasks, such as the evaluation of internal controls. Hence the new methodologies can assist auditors in overcoming the aforementioned limitations. The increasing maturity of AI technologies, more specifically deep learning technology, such as visual recognition, textual analysis, natural language processing, and audio processing, provides unlimited potential and inspiration for its application to auditing (Issa, Sun, & Vasarhelyi, 2016).

Artificial Intelligence (AI) applications expands the focus of auditors beyond the limited information provided by financial statements, to taking advantage of textual data from social networks (video recordings, captured imagery, sensor data such as, GPS locational data, RFID data), and combines the extracted features with accounting and financial information. The various

functions of deep learning allow auditors to automate a number of tasks such as reviewing source documents (bank cheque, deposit slip, sales invoice), processing paper work, analyzing conference calls, emails, press release, news, and extract meta data from them, all of which could be additional supporting evidence used to supplement traditional financial attributes. These functions serve financial statement analysis, which is a comprehensive task. When auditors analyze financial reports, the machine scans and identifies each account and its balance and links these numbers to the related supporting evidences automatically, thus enabling the detection of irregularities (Issa, et al, 2016).

Fintech and disruptive technology

Uford and Joseph (2019) say the rapid pace of technological change continues to disrupt traditional procedures in all spheres, including the accounting profession. Recently, disruptive technologies such as robotic process automation (RPA), artificial intelligence (AI), blockchain, smart contracts, and advanced analytics have reshaped existing business models and facilitated the emergence of new ones wherein repetitive and mundane tasks are becoming less important and the need for high-level skills is increasing.

Accounting is no longer a person at a desk opening mail and processing invoices. A majority of invoices are sent electronically, and many are automatically paid through a processing system. The merger of technology and accounting is becoming greater and greater everyday, and business leaders need to stay ahead of this change. Numerous technologies have replaced the traditional work of accountants and potentially reducing firms' dependency on accountants work. However, the business still needs the accounting profession even though plenty of technological software or programs have been introduced (Pepe, 2020).

In these scenarios, accounting practitioners out of necessity, develop and enhance their new skill to keep up with the emergence and adoption of disruptive technology in accounting. It is also essential to note that the transition of accounting and technology is also to support Industrial 4.0, the merging business climate of the digital era. Moll and Yigitbasioglu (2019) suggested the disruptive impact were greatly derived from the implementation of Big Data, cloud, artificial intelligence and blockchain. Through blockchain, there has been accessed to the ledgers transactions and for cloud tools supported by Big Data. The improvement of technologies greatly improving the visibility of financial and non-financial data that represented the accounting

perspectives. Nevertheless, technological adoption may reduce the burden of accountants and it intertwined with professions role and its legitimacy (Allbabidi, 2021).

Fintech and Financial Statement Analysis

A financial statement (or financial report) is prepared as a standardised record of the financial activities of a business, person, or other entity. For a business enterprise financial statements is used to refer all the relevant financial information which is presented in a structured and easy to understand form. Bhargava (2017) defines financial statement as a written report in order to quantitatively describe the financial health of a company including an income statement and a balance sheet, and also a cash flow statement

Financial statements should be prepared as understandable, relevant, reliable and comparable. For large companies, financial statements are generally complex and may include some extensive notes about the financial statements and explanation of financial policies and management discussions and analyses describing each item on the balance sheet, income statement and cash flow statement in detail. Notes to financial statements are considered an integral part of the financial statements.

Bhargava (2017) sees financial analysis is a process of considering the financial strength and weakness of a firm by forming strategic relationship between the items of the balance sheet, profit and loss account and other financial statements. According to Bondu and Sangiseti (2020), it is a process of evaluating the relationship between component parts of a financial statement to obtain a better understanding of a firm's position and performance". In the view of Myers in Bhargava (2017), financial statement analysis is mainly a study of relationship among various financial factors in a business as disclosed by a single set-of statement, and a study of trend of these factors as shown in a series of statements. The financial analysis facilitates in identifying the trends, it also measures the liquidity, solvency and profitability of the firm in such a manner that can give a comparative view of the different aspect of the performance of an organization. For the purpose of analysis, balance sheet, income statement and cash flow statement are considered as the main financial statements for a company.

Accountants are responsible from the measurement on financial reporting to incorporate fair values into proper financial statements by recognizing an increased obligation to help investors in predicting future firm performance.

Technology integration is helping to collect and analyze data. In fact, not only are financial technologies helping to calculate ratios, they are helping in forecast estimates as well as new measure of data collection.

Fintech and Accounting Profession

Technology has made an undeniable impact on the accounting industry. Before accountants had computers, they had to use calculators to manually reconcile financial documents against paper ledgers. Records were significantly less accurate than they are today, and calculation errors were difficult to catch. The advent of computer-based accounting technology dramatically changed the accounting industry. The most significant technological changes occurred after accounting software became widespread (Pepe, 2020).

Of all the information technology advancements that have shaped the accounting industry, software has had the largest impact. In the latter half of the 20th century, technology companies developed innovative spreadsheet software for accountants to use on computers. Instead of using handwritten ledgers and calculators, accounting professionals could now automate equations in an electronic spreadsheet. Spreadsheet software allowed public accounting professions to spend less time on tedious tasks and focus more on finding solutions for high-level issues (Ledger, 2021). Early spreadsheet software paved the way for more advanced technology, including automated accounts payable software and payroll and tax automation programs. Automated accounts payable software eliminated the need for manual data entry by pulling essential information from financial documents and entering that information into a database. Payroll and tax automation software streamlined human resource tasks by automatically calculating payments, applying tax rates, and storing employee tax information (Ledger, 2021).

When the entire business model changes so does change the way of accounting and auditing. Robotics is being used to do the accounting free of manual intervention whereas the machine learning and artificial intelligence is helping identify patterns and generates the exception reports which leaves the auditor with specific grey areas(Choudhary, 2021).

The impact technology will have on the accounting profession is a common concern among accountants. According to research undertaken by **Wolters Kluwer in 2019**, 86% of all accounting tasks can now be automated using technology that exists today, which continues to get more powerful as it utilizes AI and cloud computing. But this technology does not mean the

accountant's role will become redundant, but rather that it needs to adapt, and represents an opportunity for trainee accountants to get ahead of the game. "Clearly the development of accounting software, through automation and cloud-based technology, has had a major impact on the day to day tasks an accountant is required to undertake.

Having a good understanding of technology will free an accountant's time to focus on this advisory work. Intelligent use of technology leads to efficiency, and automation and AI are becoming key to this. Chris (2020).

The accounting profession is rapidly transforming partially due to productivity optimization available through newer technologies (Pepe, 2020). Today's accountant is no longer burdened with task-oriented projects. Instead, thanks to the shift in dynamic accounting technology, accounting software programs are becoming more automated and the role of the accountant is changing to that of a business advisor. The role shift of the modern accountant to a business advisor requires new skill-sets, including professional skepticism, judgment, and critical thinking skills. These skills will remain a high priority to accounting firms when looking at new hires. While the profession is rapidly changing due to emerging technologies, the need for these types of soft skills remains constant (Pepe, 2020).

Theoretical framework

Technology Acceptance Model (TAM) by Davis Jnr. (1986)

The Technology Acceptance Model (Davis, 1986), posits that there are two factors that determine whether a new technology system will be accepted by its potential users: (1) perceived usefulness, and (2) perceived ease of use. The key feature of this model is its emphasis on the perceptions of the potential user. That is, while the creator of a given technology product may believe the product is useful and user-friendly, it will not be accepted by its potential users unless the users share those beliefs. Technology Acceptance Model (TAM) developed by Davis (1986) is one of the most popular research models to predict use and acceptance of information systems and technology by individual users. TAM has been widely studied and verified by different studies that examine the individual technology acceptance behaviour in different information systems constructs. Davis (1986) developed the TAM, which is based on the Theory of Reasoned Action (TRA), to understand the causal relationships among users' internal beliefs, attitudes, and intentions as well as to predict and explain acceptance of computer technology. This model posits that the user's actual usage behaviour (actual use or AU) is directly

affected by behavioral intention (intention to use or IU). In turn, behavioural intention is determined by both the user’s attitude and its perception of usefulness. The user’s attitude is considered to be significantly influenced by two key beliefs, perceived usefulness (PU) and perceived ease of use (PEOU) and that these beliefs act as mediators between external variables (e.g. design features, prior usage and experience, computer self-efficacy and confidence in technology) and intention to use.

The goal of Davis’ (1986) TAM is to explain the general determinants of computer acceptance that lead to explaining users’ behaviour across a broad range of end-user computing technologies and user populations. The basic TAM model included and tested two specific beliefs: Perceived Usefulness (PU) and Perceived Ease of Use (PEU). Perceived Usefulness is defined as the potential user’s subjective likelihood that the use of a certain system (e.g: single platform E-payment System) will improve his/her action and Perceived Ease of Use refers to the degree to which the potential user expects the target system to be effortless.

These two factors are influenced by external variables. The main external factors that are usually manifested are social factors, cultural factors and political factors. Social factors include language, skills and facilitating conditions. Political factors are mainly the impact of using technology in politics and political crisis. The attitude to use is concerned with the user’s evaluation of the desirability of employing a particular information system application. Behavioral intention is the measure of the likelihood of a person employing the application.

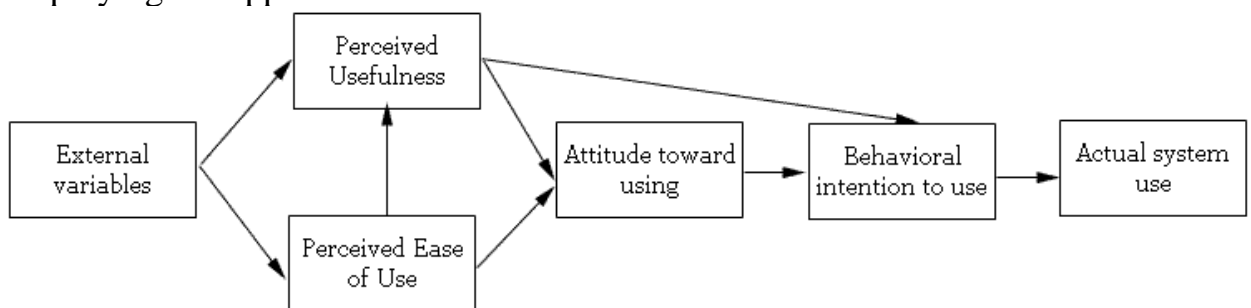


Fig 1: Technology acceptance Model (TAM) Davis (1986)

Perceived Usefulness (PU) - PU is defined as “the extent to which a person believes that using a particular system will enhance his or her job performance” (Davis, 1986). Consequently, it is related to the belief that a technology enhances an individual’s performance. The TAM and its extended

models from other researchers uncovers that PU enhances a person's objective in mandatory and voluntary situations.

Perceived Ease of Use (PEU) is the extent to which a person believes that using a particular system will be free of effort. Studies validated that when individuals think employing a certain technology is easy to use, they will be inclined to work with it (Davis, 1986). Connecting this fact to social media, it is assumed that if social media are easy to handle, managers will make use of it. As in the case of PU, PEU has an influence on a person's attitude towards using their technology system (Davis, 1986).

The application of TAM is diverse: from wireless Internet and multimedia-on-demand to collaborative technologies. Large volumes of these studies modified Davis' TAM (1986) to improve its (predictive) validity and applicability to various technologies. TAM's four major variables are: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Behavioural Intention (BI), and Behaviour (B). PU is used as both a dependent and independent variable since it is predicted by PEOU, and predicts BI and B at the same time. Behaviour was usually measured using frequency of use, amount of time using, actual number of usages, and diversity of usage. However, for this study Perceived Ease of Use (PEOU) measured by the changes in the accounting profession is the dependent variable. This will help in establishing Perceived Usefulness (PU), Behavioural Intention (BI), and Behaviour (B).

Empirical study

Several studies conducted by some researchers on the contributions of digital technologies to accounting profession and accounting education. They are discussed in details.

Juita (2019) studied the impact of financial technology (fintech) on accounting education and practitioners in west sumatera. In particular, this study wants to observe the impacts, opportunities and challenges presented by FINTECH on the field of accounting education and professional accounting profession in West Sumatra. Through literature studies and in-depth interviews with three group of stakeholders (Academician, Professional Accountant, Regulator) in the accounting sector in West Sumatra and applying triangulation analysis, this study found that management in accounting education institutions, practitioners and regulators viewed the development of FINTECH very positively which was not seen as just a challenge but also a good opportunity

for accountants and prospective accountants to be able to increase their readiness and capacity to face the era of digital technology.

Allbabidi (2021) examined how technological, organisational and environmental (TOE) factors affect digital technologies' utilisation and its impact on auditors' performance. A survey was conducted on 4 large and non-large companies in Jordan, and data were retrieved from 168 external auditors. The partial least squares (PLS-3) structural equations modelling was used to analyse data and to test the proposed model. Results show that the TOE factors have a significant and positive effect on digital technologies utilisation. It also appears to enhance auditors' performance.

Suleimen (2021) aimed at identifying the impact of big data analysis on the accounting Profession in Jordanian business environment. To achieve the study objectives researcher distributed a questionnaire to (147) out of certified public accounts, financial analysis and experts in big data analysis in the kingdom of Jordan. (108) questionnaires were returned. The response rate was (51.7%) of the population. In addition, the study sought to verify the hypothesis of the study. In order to analysis the data, the researcher used means, standard deviation and T-test. The result of the study revealed that the big data analysis have a significant role on the accounting roles and improve the quality of accounting characteristics in Jordan with an overall means (4.52). Based on the results of hypotheses, rejected the null basic hypothesis of the study, and the two null sub-hypotheses were rejected.

Karmańska (2021) identified the benefits and challenges of the Internet of Things (IoT) application in the accounting field of organisations. The study adopts a questionnaire and an interview technique in a company from the road transport sector. The questionnaire research sample includes 151 accounting practitioners and students. Data are collected through the use of an online survey. A principal axis factor analysis with the Promax rotation is conducted to assess the underlying structure for the items of the questionnaire. The research outcomes indicate that, in the opinion of accountants and students, the IoT adoption enables the organisation to perform enhanced reporting analysis based on a large amount of data gained through sensors (mean = 3.98), access to data through cloud computing (3.97), and accounting process automation (3.95). From the point of view of managers, the most important benefit is the increase in employee productivity and asset management. The respondents indicate the following aspects as challenges: the creation of infrastructure for the adoption of new technology, which accounted for 40.22% of the variance,

and cyber security, loss of privacy (7.23% of the explained variance). The findings reveal benefits and challenges for IoT adoption and could support managers in deploying new technology in their organisations.

In the study conducted by Pepe (2011), it was emphasized that the widespread use of information technologies in enterprises in digital age changed the nature of accounting activities and this situation spread use of information technologies among accounting professionals. In the research, it aims to review selected articles published between 2004 and 2014 based on selected search phrases. The findings of the review may serve as an important input for current and future accounting curriculum revisions.

Watson (2022) tried to determine what competencies are required for accounting teaching in the digital age by a survey study applied to the lecturers who give accounting courses in Brazilian universities. According to the results of the study, accounting instructors emphasized the need for continuing education in order to adapt to the ever-developing digital technology.

Jorge de Jesus and Eirado (2012) analyzed and systematized the key challenges that digitalization brings for the accounting profession. Research is based on the review of relevant and available professional and academic literature. The results are showing that accounting profession is faced with numerous challenges in the era of digitalization. Key challenges could be systematized in following: the use of big data in accounting and reporting, cloud computing and continuous accounting, artificial intelligence and blockchain technology. The conclusion of this research is that changes in technology and digitalization will have a significant impact on the accounting profession in the coming period. Changes are moving toward reporting on a daily basis, difference on the way of preparing business and strategic plans, implementation of digital wallet and on-line accounting as well as outsourcing of accounting in distant countries.

Digitalization will affect the development of accounting profession, from skills, to tasks and roles up to nature of work and work environments. The potential impact of digital technologies is huge and it is predicted that the world is at its early stages of the disruptive impact of digital technologies on occupations. The gap of this study, thus, is to seek to scholarly analyse the potential impacts of digital technologies on the accounting profession, by analysing the technologies that will most likely be adopted by accountants, the impacts, benefits, challenges as well as exploring the policy directions for companies, accountants and for the accounting profession as a whole.

Methodology

The study employed the descriptive survey research. This allowed the researcher to study the phenomenon by sampling a representative portion of the population. The population for this study 1280 certified accountants in Akwa Ibom State. The records of the certified accountants came from ANAN and registered members. The sample size of the study is 127 respondents drawn from the certified accountants in Akwa Ibom State. Purposive sampling technique was used to sample accounting professionals with knowledge and application of digital technologies in accounting. This allowed the researcher to work with people with experience on accounting and digital technologies. Both the dependent and the independent variables were collected through primary data. The researcher developed instrument titled “Digital technologies and Accounting professionals Questionnaire” was used for data collection. The study made use of primary data. Accounting experts were interviewed and questionnaire administered to ascertain their opinion on the penetration, impacts and potential effects of digital technologies on the accounting profession. The instrument was validated by three accounting experts in Akwa Ibom State. Thereafter, the instrument was trial tested for reliability using the test retest method on 20 respondents. The data collated was tested through Pearson product moment correlation, which gave a value of .88. This was deemed good enough and the instrument was then deemed fit for the study.

The instrument was administered to the respondents in the study area by the researcher and briefed research assistants who helped the researcher to cover the study area and reach out to the sampled population on time. The certified accountants responded to the items on the questionnaire. 127 copies were fit for analysis, this represented 77% return rate. Their responses were then collated and coded for data analysis. Frequencies and descriptive statistics were used for answering the research questions while simple linear regression was used to test the hypothesis at .05 level of significance.

Research Hypotheses

H₀₁: Audit technology does not significantly influence on the accounting profession

H₀₂: Disruptive technologies adoption has a significant positive effect on the accounting profession.

H₀₃: Financial technology has a significant benefit on accounting profession.

Model Specification

For simple linear regression the simple model is

$$Y = a + \beta X_1 + \beta X_2 + \varepsilon$$

Where

Y=accounting profession (ACCP) the dependent variable

X₁= AUT= Audit technology

X₂=DIR= Digital disruption

a=constant

β= coefficient of variable

ε= error term

$$ACCP = a + \beta AUT + \beta DIR + \varepsilon$$

Data Presentation

The data for the study were obtained from 127 certified accountants in Akwa Ibom State. The demographic description of the respondents is presented in Tables.

Table 1. Summary of characteristics of respondents

		N	Total	%
Gender	Male	73		57.48%
	Female	54		42.52%
Age	30-35	23		18.11%
	36-40	26		20.47%
	41-45	36		28.35%
	46-50	30		23.62%
	>50	12	127	9.45%
Marital Status	Married	68		53.54%
	Single	37		29.13%
	Separated	5		3.94%
	Widowed	17	127	13.39%
Occupation	Lecturing	15		11.81%
	Banker	40		31.50%
	Public servant	23		18.11%
	Private sector	39		30.71%
	Entrepreneur	10	127	7.87%
Years of Experience	1-5yrs	20		15.75%
	6-10yrs	47		37.01%
	11-15yrs	33		25.98%
	16yrs and above	27	127	21.26%

The total respondents for the study was 127. This was made up of Lecturers 15 lecturers, representing 11.81%, 31.5% of the respondents were bankers while 18% were public accountants. 30.7% were private sector accountants while 7.8% were heads of accounting firms. 57% of respondents were males while 43% were females. The years of experience were spread between 1-5yrs (16%), 6-10yrs(37%), 11-15yrs(26%) and 16 and above was 21%.

Data Analysis

Research question 1: To what extent does audit technology impact on financial reporting?

H₀₁: Audit technology does not significantly influence on the accounting profession

Table 2: Auditing technologies impact on financial reporting

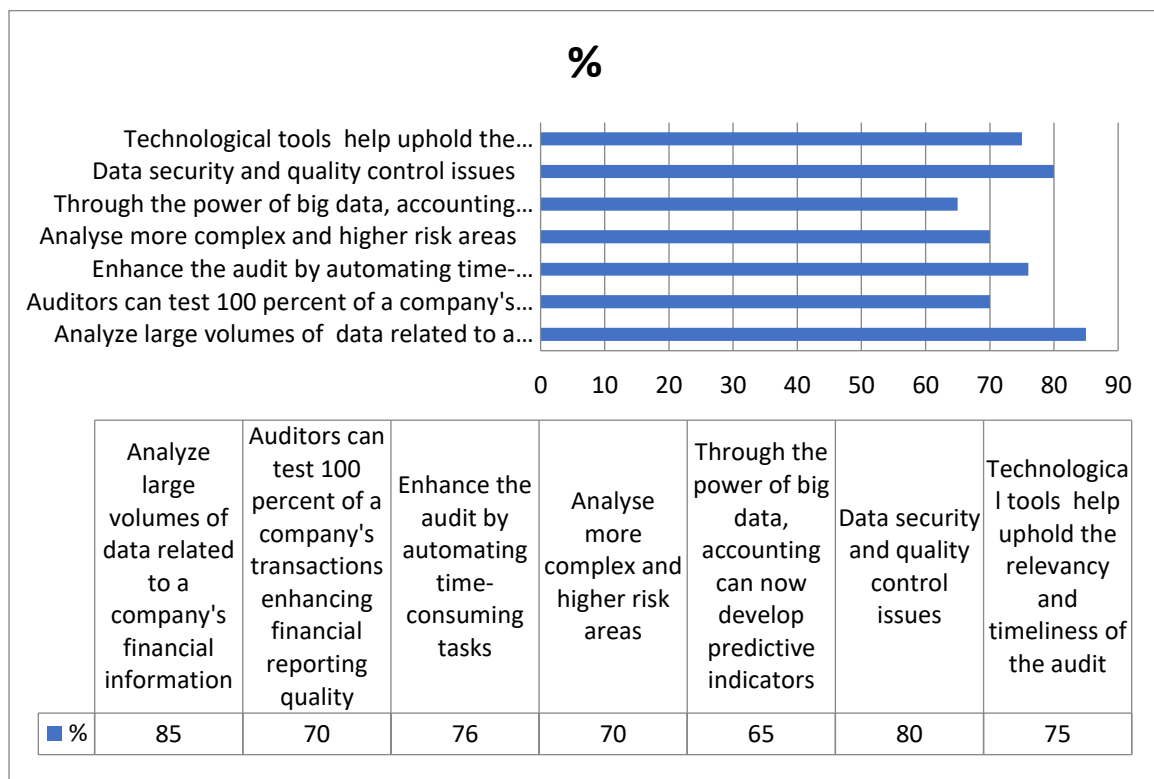


Figure presents the chart for responses of experts on how auditing technology is impacting on financial reporting. The result shows that it is helping to analyse large volumes of both structured and un-structured data related to a company's financial information. Through the power of big data, auditors will be able to correlate disparate data information to develop predictive indicators.

Financial technological tools help uphold the relevancy and timeliness of the audit

Research Question 2: What challenges do digital technologies pose on financial statement analysis?

Ho₂: Disruptive technologies adoption has a significant positive effect on the accounting profession.

Table 3: Challenges of adoption of digital technological advancements on the accounting profession

S/N	challenges adoption of digital technological advancements in the accounting profession	Mean	Std. Dev	Remarks
1	Cost of digital automation	3.24	1.11	Agreed
2	Shortage of specific skills (e.g. ICT/digital)	3.07	1.20	Agreed
3	Cumbersome public administration procedures	3.36	1.07	Agreed
4	Specific features of the service that do not allow for digitalization	3.32	1.08	Agreed
5	Regulatory constraints (e.g. Data protection, etc.)	3.20	1.09	Agreed
6	Limits of the technological infrastructure	3.17	1.12	Agreed
7	Reliability of new technologies (e.g. bias in algorithms, etc.)	3.07	1.21	Agreed
8	Lack of commitment from personnel/ top management	3.00	1.21	Agreed
9	tech-phobia clients	3.20	1.09	Agreed
10	Cyber security issues	3.32	1.08	Agreed

Presented is the summary of the responses of experts in the challenges of adopting digital technological advancements in the accounting profession. The identified challenges are cost of digital automation, skills shortages, weak regulatory framework, some jobs do not require digitalization, reliability of new technologies as well as lack of commitment from personnel.

Research question 3: What are the benefits of financial technologies to the accounting profession?

Ho₃: Financial technology has a significant benefit on accounting profession.

Table 4: Summary of descriptive analysis of respondents on the benefits of emerging technological advancements on the accounting profession

S/N	Benefits of digital technological advancements on the accounting profession	Mean	Std. Dev	Remarks
1	Better decision making	3.85	0.78	*SA
2	Cost and Time Optimization	3.89	0.87	SA
3	Streamlined Accounting Processes	3.89	0.93	SA
4	Better Risk Management	3.86	1.05	SA
5	Automating tedious tasks	3.89	0.71	SA
6	minimizing cost	3.52	0.77	SA
7	Expand the range of services offered	3.89	0.53	SA
8	accountants can now focus on financial analysis	3.77	0.49	SA
9	support remote work	3.80	1.04	SA
10	perform accounting functions	3.78	1.15	SA

*SA- Strongly Agree

The respondent's views on the benefits of digital technological advancements on the accounting profession is summarized in Table 3. The result shows that the respondents have mean values above 3.0 the cut off mean and also the values are higher than 3.50, indicating that they all strongly agreed that all the items are the benefits of digital technological advancements on the accounting profession. The identified benefits of digital technological advancements on the accounting profession are better decision making, cost and time optimization, better risk management, automation of tasks, service expansion among others.

Testing of Hypotheses

All the three hypotheses were tested at .05 level of significance

Testing of hypotheses 1

H₀₁: audit technology does not significantly influence on the accounting profession

Table 5: Summary of Simple Linear regression test for significant influence of audit technology on financial reporting

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.755	.205		13.433	.000
audit technology	.149	.075	.458	1.983	.050

r=458, R²=.342, Adjusted R²=.116

The summary of the linear regression test for influence of audit technologies on the accounting profession is presented. The result shows that as audit technology increases by a unit, changes in the accounting profession also rises by .149. This shows that audit technologies have positive effects on the accounting profession. The result also shows that the R² value is .342, indicating that 34.2% changes in the accounting profession is as a result of audit technologies. This result is significant at .05. Thus, audit technology adoption has a significant positive influence on the accounting profession.

Testing of Hypotheses 2

H₀₂: Disruptive technologies adoption has a significant positive effect on the accounting profession.

Table 6: Summary of Simple Linear regression test for significant influence of disruptive technologies on the accounting profession

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.365	.252		14.772	.000
disruptive technology	.248	.138	.546	1.338	.000

r=546, R²=.417, Adjusted R²=.209

Presented is the summary of the linear regression test for influence of a disruptive technologies on the accounting profession. The result shows that as disruptive technology increases by a unit, changes in the accounting profession also rises by .248. This shows that disruptive technologies have positive effects on the accounting profession. The result also shows that the R^2 value is .417, indicating that 41.7% changes in the accounting profession is as a result of disruptive technologies. The result is significant at .000, thus, disruptive technologies adoption has a significant positive effect on the accounting profession.

Testing of hypotheses 3

H₀₃: Financial technology has a significant benefit on accounting profession.

Table 7: Summary of t-test analysis for benefits of financial technologies to the accounting profession

S/N	Benefits of digital technological advancements on the accounting profession	Mean	Std. Dev	tcal	p-value
1	Better decision making	3.85	0.78	3.33	0.76
2	Cost and Time Optimization	3.89	0.87	2.09	0.12
3	Streamlined Accounting Processes	3.89	0.93	4.41	0.34
4	Better Risk Management	3.86	1.05	2.08	0.18
5	Automating tedious tasks	3.89	0.71	2.89	0.45
6	minimizing cost	3.52	0.77	2.07	0.29
7	Expand the range of services offered	3.89	0.53	5.32	0.18
8	accountants can now focus on financial analysis	3.77	0.49	4.41	0.14
9	support remote work	3.80	1.04	4.92	0.21
10	perform accounting functions	3.78	1.15	3.45	0.12
	cumulative mean	3.81	0.83	3.50	0.28

The table summarizes the item by item t-test analysis of benefits of financial technologies to the accounting profession. The result shows that the cumulative mean is 3.381 and the standard deviation score is .83. The pooled t-test value is 3.50 and the probability value is .28. Since the probability value (pavalue) is greater than the alpha level of .05 ($P_{.05, .28}$), the result is not significant and the null hypothesis is retained. Thus, experts do not differ significantly on the benefits of financial technologies to the accounting profession.

Discussion of Findings

Audit Technology and its Impact on Financial Reporting

The result shows that audit technology is helping to analyse large volumes of both structured and un-structured data related to a company's financial information. Through the power of big data, auditors will be able to correlate disparate data information to develop predictive indicators. Financial technological tools help uphold the relevancy and timeliness of the audit. The corresponding hypothesis test shows that audit technology adoption has a significant positive influence on the accounting profession. This finding is in line with Juita (2019) and Allbabidi (2021) who found that technological, organisational and environmental (TOE) factors have a significant and positive effect on digital technologies utilisation. It also appears to enhance auditors' performance.

Challenges adoption of financial technologies in the accounting profession

Findings of the study shows that the identified challenges are cost of digital automation, skills shortages, weak regulatory framework, some jobs do not require digitalization, reliability of new technologies as well as lack of commitment from personnel. The hypothesis test shows that emerging digital technologies adoption will significantly predict the nature of skills in the accountancy profession. This finding is corroborated by (Gulin, et al 2019) who analyzed key challenges that digitalization brings for the accounting profession. The results shows that accounting profession is faced with numerous challenges in the era of digitalization. Key challenges are the use of big data in accounting and reporting, cloud computing and continuous accounting, artificial intelligence and blockchain technology. The conclusion of this research is that changes in technology and digitalization will have a significant impact on the accounting profession including skills in the coming period.

Benefits of Digital Technologies to the Accounting Profession

Result of analysis shows that the major impacts as identified by the respondents are accounting digital solutions. That is, new digital accounting products and services are being introduced into the profession. This in effect leads to new roles and tasks for accountants. Consequently, the need for new skills and retraining of staff and accounting students in new technology applications in accounting is identified as an impact of digital technologies. The work environment is most likely to be impacted as new solutions will require new tools, work stations and new methods of collaboration. The benefits of digital technologies as identified by the study are better decision

making, cost and time optimization, better risk management, automation of tasks, service expansion among others. This finding is supported by ICAEW (2019) report who indicated the following benefits more accurate and automated transaction processing, asset tracking which led to reduced downtime, improved information quality and lower audit costs automated stock checking, asset location, improved assets analysis and improved assets utilisation through developed process and asset sharing. The corresponding hypothesis test shows that disruptive technology adoption has a significant positive effect on the changes in the accountancy profession in Akwa ibom state. This finding is in line with Pan and Seow (2016) who found that the widespread use of information technologies in enterprises in digital age changed the nature of accounting activities and this situation spread use of information technologies among accounting professionals.

Stakeholders' Perspective

The study surveyed the perspectives of experts on the impacts of financial technologies on the accounting profession. The impacts on skills, tasks and work environment as well as the challenges of adoption of digital technologies by accountants in Akwa ibom state were studied. As the descriptive survey was used for the study, certified accounting experts were used as respondents. Data was obtained through questionnaire. The findings of the study are hereby summarized:

1. The result shows that the identified digital technologies are artificial intelligence, enterprise resource planning, internet of things (IoT), blockchain technology, cloud accounting technology and big data analysis.
2. The major impacts as identified by the respondents are accounting digital solutions replacing traditional accounting solutions, changing roles and tasks for accountants. Consequently, the need for new skills and retraining of staff and accounting students in new technology applications in accounting is identified as an impact of digital technologies.
3. The identified benefits of financial technologies on the accounting profession are better decision making, cost and time optimization, better risk management, automation of tasks, service expansion among others.
4. The identified challenges of adoption of digital technologies are cost of digital automation, skills shortages, cyber security, weak regulatory framework, tech-phobia clients, some jobs do not require digitalization, reliability of new technologies as well as lack of commitment from personnel.
5. Audit technologies has a significant positive effect on the changes in the accountancy profession.

6. Financial technology adoption has a significant positive effect on the changes in the accountancy profession.

Conclusion

Digitalization and the development of information technologies represent a great opportunity for accountants. Furthermore, digitalization brings a lot of changes for accounting profession. It will change the way accountants work and think. Despite many of accountants think that digitalization will take their jobs, and that robots will replace humans, results show that accountants will use digital solutions and automation for routine tasks rather than replace accountants. The outcome of this study shows that artificial intelligence, big data, blockchain, cloud accounting technology as well as internet of things (IoT) have a significant effect on the accounting profession. The result concludes that audit digital technologies has positive influence on the accounting profession. Financial technologies will alter the tasks of accountants as well as the work environment. Financial technologies have a positive effect on the accounting profession.

Recommendations

Based on the findings of the study, the following recommendations are made

1. Audit technologies should be imbibed by accountants and accounting firms as it eases the auditing process and enhances financial reporting quality.
2. Accountants should embrace information technology courses vigorously to align them with the new technologies so that they can flow along with the changes and able to cope with the challenges is imposing on the profession.
3. In order to keep adding value for the company, accountants need to developed new skills and acquire new knowledge regarding the use of artificial intelligence and other digital solutions in modern business environment.
4. For successful career of future accountants are important many skills and those are motivation, good written and oral communication, capability of decision making, financial analysis and professional judgement.
5. Finally, accountants will have a significant proactive role in conducting and performing company's business, so it is required that they will collaborate with employees in other functions, especially with IT experts.

References

- Abdennadher, S., Grassa, R., Abdulla, H. & Alfalasi, A. (2022). The effects of blockchain technology on the accounting and assurance profession in the UAE: an exploratory study. *Journal of Financial Reporting and Accounting*, 20(1), 53-71. <https://doi.org/10.1108/JFRA-05-2020-0151>.
- ACCA (2021). Blockchain: Is it still the great accountancy disruptor? <https://www.accaglobal.com/africa/en/student/sa/features/blockchain.html>
- Accounting cloud (2021). How fintech is changing the skill set of accountants. <https://theaccountancycloud.com/blogs/how-fintech-is-changing-the-skill-set-of-accountants>
- Accountingweb (2016). IOT & its Impact on Accounting Practices. <https://www.accountingweb.com/community/blogs/akash-deb/iot-its-impact-on-accounting-practices>
- Allbabidi, M. (2021). Hype or hope: digital technologies in auditing process. *Asian Journal of Business and Accounting* 14(1), 59-85.
- Alles, M. G., Kogan, a. & Vasarhelyi, M. A. (2008). Putting Continuous Auditing theory into practice: lessons from two Pilot Implementations. *Journal of information systems* 22: 195-214.
- Association of Chartered Certified Accountants, Acca (2020). Future ready: Accountancy Careers in the 2020s; Association of Chartered Certified Accountants: London, UK, 2020; pp. 1–72.
- Bernard, M. (2020). Artificial intelligence in accounting and finance. <https://bernardmarr.com/artificial-intelligence-in-accounting-and-finance/>
- Bhargava, p. (2017). Financial analysis of information and technology industry of India (a case study of Wipro Ltd and Infosys Ltd). *Journal of accounting, finance and auditing studies* 3(3), 1-13.
- Choudhary, R. (2021). Impact of Financial Technology on Accounting & Auditing. <https://caknowledge.com/impact-of-financial-technology-on-accounting-auditing/>
- Chris, J. (2020). Tech Changes Accountants' Skillset. Available at <https://www.accountancyage.com/2020/02/28/tech-changes-accountants-skillset/>
- Cpacanada (2018), Blockchain Technology and its Potential Impact on the Audit and Assurance Profession, <https://www.cpacanada.ca/en/business-and-accounting-resources/audit-and-assurance/canadian-auditing-standards-cas/publications/impact-of-blockchain-on-audit>.

- Dai, J. & Vasarhelyi, M. (2016). Imagineering Audit 4.0. *Journal of Emerging Technologies in Accounting*,13: 1-15.
- Dapp, T. F., Slomka, I. & Hoffmann, R. (2014). *Fintech-the Digital (r)evolution in the financial sector: algorithm-based banking with the human touch*. Deutsche bank research.
- Davis, F. D.(1986). *A Technology Acceptance Model for Empirically Testing new end-user Information Systems: Theory and Results*. Doctoral Dissertation. Massachusetts Institute of Technology.
- Debreceeny, R., Lee, S., Neo, W. & Shuling Toh, J. (2005). Employing generalized audit software in the financial services sector: challenges and opportunities. *Managerial Auditing Journal*. 20 (6): 605–618. Doi:10.1108/02686900510606092.
- Deloitte (2016). *Deloitte forms Alliance with Kira Systems to drive the adoption of Artificial Intelligence in the workplace*.
- Demirkan, S., Demirkan, I., Mckee, a. (2020). Blockchain technology in the future of business cyber security and accounting. *Journal of management analytics*. 7 (2): 189–208. Doi:10.1080/23270012.2020.1731721.
- Dinardo, F.(2015). *The rise of alternative finance: how fintech companies are revolutionizing the financial services and the traditional bank financing*. Thesis, Universita degli studi di padova.
- Ferry, B., George, T. & Christian, I.(2016). *Technology and the performance of accountants in tertiary institutions in rivers state, nigeria*. *Quest Journals Journal of Research in Mechanical Engineering*, 3(1), 18-24.
- Gartner inc. (2018). *Big data*. <https://www.gartner.com/glossary/big-data>
- Giuseppe, B. & Taylor, f.(2019). *Ima releases new report on the impact of big data on Finance*. Institute of Management Accountants, Ima. Montvale, N.J.
- Ian, M. (2021). *Cloud Accounting Basics: what it is & reasons to use*. <https://www.netsuite.com/portal/resource/articles/accounting/cloud-accounting.shtml>
- Institute of chartered accountants in england and wales (icaew) (2019). *the internet of things and accounting: lessons from china*. <https://www.icaew.com/-/media/corporate/files/technical/business-and-financial-management/information-and-knowledge-management/internet-of-things-and-accounting.ashx>.

- Issa, H., Sun, T. & Vasarhely, M. (2016) Research Ideas for Artificial Intelligence in Auditing: the Formalization of audit and workforce supplementation. *Journal of emerging Technologies in Accounting*, 13: 1-20.
- Jorge De Jesus, M.A. & Eirado, J.S.B. (2012). Relevance of accounting information to public sector accountability: a study of Brazilian Federal Public Universities. *Tékhné - review of applied Management Studies*, 10, 87-98.
- Juita, V.(2019). The Impact of Financial Technology (Fintech) on Accounting Education and practice in west Sumatera. In: *ic-asean Universitas Andalas 2019*, 5-6 September 2019, Padang, Indonesia.
- Kagan, J.(2022). Financial Technology (Fintech): its uses and impact on our lives. <https://www.investopedia.com/terms/f/fintech.asp#citation-1>
- Kamal, S. (2015). Historical Evolution of Management Accounting. *The cost and Management*, 43(4), 12-19.
- Kaplan, B. F. (2018). Controllership and the workforce of the future: understanding the impact of technology on accounting talent. *Deloitte perspectives*. Retrieved from <https://www2.deloitte.com/us/en/pages/risk/articles/impact-of-technology-on-accounting-profession-center-for-controllership-blog.html>
- Ken, t.and jeff, d.(2018). 4 skills accountants need to succeed in a tech-enabled future. Available at <https://www.journalofaccountancy.com/issues/2018/jun/technology-skills-for-accountants.html>.
- Kennan, F.(2020). Why data analytics matters to accountants. <https://www.kenan-flagler.unc.edu/perspectives/why-data-analytics-matter-to-accountants/>
- Kokina, J., Mancha, R. & Pachamanova, D. (2017). Blockchain: emergent industry adoption and implications for accounting. *Journal Of Emerging Technologies In Accounting*, 14 (2), 91-100. DOI: 10.2308/ jeta-51911.
- Kroon, N., Alves, M.d.C. & Martins, I. (2021). The impacts of emerging technologies on accountants' role and skills: connecting to open innovation—a systematic literature review. *Journal of Open Innovation Technology*, 7, 163. <https://doi.org/10.3390/joitmc7030163>.
- Ledger, J. (2021). 5 ways technology has changed the accounting industry in the last 5 years. <https://www.jmark.com/5-ways-technology-has-changed-the-accounting-industry/>
- Mac. (2019). Artificial Intelligence in Accounting. <https://onlinedegrees.und.edu/blog/artificial-intelligence-in-accounting/>

- Maryville University (2021). Uses of data analytics in accounting and finance. <https://online.maryville.edu/blog/data-analytics-in-accounting/>
- Mohammed, M.(2021). Knowledge and use of accounting software: evidence from Oman. *Journal of Industry-University Collaboration*, 3(1),2-14.
- Morrison, a. (2016) blockchain and smart contract automation: how smart contracts Automate Digital Business. Pricewaterhouse coopers (PWC)
- Özdoğan, B. & Kargin, S. (2018). Blok Zinciri Teknolojisinin Muhasebe Ve Finans Alanlarına Yönelik Yansımaları Ve Beklentiler, *Muhasebe ve Finansman Dergisi*, Ekim (80), 161-175.
- Pepe, a. (2020). Five ways technology is transforming accounting. <https://accounting.uworld.com/blog/cpa-review/5-ways-technology-transforming-accounting/#:~:text=the%20accounting%20profession%20is%20rapidly,burdened%20with%20task%2doriented%20projects.>
- Pepe, A.A. (2011). The evolution of technology for the accounting profession. CPA practice advisor
- Schimitz, J. and Grayston, C. (2020). What are finance professionals and business leaders considering as they plan for the new normal in the recovery phase? Available at: <https://intheblack.com/articles>.
- Shagari, S., Abdullah, A., & Mat Saat, R. (2015). Accounting information systems effectiveness: evidence from the Nigerian banking sector. *Interdisciplinary Journal of Information, Knowledge, and Management*, 12, 309-335.
- Singer, M. & Kusz, G.(2021). Blockchain Technology: shaping the future of the accountancy profession. International federation of accountants, IFAC. <https://www.ifac.org/knowledge-gateway/preparing-future-ready-professionals/discussion/blockchain-technology-shaping-future-accountancy-profession>
- Suleiman, M. (2021). Impact of big data analysis on accounting profession field – study in jordanian business environment. *International Journal of Accounting and Financial Reporting*, 11(1),1-23.
- Uçma, T. & Kurt, G. (2018). Muhasebede Ve Denetimde Blok Zinciri Teknolojisi. *Süleyman Demirel Üniversitesi İİBF Dergisi*, 23 (2), 467-481.
- Ukpong, E.G., Udoh, I.I & Essien, I.T.(2019). Artificial intelligence: opportunities, issues and applications in accounting and auditing in Nigeria. *Asian Journal of Economics, Business and Accounting*, 10 (1), 1-6.

- Uford, I. C. (2018). E-Banking application and Sterling Bank customers' adoption: Issues, challenges and benefits. *Business and Social Sciences Journal (BSSJ)*, 3(2), 1-12.
- Uford, I. C. & Joseph, U. (2019). Effect of electronic banking on the marketing of deposit money bank's products in Uyo Metropolis. *Journal of Business Sciences (JBS)*, 3(1), 53-74.
- Uwah, U. E., & Akininnyi, P. E. (2020). Toward capital commitment in Research and Development, and future of Nigerian listed manufacturing companies: The economic value added approach. *International Journal of Innovative Science and Research Technology*, 5(3), 19-30.
- Uwah, U. E., Udoayang, J. O. & Uklala, P. A. (2022). Post COVID-19 and the acceptance of financial inclusion as a new normal in financial transactions: Implications for Nigerian Accountants and other financial service providers. *Athens Journal of Business & Economics*, 8 (3), 193-213. <https://doi.org/10.30958/ajbe.8-3-1>.
- Watson, J. (2020). How will the internet of things (IoT) affect the accounting profession? <https://www.acecloudhosting.com/blog/internet-of-things-impacts-accounting/>
- Watson, J. (2022). How big data is impacting accounting firms in 2022. <https://www.acecloudhosting.com/blog/how-big-data-impacting-accounting-firms/>
- Wolters (2019). Why you need to build a future fit practice today. Available at <https://www.accountancyage.com/2019/12/04/why-you-need-to-build-a-future-fit-practice-today/>