Shift to Digital Audit: A Study Investigating the Benefits and Challenges of Digitalization on the Audit Profession

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ABSTRACT

This study intends to evaluate the perceived benefits and challenges that these technologies offer in the context of digitalization, to one of the most suitable professions for the particular procedure; the audit profession. A qualitative study was conducted to gain a better grasp of the implications of digitalization on audit tools in the audit profession. This is accomplished by conducting ten (10) semi-structured interviews with professional auditors, emphasizing interpretation. It has been found that this study backs up some of the conclusions of prior research on the issue of digital auditing. Conclusively, the empirical findings of this study support the assumption that auditors believe digitalization will become even more popular in the future and that it will not result in job losses, as prior studies have suggested.
INTRODUCTION

Digital technologies’ emergence became progressively significant due to their effectiveness in facilitating the generation of decisions that can materially aid investors and other stakeholders (Handoko et al., 2018). With that said, investing in digital technologies is an immediate option for companies to realize operational performance growth and financial reporting quality development (Wicaksono & Lusianah, 2016). Society is becoming digitalized on a worldwide scale, consequently, even auditors rely on information and communication (Arsenie-Samoil, 2010; FAR, 2015; FAR 2016). According to Jeff Gray and Bernhard Rumpe (2015), digitalization is the activity of transforming business models and creating new income and value production possibilities through the use of digital technology. On the other hand, digitization is the transformation from analog to digital form (Gatner, 2015). The conclusion was reached that digitalization is an inevitable shift in the audit profession (Karlsen & Wallberg, 2017).

The audit profession is already under pressure in developing ways to build trust in both audited reports and the profession itself. Auditors are usually expected to increase their productivity level and social flexibility because of the existence of digital technologies. Hence, adjustments in the audit profession are inescapable as the profession undergoes a shift toward a more digital structure. According to Bierstaker et al., (2014) digital technologies have a significant value for external auditors in the accomplishment of their duties, more so in a big data environment. The accumulation and preparation of audit data, transfer and interpretation of information within software and tools, arrangement of materials dependent on various selection criteria, organization of manual records, and conduct of basic tests are noted variations (Cristea, 2020; Lee & Tajudeen, 2020). However, despite all that, accounting information is still scant and undeniably less dominant as compared to other types of information that adhere to technological changes in the industry (Lombardi et al., 2014).

The primary purpose of auditing is to bring accountability and transparency. The achievement of this purpose can be anticipated with the advancement of technology that can uncover weaknesses in the process to bring integrity and equality to the business operation (Harrison & Datta, 2018).

Swedish branch-organization for authorized public accountants (FAR, 2015) supports the potential of the inescapable shift to digitalization to remodel the whole auditing environment, together with the entirety of an auditor’s profession. Karlsen and Wallberg (2017) believe that digital information has a significant impact on the competence and reliability of auditors’ works and working methods. Thus, there must be no denial of the need to embrace the shift to sophisticated technology, especially since more businesses are apt in setting foot in the new sphere. As a result, the professional practices and services rendered by audit companies will be altered (Adiloglu & Gungor, 2019).

Lombardi et al. (2014) claimed that the industry of auditing is one of the most influenced areas in technological innovations. However, in a different and separate study titled “The Effects of Digitalization on Auditing by Babayeva
and Manousaridis", they asserted that auditing has not yet completely exploited or made the most of the benefits of digitalization due to insufficient implementation of stakeholders. The lack of specific studies regarding audit digitalization in the Philippines, especially its benefits and challenges, makes it broad and inchoate. Its relationship to the profession including the auditing procedures and regulations remains under-explored, hence hindering researchers from generating conclusions. Additional existing gaps in the literature, including studies that only take place in limited geographical areas that differ in population sizes, types, and locations are likewise important keys that should be addressed.

Since this study is particular with its auditing profession variable, the researchers recognize the significance of auditing profile, human resource minimization, and auditors’ qualifications, skills, and expertise that can be subject to further concern and scrutiny. The researchers, nevertheless, explored the depth of this subject matter and establish the actual opportunities and drawbacks that digitalization can contribute to auditing’s contemporary condition in the local setting.

**LITERATURE REVIEW**

*Audit Profession*

Technological advancements, globalization, and increased competition push professions to change regularly. Auditing is at the forefront of industries that technology advancements and globalization will most impact. According to Frey et al. (2017), 702 job titles are in danger of automation. The audit profession is at the top of the list, with a high possibility of becoming automated and digitized soon. Since the mid-2000s, there has been a significant surge in introducing new technology. This digitalization has impacted the job and profession of auditors (La Torre et al., 2018; Kozlowski, 2018). As a result, auditors must prepare for automation, requiring particular new knowledge and abilities, and get acquainted with digital innovations and their unavoidable consequences (Arsenie-Samoil, 2010).

According to Association of Chartered Certified Accountants et al. (2019), present technological advancements ensure significant benefits for the audit profession, with numerous reasons emphasizing the need for digitalization in auditing. In support of this, Herbert et al. (2016) explored how digitalization and automation can remove or reduce regular and repetitive work, allowing accountants to focus on more creative, non-routine, and non-structured jobs that demand supplemental thinking and extra abilities. Professionals may now focus on offering excellent value to their clients while reducing expenses and time spent on specific activities (Fernandez & Aman, 2018).

Data, data review, and data audit are fundamental challenges to the accounting and audit profession. Hence, Moudud-Ul-Huq (2014) highlighted that digitalization and automation are helpful for the auditors during the following processes: audit planning, analytical review procedures, materiality assessment, internal control evaluation, risk assessment, and going-concern
decisions. Since digitalization is in its early years, it is difficult to predict how technology will affect the audit profession. However, according to FAR’s (2016) research, the automation and modernization of the industry will have structural effects that will notably influence the auditing profession.

As per the Association of Certified Chartered Accountants and Certified Accountants of Australia and New Zealand (2019), current technological advancements offer significant features to the auditing profession, implying the need for a transformation. Fernandez and Aman (2018) mentioned that accounting and audit professions are developing, and such changes will inevitably end various jobs. On the contrary, Kokina et al. (2017) stated that the need for human accountants will not disappear anytime soon. Similarly, an optimistic prediction of automation was revealed in the study conducted by Gulin et al. (2019), mentioning that machines and robotic automation will enhance the quality of offerings, not diminish it.

According to the findings of Babayeva and Manousaridis (2020), digital technologies assist auditors in reducing the risks of human errors and increasing dependability when incorporating technology into auditing operations. Thus, adopting new and intelligent technologies can improve many aspects of the professions’ quality; hence it is vital to implement the technology (Lamboglia & D’Onza, 2014; Curtis & Payne, 2014).

Digital Technologies

Digital technologies are electronic tools, systems, devices and resources that store, generate, or process data (Victoria State Government, 2019). Multiple technologies can be identified as associated with digitalization; however, there are only several considered key drivers of evolution in the auditing profession. These are Artificial Intelligence, Big Data Analytics, Robotic Process Automation, and Blockchain Technology (Almaleeh, 2021; Harrington, 2018; McGhee & Grant, 2019). The same technologies were also mentioned by Tiberius and Hirth (2019) and were further specified that the progress of information technology will be the factor that would greatly affect the auditors. These developments will not only be relevant to the auditors, but also to the stakeholders. The specified technologies can change the finance expert and auditor’s characteristics (The Institute of Chartered Accountants in England and Wales, 2017). Hence, these continue to undoubtedly have a crucial impact on the audit profession (Mansour, 2016; Adiloglu & Gungor, 2019; Association of Chartered Certified Accountants & Chartered Accountants Australia and New Zealand, 2019; Alao & Gbolagade, 2019; Forbes, 2018; Ramamoorti & Weidenmier, 2014; The Institute of Chartered Accountants in England and Wales, 2017).

With the desire to gain competitive advantage, organizations started to adopt and implement evolving technologies in the financial reporting context. The technologies’ acceptance and influence continue to increase, making them capable of changing business models. As a result, auditors are forced to alter their operations in order to keep their position in the profession (Julie et al., 2019).
The consequences of digitalization should be recognized in both the audit and ordinary accounting. Firms and practitioners must also be knowledgeable of the digital interventions and its unavoidable effects in order for them to mitigate the risks associated with the audit profession's lack of technology foresight.

**Big Four, Philippines**

The Big Four or top accounting and auditing firms in the Philippines are the largest professional services firms in the Philippines rendering taxation, consulting, auditing and other related services. These refer to SGV & Co., Navarro Amper & Co., Isla Lipana & Co., and R.G. Manabat & Co. (Dungo, 2022). These firms are partners of Ernst & Young, Deloitte, PWC, and KPMG which are known for being the four largest professional services firms in the world responsible for performing most of the audits of both private and public companies on a global scale (Corporate Finance Institute, 2022). According to Martinez (2017), there were originally 8 firms previously listed as part of the biggest accounting firms in the world. The current four firms recognized as the largest were separated to the other existing accounting firms due to huge differences in numbers both in revenues and physical size (i.e., offices and employees), mergers and acquisitions, and the Enron scandal.

**Audit Quality**

Auditing is viewed as a governance instrument designed to eliminate conflict between shareholders and management to ensure proper financial information disclosure (Carcello et al., 2011). Since audit quality is the major concern of clients, it is vital to ensure its reliability (Beisland et al., 2015; Hope et al., 2015).

According to most informants in research conducted by Manita et al. (2020), audit quality will be improved by digitizing audit firms and using new analytics and robotic tools. Hence, the professional expertise of auditors is essential in improving auditing quality. Hiring people with extensive experience boosts audit quality by increasing auditors' professional competence and allowing auditors to gain in-depth knowledge and better judgment in attaining audit quality (Zahmatkesh & Rezazadeh, 2017). Furthermore, similar studies show that a focus on professional accounting competence leads to improved performance effectiveness in the long run (Janjaturapath, 2020).

Zhang et al. (2015) argued that audit quality in the digital era is emphasized by the elimination of audit risks, availability of comprehensive audits, decrease of audit cost, and replacement of outmoded audit legislation. These greater audit quality demands are susceptible to the digital revolution. This is congruent with big data research, which demonstrates that transitioning to full data utilization might enhance financial statement quality (Lombardi et al., 2015; Krahel & Titera, 2015) and anomaly detection (Cunningham & Stein, 2018).

Digital technology allows audit teams to interact in real-time and peer review, enhancing audit quality. Digitalization has clearly improved both audit
quality and audit results. As a result, customers have increased trust and confidence in auditors and auditing as a profession (Babayeva & Manousaridis, 2020). However, according to the findings of Manita et al. (2020), beyond digital technical mastery, Fotoh and Lorentzon (2019) claimed that the inevitable transformation holds fundamental and compelling effects on the said expectation gap.

The substantial discrepancy between auditors and financial statement consumers on their varied ideas about auditors' responsibilities is one prominent explanation of the audit expectation gap. According to Stevenson (2019), the audit expectation gap is a conventional and a very controversial issue. Thus, future auditors must strengthen their critical thinking abilities in order to improve data monitoring and inquiry, leading to a more refined audit quality.

Audit Expectation Gap

The Audit Expectation Gap (AEG) still afflicts the audit profession the way it had for multiple decades. However, the world is undergoing an important paradigm shift from traditional to digital, which is likewise experienced in the audit profession (Fotoh & Lorentzon, 2020). Stevenson (2019) called it a “pandemonium” that besieges for so long the auditing industry and the audit profession, particularly even before the issue has been officially termed.

Indeed, there exists contemporary studies that attempted the reduction of the expectation gap (Noghondari & Foong, 2013) through their proposals and recommendations. However, despite the long list of such propositions and, not to forget, institutional modifications, convincing evidence that proves the persistent existence of the gap is still circulating (Ruhnke & Schmidt, 2014; Noghondari & Foong, 2013).

At this age, the critical occurrence of technological breakthroughs like robotics, artificial intelligence, blockchains (Nowak et al., 2018), data analysis (Alles, 2015; Cukier and Mayer-Schoenberger, 2013; Richins et al., 2017), workflow digitization, mobile and computer applications, partnership platforms, and a lot more, remarkably and crucially transform audit processes, eliminating customary and labor-intensive tasks (Brennan, 2016; Meuldijk, 2017; Raphael, 2017).

According to Brown-Liburd et al. (2015), it is imperative to point out that fraud detection and clients’ risk identification are two of the many objectives of audit digitalization. Intrinsic restrictions, carried over by traditional audit, and manual data explosion limit risk assessments and audit evidence gathering (Deloitte 2013). Hence, it resulted in audit firms’ demand to incorporate technology and data analytics as tools in various auditing methodologies (PwC, 2014).

Fotoh and Lorentzon (2020) argue that countless opportunities to narrow and tighten the expectation gap will flow once the auditing industry copes with digitalization. Fraud detection, as well as fraud prevention, and maintenance of sound internal control are few of the notable issues that auditors have ultimate
responsibility over, in relation to audit expectation gap. Nevertheless, it is never wrong to be critical and cautious of the downfalls that are inherent to digitalization, at the minimum. They also proposed against such misrepresentations and other negatives, that is, the need for a comprehensive and concrete theory or instruction. The auditing reputation and credibility has been vastly affected by the expectation gap, making it “decimated”. To recoup, the availability of various digital audit technologies strongly calls for application. Consequently, there is undeniable evidence that this inevitable shift is a venture to the right track, more essentially in the pursuit to narrow the audit expectation gap through fraud prevention, detection, and solution and sound internal control preservation.

With credit to digital tools’ presence, auditors' working methods have begun to shift. Auditing experts are getting closer to meeting their customers' expectations since they now have access to more digital data, if substantially not the entire data population. One of the informants from study of Fotoh and Lorentzon (2020) significantly considers clients as the primary fuel for digitalization. Customers’ high expectations, according to this respondent, motivate auditors to try to meet them effectively, hence establishing audits of higher quality and increased client confidence.

METHODOLOGY

The researchers used interview as a tool to discover the nature and implications of the digitalization of audits. The researchers also found it logical and advantageous to draw knowledge and experience through semi-structured interviews from various respected auditors. The data acquired from the interviews was evaluated using thematic analysis. The researchers examined the data to find themes relevant to the study. The researchers then analyzed the data to identify and categorize recurring themes and highlight similarities and discrepancies. Table 1 displays the codes, sub-codes, together with their descriptions, and the data reduction method of selecting and classifying raw data and transforming it into significant findings. For the ethical consideration, the researchers in charge applied the different ethical considerations that protect the privacy of their informants and the confidentiality of their data. Moreover, all informants were enlightened about the objectives and instruments used in the study to ensure optimum transparency. The researchers of this study also guaranteed, at their best, their endeavor to prevent or at least minimize any attempt to intercept the informants’ autonomy. Consent was asked and obtained by the researchers from the informants. Their permission to record the conversations, either through voice or video, approval of the interview duration and location, and assertion of their confidence in the process were necessary. At the end of the study, the researchers shared with their informants the benefits and the expected outcomes of the research paper, and their contributions to the fields affected. Nevertheless, this study ensured that the research design, method, and conclusions are explicit, publicly replicable, and open to critique.
Table 1. Coding Scheme for Identification of Themes

<table>
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<tr>
<th>Codes</th>
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<td>Definition of Digitalization, Feelings and Satisfaction towards digitalization of audit, Prospective view of Audit Digitalization</td>
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DISCUSSION

Theme 1: Perception of Big Four Auditors on Digitalization

Definition of Digitalization

The informants defined and described their own idea of digitalization. The researchers began the interviews by discussing digitalization and the standard technology associated with it from the viewpoint of each auditor. When asked to define digitalization for auditors, the majority of auditors responded that it is the term for when firms transitioned procedures from paper to digital form.
A. Digitalization is the transition from Traditional Audit to Digital Audit

Most of the informants defined digitalization as the transition from Traditional Audit to Digital Audit. This is the basic characterization of digitalization, even outside the world of audit.

It is observed that most informants defined digitalization based on the variance in their work experiences, that is, the transition from papers to paperless transactions. The empirical data support Gartner's (2015) contention that digitization is the conversion of a single process from analog to digital form, whereas digitalization is the conversion of the entire process to digital. Data analysis reveals that digitalization alters the overall working methods of auditors. This viewpoint is consistent with Lombardi et al. (2014) and Wagner's (2016) research, which believes the auditing profession to be transitioning from conventional auditing based on paper to contemporary auditing based on paperless and automated procedures.

B. Digitalization Is the Use of Soft Copies in Audit Instead of Hard Copies

Some of the informants defined digitalization as the use of soft copies in place of printed materials. They mentioned that digitalization lessens the usage of physical copies of documents. According to Revenue Regulations (RR) No. 17-2013 issued by the Bureau of Internal Revenue (BIR), electronic documents can be used as a better alternative to photocopies of documents.

C. Digitalization Forges More Efficient and Effective Audit Procedures

Several informants defined digitalization as a means to a more convenient audit. Digitalized audit procedures give competitive advantage over other firms, specifically the automation of the Accounting Information System (AIS). For competency, Tarek et al. (2017) believes that auditing firms need to adapt to these changes.

D. Digitalization Makes Life and Auditing Easier

For few informants, digitalization helps in navigating life and making it less complicated. One of the key elements of digitalization is process digitization and performance enhancement. The convenience brought about by digitalization has enhanced life greatly (Gartner, 2015).

Auditors’ definition of digitalization is dependent on their personal experiences and the depth of their use of the technologies related to it. The findings of this study show evidence that digitalization is a beneficial component of the audit profession, making the auditor's work easier. This claim was supported by Nearon (2015) and Rezaee et al. (2019), which states that auditors’ working methods have not changed much, however documentation and communication are believed to be easier due to digitalization.

Theme 2: Audit Digitalization’s Effect on Audit Quality

Increase in Audit Quality

According to the findings of Beisland et al. (2015) and Hope et al. (2015), audit quality is the major concern of clients, and it is vital to ensure the reliability
of financial information. All of the informants agreed that audit quality will be improved by digitizing audit firms and using new analytics and robotic tools, which is consistent with the study of Manita et al. (2020).

Findings show that faster processes or efficiency brought by digitalization opens the opportunity to further improve the output of the auditor with the time saved from not doing repetitive tasks, and thus improves audit quality. The digitalization of audit will surely make processes faster (Ghasemi et al., 2011), allow the users of the advancements in technology to view the whole data, and consequently derive or draw accurate conclusions and results from the same. This supported the idea of Manita et al. (2020) that auditors will evolve, have better control of the client’s data, and be able to improve both the relevance and quality of the audit with the help of digital technology.

Other Benefits of Digitalization to Audit Quality

As a result of improved audit quality and audit results from digitalization, there are relevant increases in the trust quotient of auditors and auditing as a profession (Babayeva & Manousaridis, 2020). Ghasemi et al. (2011) also supported this idea and claimed that it is much easier to organize, summarize, share, and obtain information using digital information as compared to paper information. These are made possible with digitalization, especially the technologies used which allows engagement teams to communicate real-time and peer review, and thus enhance audit quality.

Findings show that the majority of the informants agree that digital processes contribute more to the quality of audit and to the efficiency and effectiveness of the processes that mainly contributes to the former. Thus, supports the idea of Ghasemi et al. (2011) that the transition and transformation of the audit using modern analytics and robotic tools enhance the quality of audit.

Theme 3: Audit Digitalization’s Effect on Audit Expectation Gap

According to Noghondari and Foong (2013), there are contemporary studies that show the attempt to reduce and bridge the expectation gap, but even with their propositions and institutional modifications, Noghondari and Foong (2013), along with Ruhnke and Schmidt (2014), found a convincing evidence that proves that the existence of the gap is still circulating.

Digitalization, on the other hand, shows promise in the reduction of the expectation gap. Fotoh and Lorentzon (2020) supported this idea and argued that once the auditing industry copes with digitalization, opportunities that would narrow and tighten the gap will appear. The same also added that there is undeniable evidence that the transition from manual to digital is a journey to the right track, specifically in the pursuit to tighten or bridge the expectation gap through fraud prevention and detection, providing solutions, and sound internal control preservation.

Perceived Current Situation of Audit Expectation Gap

Digitalization, specifically the digital technologies that store, generate, or process data (Victoria State Government, 2019), also helps the auditors to have a
full grasp and understanding of the data, giving them the opportunity to derive better analysis and accurate results. This idea was supported by a few of the informants.

Reduction of the Audit Expectation Gap

All informants declared that the digitalization of audit diminishes the gap due to the fact that digitalization makes processes faster and that auditors now have access to more digital data making them get a little closer to meeting their clients’ expectations.

The empirical findings of this research show that auditors agree that audit digitalization minimizes the audit expectation gap. It is also proven that the audit expectation gap still afflicts the audit profession, as it has affected the past decades. Most auditors cited their experiences involving the gap between clients’ and auditors’ understanding about audit. This also proves Fotoh and Lorentzon’s (2020) claim that pursuing the reduction of audit expectation gap through the shift to digital audit is a venture to the right track.

Theme 4: Audit Digitalization Benefits

Ghasemi et al. (2011) states that the extreme utilization of digital technologies indicates its importance and contribution to numerous sectors and industries, making their incorporation to different tools and human manipulation inevitable to day-to-day living. AC-CA et al. (2019) also stated that it is necessary for the audit profession to adapt to technological advancements due to its profound advantages. Thus, the major benefits of digitalization are comprehensively assessed in the following sections:

Benefit of Digitalization on Auditors’ Competence
A. Efficiency, Accuracy, and Better Analysis

Some of the informants agreed that there are benefits of digitalization on Auditors’ Competence in terms of their efficiency, which is supported by Nirmala (2013) who stated that audit quality is greatly affected by the time budget pressure which is the pressure to complete specified procedures in time. This improves efficiency in conducting audits which enhances their capabilities in procedures and in planning.

B. Development of New Services

These results highlighted that the digitalization is proved to have a benefit in the auditors’ competence regarding the development of new services and evolution of audit offers. This is supported by Schelluch and Gay (2012) who recognized the need of the audit industry to embrace new opportunities to pave way for the new assurance services.

Overall, the results highlighted that digitalization has proved to be a benefit in the auditors’ competence, especially in terms of their efficiency, new services offered, and accuracy of reports. These claims are supported by Mancini (2016) who stated that the information that is presented to the managers adheres to the
strategic plans in the modern business environment, which is more accurate and complies to the current trends.

**Benefit of Digitalization on Auditors’ Working Style: Flexibility and Efficiency**

**A. Convenience**

With digital working methods, efficiency and flexibility are brought up as positive effects by the majority of the auditors, as a result of digitalization. All the auditors strongly agree that they come in contact with digitalization on a daily basis. It is everywhere in the profession and according to the majority of the auditors, digitalization is especially prominent among larger clients where no paper exists at all.

**Benefit of Digitalization on the Analysis of Audit Reports**

**A. Delivery of Better Services**

Most of the auditors have acknowledged the effect of digitalization in smarter analysis regarding delivery of better services. B401 claimed that digital tools that are software-based help a lot in their analytics, which is further supported by the statement of B403 that these softwares will suggest or detect the fluctuations or movements of the line items.

The results proved that digitalization has a benefit in helping in smarter analysis especially in the delivery of better services to the clients, which is supported by Baudier et al. (2020) who claimed that new tools aid in delivering smarter services to clients. This is supported by some informants who argued that the digitalization of audit provides an avenue for auditors to analyze better.

**B. Accessibility of Data**

Most of the auditors recognize the effect of digitalization in the accessibility of data especially in its accessibility and accuracy. B405 and B410 stated that digitalization not only provides accurate data but also gives an auditor more access to the data which can lead to a better analysis for the auditor.

The results highlighted the better accessibility and accuracy of data due to digitalization which is supported by Hunto (2015), who stated that computers and machines have gotten more powerful and are associated with trust and accuracy. However, FAR (2016) describes that this technical development is also connected to higher demands on transparency by the consumers.

**Benefit of Digitalization on the Evolution of Audit Assurance Services**

Most of the auditors are convinced that there are more services and an existing evolution of new systems that are being offered to their clients. The results of this research showed that audit digitalization has a benefit in the evolution and aids the audit assurance service to expand their offers, and the new systems that can be offered to their clients, even though some believed that there are no new services being offered.
Benefit of Digitalization on the Reliability and Quality of Audit Reports

A. Reliability

Majority of the auditors agreed that Audit Digitalization gave them more accurate and reliable paper works. B402 claimed that the goal of these tools is to make the procedures faster in order for the auditors to focus on the other areas of their work.

The result of this research shows that digitalization increases the reliability and quality of audit reports which proves to be more accurate and reliable according to the auditors. It also aids in reducing repetitive tasks and in assuring clients of their desired audit quality.

Benefit of Digitalization on Auditing Reputation

The findings of this research show that digitalization of the audit contributes more to auditing reputation even though some of the auditors stated that it has little to no contribution due to the nature of the audit, regardless if it is manual or digital. Nevertheless, digitalization undoubtedly helps in the uniqueness of service and process, which provides a better quality.

Challenge of Digitalization on Cost-Benefit Associated to the Shift

The benefits of shifting to digital audit outweigh the cost

The use of digital technology has enabled the elimination of numerous redundancies in the auditing process. Many of the informants believed that the benefits exceeded the costs of audit digitalization.

As automated operations replace manual ones, less staff will be required, significantly lowering business expenses. As a result, auditors will have to make more IT investments at first. However, as various studies have shown, IT will make auditing substantially more efficient in the long run (Bierstaker, Burnaby, & Thibodeau, 2014; Lombardi, Bloch, & Vasarhelyi, 2015; Omoteso, Patel, & Scott, 2010).

The present research, therefore, contributes to a growing body of evidence suggesting that the cost associated with the shift does not outweigh the benefits that the auditors can get.

Theme 5: Digitalization Challenges

Challenge of Digitalization on Shortage of Manpower

A. Shortage of Skills

Several auditors believe that the auditor's role will evolve. However, most auditors believe that they will always continue to be necessary.

Despite the fact that the auditors express no concerns, shortage of skills is very common in digitized audits. Auditors who are less exposed to technologies and technological changes are also less proficient in using them. Han et al. (2016) believes that auditors with inadequate and unsatisfactory skills can yield a certain audit risk and can compromise authenticity. Hence, assistance and substantial training are coping mechanisms to this challenge.
B. Shortage of Manpower

Digital tools empower the audit profession to support clients in a manner they never thought about before. Auditors will probably be fully reliant on digital tools in the future (Bierstaker et al., 2014; FAR, 2016; Granlund, 2012; Spraakman et al., 2015).

Taken together, the findings indicate that auditing firms have been experiencing a shortage of manpower since the digitalization of tools started. Despite this unawareness, Breman and Fellander (2014) believe that if work prospects will be lost, a dynamic labor market in which knowledge plays a crucial role would be essential.

Challenge of Digitalization on Auditor Profile

Digitalization of audit poses challenges to auditor profile as software keep on improving. The requirement for a new auditor profile is arguably the most critical issue that digitalization poses to the auditing profession. A profile that shifts away from the typical paper, pen, and spreadsheet format towards a structure that is more digitally aware.

Challenge of Digitalization on Stakeholders’ Resistance to Change

A. Client resistance

The interviewees denote that clients have more issues adapting as most of them are used to doing things the old-fashioned way.

The empirical finding indicates that none of the informants had or will have any difficulty adapting to the new auditing methods brought about by digitalization. As regards adaptation difficulties, some of the informants conceive that clients resist the changes brought about by digitalization due to the issues of security regarding their data. Hence, Sheldon (2019) believes that the auditors should remind the clients regarding this circumstance.

Challenge of Digitalization on New Audit Environment

A. Lack of trainings and seminars

Cassell et al. (2014) imply that the learning curve associated with new audits is quite steep, and that the effect of the learning curve is particularly obvious for complicated firms that hire new auditors late in the fiscal year. On the contrary, some of the informants argued that they were not challenged by the digitalization due to the steep learning curve they have to take on.

The results strongly imply that training and seminars are insufficient for thorough understanding of technology and they must further educate themselves and work on self-learning.

B. Challenge in adjusting to technologies

Changes in the audit profession are inescapable as the profession undergoes a paradigm shift toward a more digital organization (Breman & Felländer, 2014; Byrnes et al., 2015; Caster & Verardo, 2017; FAR, 2016; Forbes Insights, 2015; Lombardi et al., 2015; Spraakman et al., 2015). Most auditors consider the move to digital working techniques to be a habit-related issue; if the auditor has been in the industry for a while, the adjustment takes longer.
Whereas, past researchers have found that although auditors will profit from employing digital technology in terms of productivity, they must also be flexible to changes in societal expectations (Bierstaker et al., 2014; Caster & Verardo, 2017; Flint, 2018). The present study has shown that few auditors are in the process of transitioning to digital and that there are still works to be done.

**Challenge of Digitalization on Data Security**

A. Attempt to secure sensitive data

Information security in auditing is a critical method in protecting an organization's information system from cybercrime, fraud, and data breach. This result is consistent with the claim of Pompon (2016) which states that information technology should be performed on a regular basis as a systematic assessment by an independent expert to identify weaknesses in the organization's information technology.

The findings highlight the dangers of total reliance on technology by stressing the significance of technological control and consciousness. Complete dependence on technology without any control or understanding might result in fraud acts. This result is consistent with the claim that data security can be considered as a risk that technology and its availability to malicious users can give rise to security issues. This risk still remains and can even increase (Babayeva and Manousaridis, 2020).

**CONCLUSIONS AND RECOMMENDATIONS**

This research scrutinized the benefits and challenges associated with the changes in the auditing profession due to digitalization. On the basis of empirical findings, the benefits of audit digitalization in the Big Four auditing firms in the Philippines include: Auditors’ Competence, Flexibility and Efficiency, Smarter Analysis, Evolution of Audit Assurance Services, Reliability and Quality of Audit Reports, Cost-Benefit Associated to the Shift, and Auditing Reputation Growth. It is further proven that the challenges of digitalization are: Shortage of Skills and Resources, New Auditor Profile, Stakeholders’ Resistance to Change, New Audit Environment, and Data Security.

The researchers found a few aspects in the study that require further improvement for better user and objective satisfaction. First, this study focused solely on few digital technologies such as Artificial Intelligence, Big Data Analytics, Blockchain, and Robotic Process Automation. However, there are still a number of digital technologies that should be examined and analyzed further like: Internet of Things (IoT), augmented reality, Enterprise Resource Planning (ERP) systems, machine learning, drones, and a lot more. The contributions of these specific digital technologies to the shift from traditional to digital auditing should be explored for the interest of many.

Second, the recent emergence and timeliness of digital auditing pose relevance to various nations, either for developed, underdeveloped, and developing countries. Extraction of valuable new data from both most developed and least studied regions would satisfy the objective of this study more.
Third, auditors must acquire the necessary knowledge and skills to properly monitor digitalization processes and understand their impacts.

Finally, future researchers should consider inviting auditors personally and conduct the interview on a face-to-face basis. Moreover, a more varied pool of informants depending on the firm they work in should be accommodated to collect more diverse and abundant views and experiences.

FURTHER STUDY

This research still has limitations, so it is necessary to conduct further research related to the topic “A Study Investigating the Benefits and Challenges of Digitalization on the Audit Profession”. Future research can use different plant objects to add insight for readers.
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