BIG DATA ANALYTICS (BDA) AND AUDIT EFFICIENCY: PERCEPTION OF AUDITORS IN AWKA, ANAMBRA STATE

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Abstract
The broad objective of the study was to ascertain the effect of Big Data Analytics (BDA) on audit efficiency among auditors in Awka, Anambra State. Computerisation, globalisation and the growing amount of information now pose challenges to traditional auditors. Thus, the current era requires implementing BDA techniques to analyze such voluminous data. The study specifically evaluated the effect of Big Data Analytics (BDA) on audit risk assessment, task competence and audit report filing by auditors. The survey research design was used in this research. The population comprised 72 auditors drawn from private limited firms in Awka. The study employed the census sampling technique and relied on primary data, which was generated from a structured questionnaire administered to the auditors. The reliability of the instrument was determined using Cronbach's alpha. The data were analysed using descriptive and inferential statistical techniques. The hypotheses were tested using Pearson Product Moment Correlation Coefficient (PPMC). The empirical results showed that there is a significant relationship between BDA and audit risk assessment ($p<.05$); there is a significant relationship between BDA and task competence ($p<.05$); and, BDA has influenced audit report filing by auditors in Awka, Anambra State. Based on this, the study recommends the utilisation of BDA for audit risk assessment. Real-time data analysis allows auditors to compare vast amounts of data.
Keywords: *Big data analytics; Audit efficiency; Audit risk assessment; Task competence.*

Introduction

Big data refers to the collection of massive electronic data, such as structured data and unstructured data, whose contents cannot be captured, managed and processed by conventional software tools within a certain period (Li, 2022). Big data refers to data sets that are too large or complex to be dealt with by traditional data-processing application software. This concept indicates that new data processing modes need to be developed to stimulate the information that can bring useful value to decision-making.

Big data analytics (BDA) is the complex process of examining big data to uncover information - such as hidden patterns, correlations, market trends and customer preferences - that can help organizations make informed business decisions. Big data analytics help organizations make data-driven decisions that can enhance the results of their business operations. Other benefits include increased operational effectiveness and more effective decision-making.

Auditors need to audit clients who use big data and data analytics in doing business. Thus, external auditors face a new reality and need to use advanced predictive as well

as prescriptive-oriented analytics (Appelbaum, Kogan, &Vasarhelyi, 2017). Big data analytics can enable auditors, whether internal or external to improve audit efficiency, ensure audit quality, and promote audit work's digital transformation. Big data analytics can decrease accounting fraud and audit risk caused by the auditor's reliance on prior experience or judgments, hence enhancing the efficacy and efficiency of auditing (Luo*et al.*, 2018).BDA is a technique that audit firms can use to identify business risks, and inefficiencies in systems and processes, and support ongoing improvement by taking the necessary corrective action (Nissley, 2012).

This has a direct impact on auditing, as many stakeholders in the contemporary global environment demand that auditing procedures correspond to recognised international standards. The pioneer discussion on artificial intelligence in auditing was launched by the American Accounting Institute (AAA) in 2014. Thereafter, the Big Four audit firms have actively pushed for the application of big data analytics in audits (Li, 2022). Big data's influence on business has grown significantly during the last few decades (Alotaibi, Alotibi, &Zraqat, 2021). Big data has attracted major investment from many businesses (Alrashidi, Almutairi, &Zraqat, 2022). Against this backdrop, the current study examines the relationship between Big Data Analytics (BDA) and audit efficiency as perceived by internal auditors in Awka, Anambra State.

Prior studies, such as Alrashidi, Almutairi, and Zraqat (2022) examined BDA's influence on accepting the audit task, planning the audit process, evaluating the internal control system, performing the preliminary analytical review procedures, determining the initial levels of materiality and audit risk. The study by Sanoran and Ruangprapun (2023) revealed BDA application by auditors in audit planning and substantive testing. The ongoing digitization of the economy presents challenges and opportunities for the auditing profession and requires both auditors and their clients to adapt. This study investigates changes in auditing practises anticipated by Nigerian auditing professionals within the next few years against the backdrop of current technological breakthroughs in big data analytics. Hence, this present study extends prior research by examining BDA's influence on audit risk assessment, task competence and audit report filing by auditors. The main objective of the study is to ascertain the relationship between Big Data Analytics (BDA) and the audit efficiency of auditors in Awka, Anambra State. The specific objectives of the study are therefore as follows:

1. To determine the relationship between Big Data Analytics (BDA) and audit risk assessment by auditors in Awka, Anambra State.
2. To ascertain the relationship between Big Data Analytics (BDA) and task competence by auditors in Awka, Anambra State.
3. To evaluate the influence of Big Data Analytics (BDA) on audit report filing by auditors in Awka, Anambra State.

Literature Review
Conceptual Review

Big Data Analytics (BDA)

Authors define big data around three key dimensions of data variety, volume and velocity, i.e., it constitutes data of different formats (variety)-both structured (clearly defined and organised data types) and unstructured-that challenges or exceeds an organisation's storage and processing capacity because it is so large [comprising terabyte and petabytes of information (volume)], and which must be processed quickly (usually in milliseconds) for effective real-time decision making (velocity) (e.g., Krishnan, 2013; Madden, 2012; Manovich, 2012; Russom, 2011; Schroeck*et al.*, 2012; Sunil, 2012). This definition has been extended to include a fourth V-veracity-which focuses on issues such as data quality (Hitzler&Janowicz, 2013; Normandeau, 2013). BDA is the process of inspecting, cleaning, transforming, and modelling Big Data to discover and communicate useful information and patterns, suggest conclusions, and support decision-making (Cao, Chychyla, & Stewart, 2015).BDA can improve the efficiency and effectiveness of financial statement audits (Cao, Chychyla, & Stewart, 2015).

To effectively manipulate big data businesses often use technologies that automate decision-making processes continuously and autonomously. This is often done using a mix of cost-effective data collection, extraction and analysis tools and technology solutions referred collectively to as analytics (Chaudhuri *et al.*, 2011; Chen *et al.*, 2012; Russom, 2011; Turban *et al.*, 2008; Watson &Wixom, 2007). These technologies support real-time data retrieval, analysis and fast-paced decision-making. Audit firms are increasingly using BDA to improve the efficiency and effectiveness of external audits through the automation of audit work and obtaining a better understanding of the client's business risk and thus their own audit risk (Krieger, Drews, &Velte, 2021).

The IAASB defines data analytics for audit as the science and art of discovering and analysing patterns, deviations and inconsistencies, and extracting other useful information in the data underlying or related to the subject matter of an audit through analysis, modelling and visualisation for planning and performing the audit (ACCA, 2023). For auditors, the main driver of using data analytics is to improve audit quality. It allows auditors to more effectively audit the large amounts of data held and processed in IT systems in larger clients. Auditors can extract and manipulate client data and analyse it. By doing so they can better understand the client's information and better identify the risks.

According to Abu Afifa, Marei, Saleh, and Othman (2022), auditors may utilise BDA to gain more insight into their client's businesses and provide them with insights. Big data enables the automation of numerous auditing process steps. Businesses frequently lose compliance or overspend on audit-related obligations due to human

mistakes. Auditors can set up numerous controls in advance and track how effectively a company is following defined criteria by automating tedious and repetitive procedures. To complete audit engagements, auditors rely on data analytics (Appelbaum, Kogan, &Vasarhelyi, 2017). Zraqat (2020) claims that using BDA enhances financial reporting quality and that using business intelligence tools improves auditors' capacity to offer a quality judgment. Serag and Al-Aqiliy (2020) found that using BDA by audit companies at various phases of the audit process improves audit quality, as evaluated by the audit quality index (input, operation, and output). According to Kend and Nguyen (2020), the usage of BDA has a positive impact on auditing because it diverts auditors' attention away from manual activities and allows them to focus on more important tasks such as assessment and judgment. According to Dagilien and Klovien (2019), there are two types of motivators for the use of BDA in the audit profession: client-related motivators and audit firm-related institutional motivators, and the use of BDA plays an important role in changing audit procedures at all stages of the audit and providing greater value to audit clients. According to Austin, Carpenter, Christ, and Nielson (2021), BDA provides auditors with a strategic advantage in giving business-related insights to their clients. According to a report by the Association of Chartered Certified Accountants (ACCA), AI would enable accountants to refocus their efforts from traditional activities such as bookkeeping and transaction recording to services such as consultation, advising and growth planning (Jariwala 2015).

Financial auditors are using big data to expedite reporting and spot fraud. Abu Afifa, Marei, Saleh, and Othman (2022), using survey evidence from Canada find that BDA in audit methodology has a direct impact on the abilities and competence of auditors to carry out engagement activities. Visualizing audit evidence allows auditors to use it to inform their professional judgement and decision-making. Many studies suggest that auditors' use of BDA may increase the effectiveness and credibility of audit reports (Austin et al., 2020; Salijeni, Samsonova-Taddei, & Turley, 2019). Big data and big data analytics in auditing ensure audit quality and fraud detection (Balios, 2021).

Theoretical Framework

The study anchors on the diffusion of innovation theory because big data analytics is a recent innovation in the audit and accounting industry, which relies on information and communication technology, and the level of its adoption among firms differ considerably. Diffusion of innovation was proposed by E.M. Rogers in 1962. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. Rogers offered the following description of an innovation: "An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (Rogers, 2003). The result of diffusion is that people, as part of a social system, adopt a new idea, behaviour, or product. The adoption of a new idea, behaviour, or product

(that is, "innovation") does not happen simultaneously in a social system; rather, it is a process whereby some people are more apt to adopt the innovation than others.

Empirical Review

Sanoran and Ruangprapun (2023) conducted a study titled 'Initial implementation of data analytics and audit process management'. This qualitative study relied on semi-structured interviews of twenty-eight Big 4 and non-Big 4 audit professionals in Thailand. The interviews revealed that BDA was used by auditors in audit planning and substantive testing; however, they do not perceive a need to use these to test internal controls and conclude audit opinions. In addition, auditors apply BDA tools for anomaly detection and testing management assertions.

Alrashidi, Almutairi, and Zraqat (2022) examined 'The impact of big data analytics on audit procedures: Evidence from the Middle East'. The sample comprised 361 auditors in the Middle East. The study relied on primary data generated from questionnaires analysed using the PLS-SEM. The findings show that BDA has an impact on audit procedures at all phases, i.e., accepting the audit task, planning the audit process, evaluating the internal control system, performing the preliminary analytical review procedures, determining the initial levels of materiality and audit risk, which in turn influences the choice to accept the audit assignment.

Noordin, Hussainey, and Hayek (2022) undertook a study titled 'The use of artificial intelligence and audit quality: An analysis from the perspectives of external auditors in the UAE'. The study relied on primary data collected using an online survey from 22 local and 41 international audit firms. The participants were either the auditing manager, audit partners, senior auditors or other personnel who have experience in the field of accounting and auditing. To test the hypotheses the independent samples t-test, was used and the results show there is a non-significant difference in the perceived contribution of AI to audit quality between local and international audit firms.

Al-Ateeq, Sawan, Al-Hajaya, Altarawneh, and Al-Makhadmeh (2022) undertook a study titled 'Big data analytics in auditing and the consequences for audit quality: A study using the technology acceptance model (TAM)'. The study examined the impact of using two dimensions of the technology acceptance model (TAM), perceived usefulness and perceived ease of use, on the adoption of big data analytics in auditing, and the subsequent impact on audit quality. The study formulated five hypotheses and questionnaires were administered to external affiliated audit companies and offices in Jordan. The final sample was 130 questionnaires collected. The data were analysed using structural equation modelling (SEM), and to test the hypotheses. The study finds that perceived usefulness and perceived ease of use have a direct effect on audit quality, without mediating the actual use of data analytics. However, the use of big data analytics is shown to moderate the relationship between

perceived usefulness and audit quality, but not between the perceived ease of use and audit quality.

Abu Afifa, Marei, Saleh, and Othman (2022) conducted a study titled 'Big data analytics and audit quality: evidence from Canada'. The authors analysed how Big Data and Big Data Analytics (BDA) affect professional judgement, audit performance and perceived audit quality. The study utilised a survey approach and semi-structured interviews conducted with audit professional firms in Canada. The findings suggest that auditors' skills and competence to perform engagement activities are assertively affected by BDA. The auditors benefit from being able to visualise audit evidence so they can use it to guide their professional judgement and decision-making.

Marei, Abu Afifa, Abdallah, Ayoush, and Amoush (2022) conducted a study titled 'Big data and big data analytics in audit brainstorming sessions: a Canadian qualitative research'. The exploratory study examined participants' perspectives on the use of Big Data and Big Data Analytics methods during audit brainstorming sessions at Canadian audit firms, and whether such methods aid in the risk assessment process to fraud detection. They employed a qualitative research method. The study utilised primary data from interview sessions. The sample comprised 12 auditors from the Big-4 and 10 from mid-size audit firms who attended an office interview in Canada during the third and fourth quarters of 2019. The study finds that utilising BDA during brainstorming sessions improves the efficiency and effectiveness of fraud risk evaluations.

Methodology

The study made use of a descriptive survey research design. According to Collis and Hussey (2006), descriptive research is "the one that describes the behaviour of the phenomena". It is used to identify information about the characteristics of a given problem. Descriptive research involves collecting and analyzing numerical data and applying statistical tests. The population for the study is the projected population of Awka South Local Government Area (LGA) of Anambra State, Nigeria. The study covered some areas of the Awka metropolis comprising mainly the areas of Awka city, Okpuno, and Agu-Awka (Industrial Area). Awka is located some 50 kilometres from Onitsha and about 110 kilometres from Enugu.

The population of this study was drawn from business organisations located in Awka, Anambra state. A total of seventy-two personnel with experience in audit and accounting-related tasks were identified for the study. In determining the sample size of the study, the researcher considered the manageability of the sample size and therefore decided to use the census sampling technique. This method requires the inclusion of all identifiable population elements in the sample. Therefore, the entire seventy-two personnel with experience in audit and accounting-related tasks were selected for the study. The study relied on primary sources of data, gathered from a

structured questionnaire administered to the respondents. This data source is obtained first-hand by the researcher from the field.

The primary source of data used in this study was generated mainly with the aid of a structured questionnaire. To ensure the reliability of the survey instrument, Cronbach's alpha was used as it is the most useful test to check the scale's reliability and consistency. The Cronbach Alpha (α), is a measure of the internal consistency of a scale. The study made use of Cronbach's alpha coefficient in measuring such with the aid of Statistical Package for Social Science (SPSS) on a 5-point Likert scale.

Table 1: Reliability statistics of the instrument

	Cronbach Alpha (□)
Big Data Analytics (BDA)	.781
Audit Risk Assessment (ARA)	.720
Task Competence (TC)	.738
Audit Report Filing (ARF)	.710

Source: SPSS ver. 23 Output

The BDA scale consisted of four subscales, the Big Data Analytics subscale consisted of 3 items (α = .781), the Audit Risk Assessment subscale consisted of 3 items (α = .720), the Task Competence subscale consisted of 3 items (α = .738). The Audit Report Filing subscale consisted of 3 items (α = .710). The instrument was found to be highly reliable with computed α values all above the.70 threshold. This refers to methods that the study employed in order to validate or refute the stated hypotheses of the study. The researcher employed a combination of descriptive and inferential statistical techniques to analyse the data. The study made use of primary data, and the independent variable was BDA which describes the auditors' use and acceptance of technology. The BDA was measured using items 1, 2 and 3 in Section B of the questionnaire. ARA was measured using items 4, 5 and 6 in Section B of the questionnaire. The TC component was measured using items 7, 8 and 9; while, the ARF measured items 10, 11 and 12. The hypotheses were tested using the Pearson Product Moment Correlation Coefficient (PPMC). The PPMC analyses the degree of relationship between two variables.

Data Analysis

Demographic Information

The results are presented in accordance with the research questions and hypotheses that guided the study. 72 copies of the questionnaires were distributed to the respondents in Awka of which 67 which represents 93 per cent of the total questionnaire were completed and successfully collected while 5 copies, i.e., 7 per

cent were not filled. A summary of the demographic information of the respondents is shown in Table 2 below.

Table 2: Demographic information of respondents

Items	No of Responses	Percentage (%)
Sex of Respondents		
Male	39	58.2
Female	28	41.8
Years of Employment		
0 ≤ 2yrs	33	49.3
3 – 4yrs	20	29.9
5 – 6yrs	10	14.9
7yrs and above	4	5.9
Marital Status		
Single	20	29.9
Married	36	53.7
Others	11	16.4
Age Distribution of Respondents		
18 – 24yrs	5	7.5
25 – 30yrs	18	26.8
31 – 35yrs	22	32.8
36 – 40yrs	17	25.4
41yrs and above	5	7.5
Total	**67**	**100**

Source: Field Analysis, 2023.

Descriptive Statistics

Table 3: Descriptive statistics of BDA and Audit Risk Assessment in selected organisations in Awka

Items	N	$\bar{X}$	Std. Dev.	Decision
Big Data Analytics (BDA)				
BDA enabled auditors to process large and voluminous data in order to learn new insights into the data	67	3.8	1.2949	Agree
BDA superiority over traditional audit actively detects areas of fraud and error for auditor attention in an organization	67	4.2	1.0561	Agree

BDA enabled auditors in remote working and offer better services to the clients	67	3.0	1.3572	Agree
Audit Risk Assessment (ARA)				
Inherent risk assessment is vital to an auditor for preventing the risk of material misstatement or fraud	67	4.1	1.4433	Agree
Control risk assessment is vital to an auditor for preventing the risk of material misstatement or fraud.	67	3.1	1.2442	Agree
ARA enables an auditor to obtain useful evidence to minimise detection risk	67	4.3	1.7373	Agree

Source: Field Survey, 2023.

Table 4: Descriptive statistics of Task Competence and Audit Report Filing in selected organisations in Awka

Items	N	$\bar{X}$	Std. Dev.	Decision
Task Competence (TC)				
BDA has affected the knowledge capability of auditors in the modern operational environment	67	4.5	1.2429	Agree
There is a need for constant retraining of auditors to meet up with the demands on the BDA in the modern operational environment	67	3.9	1.3186	Agree
The BDA architecture has enabled auditors in quality control of work to offer better services to the clients	67	3.7	1.2613	Agree
Audit Report Filing (ARF)				

The BDA has greatly enhanced the report filing process for auditors	67	3.7	1.4536	Agree
BDA capability can reduce the audit report lag in annual financial statements audit	67	3.3	1.3220	Agree
ARA enables an auditor to obtain useful evidence to minimise detection risk	67	3.3	1.2051	Agree

Source: Field Survey, 2023.

Research Hypotheses

Test of Hypothesis One

Ho: There is no significant relationship between Big Data Analytics (BDA) and audit riskassessment by auditors in Awka, Anambra State.

H_1: There is a significant relationship between Big Data Analytics (BDA) and audit risk assessment by auditors in Awka, Anambra State.

Table 5: PPMC between BDA and ARA by auditors in Awka, Anambra State

		Big Data Analytics	Audit Risk Assessment
Big Data Analytics	Pearson Correlation	1	.631**
	Sig. (2-tailed)		.000
	N	67	67
Audit Risk Assessment	Pearson Correlation	.631**	1
	Sig. (2-tailed)	.000	
	N	67	67

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS ver. 23 Output

Table 5 above revealed the extent of the relationship that exists between BDA and ARA by auditors in Awka, Anambra State. Based on the analysis, the correlation between both variables revealed that r = .631**, $_{cal}$P-value = .000, and N = 67. Since the $_{cal}$P-value = .000 is less than 0.05, the researcher rejected the null hypothesis and accepted the alternate hypothesis which states that there is a significant effect of BDA on audit risk assessment by auditors in Awka, Anambra State. This statistically implies that BDA significantly enhances audit risk assessment perceived by auditors in Awka, Anambra State.

Test of Hypothesis Two

Ho: There is no significant relationship between Big Data Analytics (BDA) and taskcompetence by auditors in Awka, Anambra State.

H_1: There is a significant relationship between Big Data Analytics (BDA) and taskcompetence by auditors in Awka, Anambra State.

Table 6: PPMC between BDA and TC by auditors in Awka, Anambra State

		Big Data Analytics	Task Competence
Big Data Analytics	Pearson Correlation	1	.515**
	Sig. (2-tailed)		.000
	N	67	67
Task Competence	Pearson Correlation	.515**	1
	Sig. (2-tailed)	.000	
	N	67	67

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS ver. 23 Output

Table 6 above revealed the extent of the relationship that exists between BDA and TC by auditors in Awka, Anambra State. Based on the analysis, the correlation between both variables revealed that r = .515**, $_{cal}$P-value = .000, and N = 67. Since the $_{cal}$P-value = .000 is less than 0.05, the researcher rejected the null hypothesis and accepted the alternate hypothesis which states that there is a significant effect of BDA on task competence by auditors in Awka, Anambra State. This statistically implies that BDA significantly enhances task competence perceived by auditors in Awka, Anambra State.

Test of Hypothesis Three

Ho: Big Data Analytics (BDA) has not influenced audit report filing by auditors in Awka, Anambra State.

H_1: Big Data Analytics (BDA) has influenced audit report filing by auditors in Awka, Anambra State.

Table 7: PPMC between BDA and ARF by auditors in Awka, Anambra State

		Big Data Analytics	Audit Report Filing
Big Data Analytics	Pearson Correlation	1	.876**
	Sig. (2-tailed)		.000
	N	67	67
Audit Report Filing	Pearson Correlation	.876**	1
	Sig. (2-tailed)	.000	
	N	67	67

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS ver. 23 Output

Table 7 above revealed the extent of the relationship that exists between BDA and ARF by auditors in Awka, Anambra State. Based on the analysis, the correlation between both variables revealed that r = .876**, $_{cal}$P-value = .000, and N = 67. Since the $_{cal}$P-value = .000 is less than 0.05, the researcher rejected the null hypothesis and accepted the alternate hypothesis which states that BDA has influenced audit report filing by auditors in Awka, Anambra State. This statistically implies that BDA significantly enhanced audit report filing perceived by auditors in Awka, Anambra State.

Discussion of Findings

For hypothesis one, the researcher rejected the null hypothesis and accepted the alternate hypothesis which states that there is a significant effect of Big Data Analytics (BDA) on audit risk assessment by auditors in Awka, Anambra State. This is supported by the study by Sanoran and Ruangprapun (2023) in Thailand, which finds that BDA was used by auditors in audit planning and substantive testing. In addition, auditors apply BDA tools for anomaly detection and testing management assertions. For the second hypothesis, the researcher finds that there is a significant effect of Big Data Analytics (BDA) on task competence by auditors in Awka, Anambra State. This is supported by Alrashidi, Almutairi, and Zraqat (2022) using evidence from the Middle East find that BDA has an impact on audit procedures at all phases, i.e., accepting the audit task, planning the audit process, evaluating the internal control system, performing the preliminary analytical review procedures, determining the initial levels of materiality and audit risk, which in turn influences the choice to accept the audit assignment. The study by Kend and Nguyen (2020) also reported that in Australia the impact of BDA on auditing is positive. As it gives auditors more time to apply their minds and skills to more critical evaluation-type work or key audit judgements. For the third hypothesis, the researcher rejected the null hypothesis and accepted the alternate hypothesis which states that Big Data Analytics (BDA) has influenced audit report filing by auditors in Awka, Anambra State.

Conclusion and Recommendations

The study concludes that Big Data Analytics (BDA) positively affected the audit efficiency as perceived by Auditors in Awka, Anambra State. Big Data Analytics has enabled financial auditors to have an easier time adjusting their reporting procedures and identifying fraudulent transactions. Moreover, they are able to conduct accurate audits and detect risks in real-time. This study specifically, found a positive association between BDA and audit risk assessment, task competence and audit report filing. The study's contribution to knowledge is on the relationship between Big Data Analytics (BDA) as an innovative AI's contribution to the auditing profession and its impact on audit efficiency.

The study, therefore, recommends that the following be further put in place to enable the true realisation of the benefits of BDA in auditing:

1. Auditors should utilise Big Data Analytics (BDA) for audit risk assessment. Real-time data analysis allows auditors to compare vast amounts of data. Large amounts of data are analysed in big data in order to give auditors valuable insights because artificial intelligence and automation are used in this field.
2. BDA adoption and implementation are inefficient in the beginning, but as auditors become more accustomed to the tools, they become more time-effective. Additionally, auditors may utilise analytics to learn more about their customers' businesses and provide them with insights, which fosters client trust.
3. The use of Big Data Analytics (BDA) in delivering audit reports in order to reduce the audit report lag and provide useful information to stakeholders. BDA helps financial auditors to streamline the reporting process and detect fraud.

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