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Impact of Big Data on Accounting Practices: Empirical Evidence from Nigeria

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Abstract

This research examines the impact of Big Data Analytics (BDA) on accounting practices in Nigeria, focusing on financial reporting, risk and fraud management, and tax management. To address gaps in empirical evidence, a survey research design based on a quantitative method was deployed. Data were collected primarily from 200 professional accountants through structured Google Form questionnaires. Regression analysis was employed to measure BDA's influence, assessing its core dimensions: volume, variety, and velocity. Results reveal that BDA significantly enhances financial reporting accuracy and timeliness, improves fraud detection through real-time data analysis, and streamlines tax compliance processes. Despite these benefits, Nigerian accounting practices face challenges, including limited technological adoption and data integration inefficiencies. The findings emphasize fostering a data-driven culture, investing in advanced analytics technologies, and continuous professional development for accountants to leverage BDA's potential fully. This study highlights the interplay between technology and accounting in an emerging economy and contributes to the broader discourse on BDA's role in modernizing global accounting practices.

Keywords: *Accounting practices, Big data analytics, Data-driven decision-making, Financial reporting, Fraud management, Tax management*

1. Introduction

Today, the world is undergoing significant transformations in the business landscape, driven by the fourth industrial revolution, technological advancements, the proliferation of social networks, internet expansion,

and the shift towards automation (Schwab, 2016). Consequently, the emergence of Big Data technologies has become a pivotal outcome of these developments. The term "big data" has recently gained prominence as it describes the massive influx of data in the modern context (McAfee and Brynjolfsson, 2012). Companies generate vast volumes of digital data daily from various devices and tools, meticulously recording and storing this data in the cloud using various applications and programs (Davenport and Dyche, 2013).

Moreover, technology is revolutionising the accounting industry by eliminating manual intervention and automating the process of identifying patterns. This has enabled accountants to focus on challenging areas that require human expertise. Nowadays, data is considered the lifeblood of accounting, and its growth has led to the emergence of Big Data. This has facilitated the development of technologies such as big data analytics and artificial intelligence, leading to breakthroughs in the field of accounting and auditing (ICAEW, 2014; Bullock *et al.*, 2020; Gepp *et al.*, 2018).

Big data refers to the massive and intricate datasets generated from various sources, encompassing structured and unstructured information, often too extensive for traditional data management tools to process (Laney, 2001). It is characterized by the three Vs: Volume (a large amount of data), Velocity (high data generation speed), and Variety (diversity of data types). Big data is harnessed for insights, trends, and patterns through advanced analytics and technologies, providing valuable information for decision-making across various domains (Chen *et al.*, 2012). This concept has emerged as a transformative force in the digital age, enabling organizations to gain deeper insights, enhance efficiency, and drive innovation.

The empirical evidence underscores the transformative impact of Big Data Analytics (BDA), characterized by the three Vs (Volume, Velocity, and Variety), on various facets of accounting practices. BDA has significantly enhanced financial reporting, enabling more accurate, real-time, and comprehensive financial information (Elmagrhi *et al.*, 2019). In the realm of risk and fraud management, BDA has emerged as a potent tool for early detection, prevention, and mitigation of fraudulent activities, thereby strengthening financial integrity (Iqbal *et al.*, 2020).

Moreover, BDA plays a pivotal role in tax management, as it streamlines tax compliance processes and optimizes tax planning, allowing organizations to navigate complex tax regulations more effectively (Warren and Marz, 2015). In management accounting practices, BDA empowers decision-makers with advanced analytics and data-driven insights, supporting strategic planning, budgeting, and performance evaluation (Chen *et al.*, 2012).

This empirical evidence illuminates the transformative potential of Big Data Analytics (BDA) in enhancing the efficiency, accuracy, and strategic capabilities of accounting practices in Nigeria. Utilizing BDA tools has ushered in a new era of data-driven decision-making, setting the stage for a more resilient and agile financial ecosystem in the country. These findings align with the broader global trends in adopting BDA in accounting practices (Iqbal *et al.*, 2020).

Furthermore, in Nigeria, accounting practices face a critical and complex challenge due to the underutilization of big data capabilities, which has led to what can be described as an "epidemic" of inefficiencies and shortcomings in the field. The inadequate integration of big data technologies in the country's accounting landscape has compromised the accurate and timely processing of financial information. This, in turn, undermines the reliability of financial reporting and compliance with international accounting standards (Adeyemi, 2018).

More so, the absence of effective big data analytics tools exacerbates the already significant fraud detection and prevention issues in Nigeria (Adewumi *et al.*, 2018). Organizations face difficulties identifying irregularities, financial discrepancies, and fraudulent activities, leading to financial losses and regulatory non-compliance.

The outcome of the insufficient utilisation of big data in Nigerian enterprises underscores the necessity for enhanced strategic decision-making capabilities. The inability to analyse and extract valuable insights from data impedes organisations' ability to adjust to changing market conditions and make well-informed decisions. This constraint hinders their competitiveness and constrains their growth potential (Ajayi *et al.*, 2020).

The circumstance calls for urgent focus and investment in big data infrastructure, capabilities for data analytics, and a transition towards fostering a culture of data-driven decision-making. These actions are crucial to tackling the widespread inefficiencies in Nigeria's accounting practices, improving transparency, accuracy, and compliance, and fostering innovation and growth in the accounting profession (Adeyemi, 2018; Adewumi *et al.*, 2018; Ajayi *et al.*, 2020).

2. Rationale of this Study

The arrival of the digital age has initiated a transformative phase for accounting practices worldwide. A significant aspect of this transformation is the rise and swift development of Big Data Analytics (BDA) (Davenport and Harris, 2007). While the extensive influence of BDA on numerous industries is well-documented (Chen *et al.*, 2012), more empirical research needs to be conducted on accounting, particularly within a dynamic and emerging economy like Nigeria. This study addresses this gap by exploring "The Impact of Big Data Analytics on Accounting Practices: Empirical Evidence from Nigeria.

Nigerian companies in various industries face challenges brought about by technological advancements affecting their accountants. The exponential increase in data volume requires accountants to have access to the necessary technological tools to analyze significantly larger datasets than was previously the norm (Arner *et al.*, 2015). For example, data analytics is being employed to transform the accounting profession from a reactive and retrospective practice to a proactive and continually insightful resource that can be accessed regularly. Accountants are now serving as custodians and interpreters of the underlying data framework.

Moreover, another rationale for conducting a study on the impact of big data analytics on accounting and auditing practices in Nigeria is grounded in several compelling factors. Firstly, Nigeria's fintech sector has experienced remarkable growth, positioning itself as a leader in developing fintech across Africa (Smith, 2020). Secondly, anecdotal evidence indicates many fintech firms in Nigeria, many of which incorporate a diverse range of fintech solutions into their product portfolios (Jones, 2019). Furthermore, Nigeria's economic sectors demonstrate sustained growth and are characterized by advanced data analytics capabilities (Brown *et al.*, 2021). Lastly, Nigeria has emerged as a prominent fintech hub in Africa, attracting a significant portion of investment in the tech start-up ecosystem, with reports revealing that it accounted for 25%, equivalent to $122 million of the total investment raised by African tech start-ups in 2019 (Disrupt Africa Report, 2019). These factors collectively emphasize the significance of investigating the influence of big data on accounting and auditing practices within the Nigerian context.

While a few recent studies have explored integrating technology into the accounting profession, there remains a significant gap in scholarly empirical research regarding the relationship between big data and accounting practices (Chen *et al.*, 2012; Ibrahim *et al.*, 2021). While some related literature has been investigated with differing objectives (Bonsu *et al.*, 2023; Alkababji and Awwad, 2023), there is a notable absence of empirical research focused on accounting practices with the same objectives as this study (Lamboglia *et al.*, 2020; Schmitz and Leoni, 2019). Furthermore, the adoption of big data in accounting is still in its nascent stages (Ibrahim *et al.*, 2021; Scott and Orlikowski, 2012). However, big data needs to be more conclusive and theoretical, and there is a dearth of empirical models. Therefore, more empirical studies are needed to examine the impacts of big data on accountants' work concerning financial reporting, risk and fraud management, tax management, and management accounting practices.

2.1. Research Objectives

The aim of this research is to explore the Impact of Big Data on Accounting Practices: Empirical Evidence from Nigeria.

The specific objectives are:

i.   To examine the impact of Big Data on Financial Reporting.

ii. To ascertain the impact Big Data on Risk & Fraud Management.

iii. To evaluate the effect of Big Data on Tax Management.

2.2. Research Questions

In line with the objectives of this study, the following questions have been developed:

i.   What is the impact of Big Data on Financial Reporting?

ii. What is the impact Big Data on Risk & Fraud Management?

iii. What is the effect of Big Data on Tax Management?

3. Literature Review

3.1. Concept of Big Data

The rise of Big Data and its associated analytical technologies has instigated a fundamental transformation in how businesses gather, handle, and utilize information across diverse functions, including financial and managerial accounting. Big Data is marked by the three core dimensions: Volume, Velocity, and Variety (as defined by Laney, 2001), and it has precipitated noteworthy alterations in the realm of accounting procedures. Within this comprehensive discourse, we will delve into the principles of Big Data and its analytical applications, assess their repercussions on accounting methodologies, and offer tangible, real-life instances to exemplify their practical utility.

Volume, as a component of the "3Vs" (Volume, Velocity, Variety), refers to the sheer amount of data that organizations are now capable of collecting and storing, and it is one of the defining characteristics of Big Data (Laney, 2001). The quantity of data generated has increased exponentially with the growth of digital technologies, posing challenges and opportunities for organizations (McAfee and Brynjolfsson, 2012).

In accounting, the volume of data encompasses a wide range of information, including financial transactions, sales records, customer data, and more. For instance, consider a multinational corporation with millions of daily transactions. These transactions include sales, purchases, payroll, and other financial activities. The sheer volume of data generated is enormous, making traditional data processing methods inadequate for managing and analysing this vast amount of information (Davenport and Harris, 2007).

In the realm of Big Data's "3Vs" (Volume, Velocity, Variety), velocity pertains to the swiftness at which data is both generated and processed (Laney, 2001). In the current digital era, data is being created and updated at an unparalleled rate, resulting in a fundamental shift in various accounting procedures, transitioning them from periodic to nearly instantaneous or real-time (McAfee and Brynjolfsson, 2012). Thus, consider the stock trading domain, a compelling example of high-velocity data. Stock prices undergo rapid changes on a millisecond timescale, necessitating traders to rely on real-time data streams for making split-second decisions (Zhang, 2013).

More so, Variety, one of the "3Vs" (Volume, Velocity, Variety) in the context of Big Data, pertains to the diversity of data formats and types (Laney, 2001). Big Data encompasses a wide range of data structures, including structured data (e.g., databases), unstructured data (e.g., social media posts), and semi-structured data (e.g., XML files) (McAfee and Brynjolfsson, 2012). The variety of data underscores the need for flexible data handling and analysis methods. For instance, social media data is highly unstructured, consisting of text, images, and videos. Analysing social media sentiment about a company or its products requires processing and understanding these diverse data formats (Bollen *et al.*, 2011).

Moreover, the practice of Big Data analytics encompasses the examination of extensive and intricate datasets to unveil concealed patterns, undiscovered connections, market tendencies, customer inclinations, and other invaluable insights (Davenport and Harris, 2007). This entails using sophisticated analytical methods and cutting-edge technologies to extract meaningful information from Big Data. These insights facilitate well-informed decision-making, enrich business strategies, and optimize operational procedures (Chen *et al.*, 2012). Numerous technologies and tools play a fundamental role in Big Data analytics, including Hadoop, Spark, NoSQL databases, machine learning algorithms, and data visualization utilities (Chen *et al.*, 2012). Additionally, there exist four principal categories of Big Data analytics, namely Descriptive Analytics, Diagnostic Analytics, Predictive Analytics, and Prescriptive Analytics (Davenport *et al.*, 2010).

Furthermore, accounting practices in Nigeria have evolved over the years, aligning with international accounting standards and regulatory requirements (Ajibolade and Yinusa, 2019). These practices encompass financial reporting, auditing, tax management, and cost control and are vital for businesses and the public sector. However, the complexity of modern business operations, increasing data volumes, and the demand for real-time insights have necessitated the adoption of Big Data analytics in Nigerian accounting.

The need to adopt Big Data analytics in Nigerian accounting practices arises from the desire for enhanced accuracy, efficiency, and decision-making (Chukwudozie and Ofoegbu, 2019). Big Data analytics can handle vast datasets, detect patterns, and provide real-time insights, which is crucial in financial reporting and auditing. It enables businesses to optimize cost management and identify risks promptly, aligning with the nation's economic growth.

The adoption of Big Data analytics can also help address challenges related to fraud detection, tax evasion, and regulatory compliance (Akintoye *et al.*, 2019). By leveraging the power of Big Data, Nigerian organizations can streamline accounting processes, improve the accuracy of financial data, and meet the growing demands of stakeholders. Embracing this technology is a crucial step toward maintaining transparency, accountability, and financial stability in Nigeria's accounting practices.

3.2. The Impact of Big Data on Financial Reporting

Financial reporting involves the communication of a company's financial performance to external stakeholders through statements like the statement of financial position, statement of comprehensive income, and cash flow statement. This process ensures transparency and aids decision-making (Hendriksen and Van Breda, 1992). Accounting standards like IFRS and GAAP guide financial reporting, emphasizing accuracy and reliability (Nobes and Parker, 2016). Contemporary perspectives acknowledge the evolving role of technology and data analytics in enhancing financial reporting practices (Malafronte and Weber, 2020).

In the era of big data, financial reporting frequencies (quarterly, biannually, annually) is still done, but public disclosure often follows later audits, potentially compromising the relevance of certain information (Bonsu *et al.*, 2023). Investors now anticipate more immediate financial updates, possibly daily, aligning with the big data characteristic of velocity which mentions to the rate at which data is being processed and formed. Contemporary big data systems enable real-time data analysis and generation, facilitating businesses like Walmart, Royal Bank of Scotland, and Amazon in promptly providing data (Marr, 2016). This implies that adopting big data systems could significantly enhance a company's ability to deliver timely financial reports to the public.

More so, Big Data has a profound impact on the accuracy and completeness of financial reporting. Traditional financial reporting systems often rely on structured, historical data, which may be limited in scope and not fully represent the current financial situation. With Big Data, organizations can analyze vast and varied datasets, which can include structured and unstructured data from sources like social media, customer feedback, and market sentiment (Smith, 2019; Johnson, 2020). This allows for a more comprehensive view of financial data, enabling the detection of anomalies, errors, and inconsistencies more effectively. As a result, financial reports generated from Big Data are more accurate, reducing the risk of financial misstatements and ensuring compliance with accounting standards (Chen *et al.*, 2012; Kumar, 2021).

Furthermore, Big Data analytics provides real-time insights into financial performance, which is a game-changer for financial reporting (Smith, 2019). Traditional reports are often static and based on historical data, making them less responsive to the rapidly changing business environment. Big Data technologies allow for the continuous monitoring and analysis of financial data streams, offering real-time information on revenue, expenses, and other financial metrics (Johnson, 2020). This real-time reporting empowers decision-makers to make timely, data-driven decisions, helping to optimize financial strategies, manage risk, and seize opportunities (Gupta and Sharma, 2017). For example, in the stock market, traders can use real-time financial data and sentiment analysis from social media to inform their investment decisions instantly (Brown and Lee, 2018).

The impact of Big Data on financial reporting is significant due to its three main characteristics: volume, velocity, and variety. The volume of data generated requires advanced tools and techniques to manage and

analyze it effectively (Gandomi and Haider, 2015). The velocity at which data is generated necessitates timely reporting to maintain relevance (Chen *et al.*, 2012). The variety of available data sources, including non-financial data, enhances financial reports' relevance and faithful representation (Kiron *et al.*, 2014). However, ensuring comparability, verifiability, timeliness, and understandability of financial reports in Big Data poses challenges requiring further research and development (Kiron *et al.*, 2014; Gandomi and Haider, 2015).

3.3. The Impact Big Data on Risk and Fraud Management

Risk and fraud management plays a crucial role in accounting practices, ensuring the integrity and reliability of financial information. Effective risk management involves identifying, assessing, and mitigating potential risks impacting an organization's financial reporting. It consists of implementing internal controls, conducting risk assessments, and monitoring processes to prevent and detect errors, omissions, or fraudulent activities (ACFE, 2021).

Fraud management focuses specifically on detecting and addressing fraudulent activities within accounting practices. This includes implementing fraud prevention measures, conducting regular internal audits, and establishing a strong ethical culture within the organization. By actively managing fraud risks, companies can safeguard their assets, protect shareholder value, and maintain stakeholder trust (ACFE, 2021).

Recent studies emphasize the importance of risk and fraud management in accounting practices. For instance, research by Albrecht *et al.* (2019) highlights the need for organizations to establish comprehensive fraud prevention programs to combat the growing threat of occupational fraud. The Association of Certified Fraud Examiners (ACFE) also provides valuable resources and guidelines for effective risk and fraud management in accounting practices (ACFE, 2021).

Furthermore, technological advancements have facilitated and challenged risk and fraud management efforts. While digital tools, BD, and analytics can enhance fraud detection capabilities, they also create new vulnerabilities and require continuous adaptation of risk management strategies (Spathis *et al.*, 2020). Organizations must stay vigilant and adapt their risk and fraud management practices to address emerging risks such as cybercrime and data breaches.

The impact of BD on risk and fraud management is critical and transformative, especially when considering the components of BD. Thus, volume relates to the vast amount of data generated and collected by organizations. With the increasing digitization of financial transactions and the availability of electronic records, the volume of data has grown exponentially. Big data analytics allows organizations to analyze this large volume of data to identify patterns and anomalies that may indicate potential risks or fraudulent activities (KPMG, 2021).

Also, velocity pertains to the speed at which data is generated and requires processing. Real-time data processing empowers organizations to monitor transactions and promptly identify potential risks or fraudulent activities (Elgendy and Elragal, 2014). This means that the capabilities within big data enable accountants to enhance risk and fraud management, such as gaining new insights into business sales, including costing (Jia, 2020). Additionally, with accurate and easily comprehensible data derived from data analytics, accountants can provide increased assurance over the financial statements of businesses (Cockcroft and Russell, 2018). Moreover, big data analytics plays a crucial role in enhancing the quality of decision-making needed for managing financial resources and evaluating risk and fraud management within business functions through predictive analysis (Nasrizar, 2014).

Variety encompasses the diverse types and data sources at organisations' disposal. In addition to traditional financial data, big data includes non-financial data such as social media posts, customer reviews, and sensor data. The main purpose of collecting and analysing big data from various sources is to generate opportunities for insights that can be applied in making real-time decisions (Al-Htaybat and von Alberti-Alhtaybat, 2017; Bhimani and Willcocks, 2014; Cockcroft and Russell, 2018). Rather than depending on periodically generated financial reports, such as monthly ones, the availability of minute-to-minute data from a range of sources, including unstructured data from websites and mobile devices, provides reliable information for decision-making and reveals fraudulent activities that might go unnoticed through traditional methods (Deloitte, 2020; Bhimani Willcocks, 2014).

3.4. The Effect of Big Data on Tax Management

The impact of Big Data on tax management in Nigeria has been significant, revolutionizing how tax authorities collect, analyze, and leverage data for effective tax administration. Big Data refers to the vast amount of structured and unstructured data generated from various sources, such as financial transactions, social media, and government records (Onyia and Okafor, 2018). This wealth of information can enhance tax compliance, reduce tax evasion, and improve revenue generation for the Nigerian government.

One key area where Big Data has profoundly impacted is tax risk assessment. By analyzing large volumes of taxpayer data, tax authorities can identify patterns, anomalies, and potential risks more efficiently (Onyia and Okafor, 2018). This enables them to prioritize audits and investigations, focusing on high-risk taxpayers and sectors. Advanced analytics and machine learning algorithms allow for more accurate tax non-compliance predictions, leading to targeted enforcement actions (Oyedele and Adebayo, 2019).

Furthermore, Big Data has facilitated the automation of tax processes, streamlining tax administration in Nigeria. With the integration of data analytics tools, tax authorities can now automate data collection, verification, and reporting (Adeyemo *et al.*, 2021). This reduces manual errors, enhances data accuracy, and improves efficiency in tax management. Taxpayers also benefit from this automation as they can access online platforms for filing returns, making payments, and obtaining tax clearance certificates (Olatokun and Oyelami, 2019).

The relationship between Big Data and tax management in Nigeria is symbiotic. On one hand, tax authorities rely on Big Data to enhance compliance and revenue generation. On the other hand, tax management generates vast amounts of data that can be further analyzed to gain insights into economic trends, taxpayer behavior, and policy effectiveness (Olatokun and Oyelami, 2019). This feedback loop allows for continuous improvement in tax administration strategies and policies. Integrating Big Data in tax management is thus pivotal for Nigeria in navigating the complexities of tax compliance and revenue optimization.

3.5. Empirical Review

Alkababji and Awwad (2023) explored the impact of big data tools and techniques on the progression of accounting practices. The researchers sought to elucidate the accounting opportunities, challenges, and hurdles faced by Palestinian public shareholding industrial companies within the big data environment and evaluate how its advantages, costs, and analysis affect the financial performance of these companies. The study comprised a sample of (50) employees from the financial and accounting departments of (13) Palestinian public shareholding industrial companies. Employing a descriptive and analytical approach, the researchers developed a questionnaire to investigate the study's hypotheses and achieve its objectives. The study's findings highlighted a statistically significant role for accounting opportunities, challenges, and obstacles in the big data environment. Furthermore, the results demonstrated a positive impact of the evolution of accounting practices and the benefits of big data and its analytics on the financial performance of industrial companies in Palestine. Nevertheless, the researchers identified a role for big data analysis's elevated cost and complexity in impeding its adoption by public shareholding industrial companies in Palestine.

Saleh *et al.* (2023) researched the qualitative evidence from Canada regarding Big Data analytics and financial reporting quality. Using a qualitative approach, the study sought to comprehend the perspectives and opinions of auditors, financial analysts, and accountants employed in Canadian audit and accounting firms concerning the impact of Big Data Analytics (BDA) on financial reporting quality through semi-structured interviews. Initially, 127 professionals from Canadian audit and accounting firms were approached for consent to participate in the interviews. Ultimately, 41 respondents took part, resulting in a response rate of 32%. The study findings underscored the importance of Big Data and BDA in influencing financial report quality, highlighting a significant positive impact of BDA on enhancing financial reporting quality. Big Data enhances accounting reporting and expert judgment by providing professional insights. In summary, participants agreed that the effective implementation of analytical methods in Big Data could yield various benefits for businesses, including personalized goods, streamlined processes, improved risk assessment, and enhanced risk management.

Dheifallah *et al.* (2023) explored the impact of big data on the quality of financial reporting within Jordan's industrial sector. In pursuit of the study's objectives and the validation of hypotheses, a field study was conducted by administering a questionnaire to 325 financial managers in industrial companies listed on the Amman Stock Exchange over a specific period. The collected data underwent analysis using Structural Equation Modelling (SEM). The study's findings indicated a positive influence of various dimensions of big data, such as variety, volume, and velocity, on the quality of financial reporting. As a result, a set of recommendations was proposed to managers of industrial companies in Jordan, encouraging establishing a comprehensive data governance system to ensure data quality, security, privacy, and compliance. Suggestions included defining data ownership, establishing data quality standards, and developing processes for data access and usage to ensure the integrity and reliability of financial reporting.

Bonsu *et al.* (2023) conducted a study investigating the Empirical Evidence from Africa concerning the Impact of Big Data on Accounting Practices. The research employed multiple regression analysis with data gathered from 151 responses using a random sampling method. The study's findings indicated big data's positive and significant impact on various aspects, including financial reporting, performance management, corporate budgeting, audit evidence, and risk and fraud management. Additionally, the evidence suggested that leveraging diverse data volume, data variety, and data velocity significantly amplifies the influence of big data on accountants' accounting and auditing practices.

Mesbau and Sakila (2022) explored the impact of big data analytics on supply chain management practices within the Fast-Moving Consumer Goods (FMCG) industry, with a specific emphasis on evidence from developing countries. The study entailed surveying employees of multinational FMCG businesses globally, covering diverse regions such as the Americas and Asia. The analysis of the collected survey data employed quantitative evaluation through systemic situation modelling. The research delves into deriving value from extensive information within Supply Chain Management (SCM). The results indicated that adopting Big Data Analytics (BDA) technologies can bring about significant value addition and financial benefits for companies, potentially evolving into a standardized practice within the industry. The study illustrates how these emerging developments and trends can impact the dynamics of SCM, providing specific examples.

According to Maroufkhani *et al.* (2022) research, integrating Big Data Analysis (BDA) signifies a fundamental shift in the modern industrial landscape, facilitating precise decision-making and optimizing performance. The results affirm the significant impact of incorporating business performance assessment within small and medium-sized enterprises. Additionally, it serves as a valuable resource for managers seeking to comprehend the factors influencing the adoption of Big Data Analytics (BDA). This comprehension enables managers to implement suitable and strategic initiatives, effectively evaluate business performance, and identify conditions where investments in big data sources contribute to improving company performance. The study is grounded in a Resource-Based View (RBV) perspective.

Fu (2022) delved into the ramifications of adopting Big Data Tax Collection and Management on Enterprise Innovation, employing Chinese A-share listed companies as the research sample from 2011 to 2018. The principal aim of the study was to examine the correlation between the implementation of extensive data tax collection and management and the facilitation of enterprise innovation. The findings articulated in this paper suggest that integrating big data tax collection and management significantly enhances technological innovation activities within enterprises. Specifically, utilising big data tax collection and management contributes to technological innovation by alleviating financialization within enterprises. Notably, this influence is more conspicuous in companies with higher agency costs. These results contribute to the existing body of research on the microeconomic implications of big data tax collection and management, introducing a new perspective on boosting enterprise innovation and providing a substantial theoretical contribution.

Vargas *et al.* (2021) investigated Accounting and Financial Practice and Research in the era of Big Data. However, the analysis relies on information extracted from Scopus from 2016-2020. Relevant literature is identified and sampled to create a taxonomy of topics, which is scrutinised quantitatively by assessing the volume of scientific production in different parameters, such as the year of publication, area of knowledge, and authorship. Qualitatively, the study explores the analysis of the perspectives presented in various research papers related to the topic above.

Li Lin's (2021) investigation explored the application of the Big Data Model in Financial Taxation Management. This led to the identification of a significant number of financial managers in small and medium-sized enterprises who need a clearer understanding of the definition of taxation, emphasizing the need for improved training in this domain. The study focused on the industrial chain of Chinese enterprises and provided an in-depth examination of taxation compliance and its influencing factors. To facilitate analysis, a taxation respect model was established. A coefficient of variation model incorporating the Pilka coefficient was introduced within this framework. The findings indicated that the primary business income demonstrated the most robust linear relationship and the highest correlation with value-added tax payable. Conversely, the correlation between return on assets and value-added tax payable was the weakest, indicating a less pronounced relationship. Moreover, a substantial negative correlation was detected between the sales profit margin and VAT payable. When scrutinizing a pharmaceutical company's financial performance over the last decade, the research concluded that both main business income and corresponding tax revenue experienced annual growth, accompanied by a relatively unstable tax growth rate. Notably, the study highlighted the financial risk coefficient of corporate income tax as the most significant among the identified factors.

Nagat (2020) investigated how Big Data Analytics contributes to improving the quality of Financial Reporting. To achieve the study's objectives and validate hypotheses, relevant existing literature and research were consulted. Furthermore, a field study was conducted by distributing a questionnaire to 154 individuals, including academics, financial analysts, accountants, and experts specializing in big data analysis in the Kingdom of Saudi Arabia in 2019. The collected data were analysed using the Statistical Package for Social Science (SPSS 17.0). The study's findings suggest that, despite the challenges encountered by business organizations in data analysis, big data analytics significantly enhances institutional competitiveness. It improves the quality of accounting information, provides pertinent information for rational decision-making within economic entities, and yields future insights that influence stakeholders' decisions. Additionally, the study demonstrated a statistically significant impact of big data analytics on enhancing the quality of accounting information, positively influencing the characteristics of accounting information, and consequently improving the quality of financial reports.

Suoniemi *et al.* (2020) discovered that Big Data resources enhance company performance by improving market-oriented capabilities. Furthermore, companies opting for a differentiation strategy instead of cost leadership experience greater benefits from their investments in Big Data resources. These resources account for 13% of the variance in the performance of companies pursuing a differentiation plan.

3.6. Identified Gaps in Literature

There is a dearth of empirical evidence on the impact of big data on accounting practices in Nigeria. Thus, most of the cited studies focus on regions outside of Nigeria, such as Palestine, Canada, Jordan, and Africa. A key gap is the lack of empirical evidence from Nigeria, which represents a different economic and cultural context. Investigating how BDA impacts accounting practices in Nigeria can offer insights into the subject's relevance in a developing country.

However, all the existing literature cited tends to emphasize specific aspects, such as supply chain management practices, financial reporting quality, company performance, operational performance, financial and administrative decision-making, the benefits and risks of big data technologies, and the opportunities and challenges associated with big data in the audit profession, financial reporting, risk, and fraud management, performance management, and corporate budgeting. Further research should explore a broader spectrum of accounting practices, including tax management and management accounting practices, to assess the comprehensive impact of BDA across the accounting profession.

Furthermore, a notable gap in the reviewed literature is the limited inclusion of professional accountants and auditors as respondents. While the studies explore the impact of Big Data Analytics (BDA) on different variables, the respondents primarily consist of academics, financial analysts, and employees within industrial companies. The absence of direct input from professional accountants and auditors, who play a central role in implementing BDA within the accounting field, creates a void in understanding their perspectives and challenges.

To unlock a deeper understanding of Big Data Analytics (BDA) in accounting, this research focuses on engaging professional accountants and auditors, particularly those affiliated with renowned bodies such as ICAN, ANAN, CITN, ACCA, and CICMA. These experts offer unparalleled real-world insights into how BDA transforms financial reporting, enhances risk and fraud management, and streamlines tax management. Their involvement as respondents promises to yield nuanced, actionable findings that can bridge critical knowledge gaps in Nigeria's accounting landscape. Thus, this study provides a compelling opportunity to challenge these hypotheses and pave the way for evidence-based advancements in accounting practices.

3.7. Research Hypotheses

$H0_1$: *There is no significant impact of Big Data on Financial Reporting.*

$H0_2$: *There is no significant impact of impact Big Data on Risk & Fraud Management.*

$H0_3$: *There is no significant impact of effect of Big Data on Tax Management.*

4. Methodology

The methodology for studying the "Impact of Big Data Analytics on Financial Reporting Quality and Accounting Practices in Nigeria" involved an inductive approach combined with quantitative methods. A survey strategy was employed, targeting 200 professional accountants from prominent Nigerian bodies. Data were gathered via Google Form questionnaires, with measurement scales designed specifically for big data. The research followed a survey-based design and used deductive reasoning for hypothesis testing. Chartered accountants across Nigeria formed the study population, with 200 respondents selected through random sampling. The questionnaire was administered through Google Forms.

4.1. Data Analysis

The questionnaires were structured using a Likert scale. Big data was measured based on its core characteristics: volume, variety, and velocity. Accounting and auditing practices were assessed using proxies such as financial reporting, risk & fraud management, and tax management. Data analysis used descriptive statistics, frequencies, percentages, and regression analysis to evaluate big data's influence on various accounting practices, regressing each practice on big data's volume, variety, and velocity dimensions.

$H0_1$: *There is no significant impact of big data on financial reporting.*

Regression Result Digestion: The regression model, unveils compelling insights into the impact of Big Data on financial reporting among professional accountants in Nigeria. The substantial R-squared value of 0.803 indicates that 80% of the variations in financial reporting can be attributed to Big Data. This signifies a robust and influential correlation between the two variables. The statistical significance is reinforced by the 1% level (p-value = 0.000), highlighting the strength and reliability of the observed relationship.

The Adjusted R-squared value, still positive, reinforces the model's reliability even after accounting for potential over fitting, supporting the notion that Big Data plays a crucial role in explaining changes in Financial Reporting among the sampled professionals.

The F-change statistic of 971.485 establishes the model's overall statistical significance, emphasising the independent variable's collective impact on financial reporting. This reinforces the notion that Big Data is pivotal in shaping financial reporting practices among professional accountants.

However, the Durbin-Watson statistic of 0.304 suggests the presence of autocorrelation in the residuals, potentially impacting the model's reliability. In conclusion, the results imply that Big Data has a substantial and statistically significant impact on financial reporting among professional accountants in Nigeria (Table 1).

Analysis of Anova: The result from Anova yields essential information about the regression statistics. The considerable sum of squares for the regression (88.415) and its associated mean square shows the model's efficacy in accounting for variability. Conversely, the sum of squares for residuals (21.751) and its mean square (0.091) indicates unexplained variability. The exceptionally low P-value (0.000) confirms the model's strong statistical significance. This substantial statistical backing implies a significant influence of Big Data

Table 1: Using the Simple Regression Statistical Tool, the Hypothesis was Tested, and the Summary of the Result Shown on the 7.0

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.896[a]	0.803	0.802	0.302	0.803	971.485	1	239	0.000	0.304

[a]Predictors: (Constant), Big Data
[b]Dependent Variable: Financial Reporting

Anova

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	88.415	1	88.415	971.485	0.000[b]
Residual	21.751	199	0.091		
Total	110.166	200			

[a]Dependent Variable: Financial Reporting
[b]Predictors: (Constant), Big Data

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	0.309	0.042		7.301	0.000	0.226	0.392
Big Data	0.807	0.026	0.896	31.169	0.000	0.756	0.858

[a]Dependent Variable: Financial Reporting

Source: Researchers computed using SPSS

on financial reporting, as demonstrated by the model's capability to elucidate and forecast a proportion of the fluctuations in the dependent variable.

Data Driven Decision: Going further, the analysis reveals that the calculated t-value for the independent variable (31.169) exceeds the critical tabulated value (7.301). Therefore, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. This outcome indicates a substantial and statistically significant impact of big data on financial reporting in Nigeria's accounting practices, as perceived by professional accountants. The result supports the assertion that variations in big data contribute significantly to changes in financial reporting among the sampled professionals, highlighting the influential role of big data in shaping accounting practices. The findings affirm the theoretical expectation of a significant association between Big Data and financial reporting and shed light on the practical implications for accounting practices in Nigeria. The observed influence of Big Data on financial reporting among professionals emphasizes the transformative role of data-driven insights in shaping accounting methodologies, reinforcing the growing importance of technology and data analytics in contemporary accounting environments.

$H0_2$: There is no significant impact big data on risk and fraud management.

Regression Analysis Dissection: The regression model provides insights into the relationship between Big Data and Risk & fraud management among professional accountants in Nigeria. The R-squared value of 0.530 indicates that 53% of risk & fraud management variability can be attributed to Big Data. This suggests a moderate to strong correlation between the two variables, emphasizing the substantial influence of Big Data on Risk & fraud management practices in the professional accounting context (Table 2).

Table 2: Using the Simple Regression Statistical Tool, the Hypothesis was Tested, and the Summary of the Results Presented

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	1	0.728a	0.530	0.528	0.529	0.530	269.193	1	239	0.000

aPredictors: (Constant), Big Data
bDependent Variable: Risk & Fraud Management

Anova

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	75.438	1	75.438	269.193	0.000b
Residual	66.977	199	0.280		
Total	142.415	200			

aDependent Variable: Risk & Fraud Management
bPredictors: (Constant), Big Data

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	0.038	0.087		0.441	0.659	-0.132	0.209
Big Data	0.897	0.055	0.728	16.407	0.000	0.789	1.005

aDependent Variable: Risk & Fraud Management

The highly significant p-value of 0.000 at a 1% level for the model reinforces the statistical robustness of the relationship. The positive coefficient for Big Data in the Adjusted R-value underscores the persistent strong correlation, even when considering potential over fitting, adding credibility to the model.

The F-change statistic of 0.530 signifies the overall model's statistical significance, indicating that the independent variable collectively explains a significant portion of the variance in risk & fraud management.

However, the low Durbin-Watson value of 0.000 suggests the presence of autocorrelation in the residuals, cautioning against potential issues in the model's reliability.

In conclusion, the results suggest a substantial impact of Big Data on Risk & fraud management among professional accountants in Nigeria. The high R-squared, significant p-value and positive coefficient support that Big Data plays a crucial role in influencing risk & fraud management practices within the studied professional context.

Analysis of Anova: The ANOVA table reveals crucial insights into the regression statistics. The substantial sum of squares for the regression (75.438) and its mean square highlights the model's effectiveness in explaining variability. Conversely, the sum of squares for residuals (66.977) and its mean square (0.280) indicates unexplained variability. The exceptionally low P-value (0.000) confirms the model's strong statistical significance. This substantial statistical support implies a significant impact of Big Data on risk & fraud management, as demonstrated by the model's ability to clarify and predict a portion of the fluctuations in the dependent variable.

Data Driven Decision: The outcome of the analysis indicates a decisive result. The calculated t-value of 16.407 surpasses the critical table value (0.441), leading to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_1). This suggests big data's substantial and statistically significant impact on risk & fraud management. The elevated t-value signifies that the observed effect is unlikely to occur by random chance, supporting the assertion that variations in big data have a meaningful influence on risk & fraud management practices.

The rejection of the null hypothesis implies that big data is a significant predictor, contributing significantly to changes in risk & fraud management. This outcome aligns with the priori expectation that big data plays a crucial role in shaping strategies and practices related to risk and fraud management. The statistical evidence provides confidence in the conclusion that big data has a discernible impact on risk & fraud management, emphasizing its importance in contemporary risk management practices.

$H0_3$: There is no significant effect of big data on tax management.

Regression Analysis Dissection: The regression analysis offers crucial insights into the relationship between Big Data and tax management among professional accountants in Nigeria. With an R-squared value of 0.710, it is apparent that Big Data can explain 71% of the variability in tax management. This underscores a strong and meaningful correlation between these variables, highlighting the considerable influence of Big Data in shaping tax management practices within the professional accounting sphere.

The exceptionally low p-value of 0.000 at a 1% significance level further strengthens confidence in the statistical significance of this association. The positive coefficient for Big Data in the Adjusted R-value reaffirms the sustained strong correlation, even when accounting for potential over fitting.

Table 3: Using the Simple Regression Statistical Tool, the Hypothesis was Tested, and the Summary of the Results Presented

Model Ssummary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
					Change Statistics					
1	0.843[a]	0.710	0.709	0.462	0.710	585.170	1	239	0.000	0.191

[a]Predictors: (Constant), Big Data
[b]Dependent Variable: Tax Management

Anova

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	125.139	1	125.139	585.170	0.000[b]
Residual	51.110	199	0.214		
Total	176.249	200			

[a]Dependent Variable: Big Data
[b]Predictors: (Constant), Tax Management

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-0.122	0.073		-1.665	0.097	-0.266	0.022
Big Data	1.201	0.050	0.843	24.190	0.000	1.103	1.299

The F-change statistic of 585.170 underscores the overall statistical significance of the model, indicating that, collectively, Big Data accounts for a substantial portion of the variability in tax management. The Durbin-Watson value of 0.191, approximately around 2, indicates little to no first-order autocorrelation in the residuals. This supports the reliability of the model's predictions and the independence of errors.

In conclusion, the results imply a significant impact of Big Data on tax management among professional accountants in Nigeria. The high R-squared, significant p-value and positive coefficient support that Big Data plays a crucial role in influencing tax management practices.

Analysis of Anova: The ANOVA table provides valuable insights into the regression statistics. The considerable sum of squares for the regression (125.139) and its associated mean square underscores the model's efficacy in explaining variability in the dependent variable. This indicates that the independent variable, Big Data, contributes significantly to the overall variance in tax management. Conversely, the sum of squares for residuals (51.110) and its mean square (0.214) suggests the presence of unexplained variability, highlighting areas where the model may fall short in capturing specific nuances.

The exceptionally low p-value (0.000) further attests to the model's robust statistical significance, indicating that the observed effects are implausible due to random chance. This supports the inference that Big Data substantially impacts tax management, as evidenced by the model's ability to elucidate and predict variations in the dependent variable.

The ANOVA results suggest that the regression model effectively captures the relationship between Big Data and tax management. As indicated by the low p-value, the substantial statistical support reinforces the conclusion that Big Data plays a significant role in influencing tax management practices, contributing to the model's explanatory power and predictive ability in this research.

Data Driven Decision: The analysis outcome indicates that the computed t-value of 24.190 surpasses the tabulated value (-1.665). Consequently, the null hypothesis (H0) is rejected, while the alternative hypothesis (H1) is accepted. This suggests a significant and positive effect of big data on tax management in Nigeria, as indicated by the selected professional accountants. The rejection of the null hypothesis implies that variations in big data are associated with meaningful changes in tax management practices, as perceived by the professionals involved in the study. The acceptance of the alternative hypothesis supports the conclusion that big data plays a substantial and influential role in shaping tax management strategies among the surveyed professional accountants in Nigeria.

5. Discussion of the Findings

What is the impact of Big Data on Financial Reporting?

The first research question, which is line with the research hypothesis 1, were analysed using descriptive statistics and regression statistical technique respectively. It was revealed that Big Data has significant and positive impact on Financial Reporting. The findings of the research, indicating a significant impact of Big Data on Financial Reporting, align with and contribute to the growing body of literature exploring the relationship between Big Data and financial reporting quality. This conformity with existing research underscores the robustness and consistency of the observed effects, reinforcing that Big Data plays a pivotal role in shaping the financial reporting.

Saleh *et al.* (2023) conducted a study on Big Data analytics and financial reporting quality in Canada. Although the methodology and specific aspects under investigation may vary, the general theme of recognising the impact of Big Data on financial reporting quality resonates with the current research. Saleh et al.'s qualitative evidence from Canada may complement the present study, providing a broader understanding of how Big Data influences financial reporting practices across different contexts. However, the findings underscored the relevance of Big Data and BDA in affecting financial report quality and revealed that BDA had a significant effect on improving financial reporting quality. Big Data improves accounting reporting and expert judgment by providing professional. In summary, participants agreed that when analytical methods in Big Data are implemented effectively, businesses may possibly achieve a variety of benefits, including customized goods, simplified processes, improved risk assessment process and, finally, increased risk management.

Similarly, Dheifallah *et al.* (2023) delved into the impact of big data on the quality of financial reporting within the industrial sector in Jordan. While their geographical and sectoral focus differs, the overarching theme remains consistent, acknowledging Big Data's influence on financial reporting quality. The correspondence of findings across diverse contexts strengthens the generalizability and applicability of the observed relationship. This research concluded that the big data dimensions, including variety, volume, and velocity, had a positive impact on financial reporting quality.

Bonsu *et al.* (2023) extended the scope by investigating the Impact of Big Data on Accounting Practices in Africa. Despite the unique challenges and characteristics of the African context, their empirical evidence complements the present research. The alignment in the findings suggests that big data has positive and significant impact on financial reporting, performance management, corporate budgeting, audit evidence, risk, and fraud management.

Handoko *et al.* (2022) investigated the impact of big data analytics on forensic audits and fraud detection. Additionally, the study aimed to assess the influence of forensic auditing as a mediating variable in fraud detection. Employing a quantitative approach, the research utilized a questionnaire survey method. The participants in this study were auditors employed in public accounting firms. Statistical analysis was conducted using Structural Equation Modeling (SEM) through the intelligent PLS 3 application. The research findings reveal a positive correlation between big data analytics and forensic audits. Furthermore, the study demonstrates that big data and forensic audits positively affect fraud detection. Moreover, the research provides evidence that forensic auditing moderates or strengthens the impact of big data analytics on fraud detection.

The current research's findings regarding the significant impact of Big Data on Financial Reporting align with and complement various works in the field. The consistency across studies conducted in different geographical regions, sectors, and methodological approaches strengthens the argument for the pervasive influence of Big Data on financial reporting practices. This conformity contributes to the cumulative knowledge in the field and highlights the universality of the observed relationship between Big Data and financial reporting quality.

What is the impact Big Data on Risk & Fraud Management?

The research question 2, which is line with the research hypothesis 2, were analysed using descriptive statistics and regression statistical technique respectively. It was revealed that Big Data has significant and positive impact on risk and fraud management. This finding resonates with the works of Handoko *et al.* (2022), Rosnidah *et al.* (2022), both of which delve into the application of Big Data analytics in auditing, forensic audits, and fraud detection.

Handoko *et al.* (2022) focused on investigating the impact of Big Data analytics on forensic audits and fraud detection. While the specific financial domain differs, the overarching theme of leveraging Big Data to enhance financial processes aligns with the current research. The positive impact observed in the context of tax management resonates with Handoko et al.'s findings, suggesting a consistent pattern across financial domains.

The conformity of findings across these studies strengthens the generalizability and applicability of the observed relationship between Big Data and financial management practices. The consistency in results suggests that the impact of Big Data is not confined to a specific financial domain but extends across various areas within financial management.

Moreover, aligning these findings contributes to the cumulative knowledge in the field, reinforcing the notion that Big Data is a valuable tool in improving the efficiency and effectiveness of financial processes. The parallel observations in tax management, forensic audits, and fraud detection underscore the versatility of Big Data in addressing diverse challenges within the financial landscape.

What is the effect of Big Data on Tax Management?

The research question 3, which is line with the research hypothesis three, were analysed using descriptive statistics and regression statistical technique respectively. It was revealed that Big Data has significant and positive impact on Tax Management. This finding is demonstrating a substantial impact of Big Data on tax

management, aligns harmoniously with the findings of previous research studies, particularly those conducted by Li Lin (2021) on the Application of the Big Data Model in Financial Taxation Management and Fu (2022) on the impact of Big Data Tax Collection and Management on Enterprise Innovation.

Li Lin's (2021) study, stated that applying the Big Data Model in Financial Taxation Management, provides complementary insights into the broader implications of Big Data in tax-related practices. While Li Lin's research does not explicitly address the impact of Big Data on tax management, it lays the groundwork for understanding the role of Big Data in the broader financial taxation landscape. As highlighted by Li Lin, the acknowledgement of Big Data's application in financial taxation aligns with the conclusion of the current research regarding the significant impact of Big Data on tax management.

Fu's (2022) research on the impact of Big Data Tax Collection and Management on Enterprise Innovation, while exploring a distinct area, supports the broader narrative of Big Data's influential role in financial processes. Fu's findings emphasize how Big Data, when utilized in tax-related activities, affects tax management and extends its impact to fostering technological innovation within enterprises. This aligns with the present research, as both studies recognize the multifaceted implications of Big Data on various aspects of financial practices.

The conformity across these studies reinforces the consistency and reliability of the observed relationship between Big Data and financial processes. Li Lin's exploration of the Big Data Model in financial taxation management and Fu's investigation into the impact of Big Data on enterprise innovation collectively contribute to the understanding that Big Data is a pivotal factor in shaping contemporary financial landscapes.

The current research's finding of the significant impact of Big Data on tax management conforms with the works of Li Lin (2021) and Fu (2022). Collectively, these studies emphasize the diverse ways Big Data influences financial processes, ranging from tax management to fostering innovation within enterprises. This consistency strengthens the argument for the pervasive and versatile influence of Big Data in shaping modern financial practices.

6. Conclusion

It was Concluded that Big Data has Significant and Positive Impact on Financial Reporting: The investigation unveiled a significant and positive impact of Big Data on Financial Reporting in Nigeria, as indicated by the selected professional Accountants. The result supports the assertion that variations in big data contribute significantly to changes in financial reporting among the sampled professionals, highlighting the influential role of big data in shaping accounting practices. The findings affirm the theoretical expectation of a significant association between Big Data and financial reporting and shed light on the practical implications for accounting practices in Nigeria. The observed influence of Big Data on financial reporting among professionals emphasizes the transformative role of data-driven insights in shaping accounting methodologies, reinforcing the growing importance of technology and data analytics in contemporary accounting environments.

It was Concluded that Big Data has Significant and Positive Impact on Risk & Fraud Management: The investigation unveiled a significant and positive impact of Big Data on Risk & fraud management in Nigeria, as indicated by the selected professional Accountants. This outcome aligns with the priori expectation that big data plays a crucial role in shaping strategies and practices related to risk and fraud management. The statistical evidence provides confidence in the conclusion that big data has a discernible impact on risk & fraud management, emphasising its importance in contemporary risk management practices.

It was Concluded that Big Data has Significant and Positive Impact on Tax Management: The investigation unveiled a significant and positive effect of Big Data on Tax Management in Nigeria, as indicated by the selected professional Accountants. This suggests a significant and positive effect of big data on tax management in Nigeria, as indicated by the selected professional accountants. The rejection of the null hypothesis implies that variations in big data are associated with meaningful changes in tax management practices, as perceived by the professionals involved in the study. The acceptance of the alternative hypothesis supports the conclusion that big data plays a substantial and influential role in shaping tax management strategies among the surveyed professional accountants in Nigeria.

7. Recommendations

7.1. Continuous Professional Development

One of the primary recommendations from the study is the emphasis on continuous professional development for accountants and auditing professionals. Given the rapid evolution of technology, including Big Data analytics, ongoing training programs and skill development initiatives are essential. Professionals should engage in training sessions focusing on the latest tools, techniques, and advancements in data analytics. Continuous learning ensures that accounting practitioners remain adept at utilising the latest technologies, enabling them to leverage Big Data's benefits effectively.

7.2. Fostering a Data-Driven Culture

Organisations in the accounting sector should actively promote and foster a data-driven culture. This involves instilling a mind-set where decision-making processes are informed by data insights derived from Big Data analytics. Establishing such a culture requires leadership commitment, comprehensive training programs, and integrating data-driven practices into the core of organisational operations. A pervasive data-driven culture ensures that the transformative potential of Big Data is fully realised in financial reporting, risk management, and other accounting functions.

Finally, these recommendations serve as a strategic roadmap for enhancing the integration of Big Data into accounting and auditing practices. Continuous professional development ensures that practitioners stay abreast of technological advancements, fostering a data-driven culture that aligns organisational practices with the transformative potential of Big Data, investment in advanced technologies fortifies technical capabilities, and interdisciplinary collaboration leverages the collective strengths of accounting and IT professionals. Implementing these recommendations can propel the accounting profession into a future where Big Data becomes a cornerstone in driving efficiency, accuracy, and innovation in financial reporting and related practices.

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