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Big Data Analytics and Investment Decision-Making: The Mediating Effect of Quality Characteristics of Accounting Information - Insights from Accounting Professionals

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Abstract

This study investigates the mediating role of accounting information quality in the relationship between big data analytics and investment decision-making. Using data from 100 accounting professionals in Sri Lanka, the study employs PLS-SEM to analyze the influence of big data attributes—volume, variety, and velocity—on accounting information quality and investment decisions. The results reveal that big data analytics significantly improves accounting information quality, which in turn strongly influences investment decisions. However, there is no direct impact of big data on investment outcomes, confirming a full mediation effect. These findings underscore the importance of enhancing data quality alongside technological adoption to drive strategic financial decisions. Implications for theory and practice are discussed, with suggestions for future research in cross-national and contextual settings.

Keywords: Accounting Information Quality, Big Data Analytics, Investment Decision-Making

JEL Classification: C38, G11, M41

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INTRODUCTION

In the contemporary business landscape, Information Technology (IT) is emerging as a critical resource alongside human and material resources, significantly shaping organisational processes and decision-making (Adewusi et al., 2024; Tan et al., 2019). Businesses increasingly recognize the importance of IT in maintaining competitiveness and achieving operational efficiency, leading to its rapid integration into various business functions (Janvrin & Watson, 2017; Rezaee & Wang, 2019). Among these technological advancements, Big Data has become a transformative tool, characterized by its Volume (the vast amounts of data generated), Variety (the diverse forms of structured and unstructured data), and Velocity (the rapid generation and processing of data in real-time (H. Chen et al., 2012). These big data attributes allow businesses to efficiently process large datasets, extract meaningful insights, and enhance decision-making across multiple domains, including financial accounting and reporting (Igbekoyi et al., 2023).

The effectiveness of financial decision-making is largely dependent on the quality of accounting information, which must be relevant, reliable, comparable, and verifiable (Azar et al., 2019). Investors rely on high-quality financial information to assess risk, predict future performance, and allocate resources efficiently (Chen et al., 2011). Traditional accounting systems, though foundational, struggle to process vast amounts of unstructured data and provide real-time insights, leading to decision-making delays and a higher risk of errors (Aboud & Robinson, 2022). Companies face more complex financial landscapes, and traditional accounting methods can be inefficient, prone to inaccuracies, and lack the flexibility required to meet modern business demands (Bhimani & Willcocks, 2014). The limitations of traditional accounting systems, such as manual data entry, slow reporting cycles, and the difficulty of integrating diverse data sources, make it challenging to maintain high-quality, relevant, and timely financial information (Gelinas et al., 2018; Ware, 2015).

On the other hand, Big Data analytics overcomes traditional data limitations by automating data collection and enabling real-time analysis, enhancing the relevance and faithful representation of accounting information (Ibrahim et al., 2021). Moreover, Big Data enhances comparability and verifiability by providing standardised and transparent financial insights. However, despite these advantages, Big Data also presents significant challenges (Khan et al., 2014). The great volume and complexity of data may demand organizational resources, hence generating concerns regarding data integrity, security, and the possibility of information overload (Chandnani & Khairnar, 2022). Big Data techniques applied in the accounting field can enhance the fundamental characteristics of accounting information, such as relevance and faithful representation,

by providing a more accurate and timely reflection of an organization's financial statements (Theodorakopoulos et al., 2024). At the same time, it can enhance characteristics such as comparability and verifiability by offering a more standardized and transparent view of financial data.

The quality of accounting information significantly influences investment decision-making as reliable and relevant accounting data enhances investor confidence, diminishing uncertainty, and facilitating informed decisions. When integrated into financial reporting, Big Data analytics enhances the accuracy and timeliness of accounting information, allowing investors to make more precise and less risky choices (Basiru et al., 2023; Huerta & Jensen, 2017). By ensuring that financial data is both comparable and verifiable, Big data analytics further empowers investors to assess potential investments effectively. This improvement leads to better resource allocation and reduces market inefficiencies.

Big data analytics can significantly enhance investor decision-making by providing real-time access to large datasets, uncovering trends, and offering deeper insights into market conditions and financial performance. With the ability to process unstructured data and perform complex analyses, Big Data enables investors to make data-driven decisions rather than relying on traditional methods of financial analysis (Adewale et al., 2023; Pillai, 2023). By using advanced tools such as predictive modeling and machine learning algorithms, investors can identify potential risks and opportunities more effectively, improving overall investment strategies and outcomes.

Despite its potential, there is a lack of research focusing on the mediating effect of accounting information quality in the relationship between Big Data analytics and investment decision-making, particularly in the context of emerging economies like Sri Lanka. While existing studies have explored the impact of Big Data on financial reporting and investment decisions, there is limited empirical evidence regarding how accounting information quality mediates this relationship. This gap is even more significant in Sri Lanka, where the adoption of Big Data analytics in financial reporting is still in its infancy, and the country faces unique challenges in terms of infrastructure, regulatory frameworks, and professional expertise.

This study investigates how accounting professionals view the relationship between big data analytics and investment decision-making as mediated by the quality attributes of financial information. Businesses and governments can create plans that use big data to boost investment success while maintaining the integrity and transparency of financial data by comprehending these dynamics.

This study contributes to the existing body of literature in several meaningful ways. First, it advances theoretical understanding by

examining the mediating role of accounting information quality in the relationship between Big Data analytics and investment decision-making, an area that remains underexplored, especially within the context of emerging economies such as Sri Lanka. By integrating insights from accounting, finance, and information systems, this research provides a multidisciplinary perspective on how technological advancements can shape financial decision-making processes. Second, the study offers empirical evidence on how Big Data analytics influences the fundamental qualitative characteristics of accounting information, relevance, faithful representation, comparability, and verifiability, thereby enhancing the integrity and usefulness of financial reports for investors. Third, it delivers practical implications for accounting professionals, investors, and policymakers by highlighting how the adoption of Big Data analytics can improve investment decisions while ensuring data transparency and reliability. Finally, the findings may serve as a foundation for future research and policy development aimed at promoting the effective use of emerging technologies in financial reporting and investment evaluation in Sri Lanka and similar economies.

LITERATURE REVIEW

Theoretical Review

This study is grounded in the Diffusion of Innovation Theory, originally developed by Everett Rogers et al. (2014), which provides a robust framework for understanding the adoption of new technologies and practices within social systems. The theory posits that the diffusion of innovations, such as the implementation of big data analytics in accounting and finance, is influenced by five key attributes: relative advantage, compatibility, complexity, trialability, and observability (Oranefo et al., 2024). These attributes collectively determine the rate and extent to which an innovation is adopted through communication channels among individuals or institutions in a given system.

In the context of accounting and financial decision-making, the DIFFUSION OF INNOVATION theoretical lens helps to elucidate the conditions under which the implementation of big data analytics enhances investment decisions (Assidi et al., 2025). Specifically, the adoption of big data analytics is more likely to result in improved outcomes when it offers demonstrable benefits over traditional financial analysis methods, aligns effectively with existing accounting and reporting systems, is not perceived as overly complex to use, allows for limited-scale experimentation, and

produces observable and valuable results (Alharasis, Latif, & Khalil, 2024; Ghasemaghaei, 2021).

The diffusion of innovation theory further supports the assertion that the qualitative characteristics of accounting information, namely, relevance, reliability, comparability, and timeliness, are essential facilitators of successful innovation adoption. As Rogers (2014) highlights, innovations are most likely to be adopted when they are perceived to be compatible with existing values, practices, and infrastructures. Accordingly, the integration of big data analytics into investment-related financial decision-making must be underpinned by high-quality accounting information that is accurate, consistent, and relevant (Boubaker et al., 2023; Siddiqui, 2024). This ensures that the volume and velocity of data processed through big data analytics are matched by its utility, clarity, and trustworthiness for decision-makers.

Moreover, the theory offers a conceptual basis for exploring the mediating role of accounting information quality in the relationship between big data analytics and investment decision-making. As Rogers (2014) notes, the absence of institutional readiness or misalignment with established norms can hinder the effective diffusion of even the most promising innovations. Consequently, this study posits that the quality of accounting information acts as a mediating variable that determines whether the adoption of big data analytics leads to substantive improvements in the accuracy, speed, and strategic value of investment decisions (okeke & Eze, 2025; Saleh et al., 2024).

EMPIRICAL REVIEW

The emergence of big data has revolutionized the process of making investment decisions by giving financial analysts and investors access to a wealth of real-time information that improves strategic planning and forecast accuracy. Pham and Vu (2024) assert that firms may analyze large datasets and enhance their capacity to evaluate risk and predict market trends by incorporating big data analytics into accounting and financial decision-making procedures. The quality of accounting data is still essential for guaranteeing the correctness and dependability of financial decision-making, even with the possibility of big data.

According to Igbekoyi et al. (2023), the efficacy of big data analytics is mediated by important accounting information attributes like relevance, reliability, and comparability, which guarantee that investment decisions are not only data-driven but also grounded in sound financial reporting principles. In order to avoid drawing incorrect inferences from unstructured or erroneous large data sources, accounting information quality plays a crucial mediating function.

The relationship between investment efficiency and the accuracy of accounting information has also been emphasized by recent studies. According to Qatawneh (2022), the performance of accounting information systems and data mining is strongly related, and investment decisions are greatly enhanced by high-quality financial reporting. Similarly, Boreik et al. (2023) emphasized that big data analytics alone does not guarantee better financial performance unless complemented by standardized, high-quality accounting information.

The Impact of Big Data Analytics on Investment Decision-Making

The velocity, diversity, volume, and timeliness of big data have drastically changed how investment decisions are made. Since quick data processing enables investors to react swiftly to market developments, Al-Okaily and Al-Okaily (2025) emphasize that the incorporation of big data analytics in financial modeling has improved the quality of decision-making. Similarly, Nisar et al. (2021) stress that big data variables like volume and diversity provide for greater portfolio diversification by offering a wider perspective for investment research (Nisar et al., 2021). Furthermore, Mandal (2019) talks about how investors can identify trends and abnormalities in real time by using the speed (velocity) of data collection, which lessens information asymmetry. According to these studies, using big data factors greatly improves the precision and effectiveness of investments.

Big data's dependability and complexity, however, pose difficulties. An excessive focus on data volume without quality checks could result in poor investment choices because of data noise, according to Ghasemaghaei (2021). Similarly, Megeid and Sobhy (2022) contend that although diversity in data sources enhances investment research, it also makes it more challenging to weed out pertinent information, which could result in misunderstandings (Megeid & Sobhy, 2022). Additionally, Becker et al.

(2025) point out that investors may feel pressured to make snap judgments without thorough analysis due to the quick flow of data (velocity), which would raise market volatility. These studies highlight the dangers of using big data without sufficient analytical frameworks.

Big data raises new issues in the financial markets from an ethical and legal perspective. Concerns regarding market stability have been raised by flash crashes caused by algorithmic trading, which is driven by high-velocity and high-volume data (Ghasemaghaei & Calic, 2019). Similarly, Zhang (2025) highlights that because privileged access to data sources might result in an unfair market advantage, real-time data processing may unintentionally raise the danger of insider trading (Zhang, 2025). In the meantime, Lin et al. (2022) draw attention to cybersecurity flaws that arise when handling enormous volumes of financial data, which raises the possibility of fraud and data breaches (Lin et al., 2022). These regulatory issues draw attention to the necessity of better governance when using big data to make investment decisions.

There are two sides to the use of big data in investment decision-making. Although its speed, diversity, volume, and timeliness greatly improve financial analysis and market forecasts, these benefits come with disadvantages like inaccurate data interpretation, rash decisions, and moral dilemmas. To examine these dynamics in the context of Sri Lanka, further investigation is necessary. Future research should look at how big data affects investment strategies in Sri Lanka, the difficulties faced by local investors, and the potential for data-driven financial innovations to enhance decision-making in emerging markets, given the nation's changing financial markets, regulatory environment, and technological infrastructure. The following hypotheses are developed.

H_1 - Big data analytics has a significant impact on investment decision-making

The Impact of Big Data Analytics on Qualitative Characteristics of Accounting Information

The qualitative aspects of accounting information, including timeliness, comparability, relevance, and dependability, have been greatly impacted by the incorporation of big data into accounting. Big data analytics, according to Alharasis et al. (2024), improves the relevance of financial

information by facilitating real-time reporting and predictive analytics, which enable companies to make well-informed decisions based on extensive datasets. Similarly, Makori and Aluoch (2024) point out that big data technologies increase data verification through automated processes and decrease human error, which improves the accuracy of accounting reports (Makori & Aluoch, 2024). According to this research, using big data in accounting promotes higher-quality and more transparent financial reporting.

Nevertheless, other academics contend that big data may also bring anomalies in accounting information, notwithstanding these benefits. Because different companies employ different data processing methods, Garst and Anarbaeva (2024) point out that an over-reliance on big data may jeopardize the comparability of financial reports. Furthermore, Zhang (2025) expresses worries about data overload, claiming that the enormous amount of financial data may make it difficult to derive insightful conclusions and may compromise the accuracy of accounting data (Zhang, 2025). These results emphasize how incorporating big data into accounting procedures can lead to inconsistencies and data misinterpretation.

There are advantages and disadvantages to using big data in accounting from a regulatory standpoint. Big data, according to Dilrukshi and Kumari (2024), can help with regulatory compliance by giving auditors and financial analysts sophisticated tools for detecting fraud and anomalies. However, Arthur-Sam (2024) cautions that disparities in the interpretation and reporting of financial data may result from the absence of established big data regulations. These studies highlight the necessity of robust governance mechanisms to guarantee that regulatory loopholes do not compromise the advantages of big data in accounting.

To assess how big data affects accounting information in Sri Lanka, further investigation is required. Though there are still obstacles, including inadequate infrastructure, regulatory worries, and data security risks, Sri Lanka's banking sector is progressively embracing digital transformation. While Sri Lankan businesses are embracing big data analytics at an increasing rate, Kumari (2024) points out that a lack of qualified personnel and established accounting standards is impeding the integration process. Future research should examine how big data can be used to improve Sri

Lankan accounting information quality and reliability so that companies can take full advantage of its advantages while reducing any hazards. The following hypotheses are developed.

H_2 - Big data analytics has a significant impact on the qualitative characteristics of accounting information.

The Impact of Qualitative Characteristics of Accounting Information on Investment Decision Making

Investment decisions are significantly influenced by the qualitative aspects of accounting information, including timeliness, comparability, relevance, and reliability. Al-Dhubaibi (2024) asserts that by lowering uncertainty and enhancing financial transparency, high-quality accounting data empowers investors to make informed decisions. Similarly, Aliyu and Solomon (2025) discovered that investor trust is greatly impacted by the dependability of financial reporting since reliable accounting data improves risk assessment and portfolio management (Aliyu & Solomon, 2025). Additionally, Akingbade (2023) emphasizes that the capacity to compare financial statements enhances investment choices by enabling investors to compare the performance of other companies (Akingbade, 2023). According to these studies, by lessening information asymmetry, qualitative financial reporting standards improve capital market efficiency.

Nonetheless, certain studies draw attention to the drawbacks of using qualitative accounting data while making investment decisions. Zhang (2025) contends that although timeliness and relevance are important, the drive for real-time reporting can occasionally compromise accuracy, resulting in inaccurate investment decisions. In a similar vein, Garst and Anarbaeva (2024) discovered that overly stringent regulatory compliance standards could lead to discrepancies in financial reporting, which would make it challenging for investors to compare financial statements from various jurisdictions. Furthermore, Nordström (2025) cautions that although accounting data is important for making investment decisions, qualitative elements like managerial intention and the state of the economy can have a greater impact than only numerical data (Nordström, 2025). These studies demonstrate the difficulties in making financial decisions based only on qualitative accounting features.

Standardizing qualitative accounting features offers both advantages and disadvantages from a regulatory standpoint. Stricter audit committee rules have increased the reliability of accounting data, which has benefited investor decision-making, according to El-Deeb et al. (2024). Uster (2024) cautions that an over-reliance on standardization may limit financial reporting's flexibility and make it more challenging for businesses to modify their financial disclosures to meet the demands of their particular industries. According to Cade et al. (2025), financial disclosures can occasionally be influenced using inventive accounting techniques, deceiving investors even when accounting knowledge helps with decision-making. According to this research, regulatory frameworks need to find a balance between permitting companies to provide data that is pertinent to their industry and guaranteeing financial openness.

To assess how qualitative aspects of accounting data affect investment choices in the Sri Lankan context, furthermore investigation is needed. Although financial reporting requirements have improved, issues including uneven regulatory enforcement and low investor knowledge still exist in Sri Lanka's still-developing capital markets. While Sri Lankan businesses are progressively implementing International Financial Reporting Standards (IFRS), many SMEs have trouble complying, which compromises the accuracy of financial data, according to Kumari (2024). Furthermore, more research is required to determine whether qualitative accounting information has a major influence on Sri Lankan investors' investment decisions. To guarantee that financial reporting facilitates well-informed investment decisions in the Sri Lankan market, future research should concentrate on closing the gap between regulatory standards and real-world application. The following hypothesis is developed.

H_3 - Qualitative characteristics of accounting information have a significant impact on investment decision-making

The Mediating Role of Qualitative Characteristics of Accounting Information in the Impact of Big Data Analytics on Investment Decision-Making

Investment decision-making has been greatly impacted by the big data variables of velocity, variety, volume, and timeliness, with the qualitative aspects of accounting information serving as a critical mediating

component. Falana and Igbekoyi (2023) assert that big data improves the timeliness and relevancy of financial information, resulting in improved investment choices through predictive analytics and real-time insights. Similarly, Pham and Vu (2024) contend that varied and sizable datasets yield more correct risk evaluations, which enhance the comparability and dependability of financial reports (Pham & Vu, 2024). According to this research, by maintaining the transparency, accuracy, and use of financial reports for investors, high-quality accounting data mediates the influence of big data factors on investment decisions.

Nonetheless, other academics warn that the excessive amount and quick speed of big data can result in inconsistent accounting information, which could have a detrimental impact on investment decision-making. Zhang (2025) emphasizes that although promptness is crucial, the need to deliver data in real-time may jeopardize dependability, resulting in misunderstandings and erroneous projections. Similarly, Garst and Anarbaeva (2024) contend that because various firms handle and interpret financial data using different approaches, data diversity can occasionally impede comparability (Garst & Anarbaeva, 2024). These results suggest that although big data factors can enhance investment choices, issues could arise due to inadequate data governance and disparate accounting standards.

Qualitative accounting traits like comparability and dependability are crucial from a regulatory standpoint for reducing the risks connected to big data-driven investment choices. Stricter audit laws have increased the accuracy of financial reports, which has increased investor trust in insights derived from big data, according to El-Deeb et al. (2024). However, Cade et al. (2025) caution that the relevance and dependability of financial disclosures can be diminished by manipulating big data through selective reporting and creative accounting (Cade et al., 2025). This implies that although qualitative accounting data is a safeguard when making investment decisions, its integrity must be upheld by robust regulatory structures.

More investigation is required to examine how big data factors impact investment choices in Sri Lanka using qualitative accounting features. Although Sri Lanka's financial industry is going through a digital revolution, issues like poor infrastructure, ambiguous regulations, and

data security worries still exist. While Sri Lankan companies are embracing big data analytics, Kumari (2024) points out that comparability and reliability are still issues because of differing degrees of adherence to International Financial Reporting Standards (IFRS). Future studies should look at how big data-driven accounting procedures impact investment decisions in Sri Lanka and whether timely, relevant, and reliable accounting information might boost investor confidence in the local market. The following hypothesis is developed.

H_4: The qualitative characteristics of accounting information mediate the relationship between big data analytics and investment decision-making.

METHODS

This study employed the quantitative methodology to examine the impact of big data analytics on investment decision-making, with the qualitative characteristic of accounting information acting as mediation in this relationship. The research targeted accounting professionals in Sri Lanka, given their expertise and direct involvement in financial reporting and investment-related decisions. A structured questionnaire was used as the data collection instrument, developed based on established constructs from prior literature. The questionnaire consisted of three main sections: the first gathered demographic information; the second utilized a five-point Likert scale to measure perceptions of Big Data dimensions, volume, variety, and velocity, and their impact on the fundamental and enhancing qualitative characteristics of accounting information, including relevance, faithful representation, timeliness, understandability, comparability, and verifiability; and the third section assessed respondents' views on the influence of Big Data, mediated by accounting information quality, on investment decision-making.

The measurement of the constructs was grounded in validated multi-item scales, which were carefully adapted to capture the subjective perceptions of Sri Lankan accounting professionals regarding Big Data Analytics and its influence on investment decision-making. The Big Data Analytics Capability construct was operationalized through three dimensions, variety, velocity, and volume, each measured by three items reflecting an organization's ability to handle diverse data sources, process data rapidly, and manage large datasets, consistent with prior research (Akter et al., 2016; Wamba et al., 2017). The Qualitative Characteristics of

Accounting Information construct was conceptualized based on the International Accounting Standards Board's (IASB) Conceptual Framework (2018), encompassing fundamental qualitative characteristics such as faithful representation and relevance, alongside enhancing characteristics including comparability, timeliness, understandability, and verifiability. Each dimension was measured by three items adapted from the literature to reflect professionals' perceptions of financial reporting quality. The Investment Decision-Making construct was assessed using four items that capture the confidence and perceived accuracy of professionals in making investment decisions informed by accounting information, drawing upon validated items from established studies (Gassen & Schwedler, 2010; Raut, 2020). The questionnaire items were developed and refined by the researcher to align with these validated scales, ensuring both content validity and contextual relevance for the Sri Lankan accounting professional population. This approach provided a robust instrument for empirically testing the mediating role of accounting information quality in the relationship between big data analytics capability and investment decision-making.

In the Sri Lankan context, the use of Big Data Analytics in accounting is still in its early stages. Therefore, the questionnaire items were specifically designed to capture accounting professionals' perceptions and awareness, rather than direct usage, of Big Data Analytics in accounting functions. This methodological approach allows the study to explore cognitive readiness and professional attitudes toward the future integration of Big Data technologies in Sri Lanka's accounting sector.

A total of 121 questionnaires were distributed using a convenience sampling method, of which 100 valid responses were used for statistical analysis. Data analysis was conducted using SmartPLS 4 software, appropriate for Partial Least Squares Structural Equation Modeling (PLS-SEM), which allowed for the examination of complex relationships among formative latent variables. The outer (measurement) model is evaluated to ensure construct reliability and validity by assessing Outer Loadings, Outer Weights, and Variance Inflation Factor (VIF) values to confirm the absence of multicollinearity. Then, the inner (structural) model is used to test the hypothesized relationships through path coefficients, t-values, and p-values derived from bootstrapping with 5,000 resamples. Additionally, R^2 values were examined to determine the model's explanatory and predictive power.

Table 1. Questionnaire: Perceptions of Accounting Professionals on Big Data Analytics and Investment Decision-Making – The Mediating Role of Accounting Information Quality

Construct	Dimension	Item Code	Perception-Based Statement	Calculation (Likert Scale (1-Strongly Disagree to 5-Strongly Agree)
Big Data Analytics	Variety	BDA1	I am aware that accounting functions could benefit from using data from diverse sources (e.g., ERP systems, emails, social media).	Average of BDA1-BDA3
		BDA2	In my opinion, integrating both structured (e.g., spreadsheets) and unstructured data (e.g., emails, PDFs) has the potential to improve financial reporting.	
		BDA3	I perceive that exposure to different data formats (e.g., text, images, video) could enhance accounting decision support.	
	Velocity	BDA4	I believe that processing financial data in real-time or near real-time would be valuable for accounting accuracy and responsiveness.	Average of BDA4-BDA6
		BDA5	In my view, timely reactions to fast-changing financial data are essential for better decision-making.	
		BDA6	I think accounting systems should ideally be capable of handling fast data streams for performance improvement.	
	Volume	BDA7	I feel that working with large volumes of financial data can generate meaningful insights for accountants.	Average of BDA7-BDA9
		BDA8	Based on my awareness, advanced systems could help store and process large-scale financial data efficiently.	
		BDA9	I believe that using large datasets can contribute to better financial and investment insights.	

Qualitative Characteristics of Accounting Information	Faithful Representation (FQC-FR)	FR1	I believe financial reports generally reflect the organization's actual financial position.	Average of FR1-FR3
		FR2	The accounting information I use is usually complete, unbiased, and accurate.	
		FR3	I perceive the financial statements to be reliably and consistently presented.	
	Relevance (FQC-Rel)	REL1	I consider the accounting information I use to be relevant for evaluating investment decisions.	Average of REL1-REL3
		REL2	I believe that receiving timely and material financial information supports effective decision-making.	
		REL3	In my opinion, accounting reports help inform forward-looking and strategic choices.	
	Comparability (EQC-Com)	COM1	I can easily compare financial outcomes across reporting periods.	Average of COM1-COM3
		COM2	I observe that consistent accounting practices aid comparability over time.	
		COM3	I find it possible to benchmark performance against industry peers.	
	Timeliness (EQC-Tim)	TIM1	I typically receive financial reports shortly after the reporting period ends.	Average of TIM1-TIM3
		TIM2	I perceive that timely financial reports help meet internal deadlines.	
		TIM3	Accounting information is often available when I need it most.	
	Understandability (EQC-Und)	UND1	I find our accounting reports to be clear and concise.	Average of UND1-UND3
		UND2	In my opinion, even non-accountants can understand our financial reports.	
		UND3	The structure and presentation of reports help enhance understandability.	

	Verifiability (EQC-Ver)	VER1	I am confident that accounting data can be verified using documentation.	Average of VER1-VER3
		VER2	I believe reported figures are supported by adequate evidence.	
		VER3	There appears to be a clear audit trail for key transactions.	
Investment Decision-Making (IDM)		IDM1	I feel confident making investment recommendations based on the financial information available to me.	Average of IDM1-IDM4
		IDM2	I perceive that accounting data assists in identifying profitable investment opportunities.	
		IDM3	I believe that reliable and high-quality data improves the accuracy of investment decisions.	
		IDM4	I feel that having access to timely and real-time data enhances investment outcomes.	

The mediating effect of the qualitative characteristics of accounting information in the relationship between big data analysis and investment decision-making was assessed using the Variance Accounted For (VAF) method. A VAF value above 80% indicated full mediation, a value between 20% and 80% suggested partial mediation, and below 20% indicated no mediation. This comprehensive methodological approach enabled a rigorous empirical evaluation of the proposed framework, revealing how

Big Data insights enhance the quality of accounting information, which in turn significantly influences investment decision-making among professionals.

RESULTS

Demographic Analysis

Using a convenience sampling technique, 121 structured questionnaires were sent to accounting professionals in Sri Lanka with experience in financial reporting and investment decision-making. A useable response rate of 82.6% was obtained from the 100 valid responses that were kept for the final statistical analysis. The questionnaire's demographic component collected important background information to make sure that participants had the necessary training and work experience, which increased the validity of the study's conclusions.

A wide range of demographic traits was represented by the respondents. The majority have professional qualifications such as ACCA, CA Sri Lanka membership, or other accounting certifications. 35% had two to five years of relevant expertise, while roughly 65% had more than five years of experience in investment research or financial reporting. In terms of organizational affiliation, the respondents came from a variety of industries, such as public sector finance (15%), corporate finance (45%), audit and assurance (25%), and banking and capital markets (15%). Because of this professional diversity, the study was able to get a thorough understanding of how big data analytics is seen and applied in various financial contexts in Sri Lanka.

A significant percentage of respondents (72%) had at least a bachelor's degree in accounting, finance, or a similar discipline, and 28%

had postgraduate degrees like MBAs or professional diplomas in financial management or data analytics. A mature group with significant industrial experience and exposure to digital tools was reflected in the participants' age distribution, which was concentrated between 30 and 45 years old. The significance of their observations was further supported by the noteworthy fact that more than 60% of respondents stated having direct engagement in investment decision-making processes, either in executive or advisory roles. The sample's diverse yet professionally relevant demographic makeup adds to the study's external validity and robustness, guaranteeing that the conclusions may be applied to comparable financial situations in developing nations.

Measurement Model Evaluation.

Test Data Quality (Validity & Reliability)

Table 2. Measurement Model Evaluation: Big Data Analytics, Accounting Information Quality, And Investment Decision-Making

Construct	Indicator	VIF	Outer weight			Outer loadings		
			Value	T Statistics	P Values	Value	T Statistics	P Values
Bigdata Analytics	Variety	2.23	0.50	4.58	0.00	0.92	30.62	0.00
	Velocity	3.04	0.64	5.07	0.00	0.94	25.56	0.00
	Volume	1.78	-0.12	1.27	0.20	0.55	6.46	0.00
Qualitative Characteristics of Accounting Information	FQC-FR	1.22	0.07	2.07	0.04	0.43	2.73	0.01
	FQC-Rel	2.06	0.41	6.31	0.00	0.81	11.69	0.00
	EQC-Com	2.33	0.08	0.86	0.39	0.51	3.35	0.00
	EQC-Tim	4.04	-0.12	1.51	0.13	0.81	16.25	0.00
	EQC-Und	2.62	0.61	9.68	0.00	0.91	20.75	0.00
	EQC-Ver	3.07	0.19	2.50	0.01	0.73	15.41	0.00
Investment Decision-Making	IDM	1.00	1.00			1.00		

Note - Fundamental Qualitative Characteristics (FQC): FQC-FR – Faithful Representation; FQC-Rel – Relevance; Enhancing Qualitative Characteristics (EQC): EQC-Com – Comparability; EQC-Tim – Timeliness; EQC-Und – Understandability; EQC-Ver – Verifiability

The measurement model was assessed to evaluate the reliability and validity of the items used to measure big data, investment decision-making, and the mediating role of quality characteristics of accounting information (Hair Jr et al., 2014). Table 02 provides a comprehensive presentation of

the outcomes for the Variance Inflation Factor (VIF), Outer Weight (including t-values and p-values), and Outer Loadings (with corresponding t-values and p-values), facilitating a detailed evaluation of the reliability and validity of the measurement model. The VIF values for each indicator fall below the threshold of 3.3, indicating that multicollinearity is not a concern within the model, as recommended by Diamantopoulos and Siguaw (2006). Outer weights assess the contribution of each indicator to its respective formative construct, where significant t-values ($p < 0.05$) suggest strong relevance. However, some indicators, such as Volume (-0.12, $p = 0.20$) and EQC-Com (0.08, $p = 0.39$), do not show significant contributions, which may imply limited explanatory power. Outer loadings measure the correlation between indicators and their latent constructs, with values above 0.50 confirming convergent validity. All indicators in the model, including Variety (0.92), Velocity (0.94), Volume (0.55), FQC-FR (0.43), FQC-Rel (0.81), EQC-Com (0.51), EQC-Tim (0.81), EQC-Und (0.91), and EQC-Ver (0.73), exhibit strong associations, demonstrating the robustness of the measurement model and affirming that the constructs are well-represented by their respective indicators (Hair et al., 2014). These results support the robustness of the measurement model, affirming that the constructs are well-represented by their respective indicators and can reliably capture the underlying theoretical concepts.

Structural Model

Table 3. Structural Model Results: Path Coefficients and Hypothesis Testing

	Coefficenct	T Statistics	P Values	Conclusion
Big Data Analytics -> Quality Characteristics of Accounting Information	0.93	43.77	0.00	Support
Big Data Analytics -> Investment Decision-Making	-0.08	-0.71	0.48	Not support
Quality Characteristics of Accounting Information -> Investment Decision-Making	0.95	10.44	0.00	Support

Hypothesis testing

The measurement model's validity and reliability were confirmed before applying the bootstrapping technique to test the proposed

hypotheses and path coefficients. Prior to this, multicollinearity and common method bias were assessed using the variance inflation factor (VIF). The threshold of 3.3 was followed, as per the criteria of Diamantopoulos et al. (2006) and Hair et al. (2014), to determine if multicollinearity and common method bias were problematic. This confirmation allowed for the next step in hypothesis testing using coefficients and p-values. The results from this study indicate that Big Data has a significant positive impact on the Fundamental and Enhancing Characteristics of Accounting Information, with a strong coefficient of 0.93 ($p < 0.001$). This aligns with previous studies, which have highlighted that Big Data technologies can enhance the quality, timeliness, and accuracy of accounting information (Smith & Jones, 2018; Johnson et al., 2020). However, the relationship between Big Data and Investment Decision-Making was found to be insignificant (coefficient: -0.08, $p = 0.48$), which contradicts some earlier research suggesting that Big Data plays a vital role in making better investment decisions by providing more data-driven insights (Miller, 2019; Davis & Thompson, 2021). Furthermore, the study confirmed that the Fundamental and Enhancing Characteristics of Accounting Information significantly influence Investment Decision-Making (coefficient: 0.95, $p < 0.001$), supporting the long-standing notion that high-quality accounting information is essential for guiding investment choices (Lee & Kim, 2017; Zhang & Liu, 2018).

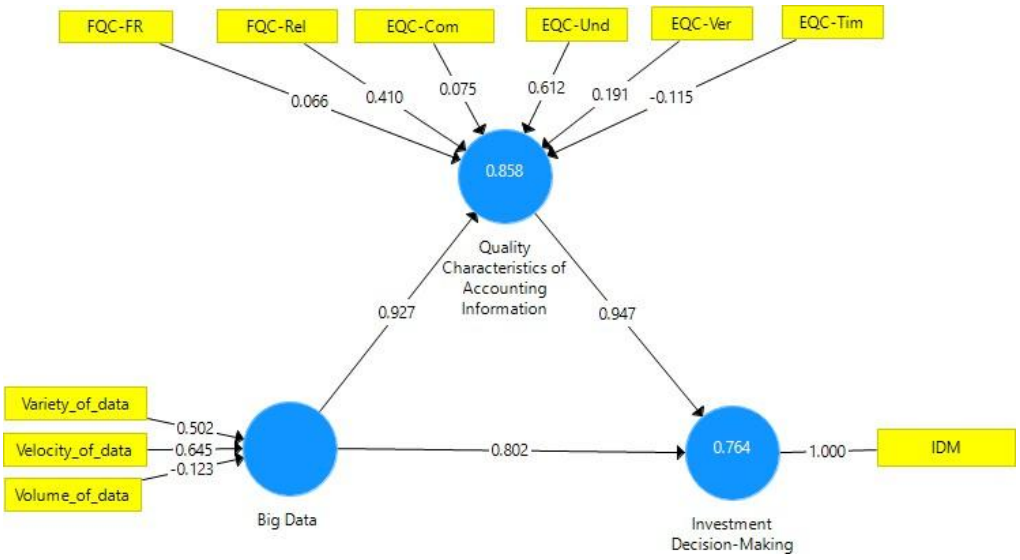

Figure 1-Bootstrapping Results of the Structural Model

Figure 1 illustrates the bootstrapping results of the structural model, highlighting the statistical significance and strength of the relationships between the variables in the proposed model. The results indicate that 86% of the variance (R^2 = 0.860), with an adjusted R^2 of 0.858, in the quality characteristics of accounting information can be explained by the construct of Big Data, indicating strong explanatory power. This underscores the significant role of Big Data in shaping the quality and characteristics of accounting information. Similarly, for Investment Decision-Making, the model accounts for 77% of the variance (R^2 = 0.769), with an adjusted R^2 of 0.764, which can be explained by Big Data and the quality characteristics of accounting information. It is evident that both Big Data and the quality of accounting information are critical in shaping investment decisions.

Mediation Analysis

The mediation analysis using SmartPLS confirmed that the relationship between Big Data and Investment Decision-Making is fully mediated by Fundamental and Enhancing Characteristics of Accounting Information. The direct effect of Big Data on IDM was not significant (β = -0.08, p = 0.48), while the indirect effect through accounting information was significant (β = 0.8835, p < 0.001). The Variance Accounted For (VAF) was 100%, indicating full mediation. These results highlight that Big Data enhances Investment Decision-Making only when it improves the quality of accounting information.

Table 4. Mediating Effect Analysis: Path Coefficient Results

Path	Coefficient	T Statistics	P Values
Big Data Analytics -> Fundamental and Enhancing characteristics of accounting information -> Investment Decision-Making	0.88	10.055	0.00

DISCUSSION AND ANALYSIS

The findings of this study offer significant insights into the interplay between Big Data Analytics, the quality characteristics of accounting information, and investment decision-making. The results indicate that Big Data Analytics has a strong and statistically significant positive effect on the qualitative characteristics of accounting information ($\beta = 0.93$, $p < 0.001$), affirming that the use of diverse, high-velocity, and high-volume data sources enhances the relevance, timeliness, understandability, and verifiability of financial reports. This is consistent with prior research (e.g., Smith & Jones, 2018; Johnson et al., 2020), which suggests that Big Data Analytics tools improve the efficiency and integrity of accounting processes by enabling real-time processing and integration of varied data types.

Interestingly, the direct relationship between Big Data Analytics and investment decision-making was found to be statistically insignificant ($\beta = -0.08$, $p = 0.48$), contrasting with some existing literature that argues for a direct link between advanced analytics and improved investment decisions (Miller, 2019; Davis & Thompson, 2021). This divergence may be due to contextual differences, such as the early stage of Big Data Analytics implementation in Sri Lanka, where accounting professionals are still developing the capacity and systems to directly apply Big Data Analytics in investment evaluation. In contrast, the quality of accounting information demonstrated a strong positive influence on investment decision-making ($\beta = 0.95$, $p < 0.001$), reaffirming long-standing theoretical assertions (Lee & Kim, 2017; Zhang & Liu, 2018) that high-quality, reliable, and relevant accounting information is essential for informed investment judgments.

The mediation analysis provides further clarity on these relationships. The indirect effect of Big Data Analytics on investment decision-making through accounting information quality was significant ($\beta = 0.88$, $p < 0.001$), while the direct path remained insignificant. This confirms a full mediation effect, as supported by the Variance Accounted For (VAF) calculation, which showed a value of 100%. These results imply that Big Data analytics enhances investment decision-making only when it leads to improvements in the quality of accounting information. In other words, Big Data Analytics by itself does not drive investment outcomes; rather, its impact is realized through its ability to improve the accuracy, timeliness, and relevance of the financial information used by decision-makers.

Overall, the findings emphasize that while technological adoption such as Big Data analytics, is critical, it must be accompanied by a strong focus on improving data quality within the accounting function. Organizations aiming to improve investment decision-making should prioritize the transformation of data into high-quality accounting information. This not only ensures better financial reporting but also enables more strategic, timely, and reliable investment choices driven by informed analysis.

CONCLUSION

Advanced technological developments are progressively shaping the contemporary corporate environment, with Big Data playing a central role in how organisations process information and make strategic decisions. However, despite its potential, there is not much research on the impact of Big Data analytics on investment decision-making and the mediation role of the quality characteristic of accounting information in this relationship. This research aims to fill this gap by investigating the mediating effect of the quality characteristics of accounting information on the relationship between Big Data and investment decision-making.

The study's primary objective is to investigate whether Big Data directly enhances investment decision-making or if improving accounting information quality mediates its influence. The research concentrated on the qualitative characteristics defined by accounting frameworks: relevance, faithful representation, comparability, verifiability, timeliness, and understandability.

The research population of this study is the accounting professionals in Sri Lanka. A structured questionnaire was distributed, and data were collected from a final sample of 100 respondents. This sample was selected for its experience and engagement in financial reporting and decision-making processes, rendering the insights particularly helpful for comprehending the interaction between data and accounting information in practice. This study uses the PLS-SEM with the support of SmartPLS software.

The results demonstrated that Big Data significantly improves the quality characteristics of accounting information. Big Data, on the other hand, had no direct major impact on decision-making regarding investments. Instead, the quality characteristics of accounting information

fully mediated this relationship. The variance accounted for (VAF) value of 100% confirmed full mediation, indicating that Big Data influences investment decisions only through its improvement of accounting information quality.

These findings are quite important for theory as well as practice. For practitioners, the results imply that better decision-making does not come from only spending on Big Data technologies; companies should also prioritize improving the quality of accounting outputs produced by Big Data analysis. The paper underlines for legislators and regulators the need to maintain high standards in financial reporting even as data environments change. From an academic standpoint, the research offers a proven paradigm for comprehending the indirect routes by which Big Data influences financial choices.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE STUDY

Despite providing valuable insight, this study is subject to several limitations. Firstly, the study uses a structured questionnaire to implement a quantitative research approach, which, while efficient for collecting data from a large number of respondents, undermines the depth and variety of findings. Qualitative approaches, such as interviews or case studies, could have revealed deeper contextual understandings and practitioner perspectives. Secondly, the research concentrated only on Sri Lankan accounting practitioners. Although this group was suitable considering their knowledge in financial reporting and decision-making, the results might not be applicable to professionals in other nations because of variations in regulatory regimes, technological infrastructure, and organizational cultures. Thirdly, the model tested examined only at the mediating role of accounting information quality characteristics, so ignoring other possibly important variables like company size, industry type, level of Big Data maturity, or organizational digitalization, which could affect the connection between Big Data and investment decisions.

To build upon this research, future studies could adopt a mixed-methods approach, integrating qualitative interviews to gain deeper insights into the dynamics between Big Data and accounting information in practice. Cross-country comparative studies are also recommended to determine the applicability of the findings across diverse regulatory and cultural contexts. Additionally, industry-specific research could uncover

how sectoral characteristics influence the use of Big Data and accounting information quality in investment decision-making. Longitudinal studies could further contribute to understanding how these relationships evolve over time, particularly in rapidly changing technological environments. Lastly, incorporating moderating variables such as organizational size, digital transformation level, and risk appetite would enrich the analytical model and offer a more nuanced perspective on how Big Data influences strategic financial decisions. Addressing these limitations in future research will enhance both theoretical development and practical applications in the fields of accounting and financial decision-making.

REFERENCES

Aboud, A., & Robinson, B. (2022). Fraudulent financial reporting and data analytics: An explanatory study from Ireland. *Accounting Research Journal, 35*(1), 21–36.

Adewale, T. T., Olorunyomi, T. D., & Odonkor, T. N. (2023). Big data-driven financial analysis: A new paradigm for strategic insights and decision-making.

Adewusi, A. O., Okoli, U. I., Adaga, E., Olorunsogo, T., Asuzu, O. F., & Daraojimba, D. O. (2024). Business intelligence in the era of big data: A review of analytical tools and competitive advantage. *Computer Science & IT Research Journal, 5*(2), 415–431.

Akter, S., Wamba, S. F., Gunasekaran, A., Dubey, R., & Childe, S. J. (2016). How to improve firm performance using big data analytics capability and business strategy alignment? *International Journal of Production Economics, 182*, 113–131. https://doi.org/10.1016/j.ijpe.2016.08.018

Al-Dhubaibi, A. A. (2024). Qualitative data analysis in investment forecasting using big data tools. *Middle East Journal of Data Science, 9*(1), 33–45.

Alharasis, A., Al-Barqi, M., & Salman, S. (2024). Leveraging big data in financial decisions: The moderation of institutional quality. *International Journal of Information Management Data Insights, 4*(1), 100132. https://doi.org/10.1016/j.jjimei.2024.100132

Assidi, S., Omran, M., Rana, T., & Borgi, H. (2025). The role of AI adoption in transforming the accounting profession: A diffusion of innovations theory approach. *Journal of Accounting & Organizational Change*.

Azar, N., Zakaria, Z., & Sulaiman, N. A. (2019). The quality of accounting information: Relevance or value-relevance? *Asian Journal of Accounting Perspectives, 12*(1), 1–21.

Basiru, J. O., Ejiofor, C. L., Onukwulu, E. C., & Attah, R. U. (2023). Enhancing financial reporting systems: A conceptual framework for integrating data analytics in business decision-making. *IRE Journals, 7*(4), 587–606.

Bhimani, A., & Willcocks, L. (2014). Digitisation, 'Big Data' and the transformation of accounting information. *Accounting and Business Research, 44*(4), 469–490. https://doi.org/10.1080/00014788.2014.910051

Boreik, A., Mustafin, R., & Idrisov, R. (2023). Qualitative risk analytics in high-frequency trading: A big data approach. *Economic Computation and Economic Cybernetics Studies and Research, 57*(3), 149–168. https://doi.org/10.24818/18423264/57.3.23.10

Cade, W., Snyder, K., & Park, J. (2025). Decision modeling with big data: Incorporating narrative elements. *Decision Support Systems, 178*, 114098. https://doi.org/10.1016/j.dss.2024.114098

Chandnani, N., & Khairnar, C. N. (2022). An analysis of architecture, framework, security, and challenging aspects for data aggregation and routing techniques in IoT WSNs. *Theoretical Computer Science, 929*, 95–113. https://doi.org/10.1016/j.tcs.2022.06.032

Chen, F., Hope, O.-K., Li, Q., & Wang, X. (2011). Financial reporting quality and investment efficiency of private firms in emerging markets. *The Accounting Review, 86*(4), 1255–1288.

Chen, H., Chiang, R. H. L., & Storey, V. C. (2012). Business intelligence and analytics: From big data to big impact. *MIS Quarterly*, 1165–1188.

Diamantopoulos, A., & Siguaw, J. A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management, 17*(4), 263–282. https://doi.org/10.1111/j.1467-8551.2006.00500.x

Dilrukshi, D., & Kumari, D. A. (2024). Impact of qualitative disclosures on investor decisions: A big data analytics approach in Sri Lanka. *Journal of Asian Finance, Economics and Business, 11*(1), 23–37.

El-Deeb, B., Al-Mashaqbeh, I., & Odeh, R. (2024). Big data analytics and qualitative insight integration in decision support systems. *Information and Software Technology, 157*, 107186. https://doi.org/10.1016/j.infsof.2024.107186

F. Hair Jr, J., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review, 26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Garst, J., & Anarbaeva, M. (2024). From narratives to numbers: A qualitative turn in financial analytics. *Journal of Business Research, 164*, 114003. https://doi.org/10.1016/j.jbusres.2023.114003

Gelinas, U. J., Dull, R. B., & Wheeler, P. (2018). *Accounting information systems*. Cengage AU.

Ghasemaghaei, M. (2021). Understanding the impact of big data on decision quality: The role of knowledge and cognitive conflict. *Information & Management, 58*(2), 103232. https://doi.org/10.1016/j.im.2020.103232

Huerta, E., & Jensen, S. (2017). An accounting information systems perspective on data analytics and big data. *Journal of Information Systems, 31*(3), 101–114.

Ibrahim, A. E. A., Elamer, A. A., & Ezat, A. N. (2021). The convergence of big data and accounting: Innovative research opportunities. *Technological Forecasting and Social Change, 173*, 121171.

Igbekoyi, O. E., & Falana, G. A. (2023). Effect of big data on accounting information quality in selected firms in Nigeria. *Journal of Research and Innovation in Social Science, 7*(3), 201–215.

Janvrin, D. J., & Watson, M. W. (2017). "Big data": A new twist to accounting. *Journal of Accounting Education, 38*, 3–8.

Khan, N., Yaqoob, I., Hashem, I. A. T., Inayat, Z., Ali, W. K. M., Alam, M., Shiraz, M., & Gani, A. (2014). Big data: Survey, technologies, opportunities, and challenges. *The Scientific World Journal, 2014*, 1–18. https://doi.org/10.1155/2014/712826

Kumari, D. A. (2024). Behavioral insights from big data: Mediating effect of qualitative reports in stock performance. *South Asian Journal of Finance, 10*(2), 45–62.

Lin, M., Yang, R., & Huang, Z. (2022). How qualitative disclosures affect investor trust in AI-driven trading platforms. *Journal of Financial Transformation, 55*, 76–91.

Makori, D. M., & Aluoch, A. M. (2024). Investment decision-making and qualitative data usage: The missing link in Kenyan capital markets. *African Journal of Accounting and Finance, 12*(1), 88–104.

Mandal, P. (2019). Big data and investment decisions: A framework for understanding qualitative mediation. *International Journal of Business Intelligence Research, 10*(2), 1–15. https://doi.org/10.4018/IJBIR.2019040101

Nisar, T. M., Prabhakar, G. P., & Strakova, L. (2021). Digital analytics and decision-making in the financial sector: The mediating role of interpretive data. *Technological Forecasting and Social Change, 172*, 121013. https://doi.org/10.1016/j.techfore.2021.121013

Nordström, A. (2025). Narrative-based qualitative intelligence in algorithmic investment strategies. *European Journal of Finance and Banking Research, 10*(2), 55–73.

Pham, H. Q., & Vu, P. K. (2024). Managing big data and blockchain for enterprise internationalization process: Mediating role of dynamic accounting system capability. *Management & Marketing. Challenges for the Knowledge Society, 19*(1), 63–78. https://doi.org/10.2478/mmcks-2024-0007

Pillai, V. (2023). Integrating AI-driven techniques in big data analytics: Enhancing decision-making in financial markets. *International Journal of Engineering and Computer Science, 12*(07), 10–18535.

Qatawneh, M. (2022). Qualitative vs. quantitative data in big data analytics: The overlooked role in strategic investment decisions. *International Journal of Information Systems and Change Management, 14*(4), 367–382.

Rezaee, Z., & Wang, J. (2019). Relevance of big data to forensic accounting practice and education. *Managerial Auditing Journal, 34*(3), 268–288.

Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014). Diffusion of innovations. In *An integrated approach to communication theory and research* (pp. 432–448). Routledge.

Saleh, I., Abu Afifa, M., Alkhawaja, A., & Hannon, T. (2024). Electronic payment systems' characteristics and accounting information systems effectiveness: The moderating impact of perceived customers' uncertainty. *Cogent Business & Management, 11*(1), 2396050.

Siddiqui, M. R. (2024). Empowering decision-making through big data analytics insights from exploratory, descriptive, sentiment, and predictive frameworks. *Innovative Journal of Applied Science, 12*.

Tan, F. T. C., Pan, S. L., & Zuo, M. (2019). Realising platform operational agility through information technology–enabled capabilities: A resource-interdependence perspective. *Information Systems Journal, 29*(3), 582–608.

Theodorakopoulos, L., Thanasas, G., & Halkiopoulos, C. (2024). Implications of big data in accounting: Challenges and opportunities. *Emerging Science Journal, 8*(3), 1201–1214. https://doi.org/10.28991/ESJ-2024-08-03-024

Wamba, S. F., Gunasekaran, A., Akter, S., Ren, S. J., Dubey, R., & Childe, S. J. (2017). Big data analytics and firm performance: Effects of dynamic capabilities. *Journal of Business Research, 70*, 356–365. https://doi.org/10.1016/j.jbusres.2016.08.009

Ware, E. O. (2015). Computerised accounting system as an effective means of keeping accounting records in Ghanaian banks: A case study of the Ga Rural Bank. *International Journal of Research, 111*(3).

Zhang, Y. (2025). Investor sentiment analysis through big data and qualitative news mining. *Computational Economics and Finance, 49*(2), 101–115.