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LEVERAGING TECHNOLOGY FOR SUSTAINABLE ACCOUNTING INFORMATION SYSTEM (AIS) IN NIGERIA BUSINESS ECOSYSTEMS.

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Abstract
This paper systematically analyzes the integration of technology in sustainable accounting information systems (SAIS). It explores how digital tools and innovations enhance the accuracy, efficiency, and comprehensiveness of sustainability reporting. The study examines technology's impact on sustainable accounting. One hundred and nine accountants from diverse firms participated in the survey to assess ICT competence and AIS's efficacy. A simple linear regression analysis was carried out to examine the correlation between the accountants' ICT competence and AIS performance within the corporate landscape. The analysis yielded a noteworthy regression equation F (1, 107) = 221.83, P<.05), with an R2 of .412, signifying that ICT competence accounted for 41.2% of the variance in AIS effectiveness in the business domain. Consequently, the study affirms the hypothesis that ICT competence is a predictor of effective AIS in business. The implications, findings, and conclusions are thoroughly deliberated upon.

Keywords: Technology, Competence, AIS, Business, Accountant.

Introduction
Sustainable accounting aims to incorporate environmental, social, and governance factors into financial reporting. The advent of Industry 4.0 technologies has revolutionized this field, offering new ways to capture, process, and report non-financial information. Sustainability accounting information systems (AIS) have become increasingly important due to their high influence on performance (Al-Delawi & Ramo, 2020) and the rise of sustainable practices and environmental, social, and governance reporting standards worldwide. This new form of AIS has been referred to as sustainability accounting. Sustainability accounting involves accounting practices and systems to account for a broad set of goals, not just financial ones. It capitalizes on the hearts and minds and can provide information that can direct people's daily working practices toward an organization's broader vision. Organizations are becoming increasingly aware of their broader social and environmental impact; consequently, the science of sustainability accounting is evolving from simple accounting systems that track material, and waste flows in the organization to more strategic systems that provide relevant information about an organization's impacts on a selection of sustainability principles that fall under the economic, social, and environmental banner. In an accounting information system (AIS), financial and accounting data are gathered, stored, and processed so that internal users can report information to creditors, investors, and tax authorities (Gruda, 2014; Liu, 2018; Plaskova et al., 2020; Salehi et al., 2015).

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Organizations are encouraged to integrate or embed these newer sustainability accounting criteria into their traditional management systems or AIS. This has led to the development of the practice of Sustainability Balanced Scorecard Systems or sustainability reports. Another important aspect of sustainability accounting, from an accounting system and a more strategic perspective, is the ability of these reports to help tell a story. An AIS features many fields where users can enter new data and change the already saved data. In addition, accounting information systems are frequently highly secure platforms, with preventative steps taken against viruses, hackers, and other external sources attempting to obtain information. Contemporary organizational reporting has evolved beyond disclosing information about financial assets, transactions, or those with monetary representation. For example, while traditional Corporate Environmental Reporting or Social Accounting primarily discloses direct implications of an entity's actions on the environment or stakeholders, typically in physical terms, sustainability or triple-bottom-line accounting not only discloses ecological or social impacts of an entity's actions but it also discloses how ecological and social resources and capacities are being factored into the very creation of organizational wealth. In relation to the increasing importance of corporate reporting, especially on sustainability, organizations increasingly recognize the importance of sustainability-related information in the integrated reporting process.

The contemporary business ecosystem in Nigeria is increasingly witnessing the critical role of ICT in many areas. The proliferation of different inventive devices has instigated the integration of many distinct departments to share required accounting information. Researchers have underscored the various underlying variables in utilizing AIS in the business entity. For example, Nguyen and Nguyen. (2020) investigated the factors affecting the quality of accounting information systems. The findings showed that various factors significantly impacted the quality of accounting information systems, including organization culture, manager participation, information technology, information technology knowledge of managers, accounting knowledge of managers, and accounting information applications.

Fitrios (2019) determined the effect of top management commitment and user training on implementing accounting information systems. The findings demonstrated that the commitment of top management and user training influence the deployment of an accounting information system. Accordingly, Binh et al. (2022) investigated the effect of innovative organizational culture on the quality of accounting information systems using the Structural Equation Model. According to the study's findings, the organizational culture of businesses is a critical component in improving the quality of their accounting information systems. Also, Tumbo's (2020) findings revealed that factors perceived as impeding the adoption of information management systems in the provision of healthcare services included a lack of ICT personnel, reluctance on the part of some employees to adopt the electronic information system, and a negative attitude on the part of system users. Other factors included system slowness at times, a lack of adequate ICT infrastructure, the possibility of information hacking, the complexity of the system, and unreliable hardware or software platforms. However, rapid technology advancements cause changes and innovations in AIS (Susanto & Meiryani, 2019).

Technology and AIS

Information communication technologies have become a universal trend in the business environment. Information and communications technology offers the potential for massive cost

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savings and productivity increases (Sorce & Issa, 2021). It is critical to effective knowledge management (Lecerf & Omrani, 2020). The advances in the ICT industry have significantly impacted business dynamics in the twenty-first century (Shaukat & Zafarullah, 2009). The growing technological innovations have transformed how business is done, and the trend is well observed in manufacturing industries. Indeed, extensive literature exists that highlights the role of ICT in the world of work (Abdullahi et al., 2021; Adila & Ahmad, 2020; Anab, 2017; Catinat, 2013; Chege et al., 2020; Demestichas & Daskalakis, 2020; Ibrahim & Jebur, 2019; Jameel, 2017; Saleem et al., 2019; Solomon & van Klyton, 2020). There is a common conception that ICT remains the key to business development and sustainability across the globe.

The accounting information system is an absolute tool for managers striving to remain in a competitive advantage amidst rapid technological advancement (Ganyam & Ivungu, 2019). The quality of accounting information systems is a measure combining system quality and information quality. Determining what aspects of this measure are critical for businesses to enhance firm performance (Binha et al., 2020). Accordingly, numerous studies abound that support ICT integration and firm performance (see., Amoako et al., 2021; Forth & Mason, 2006; Gërguri-Rashiti et al., 2017; Houqe et al., 2019; Huang et al., 2021; Iacovone et al., 2017; Noor et al., 2017; Seth & Xiaofang, 2021; Siahaan & Tan, 2020; Sundram et al., 2020). The growing competition in the business ecosystem has prompted firms in Nigeria to adapt to the dynamics of contemporary society through investment in ICT infrastructures. However, the employee's ICT competence is the major constraint in the ICT-performance relationship.

The present study

The interplay between staff technology competence and accounting information systems (AIS) in a business organization is critical in determining the overall efficiency and effectiveness of the organization's financial operations. Due to the significant role of ICT in the firm's production process, most studies have dealt with ICT competencies as a critical factor in AIS. ICT competencies relate to the knowledge and application of various computer programs, software, and other applications, including word processing, spreadsheets, databases, power points, search engines, and data manipulations. Staff with high technology competence can effectively use AIS to streamline accounting processes, reduce manual errors, and improve data accuracy. The synergy between staff technology competence and AIS is essential for achieving operational excellence in a business organization. The present paper explores the role of technology competence in effective AIS.

Hypothesis: technology competence will predict effective AIS in the business ecosystem.

Technology competence refers to the staff's skills and knowledge to effectively use and leverage technology within an organization. In the context of integrating technology with accounting information systems (AIS), proficiency in using software applications, tools, and platforms related to AIS is required. This includes understanding how to operate accounting software, data management systems, and other technological tools that facilitate financial reporting and analysis.

Method

The current research adopted a cross-sectional design. Certified accountants, including males and females from different organizational departments in Cross River State, Nigeria, were randomly selected for the study. The participants were approached between June and August 2024 and

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were asked to participate in the study. They were briefed on the study's aim and were equally informed that participation is voluntary and that they could pull out at their convenience. Those who consented were given the study instrument to fill and return on the spot. One hundred and eighteen (118) employees filled out the questionnaire. However, nine copies were discarded due to improper filling. Hence, the correctly filled questionnaires (109) were analyzed statistically.

Measures

ICT skill was measured with the ICT Skills Scale initially developed by (Wilkinson et al., 2010). The original 28-item Linkert-type scale comprising three sub-dimensions, namely "Information technologies," "Communication technologies," and "Mobile technologies," was modified to fit the present research context. Thus, the 15 items modified version measures employee's information and communication technology skills on a 5-point Likert type scale scored as "strongly disagree"(1), "disagree"(2), "undecided" (3), "agree" (4) and "strongly agree" (5). A high score suggests a higher ICT skill. The Cronbach's α reliability coefficient for the scale was 0.79 in the current study.

The effect of ICT competence on AIS was examined using a structured questionnaire designed to ascertain the role of ICT competence on the effectiveness of AIS in the Nigerian business environment. The instrument assesses proficiency in the acquisition, processing, and storage of financial and accounting data and information-gathering capabilities. Relevant individuals in the firms, apart from the participants, completed the questionnaire. The questionnaire recorded a Cronbach's α reliability coefficient of 0.67.

Result

The table below shows the result of a simple linear regression analysis conducted to test the relationship between employees' ICT competence and AIS in the business environment. The result showed a significant regression equation F (1, 107), = 221.83, $P<.05$), with an R^2 of .412, indicating that ICT competence contributed 41.2% of the variation in the AIS effectiveness in the business ecosystem. Thus, the study's outcome confirms the hypothesis that ICT competence predicts effective AIS in business.

Table 1 shows regression results.

	B	Std. Error	β	t	Sig.
(Constant)	1.82	.089		20.52	.000
TC	.87	.059	.877	14.89	.000
R^2	412				
F	221.83				

TC= technology competence

Discussion

The current study investigated the effect of technology competence on AIS's effectiveness in Nigeria's business ecosystem. The result of the study revealed that technology competence significantly predicted AIS's effectiveness in Nigeria's business ecosystem. This means business entities with many ICT-competent accountants would perform better in accounting information systems than their counterparts without ICT-skilled accountants. The outcome of the present finding could be described in two dimensions: firstly, the result describes individual input based

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on ICT competence, which means that the IT competence accountant commits to utilizing the various accounting software and IT infrastructure to carry out their accounting duties effectively. The probable explanation for this outcome could be attributed to the relationship between ICT competence and job performance (Oyovwe-Tinuoye et al., 2021) and job commitment (Martin, 2011). Accordingly, Kucharska and Erickson (2020) noted that IT competency predicts information sharing and job satisfaction. Perhaps the study's result reflects the relevance of competence in the use of computer technologies and improvement in job roles.

The present finding is aligned with (Wambui & Njuguna, 2017), which suggests that IT usage led to efficient management of processes of budget accounting. The findings imply that information technology has a significant positive effect on financial management systems. Under the contemporary information-based data model, the continuous development of Internet information popularizes the accounting information system among enterprises, which derives the process of accounting information system different from the traditional manual process. However, due to the inability to effectively apply innovative mechanisms, many accountants find it easy to fail to identify the risks of accounting data, internal control, and audit environment in the accounting information system promptly when implementing the accounting information system, which results in audit misstatement. Also, the result implicates accountants' IT competence in organizational performance outcomes. Accordingly, accounting firms are characterized by data analysis. Thus, advancements in science and technology have led to the digitization of various accounting tools.

Implication of the study

The result of the present study is implicated in the role of technology-competent accountants in the accounting information system of Nigeria's business ecosystem. Also, the study reveals a lack of ICT-skilled accountants as a determinant of decreased analytical procedures in data management and information processing performance in business entities. Indeed, the ubiquity of information communication technology in work has blurred the boundaries between skilled and unskilled ICT employees. Similarly, using accountants with competence in information technology in any business entity may lead to integration and increasing interface of various accounting processes.

Limitations of the study

However, the present study revealed the relevance of ICT competence to the effectiveness of AIS in the business ecosystem. It is essential to state the challenges associated with the investigation. For example, data relating to effective AIS and ICT competence was based on subjective information from selected accountants. Indeed, this method is fraught with challenges as the respondents may overstate or understate the performance of their organizations. Despite this limitation, subjective assessments have been a popular method for assessing performance among researchers (Camps & Luna-Arocas, 2012; Ndofor & Priem, 2011). Also, the sampling method may limit the generalization of the study findings. However, the present research provides the basis for further investigating IT competence and AIS.

Conclusion

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The present study was conducted to determine the predictive role of ICT skills on the effectiveness of AIS in the business world. The findings indicated a statistically significant relationship between ICT skills and the effectiveness of AIS in the business world. Thus, the requisite ICT skills of accountants relating to information communication technologies in the business ecosystem are a significant variable in the outcome of accounting performance. Therefore, it is concluded that the ICT skills of accountants contribute positively to the variation in the performance indicators (data collection, reporting, and management) of businesses in Nigeria. Accordingly, the study recommends robust training of accountants in ICT and the adoption of modern IT infrastructures.

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