

DETERMINANTS OF ACCOUNTING INFORMATION SYSTEM ADOPTION IN NIGERIAN SMES

¹Aminu Muhammad Kafi, ¹Muhammad Auwal Kabir and ¹Umar Salisu

¹Department of Accounting, Sa'adu Zungur University, Bauchi State – Nigeria.

Corresponding Email Address: muhammadakabir@basug.edu.ng

Abstract

This study examines the determinants of Accounting Information Systems (AIS) adoption among small and medium-sized enterprises (SMEs) in Nigeria. The study used the Technology Acceptance Model (TAM) and extended it with two additional constructs: perceived security, and perceived cost. The population for the study consisted of 5645 SMEs operating in Bauchi metropolis. The study employs a survey method and uses a Stratified sampling technique to collect data from the sample size of 440 respondents through the help of self-administered questionnaires. Out of the 440 questionnaires distributed, 423 were filled and returned representing 97% response rate. However, only 409 were valid for statistical analysis. The data collected were analyzed with SPSS version 25. The results of the study revealed that perceived usefulness (PU), perceived ease of use (PEOU), and perceived security have positive and significant influences on AIS adoption among SMEs in Nigeria. However, perceived cost was found to have a negative influence on AIS adoption. It is recommended that Nigerian SMEs need to be convinced of the usefulness and ease of use of AIS, as well as the security of their data with a view to encourage its adoption. Additionally, efforts should be made government to subsidized the cost of both hardware and software for SMEs usage in particular.

Keywords: Accounting Information System, Perceived Usefulness, Perceived Ease of Use, Perceived Cost, Perceived Security

JEL Classification: M41 and M1

INTRODUCTION

The advancement in technology has enabled the integration of the Accounting Information Systems (AIS) business landscape. As a result of this incorporation, businesses are now opting for technologically driven processes (Fahlevi & Alharbi, 2021). Consequently, traditional manual accounting methods are becoming nearly obsolete (Thottoli, 2021). AIS is a computerized system that manages accounting records, processes various business activities and transactions (Nguyen & Nguyen, 2019). It consists of accounting methods, techniques, and controls that aid in recording, tracking transactions, and generating reports for different users (Al-Attar, 2021).

Over time, AIS has become a critical tool in the field of information and technology. Extending its influence beyond financial controls and leading to its widespread adoption among business organizations (Abdelraheem et al., 2021; Al-Delawi & Ramo, 2020). AIS serves as an important component for businesses aiming to enhance stability and gain a competitive advantage (Al-Okaily, 2024). It also stands out as one of the most efficient systems that provide organizations with consistent, and suitable financial information for different purposes and for a diverse range of stakeholders (Al-Okaily et al., 2020). The system facilitates administrative

coordination which influences informed decision-making. Therefore, the role of AIS in disseminating timely information across various users within the organization has been widely reported (Basel & Ibrahim, 2020).

Accordingly, Small and Medium Enterprises (SMEs) are now widely recognized as flexible entities due to their ability to leverage innovations and adapt easily to modern business dynamics. SMEs are one economic sector that has significantly benefited from AIS (Lutfi et al., 2022). The adoption of such systems has helped these enterprises to reduce costs, enhance efficiency, improve service deliveries, and minimize human error (Lutfi et al., 2016).

Most SMEs that adopt AIS enjoy faster business operations, proper management planning, and financial control over their businesses (Monteiro & Cepêda, 2021; Okon et al., 2021). Therefore, their continuous evolution and expansion are considered prerequisites for job creation, economic growth, and the development of a nation (Gherghina et al., 2020).

However, despite several reported benefits of AIS, the adoption of this system among SMEs in developing countries including Nigeria, is very slow due to certain factors (Lutfi et al., 2016; OECD, 2017). Furthermore, consistent with other developing countries, SMEs in Nigeria are continuously facing difficulties in keeping accurate financial records due to the slow adoption of AIS (Mahama & Dahlan, 2022a).

As a result, most Nigerian SMEs face numerous threats, including increased business risks from errors and fraud, and limited access to financial information. Also, these SMEs are faced with inefficient resource use, regulatory compliance challenges, and reduced competitiveness (Gyamera et al., 2023; Shekar et al., 2021). A persistent challenge remains the lack of widespread AIS adoption among SMEs hinders effective taxation (Wahyuni, 2023). Revenue officials frequently rely on manually generated reports to estimate SMEs' taxes, which often result in inaccuracies and underestimations, potentially leading to tax evasion (Adeniran et al., 2023).

Furthermore, the adoption of technology such as AIS plays a crucial role in facilitating government revenue through taxation (Ajala & Adegbe, 2020b). The system provides an efficient and transparent mechanism for businesses to maintain accurate financial records, enabling efficient and accurate tax assessments (Nobert et al., 2020). The automation of financial processes in AIS ensures that businesses can easily report their income, expenses, and transactions, allowing tax authorities to conduct precise assessments and collect the appropriate amount of taxes owed (Ajala & Adegbe, 2020a).

The adoption of AIS is on the increase globally in recent years (Onaolapo, 2024). This is primarily driven by the increasing demand for precise and timely financial information due to the complexity of business processes (Türegün, 2020). Developed nations, with robust technological infrastructure and a strong regulatory environment, have since embraced AIS in their businesses (Eno et al., 2018; Kalumendo, 2023a). However, the adoption of AIS among SMEs is notably slow in developing countries, and Nigeria is not an exception (Kalumendo, 2023b; Nworie et al., 2023). The slow adoption accounting information system by SMEs has significant impact on their expansion (Nkemjika et al., 2025).

Moreover, to understand the determinants of AIS adoption many studies were conducted. for instance, Nwokoye et al. (2019) identified factors such as degree of awareness, perception, educational attainment, income level, age, training, cost of ICT device are significant

determinants of ICT adoption. [Faiz et al. \(2024\)](#) in their study established that digital culture, international orientation, top management support, trading partner pressure, human resources, and costs are the major determinants for technology adoption. Similarly, [Bello & Olanrewaju \(2022\)](#) reported compatibility, organizational size, top management support, trust between organizations, competitive pressure and uncertainty as significant factors that influence technology adoption.

Despite several studies on technology adoption among SMEs in general and AIS in particular, available literature indicates a significant research gap in this area, especially in developing countries ([Al-dmour et al., 2016](#); [Almgrashi, 2020](#)). Most of the studies conducted on AIS in developing countries are focused on large organizations and government institutions, neglecting SMEs, which are pivotal to many developing economies ([Adeyemo, 2021](#)). Given the potential role of AIS in enhancing SME performance, improving Government revenues and contributing to economic growth, there is a need for studies to specifically focus on factors influencing AIS adoption among SMEs ([Al-dmour et al., 2016](#)).

Numerous studies on AIS have been conducted by many researchers ([Kalumendo, 2023a](#)). In Nigeria, previous empirical studies on technology adoption among SMEs such as those by [Ibrahim and Kasim \(2017\)](#), [Irefin et al. \(2012\)](#), [Olatokun and Bankole \(2011\)](#), and [Adebayo et al. \(2013\)](#) have employed various models to understand the factors hindering the adoption of AIS among SMEs. However, a significant portion of these studies has focused on its impact on large businesses, neglecting factors that influence its adoption by SMEs ([Roffia&Dabić, 2024](#)). Among the few that have been conducted none of the studies considered the human factor or utilized the Technology Acceptance Model (TAM). Consequently, [Shahadat et al. \(2023\)](#), suggest that a focus should be on individual factors influencing AIS among SMEs, an area not extensively considered in their study. Considering these gaps, this study seeks to adopt and extend the TAM by incorporating two additional constructs from TRA (Perceived Cost and Perceived Security) to comprehensively investigate the factors influencing AIS adoption among SMEs in Nigeria. This is crucial for identifying barriers and devising strategies to facilitate its adoption.

LITERATURE REVIEW

2.1 Concept of Accounting Information System

Accounting Information Systems is a set of hardware and software components designed to collect and process data to provide information for a wide range of users ([Olufemi et al., 2021](#)). AIS is programmed on accounting principles and procedures and business logic that will enable the systems to perform accounting functions automatically. The system also produces timely, high-quality accounting information and communicates it to decision-makers in the appropriate format ([Olufemi et al., 2021](#)). Thereby revolutionizing modern accounting practices, benefiting many developed economies ([Eno et al., 2018](#)).

Nowadays businesses deal with a large volume of information and spend more time processing it. AIS has become a very useful tool for SMEs to carry out their transactions faster and more efficiently ([Minovski et al., 2020](#)). The system performs accounting and economic activities by processing SMEs' financial information more effectively ([Yien et al., 2021](#)). Allowing managers and stakeholders to get the necessary information more quickly ([Al-Delawi & Ramo, 2020](#)). Similarly, AIS provides more flexibility in information generation, improves firm performance and profitability ([Ibrahim et al., 2020a](#)).

Also, AIS records business transactions or the economic activity of an organization (Abdulle et al., 2019). The system helps these enterprises strengthen control and produce various kinds of financial reports (Harash, 2017). AIS serves as a critical resource for SMEs since it allows for more efficient decision-making, planning, and control (Ibrahim et al., 2020b). Consequently, it enables them to boost their competitiveness (Hamundu et al., 2021). The reports generated from AIS will be useful for both internal and external users and encourage effective business management (Lutfi et al., 2022). Moreover, it is widely acknowledged that a reliable AIS is essential to an organization's success, whether locally or globally (Shagari et al., 2018).

2.2 AIS Adoption among SMEs

Technology offers businesses new opportunities to access global markets, but a sizable number of SMEs have not been able to benefit from the technological transition (OECD, 2017). It is without a doubt AIS is one of the crucial resources for today's SMEs given its capacity to support efficient decision-making, planning, and organizational activity control (Ibrahim et al., 2020). The influence of AIS on business leads to improved service delivery, ultimately contributing to the financial sustainability and profitability of SMEs (Ali & Abu-AlSondos, 2020). According to Tilahun, (2019), AIS adoption helps SMEs to generate accurate and timely information, that will improve external reporting. Additionally, adopting such a system helps SMEs manage short-term issues like cost, expenditure, and cash flow by providing information for monitoring, control, and operation in a competitive environment (Ismail & King, 2005; Wahyuni, 2018). Consequently, AIS helps SMEs to minimize costs, enhance management, provide effective services, improve functionalities of management, and make fewer errors (Lutfi et al., 2016; Buntin et al., 2011).

Moreover, through AIS adoption, SMEs can manage information and resources more effectively, experience lower transaction costs, improve their ability to gather and disseminate information internationally and have access to a continuous stream of information (Igbaekemen, 2020). The adoption of such a system equally, improves functionality, increases the accuracy of internal checks and balances, and ensures that accounts are properly balanced and processed promptly, resulting in a better external reporting interface (Khalid & Kot, 2021). Thus, adopting technology is essential for business survival. Businesses now rely on technology to achieve goals, ensure growth, and maintain continuity (Saxena, 2020).

2.3 Theoretical Review

Technology adoption theories have evolved, and there are numerous theories (Ahnan, 2021). *Over the past few decades, scholars have attempted to explore the factors that influence the adoption of technology in organizations.* TAM provides a significant theoretical input towards the understanding of AIS (Davis, 1989). *The theories that are most used are the Technology Acceptance Model (TAM), Resource-Based Theory (RBT), Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), and Social Cognitive Theory (SCT). However, none of these theories fully explains the technology adoption process (Shahadat et al., 2023). Therefore, scholars used different models to define different situations for adopting technology (Chatterjee et al., 2021; Gangwar et al., 2015; Hameed et al., 2012). This study examines the influence of AIS adoption among SMEs in Nigeria. The study proposes a framework that combines TAM and TRA theories based on technological and innovation literature.*

2.3.1 Theory of Reasoned Action

The TRA is an expansion of the Theory of Planned Behavior TPB (Fishbein & Ajzen 1975, Ajzen & Fishbein 1980). A model that considers the influence of non-volitional elements on behavior was developed in response to a critique of the significant correlation between behavioral intention and actual behavior. Moreover, both models are predicated on the idea that people rationally and thoughtfully decide to engage behaviors by weighing the information at their disposal. The likelihood that a behavior will be carried out depends on the individual's intention to engage in it (which is influenced by the value the individual places on the behavior, how simple it is to perform, and the opinions of significant others), as well as the belief that the behavior is under his or her control.

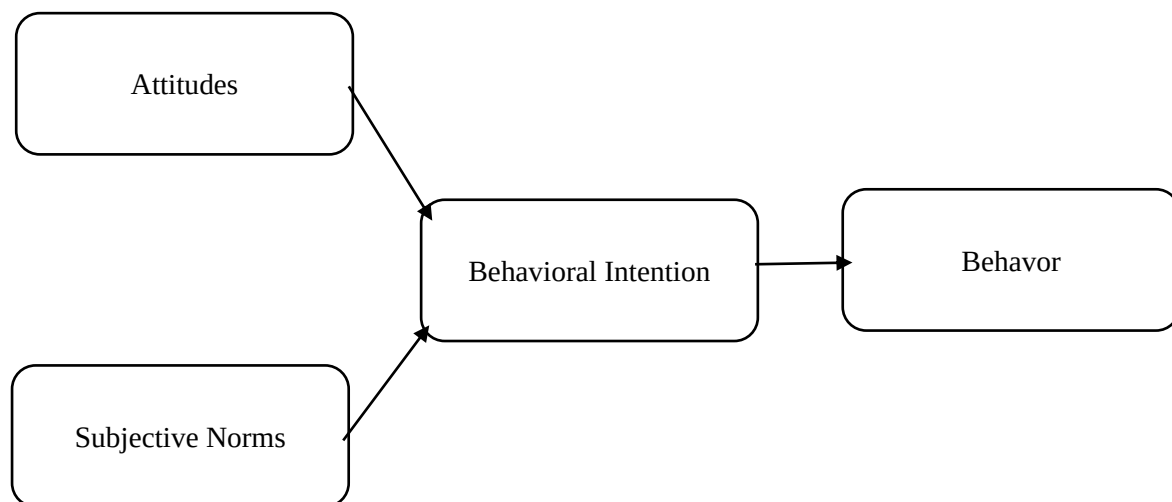


Figure 1: Theory of Reason Action

Source: Fishbein and Ajzens (1975)

2.3.2 Technology Acceptance Model

According to TAM, perceived usefulness (PU) is directly influenced by perceived ease of use (PEOU), and when a user finds technology to be 'simple to use,' they believe it to be 'useful' (Mallya & Lakshminarayanan, 2017). TAM is made up of four basic elements: (1) user behavior, which is the users' actual operation behavior with the new technology; (2) behavioral intention, which is the users' willingness to try new technologies; (3) perceived usefulness, which is the users' subjective understanding of the utility of the newly adopted technology; and (4) perceived ease of use, which is the degree of effort that users put in to use new technologies (Su & Li, 2021; Tambun et al., 2020).

Furthermore, The Theory of Planned Behavior (TPB) of Ajzen (1991), as well as the Unified Theory of Acceptance and Using of Technology (UTAUT) of Venkatesh et al., (2003) have both added to the TAM model to explore how people accept and use technology. There has been much research on the acceptance and use of information technology by individuals (Taylor & Todd, 1995), nevertheless, it can be adopted, replicated, or expanded to fit the context of a study (Abbasi et al., 2013). This study suggests TAM with a few minor adjustments (addition of two more constructs) to examine the relative influence of the independent on dependent variable.

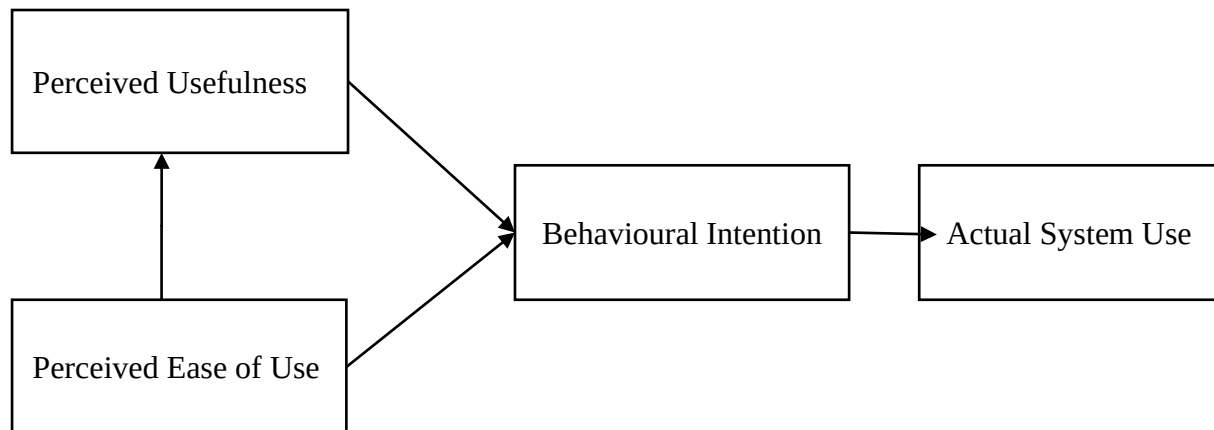


Figure. 2: Technology Acceptance Model (TAM) Source: [Davis, \(1989\)](#)

2.4 Conceptual Framework

A conceptual framework is a structure that the researcher believes can best explain the natural progression of the phenomenon to be studied ([Camp, 2001](#)). It is linked with the concepts, empirical research, and important theories used in promoting and systemizing the knowledge espoused by the researcher ([Peshkin, 1993](#)). It is the researcher's explanation of how the research problem would be explored. The conceptual framework presents an integrated way of looking at a problem under study ([Liehr & Smith, 1999](#)). Interestingly, it shows the series of actions the researcher intends to carry out in a research study ([Dixon, Gulliver & Gibbon, 2001](#)). It is a conceptual model that outlines the key concepts, variables, relationships, and assumptions that underline a research study ([Creswell, 2014](#)).

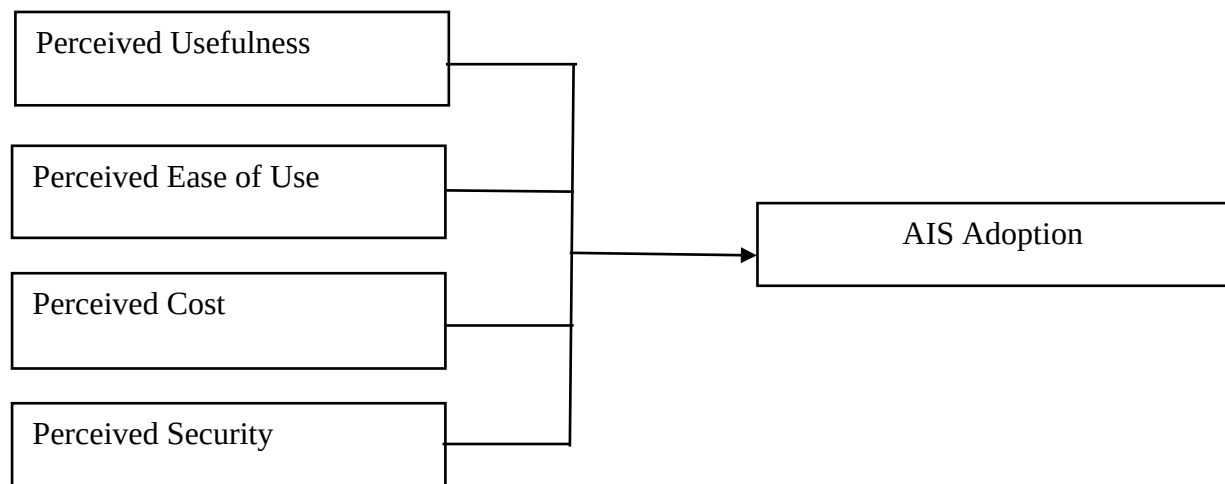


Figure 3: The conceptual framework

The Technology Acceptance Model (TAM) serves as the framework for this study. The model is extended with two components from the Theory of Reasoned Action (TRA): perceived cost and perceived security risk. These two new dimensions, PC and PS, are both considered components of TRA, a social psychology theory that seeks to explain human behavior. In TRA, the perceived cost may affect one's attitude toward an action, which in turn influences the intention to perform that behavior. Thus, perceived cost may be viewed as part of the attitude construct in TRA. In contrast, perceived security explains an individual's perception of the level of safety or risk associated with a behavior, such as the perceived risk of data breaches

or identity theft. felt security in TRA can influence the subjective norm construct, which refers to the felt social pressure to engage or refrain from an activity. For example, even if peers or social networks urge the use of new technology, an individual may be less likely to do so if they see it as a security threat. Therefore, both PC and PS may be regarded as constructs within TRA, and they can influence many parts of the theory, such as attitude and subjective norm, which influence the desire to engage in an action. This assertion is supported by the findings of [Buba et al. \(2022\)](#) Subjective norms and attitude has influence on the intention to adopt Green-IT within the Nigerian context.

2.4.1 Perceived Usefulness and AIS Adoption

Perceived usefulness is the degree to which a person believes that using a particular system would enhance his or her job performance ([Mallat, 2007](#)). Perceived usefulness is one of the most important original constructions of the technology acceptance model (TAM) and has been widely studied as a central variable in the adoption of new technology. In the context of this research, we understand that the usefulness of the accounting information system will influence the intention to adopt. The findings of [Ilias and Zainudin \(2013\)](#), and [Sam et al. \(2012\)](#) are consistent with those of [Madininos et al. \(2013\)](#) who asserted that perceived usefulness is one of the important factors in determining a user's behavioral intention. According to several studies, including the one by [Islami et al. \(2021\)](#) and another by [Taufik and Hanafiah \(2019\)](#), perceived usefulness has a favorable and significant impact on attitudes toward adopting a particular technology. Similar research findings reported by [Sumerta et al. \(2019\)](#) as well as [Anjum \(2018\)](#) claimed that attitude toward usage was positively and significantly influenced by perceived usefulness. In support of the above findings a study conducted by [Akinwale & Kyari \(2022\)](#) revealed that perceived usefulness has positive and significant impact on users' attitude towards the adoption of Fintech service among the end-users in Lagos State, Nigeria.

H1: Perceived usefulness has significant influence on AIS adoption among SMEs in Nigeria.

2.4.2 Perceived Ease of Use and AIS Adoption

The perceived ease of use (PEOU) is a construct in the Technology Acceptance Model (TAM) that measures a user's willingness to adopt technology to assist them in completing tasks ([Noor Ardiansah et al., 2020](#)) It influences user attitudes toward using the system ([Davis, 1989](#)). PEOU is defined as the degree to which an individual believes that using a particular system would be free of physical and mental effort ([Davis, 1989](#)). Numerous studies have found PEOU to be a significant factor that directly influences behavioral intentions to adopt specific IS/IT systems or sets of services ([Hyder et al., 2017](#)).

For example, [Tilahun \(2019\)](#) found that perceived ease of use has a positive and significant relationship with the adoption of Accounting Information Systems (AIS). Users who perceive AIS as easy to use are more likely to adopt the technology than those who do not. Similarly, [Kabir et al. \(2017\)](#) assert that one's intention to adopt and utilize technology is greatly influenced by perceived ease of use. Therefore, it can be hypothesized that:

H2: Perceived Ease of Use has significant influence on AIS adoption among SMEs in Nigeria.

2.4.3 Perceived Cost and AIS Adoption

Perceived cost is one of the most important factors that influence consumer adoption of

innovation. If consumers are to use new technologies, the technologies must be reasonably priced relative to alternatives. Otherwise, the acceptance of the new technology may not be viable from the standpoint of the consumer. According to much research, it is found there is a direct and significant relationship between cost and the adoption of technology (Seyal, et al., 2006). However, inadequate financial resources for hardware, software, infrastructure, and time are inhibitors' adoption of technology. Equally, apart from the initial investment in technology, maintenance costs and technical support are the obstacles to the adoption of CAS. Dabor et al. (2019) stated that financial resources influence the adoption of AIS. An organization can only invest in technology adoption if the return on investment is attractive (Harfoushi & Obiedat, 2011). The cost of both hardware and software is becoming more expensive, and with inflation acquiring technological products is a major project (Oyerinde 2014). Therefore, based on the discussion above, this study examines the influence of perceived cost on the adoption of AIS among SMEs in Nigeria and hypothesizes that:

H3: Perceived cost has significant influence on AIS adoption among SMEs in Nigeria.

2.4.4 Perceived Security and AIS Adoption

Perceived security is defined as the “degree of belief in a technology or system to transmit sensitive information without breach or leakage” (Merhi et al., 2019). It is one of the important drivers for the adoption of new information technology. In the context of this study, perceived security is defined as customers' perceptions of the level of protection against data destruction, disclosure, alteration, fraud, and misuse (Yousafzai et al., 2009). Various studies have highlighted a positive relationship between perceived security and technology adoption.

For instance, Hamzah et al. (2023) conducted a study on factors affecting the adoption of cloud accounting in SMEs and found that perceived security significantly influences the adoption of cloud accounting in SMEs. Similarly, Arpaci, et al. (2015) found in their study on the educational use of cloud-based services that security concerns directly influence consumer attitudes, which in turn affect their intention to adopt a particular technology. Alexandrou and Chen (2019) investigated the effects of perceived security risk, ease of use, and usefulness on the intention to use mobile devices in healthcare. They discovered that perceived security negatively impacts the intention to adopt mobile technologies in a healthcare setting. Similarly, Gbadebo Salimon et al., (2015) Click or tap here to enter text. found that secure systems boost user satisfaction and trust, potentially reducing adoption rates in Nigerian electronic banking due to inadequate security measures. Thus, it is hypothesized that:

H4: Perceived Security has significant influence on AIS adoption among SMEs in Nigeria.

METHODOLOGY

This section presents the study's methodology. It describes the steps in which the study was carried out. These steps are composed of the methods and techniques used to attain the desired objectives. Specifically, this section explains the research design, population, sample size, and the sampling technique employed in the study. It also describes the sources of data collection, and the method of data analysis employed in the study.

3.1 Design

This study used a cross-sectional research design as it involves the collection of data at once

which is being used to answer the research questions in given research (Bhatti & Sundram, 2015). The choice of cross-sectional is justified due to the nature and time constraints of the study so that time and cost could be saved (Sekaran & Bougie, 2013). It also allows researchers to gather information, summarize, present, and interpret it for clarification (Peter et al., 2018). Therefore, this study employs a survey approach and uses a questionnaire instrument as a primary source of data in gathering the required information from SMEs in metropolitan Bauchi to answer the research questions and achieve the desired objectives of the study.

3.2 Population of the Study

Population represents a whole group of individuals, objects, or events with a joint visible feature (Kothari, 2006). On the other hand, population refers to the set or group of all the units on which the findings of the research are to be applied. Also, it is a set of all the units that possess variable characteristics under study and for which findings of the research can be generalized (Mukoka et al., 2020). The population of the study consisted of registered SMEs operating in the Bauchi metropolis. These encompass both AIS users and non-users. According to the Nigerian Association of Small-Scale Industrialists (NASSI), Bauchi State chapter (2023), 5,645 registered SMEs are operating in Bauchi. Therefore, these numbers represent the study population.

3.3 Sample Size and Sampling Techniques

Sampling is related to the selection of a subset of individuals from within a population to estimate the characteristics of the whole population (Singh et al., 2014). The selection of a specific number of participants from the overall population to generalize the sample frame is made possible by determining the sample size, which is essential for this study (see Table 1).

Therefore, to get an appropriate sample size for this study Yamane's (1973) formula for determining sample size was used. As stated earlier, the population of this study was 5645 SMEs operating in Bauchi (NASSI, 2023).

Yamane's formula:

$$n = \frac{N}{1 + N(e)^2}$$

The variables in this formula are:

n = the sample size

N = the population of the study

e = the margin error in the calculation (0.05)

Therefore.

$$n = 5645 / (1 + 5645(0.05)^2)$$

$$n = 5645 / (1 + 5645(0.0025))$$

$$n = 5645 / (1 + 14.11)$$

n = 5645/ (15.11)

n = 373.59

Nevertheless, the sample size for the study was increased to 440 samples to reduce sampling error and handle the unavoidable low response rate during data collection (Hair et al., 2015). Furthermore, the sampling technique adopted for this study was stratified random sampling. An equal number of samples would be selected from each stratum to make up the required size sample. Stratified sampling is where the population is divided into strata (or subgroups) and a random sample is taken from each subgroup. A subgroup is a natural set of items. Subgroups might be based on company size, gender, or occupation (to name but a few). Stratified sampling is often used where there is a great deal of variation within a population. Its purpose is to ensure that every stratum is adequately represented (Pritzker, 1990).

Table 1: Distribution of Sample Size According to Stratum

Stratum	Proportion of SMEs	Sample Size Calculation	Sample Size
Retail	70%	$(70/100) \times 440$	308
Wholesale	30%	$(30/100) \times 440$	132
Total	100%		440

3.4 Data Collection

The process of data collection involves gathering information on a phenomenon to extract meaningful insights. This study used a questionnaire to collect data from the target respondents. It is the best instrument for collecting data, especially when a study is explanatory or descriptive (Sekaran & Bougie, 2013). This method allows for direct communication between the researcher and respondents, efficient collection of all completed questionnaires, and quality of responses within a short period.

The questionnaire of this study is designed with a five-point Likert scale to enable the researcher to understand the extent of agreement or disagreement of the respondents on the issues under observation. Questionnaires with a Likert scale are generally understandable by most respondents without much difficulty (Sekaran & Bougie, 2013). Krosnick and Fabrigar (1997) argued that the use of midpoint scales in research always provides better and more accurate results. Furthermore, Neuman and Robson (2008) opined that the most appropriate scale that provides good results is the five-point scale. Given these advantages, a five-point scale was used for all the items on the questionnaire.

3.5 Techniques for Data Analysis

Data analysis is described as the process of gathering, processing, cleansing, and modelling data to extract the necessary information (Dibekulu, 2020). The selection of proper statistical tools and procedures for data analysis is crucial. Therefore, the study employed descriptive statistics, factor analysis, and multiple regression analysis using the Statistical Package for Social Sciences (SPSS) version 25 to extract and interpret relevant information from the collected data.

3.6 Reliability Analysis

Reliability is a measure of the internal consistency of a set of scale items. It also refers to the

extent to which a scale produces consistent results over time (Bhatti & Sundram, 2015). It is the degree to which a measuring instrument in a scale is consistent, error-free, and stable between items and overtime (Sekeran & Bougie, 2013). The Cronbachs alpha coefficient is the most used inter-item consistency reliability test, and it was used in this study to assess the internal consistency of all questionnaire items.

RESULTS AND DISCUSSIONS

This section discusses the findings of the study obtained from the data analysis as discussed in the methodology section. This section presents and discusses the descriptive analysis of the study. Table 2 indicates the descriptive statistics of the constructs. The result indicated that AISA which is the dependent variable has a mean of 4.35 with a standard deviation of 0.38. Among the independent variables, Perceived Usefulness (PU) has the highest mean score of 4.42, but it has the lowest standard deviation of 0.367. In addition, Perceived Ease of Use (PEOU) recorded a 4.40 mean and a standard deviation of 0.387. Perceived Cost recorded a mean of 4.30 and a standard deviation of 0.373. Lastly, Perceived Security has a mean of 4.33 and a standard deviation of 0.374.

Table 2 Mean and Standard Deviation of the Study Variables

Code	Variable	Number of Items	Mean	Std. Deviation
AISA	Accounting information System A sytesysdoption	5	4.35	.383
PU	Perceived Usefulness	5	4.42	.367
PEOU	Perceived Ease of Use	5	4.40	.387
PC	Perceived Cost	5	4.30	.373
PS	Perceived Security	5	4.33	.374

Source: Generated by the Researcher using SPSS Version 25

In addition, Cronbach's alpha coefficient is often used to assess the inter-item consistency of research instruments. Cronbach's alpha coefficient was used in this study to assess the items' internal consistency.

A set of items measuring the same variable often requires a higher Cronbach's alpha value. Most research recommended Cronbach's alpha of 0.70 or above; nevertheless, a value between 0.60 and 0.70 is acceptable (Sekeran & Bougie, 2013; Hair et al., 2010). According to Coakes and Ong (2011), Cronbach's alpha values of 0.5 and higher are considered acceptable.

Table 3. Summary of Reliability Test

Variable	No of Items	Cronbach's alpha
Accounting Info. System Adoption	5	.818
Perceived Usefulness	4	.760
Perceived Ease of Use	5	.756
Perceived Cost	5	.743
Perceived Security	5	.782

Source: Generated by the Researcher using SPSS Version 25

In Table 3, the summary of the reliability test for all the variables is presented, with values ranging from 0.743 to 0.814. These values exceed the minimum acceptable threshold of 0.5, indicating that the measures are reliable.

Therefore, the Cronbach's alpha coefficients obtained in this study demonstrate satisfactory internal consistency among the items on the research instrument.

Table 3 presents the internal consistency results for the latent variables, indicating a high level of internal consistency for the variable "Accounting Information System Adoption" with a Cronbach's alpha coefficient of 0.818. However, the variable "Perceived Cost" exhibits a slightly lower internal consistency with an alpha value of 0.743. As previously stated, the study will assess construct reliability using the rule of thumb. Based on this rule, all the items can still be considered suitable for analysis, despite the lower alpha value for "Perceived Usefulness."

Furthermore, correlation analysis was employed in this study using Person Correlation method to assess the strength and direction of the interrelationships among the research variables. Pallant (2013) stated that a correlation of 0 indicates the non-existence of a relationship in totality. On the other hand, a correlation of 1 indicates perfect and a positive association, while a correlation of -1 designates a perfect negative relationship. In addition, Cohen (1998) provides a working guideline for interpreting the computed correlation values that are in-between 0 and 1. He suggested that $r=0.10$ to 0.29 as small; $r=0.30$ to 0.49 as medium; $r=0.50$ to 1 as large. It is worthy to note that, for the purpose of interpretation, the range of values stated above comprises both positive and negative numbers.

The result of the correlation analysis of this study is presented in Table 4. The research variables were set to a two-tailed test at two different significance levels ($p<0.01$ and $p<0.05$). The result reveals that AISA correlates positively with PU and PEOU with correlation coefficients of 0.00388 and 0.00426, respectively. These show a moderate positive relationship and indicate that higher perceived usefulness and ease of use are associated with a greater likelihood of adopting the accounting information system.

Similarly, PC positively correlates with AISA, PU, and PEOU, with correlation coefficients of 0.00553, 0.00228, and 0.00494 respectively. These coefficients indicate a moderate positive relationship and imply that higher perceived costs may influence the adoption of the accounting information system, as well as the perceived usefulness and ease of use.

On the other hand, PS demonstrates relatively weaker correlations with the other constructs. It shows a positive correlation with AISA (0.00291), and very weak positive correlations with PU,

PEOU, and PC, ranging from 0.00141 to 0.00188. These coefficients suggest a weak positive relationship, indicating that perceived security may have some influence on the adoption of the accounting information system and related perceptions, although the associations are not as strong.

Therefore, the correlation matrix provides insights into the relationships between the independent constructs in the study. It indicates moderate positive correlations between AISA, PU, PEOU, and PC, suggesting interdependencies among these variables. The relationship with PS is comparatively weaker. Although the result of the analysis shows that there are positive and moderate levels of associations between the research variables, it also indicates that there is no significant multicollinearity issue since there is no coefficient with a value greater or equal to 0.90 (Hair et al., 2010).

Table 4: Pearson Correlation Matrix for Independent constructs

Code	Variable	AIS	PU	PEOU	PC
AISA	Accounting Info. Sys adoption	1			
PU	Perceived Usefulness	.388	1		
PEOU	Perceived Ease of Use	.426	.264	1	
PC	Perceived Cost	.553	.228	.494	1
PS	Perceived Security	.291	.141	.167	.188

Source: Generated by the Researcher using SPSS Version

Accordingly, multiple regression analysis was performed in this study to examine the relationship between the predictor variables and the outcome variable. Table 4 presents the results. The result expressed the regression equation with predictors that are significant with the following results: $R = 0.647$, $R^2 = 0.419$, Adj. $R^2 = 0.413$, and $F\text{-Change} = 67.121$. The correlation coefficient found between the criterion variable (AISA) and the four predictors (PU, PEOU, PC, and PS) is 0.647, indicating that the predictors accounted for 64.7 per cent of the variance in AIS adoption among SMEs. Cohen's (1988) classification classifies the R^2 value in the regression result as significant if it is 0.26 or higher.

Furthermore, the generalizability of this model to another sample from the same population is applicable, as the adjusted R^2 only slightly decreased from 0.419 to 0.413, representing a decrease of approximately 0.006 (1.4%). In addition, the significance of the F-test (67.121, $p < 0.005$) confirms the overall prediction of the independent variables on the dependent variable, indicating a linear relationship between the predictor variables and the outcome variable.

To assess the regression model more specifically, the contribution of each predictor to the dependent variable was examined. Table 5 reveals that PC is the strongest predictor ($\beta = 0.401$, $t = 8.696$), followed by PU ($\beta = 0.238$, $t = 5.746$), PS ($\beta = 0.159$, $t = 3.927$), and PEOU ($\beta = 0.138$, $t = 2.987$). All four predictors have a significant influence on the dependent variable in line with the directional hypotheses of this study. Therefore, these results imply that PU, PEOU, PC, and PS are factors that determine and influence the adoption of AIS in Nigeria, confirming the acceptance of hypotheses H1, H2, H3, and H4.

Table 5: Multiple Regression Result between Perceived Usefulness, Perceived Ease of Use, Perceived Cost, Perceived Security and Accounting Information Adoption

Unstandardized Coefficients			Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.182	.271		.670	.503	
	PU	.248	.043	.238	5.746	.000	.911
	PEOU	.137	.046	.138	2.987	.003	.728
	PC	.411	.047	.401	8.696	.000	.736
	PS	.163	.042	.159	3.927	.000	.950
R	R2	Adj. R2	R2 change		F		Sig
0.647	.419	.413	.419		67.121		.000

Dependent variable: Accounting Information Adoption

DISCUSSION OF THE RESEARCH FINDINGS

The findings of IS studies agree with the result of this study which indicated a significant relation between PU and AISA. For instance, the result of a study that investigates the determinants of the adoption of cloud-based accounting information systems by small and medium-sized enterprises by [Alshahrani \(2021\)](#) found that PU had a significant positive effect on the intention to adopt cloud-based AIS among small and medium-sized enterprises in Saudi Arabia. Also, a study by [Trawnih et al. \(2021\)](#) found that PU has a positive and significant influence on Social Media Adoption Among SMEs During the COVID-19 crisis. This study is also consistent with the findings of [Chen & Aklikokou \(2020\)](#) which confirmed the significant influence of PU on the intention to adopt E-government.

Moreover, the result revealed that PEOU significantly influences the user's attitude toward adopting accounting information systems. Therefore, finding is consistent with the study by [Putu, Nyoman, Yasa, and Devi, \(2019\)](#) Also, the result is in line with the findings of [Tilahun \(2019\)](#) who discovered PEOU has a positive and significant influence on AIS Adoption by Hospitals in Addis Ababa, Ethiopia. Another study by [Qi and Ismail \(2019\)](#) found that Perceived ease of use has a significant influence on SMEs' behavioral intention to adopt. The result of this study is also in line with the findings of most past research in e-learning. For instance, the work of [Terzis and Economides \(2011\)](#) established that PEOU has a positive and significant influence on students' intention to adopt a computer-based assessment system (CBA). Similarly, the findings of [Cigdem and Ozturk \(2016\)](#) agreed that PEOU is an influential factor in determining students' CI in e-learning.

Furthermore, the result from the multiple regression analysis shows that PC has a strong and significant influence on AIS. the finding is aligned with numerous past studies examining the influence of perceived cost on accounting information system adoption. For instance, this study's result is consistent with the findings of [Ali Abbasi et al. \(2022\)](#) which indicates a significant negative relationship between PC and intention to adopt social media marketing. Similarly, the findings of [Maduku et al. \(2016\)](#) reported that PC significantly negatively impacts SMEs' mobile marketing adoption intention. In the same vein, the findings of [Lema \(2017\)](#) reveals that PC on mobile financial services has a negative and significant effect on the adoption of mobile financial services.

Similarly, the result shows that PS is also a significant factor that influences AISA. The finding is in line with some past studies that investigated the influence of Perceived security on AISA. For instance, [Arpaci et al. \(2015\)](#) have found PS to have a significant impact on the organizational adoption of the smartphone. This agrees with the findings [Johnson et al. \(2020\)](#) which established that PS has a strong influence on the intention to use mobile phone technology. Similarly, [Arpaci et al. \(2015\)](#) in their study on the educational use of cloud-based services found that security concerns have a direct influence on consumer attitudes which in turn affect their intention to adopt a particular technology. [Akinwale and Kyari \(2020\)](#) examined factors that influence FinTech adoption in Nigeria and concluded that perceived security (safety of mobile transactions) was a strong determinant of user attitude and behavioral

intention.

SUMMARY OF HYPOTHESES TESTING

Table 4.5 Summary of Hypotheses Testing

Hypothesis	Proposed Statement	Hypothesis Test Findings	Decision
H1	Perceived usefulness significantly influences accounting information System adoption among SMEs in Nigeria	The finding of this study indicated that PU significantly influences accounting information System adoption among SMEs in Nigeria	Supported
H2	Perceived ease of use significantly influences accounting information System adoption among SMEs in Nigeria	The finding of this study indicated that PEOU significantly influences accounting information System adoption among SMEs in Nigeria	Supported
H3	Perceived cost significantly influences accounting information System adoption among SMEs in Nigeria	The finding of this study indicated that PC significantly influences accounting information System adoption among SMEs in Nigeria	Supported
H4	Perceived security significantly accounting information System adoption among SMEs in Nigeria	The finding of this study indicated that PS significantly influences accounting information System adoption among SMEs in Nigeria	Supported

RESEARCH IMPLICATIONS AND CONTRIBUTIONS

This study extends the Technology Acceptance Model (TAM) to include perceived security and perceived cost, providing a more comprehensive framework for understanding the adoption of accounting information systems (AIS) among SMEs in Nigeria. The findings reveal that PU, PEOU, and PS are positive factors that encourage AIS adoption among SMEs in Nigeria, while PC has a negative significant influence. The study also finds that PC negatively influences AIS adoption among SMEs in Nigeria, as they find the cost of AIS adoption high, which is a barrier to adoption. To encourage increased adoption of AIS among SMEs in Nigeria, financial support through government grants or incentives is necessary. Accurate record keeping is a challenge faced by SMEs, leading to many businesses shutting down due to poor record keeping. AIS helps reduce these issues and improve overall performance. The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) will find this study useful, as it will aid them in ensuring that SMEs in Nigeria have a better understanding of AIS and move toward adopting it. The theoretical contributions

of this study include the extension of the TAM by incorporating PC and PS, empirical validation of the significant role of PC and PS as predictors influencing AISA, and contextual validation of the extended TAM among SMEs as a test for its applicability in other business organizations. In conclusion, this study contributes significantly to the literature on AIS adoption among SMEs in Nigeria by incorporating perceived security and perceived cost into the TAM model.

THEORETICAL CONTRIBUTIONS

1. The Extension of the Technology Acceptance Model (TAM) by incorporate PC and PS has enhanced the model by increasing its explanatory power.
2. The empirical validation of the significant role of PC and PS as a predictor that influences AISA has added to the body of knowledge in IS studies.
3. The contextual validation of the extended Technology Acceptance Model (TAM) among SMEs as a test for its applicability in other business organizations

PRACTICAL CONTRIBUTIONS

1. The study findings contribute significantly to the existing body of knowledge by providing empirical evidence on the factors influencing the adoption AIS among SMEs in Nigeria. This was achieved through the integration of TRA and TAM. The integration help in the development and application of a framework that provides a clear understanding on the determinants of AIS adoption among SMEs in Nigeria.
2. The findings of this study contribute significantly to knowledge particularly in the field of AIS by providing empirical evidence of the factors influencing accounting information system adoption among SMEs in Nigeria using a validated measurement technique that integrates TRA and TAM theories. These were obtained through quantitative data collection and analysis, using structured questionnaires administered to SME operators across Bauchi metropolitan.
3. Lastly, the findings enrich our understanding of how SME owners consider different factors that would encourage or stop them from adopting AIS in their businesses. This was achieved by analyzing the relationship among variables derived from TRA and TAM, providing insight between behavioral intention and actual use and within AIS adoption context.

5.4 RECOMMENDATIONS

Based on the findings of this study here are some recommendations for both the developers AIS and its intended users among SMEs:

1. Developers of AIS should consider offering customization options to enable SMEs to tailor the system to their specific needs. This can include the ability to add or remove features, as well as the ability to customize reports. while SMEs should provide feedback to the developers on the AIS, including any issues or suggestions for improvements. This can help the developers to improve the system and make it more useful for SMEs.
2. Accounting information system developers should ensure a user-friendly interface on their product. The system should be easy to navigate and understand, as well as visually

appealing, to encourage ease of use. While SMEs should ensure that their employees receive adequate training on how to use the AIS.

3. Developers should consider making the AIS cost-effective by offering flexible pricing to appeal to SMEs with low budgets. SMEs should conduct a cost-benefit analysis to determine whether the benefits of adopting an AIS outweigh the costs. This can help SMEs make an informed decision on whether to adopt an AIS.

4. Security mechanisms in the AIS should be given top priority by developers to protect sensitive financial data. On the other hand, SMEs owners and managers should place a high priority on security awareness among their employees through training to guarantee the security of sensitive financial information.

5. AIS suppliers should improve these factors by adding more useful and user-friendly features and implementing strong security measures, such as data encryption and access controls.

LIMITATION OF THE STUDY AND FRONTIER FOR FUTURE RESEARCH

Firstly, this Study is not without its limitations as the sample was limited to SMEs operating in Bauchi state, which is one state out of 36 in the country. Therefore, it may not sufficiently reflect the geographic and cultural diversity of the entire population regarding Accounting Information System adoption in Nigeria. Although numerous research on technology adoption focused on zone-based state respondents (Miraz & Habib, 2016). Therefore, it is recommended that the studied model to be tested in other region of the country to identify the influence of PU, PEOU, PC and PS on AIS adoption among SMEs in Nigeria.

Second, the study used quantitative techniques and a cross-sectional research design. As a result, the study's conclusions were produced by inferential analysis. The study suggests that future research be conducted using a longitudinal research design approach to provide more direct evidence of the effects of perceived usefulness, perceived ease of use, perceived cost and perceived security on adoption among SMEs in Nigeria.

Thirdly, all the four-independent variables of this study only focus on individual perception and behavioral intention while ignoring other critical factors such as organizational, social and environmental that will influence decision-making process for Accounting Information System adoption among SMEs. In this regard, future studies should concentrate on other factors as Organizational Readiness, Competitive Pressure and societal influence.

CONCLUSION

The aim of this research work was to examine the Determinants of Accounting Information System adoption among SMEs in Nigeria by adopting and extending the Technology Acceptance Model (TAM). Theoretically, the study extended the model with two independent variables namely perceived cost and perceived security to empirically validate the extension. Practically, in addition to the PU and PEOU from the original TAM model, this study has identified two more relevant factors that influence AIS adoption among SMEs in Nigeria. This would considerably assist AIS developers to see cost and security factors as other essential components in AIS adoption so that they may improve the security of their product as well as offering affordable low product's price in order to increase the market penetration.

REFERENCES

- Abbasi, A. G., Abdul Rahim, N. F., Wu, H., Iranmanesh, M., & Keong, B. N. C. (2022). Determinants of SME's Social Media Marketing Adoption: Competitive Industry as a Moderator. *SAGE Open*, 12(1). [\[Crossref\]](#)
- Abbasi, M. S., Shah, F., Doudpota, S. M., Channa, N., & Kandhro, S. (2013). Theories and Models of Technology Acceptance Behaviour: A Critical Review of Literature. *Sindh University Research Journal (Science Series)*, 45(1), 163–170.
- Abdelraheem, A. A. E., Hussaien, A. M., Mohammed, M. A. A., & Elbokhari, Y. A. E. (2021). The effect of information technology on the quality of accounting information. *Accounting*, 7(1), 191–196. [\[Crossref\]](#)
- Abdulle, A. S., Zainol, Z., & Ahmad, H. (2019). Impact Of Computerized Accounting Information System On Small And Medium Enterprises In Mogadishu , Somalia : The Balance Scorecard Perspectives. *International Journal of Engineering and Advanced Technology*, 5, 159–165. [\[Crossref\]](#)
- Adebayo, S. O., Balogun, J. O., & Kareem, S. (2013). An Investigative Study Of The Factors Affecting The Adoption Of Information And Communication Technology In Small And Medium Scale Enterprises In Oyo State, Nigeria. *International Journal of Business and Management Invention ISSN*, 2, 13–18. www.ijpsi.org
- Adeniran, T., Akanbi, R. & Adenike, T. (2023). Tax Evasion and Avoidance Eradication: The Role and Effect of Accounting Information System. In *ACU Journal of Social and Management Sciences AJSAMS* (Vol. 4).
- Adeyemo, T. (2021). *A Study of Challenges of ICT Adoption by Small and Medium Scale Enterprises (SMEs) In Ibadan Metropolis, Nigeria*. National College of Ireland.
- Ahnan, Z. M. (2021). Effects of Taxpayer Behavior Moderation on Taxes Reporting Systems. *Daerah Khusus Ibukota Jakarta*, 5(7), 312–320. [\[Crossref\]](#)
- Ajala, M. O. O., & Adegbe, F. F. (2020a). Effects of information technology on effective tax assessment in Nigeria. *Journal of Accounting and Taxation*, 12(4), 126–134. [\[Crossref\]](#)
- Ajala, M. O. O., & Adegbe, F. F. (2020b). Effects of information technology on effective tax assessment in Nigeria. *Journal of Accounting and Taxation*, 12(4), 126–134. [\[Crossref\]](#)
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [\[Crossref\]](#)
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Akinwale, Y. O., & Kyari, A. K. (2022). Factors influencing attitudes and intention to adopt financial technology services among the end-users in Lagos State, Nigeria. *African Journal of Science, Technology, Innovation and Development*, 14(1), 272–279. [\[Crossref\]](#)
- Al-Attar, K. A. A. (2021). The effect of accounting information system on corporate governance. *Accounting*, 7(1), 99–110. [\[Crossref\]](#)
- Al-Delawi, A. S., & Ramo, W. M. (2020). The impact of accounting information system on performance management. *Polish Journal of Management Studies*, 21(2), 36–48. [\[Crossref\]](#)
- Al-dmour, A., Al-dmour, R., & Masa, ed. (2016). Interrelated Factors Influencing the Adoption Decision of AIS Applications by SMEs in Jordan. *International Business Research*, 9(10). [\[Crossref\]](#)
- Alexandrou, A., & Chen, L. C. (2019). A security risk perception model for the adoption of mobile devices in the healthcare industry. *Security Journal*, 32(4), 410–434. [\[Crossref\]](#)

- Ali, A. B. J., & Abu-AlSondos, I. A. (2020). Article ID: IJM_11_06_021 Comprehensive Review of the Banking Sectors. *International Journal of Management (IJM)*, 11(6), 221–234. [\[Crossref\]](#)
- Almgrashi, A. (2020). Determinants of computerised accounting information system adoption using an integrated environmental perspective: An Empirical Study. *2020 IEEE Asia-Pacific Conference on Computer Science and Data Engineering, CSDE 2020*. [\[Crossref\]](#)
- Al-Okaily, A., Al-Okaily, M., Shiyyab, F., & Masadah, W. (2020). Accounting information system effectiveness from an organizational perspective. *Management Science Letters*, 10(16), 3991–4000. [\[Crossref\]](#)
- Al-Okaily, M. (2024). Assessing the effectiveness of accounting information systems in the era of COVID-19 pandemic. *VINE Journal of Information and Knowledge Management Systems*, 54(1), 157–175. [\[Crossref\]](#)
- Alshahrani, A. (2021). Adoption of cloud computing by small and medium enterprises in Saudi Arabia. *International Journal of Contemporary Management and Information Technology*, 1(1), 1–10. Retrieved from [\[Link\]](#)
- Anjum, A. (2018). Impact of Technology Adoption on the Performance of Small and Medium Enterprises in India. *The Journal of Social Sciences Research ISSN*, 857–867. [\[Crossref\]](#)
- Arpaci, I., Kilicer, K., & Bardakci, S. (2015). Effects of security and privacy concerns on educational use of cloud services. *Computers in Human Behavior*, 45, 93–98. [\[Crossref\]](#)
- Arpaci, I., Yardimci, C. Y., & Turetken, O. (2015). Impact of Perceived Security on Organizational Adoption of Smartphones. *Cyberpsychology, Behavior, and Social Networking*, 18(10), 602–608. [\[Crossref\]](#)
- Basel J, A. A., & Ibrahim A, A.-A. (2020). Operational Efficiency and the Adoption of Accounting Information System: A Comprehensive Review of the Banking Sectors. *International Journal of Management (IJM)*, 11(6), 221–234. [\[Crossref\]](#)
- Bello, O., & Olanrewaju, O. (2022). Factors influencing biometric technology adoption: Empirical evidence from Nigeria. *African Journal of Science, Technology, Innovation and Development*, 14(2), 392–404. [\[Crossref\]](#)
- Bhatti, A., Khan, J., Murki, S., Sundaram, V., Saini, S. S., & Kumar, P. (2015). Nasal Jet-CPAP (variable flow) versus Bubble-CPAP in preterm infants with respiratory distress: An open label, randomized controlled trial. *Journal of Perinatology*, 35(11), 935–940.
- Buba, A. K., Ibrahim, O., & Shehzad, H. M. F. (2022). Behavioral intention model for green information technology adoption in Nigerian manufacturing industries. *Aslib Journal of Information Management*, 74(1), 158–180. [\[Crossref\]](#)
- Buntin, M. B., Burke, M. F., Hoaglin, M. C., & Blumenthal, D. (2011). The benefits of health information technology: A review of the recent literature shows predominantly positive results. *Health Affairs*, 30(3), 464–471. [\[Crossref\]](#)
- Camp, W. G. (2001). Formulating and Evaluating Theoretical Frameworks for Career and Technical Education Research. *Journal of Vocational Education Research*, 26(1), 4–25. [\[Crossref\]](#)
- Chatterjee, I., & Chakraborty, P. (2021). Use of Information Communication Technology by Medical Educators Amid COVID-19 Pandemic and Beyond. *Journal of Educational Technology Systems*, 49(3), 310–324. [\[Crossref\]](#)

- Chen, L., & Aklikokou, A. K. (2020). Determinants of E-government Adoption: Testing the Mediating Effects of Perceived Usefulness and Perceived Ease of Use. *International Journal of Public Administration*, 43(10), 850–865. [\[Crossref\]](#)
- Cigdem, H., & Ozturk, M. (2016). Critical components of online learning readiness and their relationships with learner achievement. *Turkish Online Journal of Distance Education*, 17(2), 98–109. [\[Crossref\]](#)
- Coakes, S. J., & Ong, C. (2011). *SPSS: Analysis without anguish: Version 18.0 for Windows*. Milton, QLD: John Wiley & Sons Australia. [\[Link\]](#)
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences Second Edition* (2nd Edition). Lawrence Erlbaum Associates, Publishers.
- Creswell, W. J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications, Inc.
- Dabor, A., Aggreh, M., & Aneru, M. (2019). Adoption of computerized accounting system by SMEs in Benin City. *International Academic Journal of Economics*, 6(1), 123–140. International Academic Institute for Science and Technology. [\[Link\]](#)
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, 13(3), 319–339. [\[Crossref\]](#)
- Dibekulu, D. (2020). *An overview of data analysis and interpretations in research* [Unpublished manuscript]. International Journal of Academic Research in Education and Review.
- Dixon, J., Gulliver. A. and Gibbon, D. (2001) Farming Systems and Poverty Improving Farmers' Livelihoods in a Changing World. *Experimental Agriculture*, 39, 109-110.
- Eno, N. G., Peter, K., Kamau, D., & Ombui, K. (2018). Effects of Computerized Accounting System on the Performance of Small Medium Enterprises: a Case of Business Community in Bomet County. *International Journal of Management and Commerce Innovations*, 6(1), 839–852.
- Fahlevi, M., & Alharbi, N. S. (2021). International Journal of Data and Network Science Adoption of e-payment system to support health social security agency. *Canada. International Journal of Data and Network Science*, 5, 737–744. [\[Crossref\]](#)
- Faiz, F., Le, V., & Masli, E. K. (2024). Determinants of digital technology adoption in innovative SMEs. *Journal of Innovation & Knowledge*, 9(4), 100610. [\[Crossref\]](#)
- Fishbein, M., & Ajzen, I. (1975). Strategies of Change: Active Participation. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, 411–450. [\[Link\]](#)
- Gangwar, H., Date, H., & Ramaswamy, R. (2015). Developing a Cloud-Computing Adoption Framework. *Global Business Review*, 16(4), 632–651. [\[Crossref\]](#)
- Gbadebo, S. M., Rushami, Z. Y., & Sany Sanuri Mohd Mokhta. (2015). The Impact of Perceived Security on E-Trust, E-Satisfaction and Adoption of Electronic Banking in Nigeria: A Conceptual Review. *IOSR Journal of Business and Management (IOSR-JBM)*, 17(10), 64–69. [\[Crossref\]](#)
- Gherghina, S. C., Botezatu, M. A., Hosszu, A., & Simionescu, L. N. (2020). Small and medium-sized enterprises (SMEs): The engine of economic growth through investments and innovation. *Sustainability (Switzerland)*, 12(1). [\[Crossref\]](#)
- Gyamera, E., Abayaawien Atuilik, W., Eklemet, I., Adu-Twumwaah, D., Baba Issah, A., Alexander Tetteh, L., & Gagakuma, L. (2023). Examining the effect of financial accounting services on the financial performance of SME: The function of information technology as a moderator. *Cogent Business and Management*, 10(2). [\[Crossref\]](#)
- Hair, J. F. (2011). Multivariate Data Analysis: An Overview. *International Encyclopedia of*

- Statistical Science, 904–907. [\[Crossref\]](#)
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate Data Analysis. In *Pearson Education, Inc.* (7th ed.). Pearson education.
- Hair, J. F., Celsi, M. W., Money, A. H., Samouel, P., & Page, M. J. (2015). *Essentials of business research methods* (2nd ed.). Taylor and Francis. [\[Crossref\]](#)
- Hair, J. F., Celsi, M. W., Money, A. H., Samouel, P., & Page, M. J. (2015). Essentials of Business Research Methods, Second Edition. In *Essentials of Business Research Methods, Second Edition*. Taylor and Francis. [\[Crossref\]](#)
- Hameed, M. A., Counsell, S., & Swift, S. (2012). A conceptual model for the process of IT innovation adoption in organizations. *Journal of Engineering and Technology Management*, 29(3), 358–390. [\[Crossref\]](#)
- Hamundu, F. M., Heikal, H. M., & Baharudin, S. A. (2021). Accounting Information System Adoption Among Indonesian MSMEs: A Conceptual Model for Cloud Computing. *Journal of Engineering Science and Technology*, 16(6).
- Hamzah, A., & Yuit, C. K. (2023, March). Singapore and Malaysia Users of Nets, DuitNow Can Now Pay with New QR Code Link. The Straits Times. [\[Link\]](#)
- Harash, E. (2017). Accounting performance of SMEs and effect of of accounting information system: A conceptual model. *Global Journal of Management and Business Research (D)*, 17(3), 21–26.
- Harfoushi, O., & Obiedat, R. (2011). E-training acceptance factors in business organizations. *International Journal of Emerging Technologies in Learning*, 6(2), 15–18. [\[Crossref\]](#)
- Hyder, M., Saand, A. S., Alzabi, T., Lashari, H. N., Rind, M. M., Saand, A. S., Nawaz, H., & Ujan, I. (2017). Impact Investigation of Perceived Cost and Perceived Risk in Mobile Commerce: Analytical Study of Pakistan. In *IJCSNS International Journal of Computer Science and Network Security* (Vol. 17, Issue 11). [\[Link\]](#)
- Ibrahim, F., Ali, D. N. H., & Besar, N. S. A. (2020a). Accounting information systems (AIS) in SMEs: Towards an integrated framework. *International Journal of Asian Business and Information Management*, 11(2), 51–67. [\[Crossref\]](#)
- Ibrahim, F., Ali, D. N. H., & Besar, N. S. A. (2020b). Accounting information systems (AIS) in SMEs: Towards an integrated framework. *International Journal of Asian Business and Information Management*, 11(2), 51–67. [\[Crossref\]](#)
- Ibrahim, M. U., & Kasim, N. B. (2017). Factors Influencing Information Technology Adoption among SME Using Theory of Planned Behaviour. *The International Journal Of Science & Technoledge (ISSN 2321 – 919X)*, 5(8). www.theijst.com
- Igbaekemen, O. G. (2020). The impact of information communication technology on small and medium scale enterprises in Nigeria. *European Journal of Computer Science and Information Technology*, 8(2), 23–37.
- Ilias, A., & Zainudin, N. N. B. (2013). Journal of Internet Banking and Commerce Factor Affecting the Computerised Accounting System (CAS) Usage in Public Sector. *Journal of Internet Banking and Commerce*, 18(1).
- Irefin, I. A., Abdul-Azeez, I. A., & Tijani, A. A. (2012). An investigative study of the factors affecting the adoption of information and communication technology in small and medium-scale enterprises in Nigeria. *Australian Journal of Business and Management Research*, 2(02), 1–09.
- Islami, M. M., Asdar, M., & Baumassepe, A. N. (2021). Analysis of Perceived Usefulness and Perceived Ease of Use to the Actual System Usage through Attitude Using Online Guidance Application. *Hasanuddin Journal of Business Strategy*, 3(1), 52–64. [\[Crossref\]](#)

- Ismail, N. A., & King, M. (2005). Firm performance and AIS alignment in Malaysian SMEs. *International Journal of Accounting Information Systems*, 6(4), 241–259. [\[Crossref\]](#)
- Johnson, V. L., Woolridge, R. W., Wang, W., & Bell, J. R. (2020). The Impact of Perceived Privacy, Accuracy and Security on the Adoption of Mobile Self-Checkout Systems. *Journal of Innovation Economics & Management*, n°31(1), 221. [\[Crossref\]](#)
- Kabir, A. M., Siti, Z. S., & Ahmi, A. (2017). An Examination of Factors that Influence Employees' Behavioral Intention to Use Electronic Revenue Collection System in Public Hospitals. *Journal of Telecommunication, Electronic and Computer Engineering*, 9, 2–11.
- Kalumendo, R. (2023). An Integrative Literature Review on Technology Adoption by African SMEs. *Texila International Journal of Academic Research*, 1–6. [\[Crossref\]](#)
- Khalid, B., & Kot, M. (2021). The Impact of Accounting Information Systems on Performance Management in the Banking Sector. *IBIMA Business Review*, 2021, 1947–3788. [\[Crossref\]](#)
- Kothari, C. R. (2004). *Research Methodology Methods and Techniques (Second Revised Edition)* (2nd ed.). New Age International (P) Ltd.
- Krosnick, J. A., & Fabrigar, L. R. (1997). Designing rating scales for effective measurement in surveys. *Survey Measurement and Process Quality*, 141–164. [\[Crossref\]](#)
- Lema, A. (2017). Factors influencing the adoption of mobile financial services in the unbanked population. *Inkanyiso: Journal of Humanities and Social Sciences*, 9, 1–15.
- Liehr, P., & Smith, M. J. (1999). Middle range theory: Spinning research and practice to create knowledge for the new millennium. *Advances in Nursing Science*, 21(4), 81–91. [\[Crossref\]](#)
- Lutfi, A., Al-Khasawneh, A. L., Almaiah, M. A., Alsayouf, A., & Alrawad, M. (2022). Business Sustainability of Small and Medium Enterprises during the COVID-19 Pandemic: The Role of AIS Implementation. *Sustainability (Switzerland)*, 14(9). [\[Crossref\]](#)
- Lutfi, A., Al-Khasawneh, A. L., Almaiah, M. A., Alsayouf, A., & Alrawad, M. (2022). Business Sustainability of Small and Medium Enterprises during the COVID-19 Pandemic: The Role of AIS Implementation. *Sustainability (Switzerland)*, 14(9). [\[Crossref\]](#)
- Lutfi, A., Al-Okaily, M., Alsayouf, A., Alsaad, A., & Taamneh, A. (2020a). The Impact of AIS Usage on AIS Effectiveness Among Jordanian SMEs: A Multi-group Analysis of the Role of Firm Size. *Global Business Review*. [\[Crossref\]](#)
- Lutfi, A., Al-Okaily, M., Alsayouf, A., Alsaad, A., & Taamneh, A. (2020b). The Impact of AIS Usage on AIS Effectiveness Among Jordanian SMEs: A Multi-group Analysis of the Role of Firm Size. *Global Business Review*. [\[Crossref\]](#)
- Lutfi, A., Idris, K. M., Mohamad, R., & Lutfi, A. A. (2016). The Influence of Technological, Organizational and Environmental Factors on Accounting Information System Usage among Jordanian Small and Medium-sized Enterprises Healthcare information systems View project Natural and Technical sciences. *International Journal of Economics and Financial Issues*, 6(S7), 11–13. <http://www.econjournals.com>
- Maditinos, D., Chatzoudes, D., & Sarigiannidis, L. (2013). An examination of the critical factors affecting consumer acceptance of online banking: A focus on the dimensions of risk. *Journal of Systems and Information Technology*, 15(1), 97–116. [\[Crossref\]](#)

- Maduku, D. K., Mpinganjira, M., & Duh, H. (2016). Understanding mobile marketing adoption intention by South African SMEs: A multi-perspective framework. *International Journal of Information Management*, 36(5), 711–723. [\[Crossref\]](#)
- Mahama, F., & Dahlan, M. H. (2022). Factors Influencing Accounting Information System Adoption in Small and Medium-Sized Enterprises: A Case Study of Northern Ghana. *International Journal of Academic Research in Business and Social Sciences*, 12(4). [\[Crossref\]](#)
- Mallat, N. (2007). Exploring consumer adoption of mobile payments – A qualitative study. *The Journal of Strategic Information Systems*, 16(4), 413–432. [\[Crossref\]](#)
- Mallya, J., & Lakshminarayanan, S. (2017). Factors influencing usage of internet for academic purposes using technology acceptance model. *DESIDOC Journal of Library and Information Technology*, 37(2), 119–124. [\[Crossref\]](#)
- Merhi, M., Hone, K., & Tarhini, A. (2019). A cross-cultural study of the intention to use mobile banking between Lebanese and British consumers: Extending UTAUT2 with security, privacy and trust. *Technology in Society*, 59. [\[Crossref\]](#)
- Minovski, Z., Malchev, B., & Tocev, T. (2020). New paradigm in accounting information systems-the role of the latest information technology. *Economic and Business Trends Shaping the Future*. [\[Crossref\]](#)
- Miraz, M. H., & Habib, Md. M. (2016). ICT Adoption in Small and Medium Enterprises: An Empirical Evidence of Service Sectors in Bangladesh. *Journal of Economics, Business and Management*, 4(8), 482–485. [\[Crossref\]](#)
- Mohammed, f., & dabor, a. o. (2016). fairness perception and compliance behaviour of salaried taxpayers in nigeria. *arabian journal of business and management review (kuwait chapter)*, 5(5), 1–15. [\[Link\]](#)
- Monteiro, A., & Cepêda, C. (2021). Accounting information systems: Scientific production and trends in research. *Systems*, 9(3). [\[Crossref\]](#)
- Mukoka, S., Chibhoyi, D., & Machaka, T. (2020). Research Approaches and Sampling Methods Paradox: The Beginning of Marginal Thinking in Research Methodology. *Danubius Working Papers*, 2(1), 33. [\[Link\]](#)
- Neuman, W. L., & Robson, K. (2012). *Basics of Social Research: Qualitative and Quantitative Approaches* (3rd Edition). Pearson Education, Inc. www.pearsoncanada.ca
- Nguyen, H. T., & Nguyen, A. H. (2019). Determinants of accounting information systems quality: Empirical evidence from Vietnam. *International Journal of Data and Network Science*, 185–198. [\[Crossref\]](#)
- Nigerian Association of Small-Scale Industrialists Bauchi State Chapter. (2023). *Survey report on SMEs operating in Bauchi*.
- Nkemjika, O. M., Nwamaka, O. C., Aruoriwo, O. G., & Temitope, M. (2025). International Journal of Research Publication and Reviews Adoption of Computerized Accounting System by SMEs: A Theoretical Approach. *International Journal of Research Publication and Reviews*, 6. www.ijrpr.com
- Nobert, O., David, N., & Robert, O. O. (2020). The challenges affecting tax collection in Nigerian informal economy: Case study of Anambra State. *Journal of Accounting and Taxation*, 12(2), 61–74. [\[Crossref\]](#)

- Noor Ardiansah, M., Chariri, A., Rahardja, S., & Udin. (2020). The effect of electronic payments security on e-commerce consumer perception: An extended model of technology acceptance. *Management Science Letters*, 10(7), 1473–1480. [\[Crossref\]](#)
- Nwokoye, E. S., Oyim, A., & Dimnwobi, S. K. (2019). Socioeconomic Determinants of Information and Communication Technology Adoption Among Rice Farmers In Ebonyi State, Nigeria. *Nigerian Journal of Economic and Social Studies*, 61(3), 367–396. [\[Link\]](#)
- Nworie, G. O., Okafor, T. G., & Racheal, C. (2023). Firm-level traits and the adoption of computerised accounting information system among listed manufacturing firms in Nigeria. *Journal of Global Accounting*, 128–148. [\[Link\]](#)
- OECD. (2017). *Enhancing the contributions of SMEs in a global and digitalised economy*. Meeting of the OECD Council at Ministerial Level.
- Okon, E. E., Otuza, C. E., & Dada, S. O. (2021). Effect Of Human Resource In Accounting Information System On Management Decision-Making In Seventh-Day Adventist Institutions In Eastern Nigeria. *Advances in Social Sciences Research Journal*, 8(6), 117–129. [\[Crossref\]](#)
- Olatokun, W., & Bankole, B. (2011). Factors Influencing Electronic Business Technologies Adoption and Use by Small and Medium Scale Enterprises (SMES) in a Nigerian Municipality. *The Journal of Internet Banking and Commerce*, 16(3), 1–26. [\[Link\]](#)
- Olufemi, O. O., Festus, F. A., & Adekunle, M. A. (2021). Accounting Software in Computerized Business Environment and Quality of Corporate Reporting. *Journal of Finance and Accounting*, 9(3), 101. [\[Crossref\]](#)
- Oyerinde, A. A. (2014). Corporate governance and bank performance in Nigeria: Further evidence from Nigeria. *International Journal of Business and Management*, 9, 133-139.
- Pallant, J. F. (2007). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows* (3rd ed.).
- Peshkin, A. (1993). The Goodness of Qualitative Research. *Educational Researcher*, 22(2), 23–29. [\[Crossref\]](#)
- Peter, E. K., Kamau, D., & Ombui, K. (2018). Effects of Computerized Accounting System on The Performance of Small Medium Enterprises: A Case of Business Community in Bomet County. *International Journal of Management and Commerce Innovations*, 6, 839–852.
- Pritzker, B. M. (1990). *A Native American encyclopedia: History, culture, and peoples*. Oxford University Press.
- Putu, I., Nyoman, J. I., Yasa, P., & Devi, S. (2019). The Analysis of Technology Acceptance Model (TAM) on The Use of Accounting Information System.
- Qi, L. Z., & Ismail, S. (2019). Factors influencing small and medium enterprises' behavior and intention to adopt accounting information system (ais) based Information Technology (IT). *ACM International Conference Proceeding Series*, 93–96. [\[Crossref\]](#)
- Rahi, S., & Ghani, M. A. (2018). The role of UTAUT, DOI, perceived technology security and game elements in internet banking adoption. *World Journal of Science, Technology and Sustainable Development*, 15(4), 338–356. [\[Crossref\]](#)
- Roffia, P., & Dabić, M. (2024). The role of management control and integrated information systems for the resilience of SMEs. *Review of Managerial Science*, 18(5), 1353–1375. [\[Crossref\]](#)

- Sam, M. F. M., Hoshino, Y., & Hayati, T. Md. N. (2012). The Adoption of Computerized Accounting System in Small Medium Enterprises in Melaka, Malaysia. *International Journal of Business and Management*, 7(18). [\[Crossref\]](#)
- Saxena, A. (2020). The growing role of artificial intelligence in human resource. *EPRA International Journal of Multidisciplinary Research (IJMR)-Peer Reviewed Journal*, 8. [\[Crossref\]](#)
- Sekaran, U., & Bougie, R. (2013). *Research methods for business: A skill-building approach* (6th ed.) [Paperback, 436 pp.]. Wiley. ISBN 978-1-119-94225-2 or 9781119942252.
- Seyal, A. H., & Rahim, Md. M. (2006). A Preliminary Investigation of Electronic Data Interchange Adoption in Bruneian Small Business Organizations. *The Electronic Journal of Information Systems in Developing Countries*, 24(1), 1–21. [\[Crossref\]](#)
- Shagari, S. L., Abdullah, A., & Mat Saat, R. (2018). A Proposed Model on the Impact of Internal Control Quality on Accounting Information System Effectiveness in Nigeria. *Social and Management Research Journal*, 15(2), 80. [\[Crossref\]](#)
- Shahadat, M. M. H., Nekmahmud, M., Ebrahimi, P., & Fekete-Farkas, M. (2023). Digital Technology Adoption in SMEs: What Technological, Environmental and Organizational Factors Influence SMEs' ICT Adoption in Emerging Countries? *Global Business Review*. [\[Crossref\]](#)
- Shekar, M., Hasan, M., & Al Mubarak, M. (2021). Revisiting the Challenges Affecting SMEs Through Behavioral Approach. *International Journal of Academic Research in Business and Social Sciences*, 11(9). [\[Crossref\]](#)
- Singh, A. S., Masuku, M., & Masuku, M. B. (2014). Sampling techniques and determination of sample size in applied statistics research: An overview. *International Journal of Commerce and Management*.
- Su, Y., & Li, M. (2021). Applying Technology Acceptance Model in Online Entrepreneurship Education for New Entrepreneurs. *Frontiers in Psychology*, 12. [\[Crossref\]](#)
- Sumerta, I. K., Widiyagoca, I. G. P. A., Adiandari, A. M., & Herlambang, P. G. D. (2019). Analysis of technology acceptance model (TAM) to use E-money in Bali Province. *International Journal of Advanced Trends in Computer Science and Engineering*, 8(1. 5 Special Issue), 206–211. [\[Crossref\]](#)
- Tambun, S., Sitorus, R. R., & Pramudya, T. A. (2020). Pengaruh Technology Acceptance Model Dan Digital taxation Terhadap Kepatuhan Wajib Pajak Dengan Pemahaman Internet Sebagai Variabel Moderating. *Balance Vocation Accounting Journal*, 4(1), 1–12. [\[Crossref\]](#)
- Taufik, N., & Hanafiah, M. (2019). Airport passengers' adoption behaviour towards self-check-in Kiosk Ser Kiosk Services: the r vices: the roles of per oles of perceived ease of use, per ed ease of use, perceived usefulness and need for human interaction. *Heliyon Journal*, 5(12). [\[Crossref\]](#)
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6(2), 144–176. [\[Crossref\]](#)
- Terzis, V., & Economides, A. A. (2011). The acceptance and use of computer based assessment. *Computers and Education*, 56(4), 1032–1044. [\[Crossref\]](#)
- Thottoli, M. M. (2021). Knowledge and use of accounting software: evidence from Oman. *Journal of Industry-University Collaboration* , Vol. 3(No. 1), 2–14. [\[Crossref\]](#)
- Tilahun, M. (2019). Determinants of Computerized Accounting Information System Adoption by Hospitals In Addis Ababa, Ethiopia. *The Strategic Journal of Business & Change Management*, 6(1), 189–199. [\[Crossref\]](#)

- Trawnih, A., Yaseen, H., Samed, A., Al-Ahliyya, A.-A., Ratib, A., & Al-Ahliyya, A. (2021). Factors Influencing Social Media Adoption Among SMEs During Covid-19 Crisis. *International Journal of Information and Decision Sciences*.
- Türegün, N. (2020). Accounting for e-commerce sector. *International Journal of Critical Accounting*, 11(5), 429. [\[Crossref\]](#)
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, 27(3), 425–478. [\[Crossref\]](#)
- Wahyuni, T. (2018). Why Should MSMEs Adopt Accounting Application with Cloud Computing? The Reality of MSMEs in Depok, West Java. *KnE Social Sciences*, 3(11), 1399. [\[Crossref\]](#)
- Yamane, T. (1973). *Statistics : an introductory analysis*. 3rd ed. New York (N.Y.): Harper and Row.
- Yien, T. Y., Lim, N., Hon, K., Andam, J. L., & Tang, M. B. (2021). The Determinants of Quality in Accounting Information System: A Case of SMEs in Sibu Sarawak. *Borneo Journal of Social Sciences and Humanities*, 3(1). [\[Crossref\]](#)
- Yousafzai, S., Pallister, J., & Foxall, G. (2009). Multi-dimensional role of trust in Internet banking adoption. *Service Industries Journal*, 29(5), 591–605. [\[Crossref\]](#)