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EDITORIAL NOTE

It is with great pride and enthusiasm that we present the maiden edition of the *Gamji Journal of Arts and Humanities*, published by the Gamji Institute for Training and Research. This inaugural publication marks a significant milestone in our commitment to fostering academic excellence and contributing to the scholarly discourse in various fields of study.

The articles featured in this edition represent a diverse range of research topics, each offering valuable insights and advancing our understanding of critical issues. The depth and breadth of the studies reflect the dedication and scholarly rigor of the authors, and we are honored to showcase their work.

We extend our heartfelt gratitude to the authors for their invaluable contributions and to the peer reviewers for their diligent efforts in ensuring the quality and integrity of the research presented. We also express our appreciation to the editorial board and support staff whose dedication and hard work have made this publication possible.

As we embark on this scholarly journey, we invite readers to engage with the research presented in this journal, to reflect on the insights offered, and to contribute to the ongoing dialogue in their respective fields. We look forward to future editions and the continued growth of the *Gamji Journal of Arts and Humanities* as a platform for academic excellence and intellectual exchange.

Sincerely,

Prof. Aminu Ahmad
Chairman, Editorial Board
Gamji Journal of Arts and Humanities
Gamji Institute for Training and Research

FACTORS AFFECTING INTENTION TO ADOPT E-BUSINESS IN SMALL AND MEDIUM ENTERPRISES (SMES) IN BAUCHI METROPOLIS, NIGERIA: MODERATING ROLE OF INFORMATION SECURITY

By

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ABSTRACT

The objective of this research is to examine the moderating effects of information security on the relationship between intention to adopt e-business and its antecedent's in small and medium business enterprises (SMEs) in Bauchi metropolis, Nigeria. This study used unified theory of acceptance and use of technology (UTAUT). Using quantitative approach, correlational research approach was used in this research. Data were gathered through questionnaire from 373 owner/managers of SMEs using purposive sampling, the study also employed cross sectional research approach. This study used SPSS version 22 and PLS-SEM 4 to analyze data collected from the respondents. The findings revealed that relative advantage, competitive pressure and attitude significantly influenced intention to adopt e-business and the moderating variable information security moderated the relation between competitive pressure, attitude and intention to adopt e-business. The findings of these research provided empirical evidences to support unified theory of acceptance and use of technology (UTAUT). Future researchers can use longitudinal approach to data collection to further expand our understanding regarding intention to adopt e-business.

Keywords: *E-business, relative advantage, competitive pressure, attitude, information security and small and medium business enterprise (SMEs)*

1.0 INTRODUCTION

The emergence of technology advancement has changed the way businesses are being carried out in today's dynamic business environment. The adoption of e-business is increasing by the day and regarded as a tool for enhancing sales and revenue to business organizations. E-business has been embraced by business organization with the hope of enhancing their efficiency (Arfan, Hon Keong, Mohsin, & Anwar, 2020). E-business has open doors to business organizations. It brought number of opportunities through inexpensive, improved distribution sequences for product and services (Abbas, Wang, Su & Ziapour, 2021). The use of e-business is paramount as it has become an integral part of the business plan (Abdel, Anouze, & Alamro, 2020). United Kingdom appeared to have the biggest e-business market in 2021, with spending of over 250 billion euros on online purchase, roughly times two of its counterpart France who was ranked second on the list. Germany was considered third with revenue of about 100 billion euros from e-business. Greece and Denmark are among the countries that e-business made up of to more than 7% of countries GDP (Coppola, 2023). Looking at Africa with regards to e-business adoption, Africa is still long way away from maturity. Despite advancement since 2017, Africa only makes up less than 1% of global e- business economy. According to statista (2021), online business in Africa in 2020 generated about USD 27 billion, which shows an increase of about over USD 6 billion since 2019. It has also been pointed out that e-business revenue will keep rising between the period of 2021 and 2025, which is expected to reach the value of over USD 46.1 billion.

The advancements of emerging technology are not restricted to a particular industry (Olayinka & Wynn, 2021), the development is not only for larger companies, government or multinational organizations, small and medium business enterprises (SMEs) are also affected by this development. SMEs are considered as the engine of economy development in developing country like Nigeria (SMEDAN, 2021). Before the introduction of e-business, small and medium business enterprises (SMEs) are seen only as physical stores that operate manually with lot of challenges and serious restrictions. SMEs in general now recognized the capabilities of e-business and began to incorporate technologies to improve their services, production and communication (Malika et al., 2018). Despite the benefits provided by e-business adoption to business enterprises, small

and medium enterprises (SMEs) in Bauchi are lagging behind in the adoption of e-business in their operations.

The issue of concern is that there is lack of structure in place for the adoption of e-business for small business enterprises (SMEs) in Bauchi, which can be linked to cost, associated benefits and management related issues. Without the use of e-business SMEs in Bauchi cannot compete in today's business environment. The use of internet has come with huge advantages and also a number of challenges. Fraudulent behavior by unauthorized persons is one of the concerns of using internet and hackers are known to be obvious threats to business digitalization in Nigeria. Information security has become a national issue in Nigeria (Chidozie & Hinenyi, 2020). The use of information security as a moderator is limited in literature. Therefore, the objective of this research is to examine the moderating effect of information security on the relationship between intention to adopt e-business and its antecedents in small and medium enterprises (SMEs) in Bauchi, Nigeria. There is very little of literature on e-business adoption in developing countries like Nigeria (Olayinka, 2020; Wynn & Olayinka, 2021). Studies conducted on e-business adoption has have been carried out in Nigeria, but most previous studies were conducted in other regions of the country, while very little attention was given to small and medium enterprises (SMEs) in Bauchi metropolis, Nigeria which makes this study relevant as factors affecting intention to adopt e-business in small and medium enterprises (SMEs) in Bauchi metropolis Nigeria are not adequately explored.

2.0 LITERATURE REVIEW.

Antecedents to intention to adopt e-business have been studied and identify by the previous researchers taking in to consideration that those studies were conducted in different part of the globe with different cultural background with that of Nigeria as very little of literature were carried out in the Nigerian context. However, the next section presented the empirical review to support the hypotheses development.

2.1 Hypotheses Development

2.1.1 Relative Advantage and intention to adopt e-business

Relative advantage is a concept based on the perception that a new technology will be better than the system or technology the enterprise is currently using. Relative advantage of using e-business is always considered when the technology to be employed will openly add additional value to the business organization (Jere & Ngidi, 2020). Sin, Rozali and Ghani (2020) conducted a research on e-commerce adoption by tourism based SME's in Melaka, Malaysia. The findings showed that perceived relative advantage is among the factors affecting e-commerce adoption in Melaka, Malaysia. Another study by Rawash and Al –Till (2020) on e-business adoption in hotel industry in Jordan. The study was aimed at analysis and the examination of effective implementation of e-business in hotel industry in Jordan. The findings revealed that relative advantage found to be a factor positively affecting e-business implementation in Jordan hotel industry. On the other hand, Ibrahim et al., (2020) researched factors affecting application of e-business on hospitality industry in Malaysia. The findings of this research showed that relative advantage has no significant influence on e-business adoption in hospitality industry in Malaysia. Aswar and Ermawati (2020) carried out a study on determinants of e-business adoption by small and medium enterprises. The study revealed that perceived advantage is considered a factor affecting e-business adoption. Therefore, based on the above discussion the following hypothesis is proposed.

H₁: There is significant relationship between relative advantage and intention to adopt e-business in small and medium enterprise (SMEs) in Bauchi metropolis.

2.1.2 Competitive pressure and intention to adopt e-business

Numerous studies reported that firms tend to adopt innovations under growing competitive pressure in order to reduce the risk of being left behind in the industry's average performance (Jaisinghani, Kaur, Goyal & Josh, 2019). Putra and Santos (2020) conducted a study on e-business. The aim of the study was to investigate the interrelationships between contextual factors affecting e-business implementation and its impact on business performance among SMEs. The findings of this study revealed that competitive pressure is one of the predictor in e-business implementation in SMEs. In the contrary, Gui et al., (2020) carried out a research on technology adoption on Indonesian SMEs. The findings of this result indicated that competitive pressure has no significant

influence on technology adoption in SMEs in Indonesia. Another study by Garcia, Garcia and Nerera (2016) was conducted to examine the factors affecting e-business adoption in Spanish firms. The result of this study showed that competitive pressure affect individual attitude towards e-business adoption in Spain. The result of the study also indicated that SMEs adopt e-business due to the pressure from business partners. Therefore, based on the above discussion the following hypothesis is proposed.

H₂: There is significant relationship between competitive pressure and intention to adopt e-business small and medium enterprise (SMEs) in Bauchi metropolis.

2.1.3 Attitude and intention to adopt e-business

Attitude is a person's tendency to react positively or negatively to someone or technology (Mzomwe, Montero, Olifage & Respickius, 2019). Individual that possessed a greater tolerance for risk and change are more likely to accept e-business in an organization (Sastararuji, Hoonsopon, Pitchayadol, & Chiwamit, 2021). Nikudlwe (2022) investigated the challenges against SMEs adopting e-commerce in their operations in Dar as Salam, Tanzania. The study concluded that attitude is one of the factors affecting SMEs adopting e-commerce in Dar as Salam, Tanzania. Another study by Lai and To (2020) carried out a study on e-entrepreneurial intention among the adult Chinese. The result shows that attitude is not a significant factor influencing e-entrepreneurship in china. Zabukuvsek et al. (2015) carried out a study on e-business adoption by micro companies. The result of this study further revealed that attitude is an influencing factor in micro companies adopting e-business in their day to day operations. Therefore, based on the above discussion the following hypothesis is formulated.

H₃: There is significant relationship between attitude and intention to adopt e-business in small and medium enterprise (SMEs) in Bauchi metropolis.

2.1.4 Information security as a moderator

E-business transactions are now affected by information security which placed lots of doubt to individuals in doing business for the fear of possible threats. This actually puts information security as moderator between the two variables. Tee and mind (2019) conducted a study among business owners on e-business adoption in Sawak's SMEs. The

findings in this research showed that security factor significantly influenced adoption attitude of Sawaks SMEs in the adoption of e-business. Igwe et al. (2021) carried out a research on e-commerce adoption in Nigeria, The findings in this study revealed that information security is one of the most crucial factor affecting the development and adoption of e-commerce in developing countries. Also, Cen et al. (2018) researched a competing model for understanding industrial organization's acceptance of cloud services. The findings showed that perceived information security is significant factor in decision to adopt cloud services. Based on the above literature reviewed the following propositions are formulated:

H₄: Information Security moderates the relationship between relative advantage and intention to adopt e-business in small and medium enterprise (SMEs) in Bauchi metropolis

H₅: Information Security moderates the relationship between competitive pressure and intention to adopt e-business in small and medium enterprise (SMEs) in Bauchi metropolis

H₆: Information Security moderates the relationship between attitude and intention to adopt e-business in small and medium enterprise (SMEs) in Bauchi metropolis

2.2 Underpinning Theory

The underpinning theory in this research is Unified theory of acceptance and use of technology (UTAUT) by Vanketeshet al. (2003). The Unified theory of acceptance and use of technology (UTAUT) by Vanketeshet al. (2003) was used as the main theory. Previous studies have examined and replicated the UTAUT and considered one of the theories used in predicting individual behavior towards technology acceptance in an organization (Yang Foyey, 2013; Hamid & Ibrahim, 2014; Goswan & Dutta, 2016; Mansur et al., 2019 IMtiaz, 2018). Therefore, this research employed UTAUT to cover the variables under review so as to enhance our understanding on individual intention towards e-business adoption in SMEs. This theory can provide a useful framework for understanding owners/ managers responses to threatening events regarding e-business adoption in SMEs. By using unified theory of acceptance and use of technology (UTAUT) principles, this study can gain insight into information security to further enhance our understanding

2.2.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

Scholars have developed various theoretical models to study behavioral intention of individuals towards technology adoption. Such models are theories like Technology Acceptance Model TAM (Davis, 1987), Theory of Reason Action TRA (Fishbein & Ajzen, 1987), Theory of Planned Behavior TPB (Ajzen, 1995), Social cognitive Theory SCT (Bandura, 1988), the motivational Model MM (Davis et al., 1992), Model for PC utilization (MPCU) (Thompson et al., 1991), Combined –TAM &TPB (Taylor & Todd, 1995) and Innovation Diffusion Theory (IDT) (Rogers, 1995). Vankatesh et al. (2003) combined these above mentioned theories to come up with the unified theory of adoption and use of technology (UTAUT) to study behavioral intention of individual to use technology. This theory consists of four factors of intention and usage namely performance expectancy, effort expectancy, social influence and facilitating condition. Other four added variables are gender, age, experience and voluntariness which serve as the moderators. The first main determinants have direct influence on user's behavioral intention to use technology. The moderating variables are those with indirect relationship in this theory.

The main reason for developing this theory is based on the argument that large number of constructs of the existing theories is comparable in nature. The rationale behind this is to integrate these theories and come up with incorporated theoretical base (Vankatesh et al., 2003). The assumption is that future researchers can simply apply theory of acceptance and use of technology (UTAUT) for its larger coverage. Previous studies have been carried out using theory of acceptance and use of technology (UTAUT) as their theoretical bases to investigate individual intention towards e-business adoption (Yang Foyey, 2013; Hamid & Ibrahim, 2014; Goswan & Dutta, 2016; Mansur et al., 2019; IMtiaz, 2018). Given the theoretical bases of Unified theory of acceptance and use of technology (UTAUT) by Vankatesh et al. (2003), and its applicability to the context of this study. This study used this theory to come up with the guiding framework for this study. In this conceptual framework, relative advantage, competitive pressure, attitude will be used as independent variables, information security will serve as the moderating variable, while intention to adopt e-business will be the dependent variable.

3.0 METHODOLOGY

3.1 Research design

This research employed quantitative research approach. Quantitative research approach uses number and statistical techniques (Cresswell, 2013), this study employed correlational research design, and a survey questionnaire was used to provide information about the extent of agreement among members of the organization. As a result, the survey approach is considered to be more reliable for achieving the research objectives. The use of close ended question is involved in quantitative study (Creswell, 2014). Using cross-sectional approach, data were collected through questionnaire that can be measure and interpret in numerical term using available instrument. This research employed SPSS and PLS SEM in data analyses.

The population of this research is small and medium business enterprises (SMEs) in Bauchi metropolis. The population of the study comprised of 15319 (SME`s) which is according to SMEDAN (2021). This study considered enterprises operating in Bauchi metropolis, Nigeria. The total sample of 373 respondents was employed in this study. This study relied on a structured research questionnaire. The questionnaire was considered as the most appropriate in this study as questionnaire are mostly used data collection instrument in examining the relationship between determining factors in many research of e-business adoption. The structure of the questionnaire is divided into two sections: First section provided information regarding the participants; second section provided information on antecedents to e-business adoption intention which includes all the independent variables, the moderating variable and the third variable will represent information on intention to adopt e-business. This research used self-administered questionnaire to answer the research questions.

4.0 DATA ANALYSIS AND INTERPRETATIONS

4.1 Convergent Validity

In quantitative research, convergent validity refers to the degree to which indicators are merged together to assess their association to a particular construct (Hair et al., 2019). This criterion is achieved through average variance extracted (AVE). AVE stands for the

ratio of average variance extracted which varies from 0 to 1. Table 4 below shows that all the variable meet the required threshold of 0.50 and above which implies that all the construct at least explain 50% of the variance. This clearly revealed that the research constructs have met the requirements of achieving convergent validity

Table 1

Constructs	Items	Loadings	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Relative advantage	RA1	0.762	0.793	0.801	0.615
	RA2	0.784			
	RA3	0.810			
	RA4	0.780			
	RA5	0.284			
	RA6	Dropped 0.307 Dropped			
Competitive pressure	CP1	0.359	0.712	0.769	0.637
	CP2	Dropped			
	CP3	0.626			
	CP4	0.879			
		0.865			
Attitude	ATT1	0.467	0.779	0.781	0.695
	ATT2	Dropped			
	ATT3	0.807			
	ATT4	0.846			
		0.845			

Information Security	IS1	0.837	0.799	0.810	0.711
	IS2	0.832			
	IS3	0.861			
Intention to adopt e-business	INT1	0.790	0.811	0.818	0.639
	INT2	0.817			
	INT3	0.814			
	INT4	0.745			

Note: RA5, RA6, CP1 and ATT1 were dropped

Source:

Survey results 2024

4.2 Discriminant validity

Discriminant validity refers to the degree to which research constructs differs from other constructs in the structural model (Hair et al., 2019). One of the criterions used in assessing discriminant validity is by using Heterotriat Monotriat Ration (HTMT) as proposed by Henseler et al. (2015). This criterion is one of the most widely used criteria in research. In assessing discriminant validity using heteroriat-Monotriat ratio (HTMT), any value higher than 0.89 or 0.90 indicates discriminant validity issue across the research constructs (Henseler et al., 2015 and Rasoolimanesh, 2022). Therefor any value below the above recommended threshold indicates absence of similarity among the research constructs. In this research therefore, all value fall within the values of the recommended threshold which indicated the absence of similarity issue among the research constructs. This revealed that all the constructs in this research are distinct from each other.

Table 2: Heterotriat-Monotriat Ratio (HTMT)

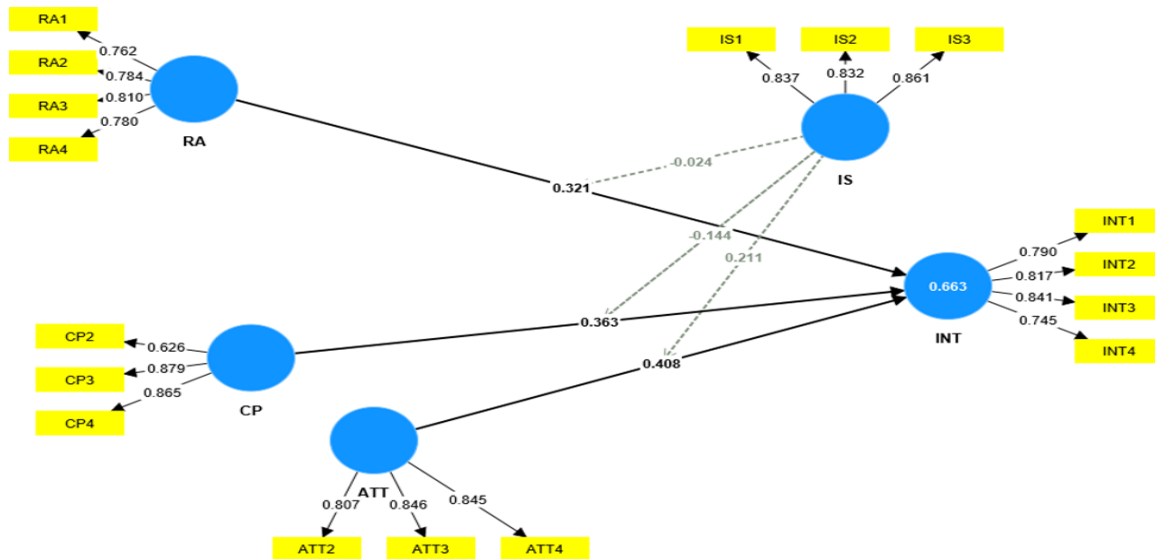
	ATT	CP	INT	IS	RA	IS x ATT	IS x RA	IS x CP
ATT	■							
CP	0.5■	■						
INT	0.440	■55	■					
IS	0.424	0.36■	0.400	■				

RA	0.456	0.428	0.315				
IS x ATT	0.047	0.073	0.067	0.049	0.077		
IS x RA	0.084	0.040	0.024	0.084	0.098	0.360	
IS x CP	0.062	0.078	0.038	0.029	0.032	0.823	0.397

4.3 Research Model

Bootstrapping technique was performed in other to test the structural relationship in this research. Hair et al. (2017) recommended that the use of subsample of 5000. The structural model is shown in figure 1 below, while the bootstrapping result is shown in table 2 below.

Figure 1



Source: Survey result 2024

4.4 Test of Hypotheses

In order to carry out bootstrapping, Hair et al. (2017) recommended the use of 5000 subsample to run the analysis in order to test the significance of the hypothesized relationships. Values of 1.28 are significant at 10%, value of 1.65 are significant at 5% while values of 2.33 are significant at 1% level one tail test (Hair et al., 2017). The first hypothesis (H1) of this research revealed that, “there is significant relationship between relative advantage and intention to adopt e-business in small and medium enterprises (SMEs)”. As indicated in table 3 below, this hypothesis is supported, as path coefficient of relative advantage to intention to adopt e-business showed a positive and significant relationship at 5% level of significant one-sided ($\beta=0.321$, $P=0.000$). In the same vein, the second hypothesis (H2) postulated that “there is significant relationship between competitive pressure and intention to adopt e-business in small and medium enterprises (SMEs)” was also supported. This is because path coefficient of the relationship between competitive pressure and intention to adopt e-business turn out to be positive and statistically significant at 5% level one-sided ($\beta=0.362$, $P=0.000$), therefore, this hypothesis is also supported.

Table 3

Direct and indirect effects	Beta-Value	T-Value	P-value	Conclusion
H ₁ : Relative advantage -> Intention to adopt e-business	0.321	3.781	0.000	Supported
H ₂ : Competitive pressure -> Intention to adopt e-business	0.363	5.653	0.000	Supported
H ₃ : Attitude -> Intention to adopt e-business	0.408	5.537	0.000	Supported
H ₄ : Relative advantage -> Information security -> Intention to adopt e-business	-0.024	0.575	0.283	Not Supported
H ₅ : Competitive pressure -> Information security -> Intention to adopt e-business	-0.0144	1.982	0.024	Supported
H ₆ : Attitude -> Information security ≥ Intention to adopt e-business	0.211	2.532	0.006	Supported

Source: Survey results 2024

The third hypothesis (H₃) which postulated that “there is significant relationship between attitude and intention to adopt e-business in small and medium enterprises (SMEs)” was also supported. The path coefficient showed a positive and significant relationship at 5% level one-sided ($\beta = 0.408$, $P = 0.000$). As shown in table 3, the path coefficient of the interaction of relative advantage and information security to intention to adopt e-business is negative and statistically insignificant at 5% level of one-sided ($\beta = -0.024$, $P = 0.283$). This result does not provide support for the fourth hypothesis (H₄), which states that “information security moderates the relationship between relative advantage and intention to adopt e-business in SMEs in Bauchi metropolis.

For the fifth hypothesis also, the path coefficient of the interaction of competitive pressure and information security to intention to adopt e-business in SMEs is negative and statistically significant at 5% level one-sided ($\beta = -0.024$). This provides support to

hypothesis (H5) which states that, information security moderates the relationship between competitive pressure information security SMEs. This hypothesis is supported as the statistical results of p value = 0.024 which is significant. The finding of the hypothesis (H6) indicated the path coefficient of interaction between attitude and information security to intention to adopt e-business in SMEs turn out to be positive and statistically significant at 5% level one sided ($\beta=0.211$, $P=0.006$). This result provides support for the sixth hypothesis (H6), which states that information security moderates the relationship between attitude and intention to adopt e-business in SMEs

4.5 Multicollinearity Statistics

Variance inflation factor (VIF) is one of the known criteria in measuring multicollinearity in research. VIF is used to assess the degree to which multicollinearity among the predictors variables lead to an increase in the variance on the predicted regression coefficient. The threshold value of variance inflation factor (VIF) should not exceed 3 (Hair et al., 2019). The table 3 below shows the result of multicollinearity assessment with highest VIF value is 2.400 and the least VIF value is 1.228. This indicated that all constructs possess values below 3.

Table 4

Constructs	VIF Values
ATT -> INT	1.611
CP -> INT	2.316
IS -> INT	1.533
RA -> INT	2.400
IS x ATT -> INT	1.739
IS x RA -> INT	1.228
IS x CP -> INT	1.468

Note: VIF: variance inflation factor

4.6 Assessment of variance explained in the endogenous variable

Coefficient determinant (R^2) value is classified as substantial, moderate and weak, 0.75, 0.50 and 0.25 respectively (Hair et al., 2011). As depicted in figure 1, the in-sample

predictive ability of the research model was coefficient determinant value (R²) of 0.663, which is said to have moderate explanatory power (Hair et al., 2011). This value revealed that the predictors (relative advantage, competitive pressure, and attitude and information security) all together can jointly explain about 66.3% of changes in intention to adopt e-business in the model. While remaining 33.7% of the variance can be explain by other constructs not covered in this research. Falk and Miller (2011) recommended that a model with coefficient determinant (R²) value of 0.10 and above is acceptable. As shown in figure 6, the interactive effect model (R²) is 0.663. By introducing three interactive term of moderating effect the (R²) change of (0.663-0.650) revealed additional 0.013 (1.3%).

4.7 Assessment of effect size

According to Cohen (1992), effect size can be classified as value above 0.02. 0.15 And 0.35 were regarded as small, medium and large respectively. This is express as $F^2 = (1 - R^2_{\text{excluded}}) / (1 - R^2_{\text{included}})$. From table 8 below: relative advantage has small contribution to changes to intention to adopt e-business with 0.066, competitive pressures and attitude has medium contribution to the changes to intention to adopt e-business with 0.118 and 0.145. While for the interactive term of attitude and the moderator information security has the larger contribution with 0.032 which is in line with the recommended threshold of 0.005, 0.01, and 0.025 for small, medium and large (Kenny, 2018).

Table 5

Effects	Beta-Value (β)	Cohen (F²)
Relative advantage-> Intention to adopt e-business	0.321	0.066
Competitive pressure-> Intention to adopt e-business	0.362	0.118

Attitude-> Intention to adopt e-business	0.408	0.145
Relative advantage-> information security Intention to adopt e-business	- 0.024	0.001
Competitive pressure-> Intention information security->Intention to adopt e-business	-0.144	0.015
Attitude ->information security ->Intention to adopt e-business	0.211	0.032

4.8 Discussion of findings

This current research was able to achieve the following goals.

H1: There is significant relationship between relative advantage and intention to adopt e-business in small and medium enterprises (SMEs) in Bauchi metropolis

Initially, based on the findings, the relationship between relative advantage and intention to adopt e-business was significant. This finding provides an empirical support to the assertion the higher the perceived benefits in using e-business the higher the management intention towards e-business adoption in SMEs. This finding is in line with the finding Sin et al. (2020) who conducted a research on e-commerce adoption by tourism based SME's in Melaka, Malaysia. The findings showed that perceived advantage is among the factors positively influencing e-commerce adoption in Melaka, Malaysia. Another study by Rawash and Al –Till (2020) investigated e-business successful adoption across hotel industry in Jordan. The findings revealed that relative advantage found to be a factor significantly affecting e-business implementation in Jordan hotel industry. Govinnage and Sachitra (2019) in their study on factors affecting e-commerce adoption in small and medium enterprises in Sri Lanka. The findings in this study showed that perceived advantage found to be significant factor affecting e-commerce adoption in Sri Lanka. Ibrahim et al. (2020) conducted a study on e-business development and factors affecting its application in hospitality operations sustainability. The findings in this study

indicated that perceived relative advantage of employing e-business as a factor affecting implementation of e-business in hospitality operation.

H2: There is significant relationship between Competitive pressure and intention to adopt e-business in small and medium enterprises (SMEs) in Bauchi metropolis

The second hypothesis (H2) postulated that “there is significant relationship between competitive pressure and intention to adopt e-business in small and medium enterprises (SMEs)” was also supported. This finding is in consistent with the findings of previous work of Putra and Santos, (2020) who conducted a research on integrated framework to examine the interrelationships between contextual factors that affects e-business implementation and how-business impact on performance among small and medium enterprises (SMEs). Another finding of Raghavan et al. (2018), who explored e-business adoption in Indian SMEs. The findings showed that SMEs in Indian adopt the use of e-business due to the pressure asserted by competitors in the same line of Business. Garcia et al. (2016) who conducted a research on organizational factors in trying to explain the factors that affecting e-business adoption, the study revealed that competitive pressure has significant effect on firm’s attitude towards e-business adoption in Spain.

H3: There is significant relationship between attitude and intention to adopt e-business in small and medium enterprises (SMEs) in Bauchi metropolis

Further, the third finding of this research showed that attitude is also an influencing factor towards management intention to adopt e-business in Bauchi with Beta value of 408 and p of 0.001. This finding is in agreement with the findings of Nikundlwe (2022) who conducted a study on Challenges limiting small and medium enterprises from Adopting e-commerce in Dar es Salaam, Tanzania. Also, Sarma et al. (2017) carried out research on e-business adoption intention. The findings showed that attitude has significant positively influenced on e-business adoption. Zabukuvsek et al. (2015) carried out a study on e-business in micro companies. The findings revealed that attitude has influence on e-business adoption on micro companies. Valdimirove (2015) conducted a study on factors for e-business adoption by small tourism firms and the role of shadow economic practices. The findings indicated that attitude is a factor that influence e-business adoption by Bulgarian small tourism and shadow economic practices.

H5: Information security moderates the relationship between competitive pressure and intention to adopt e-business in SMEs in Bauchi metropolis.

The finding of the fifth (H5) hypothesis also provides support for the hypothesized relationship that information security moderate the relationship between competitive pressure and intention to adopt e-business. Beta value turned to be negative (-0.144) and p value shows a statistically significant value of (0.024). This finding is in line with the Unified theory of acceptance and use of technology (UTAUT). Further, hypothesis (6) had a significant positive result on moderating effect of information security on the relationship between attitude and intention to adopt e-business. which is also in line with Unified theory of acceptance and use of technology (UTAUT).

5.0 CONCLUSION

It has been pointed out by number of previous studies conducted on e-business adoption that e-business is increasingly gaining acceptance and becoming an integral part of the overall business plan. E-business brought numerous advantages to our business existence in today's business environment. As a result it contributes to the economic growth and development of all countries around the globe. The aim of this study is to examine the moderating effects of information security on the relationship between intention to adopt e-business and its antecedent's (relative advantage, competitive pressure and attitude) in small and medium enterprises (SMEs) in Bauchi metropolis, Nigeria. These variables were used differently in the previous studies in relation to intention to adopt e-business. This proposed model will serve as a guide to future researchers who develop interest to further examining and investigate more on these variables to further contribute the body of knowledge. It will also assist management of SMEs in knowing more of the benefits and challenges regarding e-business adoption. Lastly, the study is expected to provide vital information to business owners and government that can be useful in decision making and policy formulation.

5.1 RESEARCH IMPLICATION

5.1.1 Theoretical implication

The findings of this research are consistent to previous studies and the theories used in this research. The findings of this research contributed to the body of knowledge in the field of e-business adoption. Theory used in this research is UTAUT. Research have been carried out on e-business adoption but most studies examined direct relationships between e-business adoption and its determining factors. One major contribution in this research is the use of information security as a moderator which was not been mostly used in previous studies in this context. The findings of these research provided empirical evidences to support UTAUT. This could provide a useful theoretical framework to explain owners/managers intention to adopt e-business in SMEs. Among the major contributions in this research is that, this research provided further understanding of these factors using this theory. The assumption is that with higher perceived relative advantage, competitive pressure, positive attitude, higher perceived information security the more likely owners/managers of SMEs will develop positive intention to adopt e-business in SMEs.

5.1.3 Practical Implication

The study finding will assist in providing a direction for owners/ managers of SMEs, policy makers and government towards better understanding of these factors and also provide a direction for reasonable decision making thereby developing favorable policies that would likely facilitate the adoption of e-business in SMEs. By so doing this will lead to business success and economy growth and development. The findings will improve the potentials owners/ managers to be aware of their strengths and their weaknesses and also enable organization to know clearly the challenges towards e-business adoption in SMEs. Government need to create awareness campaigns regarding the importance of implementation of e-business in business operation which can be achieved through awareness programs to the businessmen. Government should provide required resources and create enabling environment for adoption process. Owners of business enterprises should also put in mind that the use of e-business can be welcomed as a way to explore new markets, in today's changing environment. Adopting e-business can help SMEs understand and accept changes in the market achieve customers' loyalty, improved interaction, market expansion and improved business relation.

5.2 Recommendation for future research

Future researchers are recommended to go beyond the scope of Bauchi metropolis for better contribution to the literature. Future researchers can use longitudinal approach to data collection to further expand our understanding regarding intention to adopt e-business. Future researchers can use other variables like, customers' pressure, complexity and moderating variable like organizational readiness,

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