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IMPACT OF TECHNOLOGY ADOPTION ON SOME SELECTED SMALL AND MEDIUM ENTERPRISES' PERFORMANCE IN JALINGO METROPOLIS, TARABA STATE

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ABSTRACT

This study examined the impact of technology adoption on some selected small and medium enterprises' performance in Jalingo Metropolis, Taraba state. The specific objectives of this study are: to evaluate impact of Point of Sales (POS) on SMEs performance in Jalingo Metropolis Taraba state, to assess the impact of Computerized Sales Ticket on SMEs Performance in Jalingo Metropolis, Taraba state and to examine the impact of Closed Circuit Television (CCTV) on SMEs Performance in Jalingo Metropolis, Taraba state. The data used were primary data obtained through open-ended questionnaires. A total of 240 copies of questionnaires were administered to 240 of Owners, Staff and Customers of the selected SMEs in Jalingo Metropolis, sampled respondents through simple random sampling technique and only 220 questionnaires representing 92% were returned in useable form. It applied descriptive statistics, frequency distribution tables, bar chart and ordinary least squares methods. The study revealed that Point of sales (POS), Closed Circuit Television (CCTV) and Computerised Sales Ticket (CST) have positive and significant impact on SMEs Performance in the study area. It concluded that technology adoption on SMEs have influence SMEs performance in Taraba state positively and statistically significance. Therefore, it recommended that managers of SMEs should sustain and improve upon existing technology so as to increase their market shares, apply Point of Sales (POS), adopt Closed Circuit Television (CCTV) and use computerised sales Ticket in the world of business and reduce the cost of doing business to attain optimum performance in Taraba state.

Background to the study

Small and medium enterprises has contributed 49.79% of the National Gross Domestic product (GDP), accounted for 76% of total employment and it has been contributing about 7.64% to total export in Nigeria (National Survey of SMEs, 2021). The role of SMEs would not been overemphasised due to its high impact on the economy. It is back bone of virtually all economies of the world because of their role in employment creation and provision of personalized services (Wattanapruttipaisan, 2003). Moreover, there are many advantages claimed for SMEs which includes: the encouragement of entrepreneurship, the greater likelihood that SMEs will utilize labour- intensive technologies and thus have an immediate impact on employment generation hey can usually be established rapidly and put into operation to produce quick returns; Small and medium scale enterprises development can encourage the process of both inter-and intra-regional decentralization and the may well become a counter veiling force against the economic power of large enterprises

However, business cannot operate in a vacuum, its thrift in an environment of living things as such it will face environment factors both internal and external forces. In addition, business is any commercial activities that tends towards profits maximization. The primary purpose of any of business organizations is for profit making, grow and survive in the environment where they operates. More to that, the environment in which business organizations operate is a complex, multi-focus dynamic and has impact on such businesses, the environment tends to shape the outlook, and goal of the businesses by placing constraints on them. These constraints in the environment of organizations result from external and internal factors, that place limit on their specify goals which affect the business profits.

Apart from that, the word Business Environment does not necessarily mean physical surroundings, but this is used to describe all those influences that bring to bear on business organizations. It

affects the decisions, strategies, process and performance of the business. The environment is consisting of factors which are beyond the control of the business such as social, technological, economical, legal and political. It provides opportunities or poses threats to business organization. Furthermore, business and society depend on each other for survival, business managers of any organization must interact with and respond to environmental factors either internal or external to their organizations. The sum of these interrelationships within the business and between the business and the society is what is the management regarded as business environment. In fact, Organizations survival and success depend on the appropriate adoptions to a complex and ever changing environment. It is pertinent for top management of organization to identify opportunities and threats in the external environment. Internal environment, it should focus on strengths and weakness, potential and existing ones. It should respond swiftly, in order to know where it can have competitive advantage over its rivals. Therefore, any organization should look or search its environment continuously for improvement (Oghojafor, 1998).

In Nigeria, business operation have encounter series of changes since oil boom in the 1960s and the early 1970s which necessitated the introduction of structural adjustment programme in the late 1980s, the company act of 1960s allied matter decree in the 1990s.

For one to Study business environment is necessary due to the dynamic nature of business organization which do not operate in vacuum, the survival and growth of business organization must adapt to environmental changes in the society.

Furthermore, technology adoptions are helpful in the increase of economic performance of Small and Medium Enterprises (SMEs). The fast changing business environment has made the SMEs to incorporate new technologies into them. These innovations have become a necessity for a technology oriented business which promotes economic competitiveness and entrepreneur welfare in the society (Ciemleja & Lāce, 2008). The SMEs of different sizes are enthusiastic in the adoption of technology thereby becoming innovation potential (World Bank, 2010). The successful adoption of innovation by the SMEs can be attributed towards several factors, such as technological factors, organizational factors, environmental factors, etc. The active status of SME group in the innovation process have made the patents and new products to increase considerably. Further, the adoption of technology will help the SMEs to increase in employment and contribute to economic growth particularly thereby gaining competitive advantage and increasing their economic performance in Nigeria.

The significance of innovation as advocated by Roberts and Amit (2003) is a means that leads to higher profits and competitive advantage in business. The innovative ideas adopted by the SMEs help them in reconsidering their competitive position at the firm level under intense competition at the global level or national level.

More to that, technological innovation is believed to improve organization's performance, stimulates growth and the survival of the organization. Therefore, there many ways to measure SMEs performance which include: quality, time, finance, customer satisfaction, and human resource. Adoption of new technology (open innovation) program by the SMEs will give the business organisation opportunity to face the hardships of competition with the large firms (Zhang and Chen, 2014).

Further, the commercialization of technology by the SMEs makes them to perform better in the market compared to the other firms. Moreover, the subcontracting of SMEs has made them to increase their economic performance, since the activity of assistance has helped in the adoption newer technologies (Kumar and Subrahmanya, 2010).

Similarly, the SMEs are achieving the competitive advantage in response to the changes in the market with the help of technology adoption is the hallmark of this study. The newer technologies make the firm perform according to the changing demand. The technological capabilities of a firm play a pivotal role in the growth of business. The research works of Hamid and Tasmin (2013) and other researchers have shown the evidence of increase in firm performance due to innovative capabilities of a firm. It is the responsibility of the managers to make the small businesses to

become capable of innovation adoption. The activities of innovation are considered as the driving force behind the success and overall growth of the organisation in this jet-age. Hence, this study is necessitated to examine impact of technology adoption on some selected small and medium enterprises performance in Jalingo Metropolis, Taraba state.

Statement of the problem

Technology plays a vital role in enhancing the business performance of any organisation across globe and that is the reason many advanced economies adopted ICT in their Business transactions. However, many business organisations in Nigeria are lacking behind in term of technology adoption and applications due to Business Environment (BE). In fact, Business Environment (BE) in most developing countries is often characterized by market and demand uncertainties, high rates of inflation, poor physical infrastructures such as road network, electricity, poor robotic accessories, optic fibre network that affects lead-times, and poor public policies and regulations (Maiwada & Khalid, 2012).

In the same vein, it was argued that the nature and conditions of business environment could have a major impact on the entire business performance of SMEs (Abimbola & Agboola, 2011; Sohal & Perry, 2006; Wong *et al*. 2014; Yu & Ramanathan, 2012). Haruna *et al.* (2018) argued that business environment should be a starting point of any research on business organizations, because the nature, condition and circumstances of any organization depends upon its environment. Business Environment (BE) is all that involves the business and beyond its boundaries of business organization, the environments are characterized by intense competition, economic intensity, technological changes, information exchange, and uncertainties about government policies. On the other hand, internal factors such as employees and managers of the organisation may threaten the future of the business (Daniel *et al.*, 2019).

However, SMEs in the recent years has be suggested as an engine for economic growth and development of any country. This has push a lot challenges to the SMEs both internationally and nationally competitions for the scarce resources and how to efficiently utilize the opportunity for achieving high goals of the organisation. Hence, many SMES aspire to adopt new technology in order to cope with the high competitions coming from internal or external sources in Nigeria. This call for empirical examination of the impact of technology adoption on some selected small and medium enterprises performance in Jalingo Metropolis, Taraba state.

Research questions

i. To what extent has Point of Sales (POS) impacted on SMEs Performance in Jalingo, Taraba state?
ii. What are the impact of computerize sales ticket on SMEs performance in Jalingo, Taraba state?
iii. Do Closed Circuit Television (CCTV) create impact on SMEs performance in Jalingo, Taraba state?

Objectives of the study

The broad objective of this study is to examine the impact of technology adoption on SMEs performance in some Selected SMEs Jalingo Metropolis, Taraba State. Meanwhile, the specific objectives are to:

i. evaluate impact of Point of Sales (POS) on SMEs performance in Jalingo Metropolis Taraba state,
ii. assess the impact of Computerized Sales Ticket on SMEs Performance in Jalingo Metropolis, Taraba state and
iii. examine the impact of Closed Circuit Television (CCTV) on SMEs Performance in Jalingo Metropolis, Taraba state.

Research Hypotheses

Ho_1: Point of Sales (POS) has not significant impact on SMEs performance in Jalingo Metropolis Taraba state,

Ho_2: Computerized Sales Ticket does not have significant impact on SMEs Performance in Jalingo Metropolis, Taraba state and

Ho_3: Closed Circuit Television (CCTV) has not significant impact on SMEs Performance in Jalingo Metropolis, Taraba state.

Significance of the study

This study provide a foot ground for technological adoption on SMEs performance in Jalingo Metropolis Taraba State, the study Position Yakubu Supermarket, A.U.K Kirbi Supermarket and Zuma Supermarket for better performance and output. The study serves as a reference material to other researchers who may wish to conduct research work and also for literature review in the field strategic management.

Scope of the study

This study focus on the impact of technology adoption on some selected small and medium enterprises performance in Jalingo Metropolis, Taraba state. The selected SMEs include: Yakubu Supermarket, A.U.K Kirbi Supermarket Malls and Zuma Supermarket. However, the study restrict its analysis on Point of Sales (POS), Closed-Circuit Television (CCTV Camera), and Computerized Sales Ticket Strategy as variables used by the researcher to measure performance of SMEs.

Limitation of the study

The research work encounter Certain limitations which includes: Study area, the researcher limit its study to Jalingo Metropolis – Taraba State because it has the highest number of SMEs in the State: Since it won't be possible for the researcher to study the entire SMEs population in Jalingo Metropolis, the researcher limits it study to the followings SMEs: Yakubu Supermarket, A.U.K Kirbi Supermarket and Zuma Supermarket for the purpose of effectiveness and efficiency of this research work. Uncooperative attitudes of some respondents are parts of the constraint the study encountered: Regardless of all these challenges, this study is worth of recommendations and generalization.

Literature Review

Conceptual framework

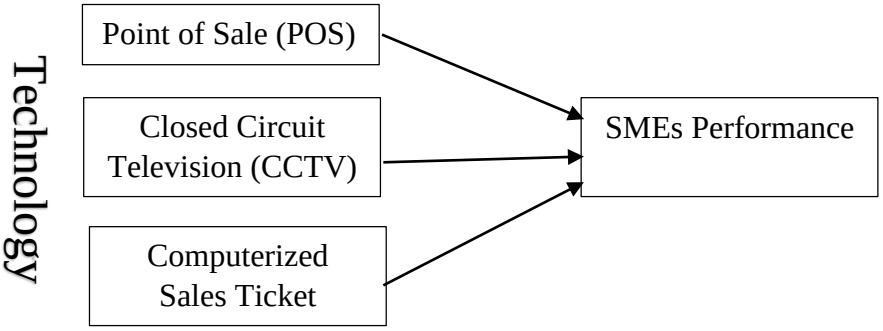
Small and medium Enterprises (SMEs): In a global context, a general definition of SMEs using size and scale of operation is not easy, but within the fixed co-ordinates of national boundaries, it might be relatively easier. At the 13th Council meeting of the National Council on Industry held in July, 2001, Small and Medium Enterprises (SMEs) were defined by the Council as follows:

Small-Scale Industry is an industry with a labour size of 11-100 workers or a total cost of not more thanN50 million, including working capital but excluding cost of land. While Medium Scale Industry is an industry with a labour size of between 101-300 workers or a total cost of over N50 million but not more than N200 million, including working capital but excluding cost of land. The National Association of Small and Medium Scale Enterprises (NASME) defines a small scale enterprise as a business with less than 50 people employed by the enterprise and with an annual turnover of N100,000,000(100 million Naira). NASME further defines a medium scale enterprise as a business with less than 100 employees and with an annual turnover of N500, 000,000 (500 million Naira). Also, the Central Bank of Nigeria (CBN) and the Small and Medium Enterprises Equity Investment Scheme (SMEEIS) define SMEs as any enterprise with a maximum asset base of N200, 000,000 (200 million Naira) excluding land and working capital with the number of staff employed. Yinus et.al. (2014) submitted that small and medium enterprises is expected to be not less than 10 persons and not more than 300 employee. In the same vein, previous research agreed that SMEs

is widely recognized because of its contribution to economic growth and job creation in both developed and developing countries. Researchers argued that SMEs play a major role in poverty alleviation in developing countries and also stimulate domestic and regional economic growth in national and regional economies. In Nigeria, SMEs also played a significant role in terms of economic development as they provide the cornerstones on which Nigeria's economic growth and stability rests.

The conceptual framework in Figure 1 try to explain the relationship between the various technological systems on the performance of SMEs. The performance of SMEs largely depend on the efficiency of the technological system, these help to make business to actively compete in the business environment.

Figure 1: **Conceptual Framework**



Source: 2022

Information and Communication Technology (ICT)

ICT refers to a wide range of computerized technologies. ICT is any technology that enables communication and the electronic capturing, processing and transmission of information (Williams,2005).Technologies include products and services such as desktop computers, laptops, handheld devices, wired or wireless internet, business productivity software such as text editor and spreadsheet, enterprise software, data storage and security, network security and so on. According to Brynjolfsson and Hitt, L.M. ICT is described as technologies that support the communication and co-operation of "human beings and their organizations" and the "creation and exchange of knowledge. Furthermore, Yu considers ICT as a range of technologies that allow the gathering, exchange, retrieval, processing, analysis and transmission of information. In order words, ICT can be described as any tool that facilitates communication, process and transmit information and share knowledge through electronic means. Williams advocate that ICT encompasses a range of electronic digital and analog devices such as radio, television, telephones (fixed and mobile), computers, electronic-based media such as digital text and audio-video recording, and the internet, but excludes the non-electronic technologies. In Nigeria, commonly used ICTs include Internet, Personal Digital Assistants (PDAs), Automated Teller Machines (ATMs), mobile phones and smart cards. SMEs usage of ICT ranges from basic technology such as radio and fixed lines to more advanced technology such as email, ecommerce, and information processing systems. Using advanced ICT to improve business processes falls into the category of e-business (World Development Report, 2010).

Effect of ICT on SMEs Operations

As technology enhances with high pace, new Information Communication Technologies (ICT), especially Internet, have become a major investment area for small and large organizations alike. New technologies enable organizations to share and disseminate information between various users simultaneously without much effort, customize functionality and achieve higher levels of interactivity. In addition, new technologies help organizations to reduce their operation costs, enhance customer service levels, and satisfaction, hence providing higher quality of information

for better decision making abilities to managers. ICT in general are considered as an enabler of organizational changes. In the age of recent ICT, organizations have developed new means of communications and information flow among their partners and customers for a total paradigm shift in their organizations. SMEs typically have limited resources. Generally, small businesses face greater risks than large organization in ICT investment and implementation, since they have limited resources and training in ICT. Further, organization sizes and locations are causes of Indifferences in ICT satisfaction levels, whereas some managerial related others factors such as age, gender and education levels of managers revealed some interesting differences in the perception of organizational ICT infrastructure and investments.

Small and Medium Enterprises (SMEs) Firm Performance

Performance is the strategic outcomes that organizations use to realize its goals, success or not (J B Barney, 1991; Davidsson, 2004; Gregory G. Dess & Robinson, 1984; McMahon, 2001; Ostgaard & Birley, 1995; Sefiani & Bown, 2013). Firm performance activity springs from a large spectrum of disciplines (Marr & Schiuma, 2003). Performance is the key interest of each business manager or owner. The general performance of the organization depends on the correct management at the three levels of management (Gibcus & Kemp, 2003). The authors more in brief mentioned that Business performance measures market-related items that indicate existing business such as sales growth and market share and future positioning of the firm such as new product development and diversification. These are the two dimensions here. Financial performance is at the centre of the organizational effectiveness domain. Such performance standards are considered necessary, but not sufficient to determine the overall effectiveness (Murphy, Trailer, & Hill, 1996). Accounting-based measures based on profitability such as return on sales (ROS), return on assets (ROA) and return on equity (ROE) measure financial performance (Parker, 2000). Organizational effectiveness measures are nearly related to stakeholders other than shareholders. There are two dimensions with indicators related to quality such as product quality, worker satisfaction, overall quality and those indicators associated with social responsibility like environmental and community responsibility.

Related Empirical Literature

According to Mutua and Wasike (2009) reviewed literature on ICT adoption and its impacts on firms in both developing and developed countries and analyses the determinants of ICT adoption and their impact on firm's performance. By use of an additional survey on ICT service providers, they unearth and provided challenges facing ICT providers in Kenya and how these challenges can be dealt with. Their study provided empirical evidence both on the factors that determine adoption of ICT (landline or internet connection) and the impact of proxies for ICT adoption on output of SMEs. Findings show that the main determinants of adoption of ICT are the size of the firm as indicated by firm employment, formal registration, and if a manager has some internet training. Registration or formalization of firms is also correlated with higher probability of adopting ICT. As predicted, the study finds that ICT tends to augment both capital and labour thus raising productivity of firms. Thus, the analysis shows that the ICT adoption as proxies by access to internet or a landline is significantly correlated with higher SMEs output. The study shows that adoption and use of ICT is a key factor to helping enterprises to raise their productivity and competitiveness. In the same vein Ghobakhloo (2011) in his study analyzed reasons that compile many small and medium enterprises (SMEs) to adopt information technology (IT), as well as which factor and how it affects the level of IT sophistication in SMEs entrepreneurial segment. Drawing on the technology-organization-environment view of the firm, the study hypothesizes that technological, organizational and environmental factors can be viewed as the reasons for IT sophistication within SMEs. The proposed research model and hypotheses were tested using survey data from a sample of 121 Iranian manufacturing SMEs. Findings showed that external pressure, information processing needs, IT-enabled innovativeness and performance and

competitive pressure are the key drivers of IT sophistication within SMEs. The findings offer valuable insights to executives and consultants on why SMEs move toward IT adoption. Likewise, the results of the study could serve as a benchmarking measure of reasons persuading SMEs to adopt sophisticated IT. Center for Promoting Ideas, USA www.aijcrnet.com 168 Ghobakhloo et al (2012) conducted a research which was aimed at providing a better and clearer understanding of IT adoption within SMEs by reviewing and analyzing current IT literature. In their research, the review of literature includes theories, perspectives, empirical research and case studies related to IT adoption, in particular within SMEs from various databases such as Business Premier, Science Direct, Emerald Insight and Springer Link. The proposed model of effective IT adoption is believed to provide managers, vendors, consultants and governments with a practical synopsis of the IT adoption process in SMEs, which will in turn assist them to be successful with IT institutionalization within these businesses.

METHODOLOGY

Research Design is a master plan strategy adopted for research investigation, (Odo,2004).The study employed survey design and research questionnaires were administered to the selected Small and Medium Enterprise (SMEs) owners, staff and customers. This study adopts both primary and secondary sources of data collection, the target population of this study were owners, staff and selected customers which were six hundred (600) in Number. The selected SMEs were Yakubu Supermarket Plaza Jalingo, A.U.K Kirri Supermarket and Zuma Supermarket. Moreover, Yaro and Yemen's formula for sampling size determination is applied which result to total number of two hundred and forty (240) respondents. The study use simple random sampling techniques to avoid biasness, respondents were randomly selected to form the sample size of the study and Simple Percentage, Statistical Package of Social Sciences (SPSS) were used by the researcher for the purpose of data analysis and discussions.

Furthermore, the empirical model for this study can be denoted as:

SMP = f(POS, CCTV, CST)…….(2.1)

Where:

SMP = Small and Medium Enterprises Performance

POS = Point of Sales

CCTV = Closed Circuit Television

CST = Computerised Sales Ticket

The equation (2.1) is transformed to econometric modelling as:

$SMP = \beta_0 + \beta_1 Ln (POS) + \beta_2 Ln (CCTV) + \beta_3 Ln (CST) + \mu_t$ …… (2.2)

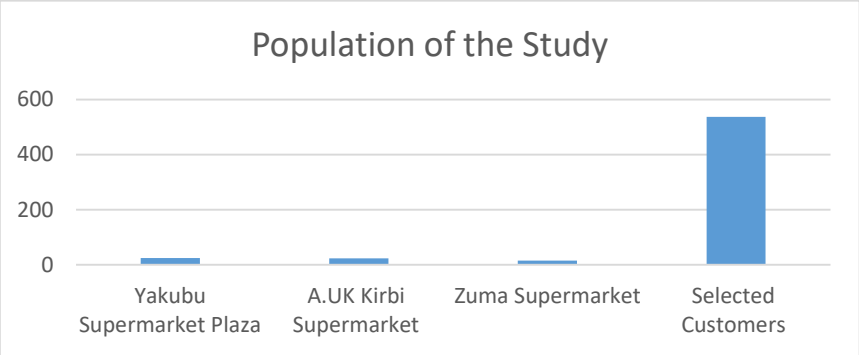
Where:

β_0 = intercept, while $\beta_1 - \beta_3$ are parameters to be estimated and Ln = Natural log to minimize the error of multicollinearity in the study and μ_t is error term.

Table 2.0.1: Population of the Study

S/N	Categories of SMEs	Total Population	Percent
1.	Yakubu Supermarket Plaza	25	4.2%
2.	A.UK Kirbi Supermarket	23	3.8%
3.	Zuma Supermarket	15	2.5%
4.	Selected Customers	537	89.9%
	Total	**600**	**100%**

Source: Filed Survey 2022



Source: Filed Survey 2022

The above table 2.0.1 and Bar Chart shows population target of the study, Yakubu Supermarket represent 2***5*** respondents with 4.2%, A.U.K Kirbi Supermarket 23 respondents with 3.8%, Zuma Supermarket represent 15 respondents with 2.5% and Selected Customers represent 537 respondents with 89.9%.
Apart from that, the sample size of this study can be obtain by using Yaro and Yemen's formulae (Yaro & Yemen, 1987). The formula is denoted as: $n = N/1+N\ (e)^2$
Where: N = Population of the study, n = Sample size, e = level of significance (5%), 1 = constant term
The study applied it as follows:
$n = 600/1+ (600)\ (0.05)^2$
$n = 600/1+1.5$
$n = 600/2.5$
n = 240 required sample

Table 2.0.2: Respondents' Response Rate

Questionnaires	Frequency	Percentage
Questionnaires Distributed	**240**	**100%**
Questionnaires Returned	220	92%
Questionnaires Unreturned	20	8%

Source: Field survey, (2022)

Above Table 2.0.2 shows the response rate from the sample respondents. Out of 250 questionnaires distributed, a total of 230 questionnaires representing 92% were successfully retrieved while 20 questionnaires representing 8% were not retrieved. With 92% questionnaires successfully retrieved from the respondents, the response rate for the study is considered satisfactory as it provides a framework for making a generalization about the sample of the study.

Data presentation and analysis
Table 2.1.1
Point of Sales (POS) technology make business activities easy for both customers and owners of business.

Respondents	Frequency	Percentage %	Cumulated Freq.
Agree	120	54 %	54
Strongly Agree	70	33 %	87
Strongly Disagree	20	9 %	96
Undecided	10	4 %	100
	220	100	

Field Survey: 2022

Table 2.1.1, the respondents agreed 120(54%) that POS make business easy for both customers and owners, Strongly Agree 70(33%), Strongly Disagree 20(9%) and Undecided 10(4%) in the study area.

Table 2.1.2: Computerized Sales Ticket reduce lost and thieve of properties.

Respondents	**Frequency**	**Percentage %**	Cumulated Freq.
Agree	92	48 %	48
Strongly Agree	88	39 %	87
Strongly Disagree	20	9 %	96
Undecided	10	4 %	100
	220	100	

Field Survey: 2022

Table 2.1.2, the respondents Agree 92(48%) that Computerized Seles Ticket reduce lost and theft of properties, Strongly Agree 88(39%), Strongly Disagree 20(9%) and Undecided 10(4%) in Jalingo Metropolis, Taraba state.

Table 2.1.3: Closed Circuit Television (CCTV Camera) help to monitor activities within the business premises.

Respondents	**Frequency**	**Percentage %**	Cumulative Freq.
Agree	72	31 %	31
Strongly Agree	118	56 %	87
Strongly Disagree	18	8 %	95
Undecided	12	5 %	100
	220	100	

Field Survey: 2022

Table 2.1.3, the respondents Agree 72(31%) that Closed Circuit Television, Strongly Agree 118(56%), Strongly Disagree 18(8%) and Undecided 12(5%) in the study area. ICT devices are useful in the aiding business transactions in Taraba state.

Model Estimation

Firstly, the study conduct dimension reduction on dependent variable i.e SMEs Performance where questionnaires related to SMEs were group and extracted the data through component analysis as Presented in Appendix. Therefore, the study obtained the mean values of variables for its dependent variable in this work. It then proxied it for SMEs Performance in this research based on the field survey questionnaire. See Appendix for details. Secondly, the study followed the above procedure to collate and source out data for point of Sales (POS), Closed Circuit Television (CCTV), and computerised Sales Ticket (CST) to apply the model built in Section three See Appendix IV for the output from SPSS version 23. Finally, the next work in this study was the computation of ordinary least squares (OLS) in order to examine the impact of technology adoption on some selected small and medium enterprises' performance in Jalingo Metropolis, Taraba state. This estimate is presented in Table 2.1.4.

Ordinary Least Squares (OLS)

Table 2.1.4: The result of OLS: Dependent variable: **SMEs (SMP)**

Independent variable	Co-efficient	Standard Error	T-Ratios	Sig
Constant	-0.001	.069	-0.021	0.984
Point of Sales (POS)	0.378	.074	2.414	0.017
Closed Circuit Television (CCTV)	0.344	.102	3.374	0.001
Computerised Sales Ticket (CST)	0.410	.072	.0144	.886
R = .634[a]	R^2 = 0.611	R^{-2} = 0.597		D-W = 2.368

Source: Authour's Computation Using SPSS, Version 23 on Field survey, 2022.

Discussion of the findings

In the Table 2.1.4, the coefficient of the determination R denoted the relationship between dependent variable and independent variables which mean correlation coefficients showed how point of sales, Closed Circuit Television and Computerised influence SMEs performance within the study period. It also indicated that there were positive relationship between SMEs performance and other variables which are included in the model built in section three (3). Its relationship accounted for 0.634 or 63% of change in SMEs performance were due to adoption of technology in form of POS application, Closed Circuit Television and Computerised sales tickets in those small and Medium scale enterprise in Taraba state. Furthermore, the determinants of R^2 of 0.611 i.e approximately 61% of change in the dependent variable (SMEs) was actually captured by the variables included in the model. It means 61% change in SMEs performance were explained by POS, CCTV and CST in the business operations of the selected small and medium enterprises in Jalingo. It means only 39% were explained by other variables like support online shopping, and mobile sales. Meanwhile by

R^{-2} = 0.597 i.e 60% after adjustment was made. It can be clearly seen that the model was well constructed and built for this study and it was fit for policy formulations and recommendations based on this research results. Moreover, in the Table 2.1.4, it proved that all the coefficients of the variables were positive which were in line with expected signs and economic theory. The positive signs of point of sales, closed circuit television and computerised sales ticket have positive impact on small and medium scale enterprises in Jalingo assumed all things being equal and versa vice.

More to that, if organisational policies, finances and programmes were properly implemented that is, it has positive impact on the SMEs in the study organisation. It should be noted that, the coefficients of independent variables of 0.378 unit or 38%, it means that 1 unit increase in point of sales values would lead to 0.378 units or 38% increase in SMEs performance in the study area. By this coefficient, it address objective (i) of the study which states that evaluate the influence of point f sales on SMEs in Taraba state. Here, the impact on SMEs performance was positive influences.

In the same, when there was 1 unit increase in Closed Circuit Television, it would resulted to 0.344 units increase in SMEs in the study Area. This was the fundamental factor which causes increase in SMES performance in minimize the risk of theft, loss of goods in the study area. CCTV in term of monitoring and security of the business properties are essential to SMEs performance in the study area. Therefore, by the implication of this findings, small and medium enterprises' performance would be improved for real change in the business outfit if CCTV are installed. It has provided the answer to objective (ii) of the study i.e to assess the impact of CCTV on SMEs performance in Taraba state. Its impact was positive on SMEs which implied that the apriori expectation of the economic theory was true about business environment.

In addition, by the coefficient of 0.410 units, or 41 % of computerised sales ticket; it means if 1 unit increase in CST by SMEs performance in Jalingo Metropolis would improve the SMEs performance by 41% during the course of the study. This computerised sales Ticket of the various SMEs in Jalingo have been contributed positively on the performance of the business outlets. It has answered objective (iii) which states that: to examine the impact of Computerised sales ticket on SMEs performance in Jalingo Metropolis, Taraba State. Moreover, the impact was positive which was in line with apriori expectation of the economic theory.

Test of hypotheses

Ho_1: Point of Sales (POS) has not significant impact on SMEs performance in Jalingo Metropolis Taraba state,

In Table 2.1.4, this study have tested the hypothesis ($Ho_{1)}$ which states that Point of Sales (POS) has not significant impact on SMEs performance in Jalingo Metropolis Taraba state. By the rule of thumb, since T-calculated of 2.414 was approximately greater than 2 critical value, then the study

therefore, reject the Null hypothesis and accepts that POS impacted positively on SMEs Performance in the study area. This position have been confirmed by the Probability value of 0.017 which is less than 0.05 as a threshold of the hypothesis.

Ho_2: Closed Circuit Television (CCTV) has not significant impact on SMEs Performance in Jalingo Metropolis, Taraba state.

Similarly, this study has also tested the second hypothesis which states that: Closed Circuit Television (CCTV) has not significant impact on SMEs Performance in Jalingo Metropolis, Taraba state. Applying the T-calculated value of 3.374 which was greater than 2 critical value, using the rule of thumb, the study reject the null hypothesis and concluded that Closed Circuit Television has positive impact on SMEs in the business organisation. This outcome have been supported by the P-value of 00.001 which proved that Closed Circuit Television were statistically significance in the model.

Ho_3: Computerized Sales Ticket does not have significant impact on SMEs Performance in Jalingo Metropolis, Taraba state

Moreover, the research also test the third hypothesis which states that: **Ho_3: Computerized Sales Ticket does not have significant impact on SMEs Performance in Jalingo Metropolis, Taraba state.** From Table 2.1.4, the T-Calculated was .0144 which was less than T-Tabulated of 2 critical value, by rule of thumb, this study concluded that computerised sales ticket do not have impact on SMEs performance in the selected business organisation. Also, the P-value 0.886 indicated that Computerised Sales Ticket was statistically insignificant in the study area.

Finally, Durbin-Watson statistics (D-W) = 2.368 showed that there was no presence of autocorrelation in the course of the analysis. In this result presented in Table 2.1.4, it was free from spurious regression. Therefore, it can be used for generalization in business administration and it possess a good quality for policy recommendations and implementation for SMES in Jalingo Metropolis, Taraba state.

Contribution to knowledge

The study has added to existing literature on Technology Adoption and SMEs Performance, by empirically validating that Technology Adoption can enhance SMEs Performance in Jalingo Metropolis Taraba State. This study also contributed to package of knowledge by demonstrating that Technology Adoption has positive correlation with SMEs Performance and it also confirmed that there is a significant impact of Technology Adoption on SMEs Performance. The study has also contributed to the package of knowledge by providing unique contributions of individual parameters of service providing SMEs included in the research study. However, in terms of the unique contribution of Technological Adoption, the study has been able to demonstrate that CCTV made the highest unique contribution to SMEs Performance. Finally as a way of contribution to knowledge, this study will serve as a reference point for researchers, scholars and academicians who intend to conduct similar or related studies in the future as it will provide reliable insights that would be useful for educational purposes. The study has been able to gather relevant literatures with in-depth knowledge about Technology Adoption and SMEs Performance, thus practitioners and academicians will benefit from it.

CONCLUSION

Findings of this study concluded that technology adoption has great impact on performance of selected SMEs and all the SMEs within Jalingo Metropolis Taraba State, the study also concludes that technology adoption such as Point of Sales (POS), Computerized Sales Ticket system and

Close-Circuit Television (CCTV) has higher impact on SMEs performance in Jalingo Metropolis Taraba State.

RECOMMENDATIONS

The study provides the following recommendations:

i. Managers of SMEs should sustain and improve upon existing technology so as to increase their market shares in the world of business and reduce the cost of doing business.
ii. Manager of SMEs should adopt online shopping platform that will enable their customers make payment for their goods at their comfort zone.
iii. Management of SMEs should adopt computerized their stocks to prevent thief and also computerize sales ticket to increase profitability.
iv. Managers of SMEs should equally adopt the use of Close-Circuit Television (CCTV) that enable them to view their business activities any part of the world.

REFERENCES

Barney, J. B. (1991). **Firm Resources and Sustained Competitive Advantage**. Journal of Management, 17, 99-120.

Ciemleja, G. & Lāce, N. (2008). "The factors determining innovation-based attitude of Latvian SMEs towards sustainability." In *5th International Scientific Conference "Business and Management'2008". Lithuania, Vilnius: Vilnius Gediminas Technical University Publishing House.* 28-36.

Davidsson, P. (2004) Researching Entrepreneurship. Springer, New York.

Dess, D.G and Robinson, R.B. (1984) "Measuring Organizational Performance in the Absence of Objective Measures: The Case of the Privately Held Firm and Conglomerate Business Unit," Strategic Management Journal, 5,(3) 265-273.

Ghobakhloo, M., Benitez-Amado, J. and Arias-Aranda, D (2011) Reasons for information technology adoption and sophistication within manufacturing SMEs. POMS 22nd Annual Conference: Operations management: The enabling link Reno, Nevada, U.S.A. April 29 to May 2, 2011.

Ghobakhloo, M., Hong, T. S., Sabouri M. S. & Zulkifli, N. (2012). Strategies for Successful Information Technology Adoption in Small and Medium-sized Enterprises. Information, 36-67; www.mdpi.com/journal/information.

Ghobakhloo, M., Sabouri, M. S., Hong, T. S & Zulkifli, N (2011) Information Technology Adoption in Small and Medium-sized Enterprises; An Appraisal of Two Decades Literature. Interdisciplinary Journal of Research in Business Vol.1, Issue. 7, July, 2011(pp.53-80).

Marr, B & Schiuma, G. (2003) Business Performance Measurement—Past, Present and Future," Management Decision, 41, (8), 680-687.

Mutua, J.M and Wasike, W.S.K (2009) ICT ADOPTION AND PERFORMANCE OF SMALL MEDIUM-SIZED ENTERPRISES IN KENYA. Special Research Project on ICT and Economic Development in Africa. Submitted to the Director of Research African Economic Research Consortium (AERC).

Kumar, R. S. & Subrahmanya, M. B. (2010). Influence of subcontracting on innovation and economic performance of SMEs in Indian automobile industry. *Technovation,* 30(11-12): 558–69.

Wattanapruttipaisan, T. (2003). Promoting SME Development: Some Issues and Suggestions for Policy Consideration. *Bulletin on Asia-Pacific Perspectives 2002 unescap.org, 2003.*

World Bank (2010). The report on SMES in 2010 global business. Washington DC, USA.

Zhang, J. & Chen, L. (2014). The review of SMEs open innovation performance. *American Journal of Industrial and Business Management,* 4: 716-20.