

**Effect of Joint Resource Utilization on SME Performance in the Era of COVID-19
Pandemic in Kano State, Nigeria**

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Abstract

The objective of the study was to assess the role of Joint Utilization of Resources as a bootstrapping strategy on the performance of Small and medium-scale enterprises (SMEs) during Covid 19 pandemic in Kano State. In achieving the said objective primary method of data collection using a questionnaire was employed with four Likert's rating scales. 362 Respondents were selected as a sample size from the study population using a simple random sampling technique. The study employed the Pearson Correlation Coefficient and Multiple Regressions as a statistical tool to test the relationship between Joint Utilisation of Resources and SME performance. The study findings showed that both Joint Utilisation of Assets / Equipment, Joint Utilisation of Office Space, and Employing Temporary Staff do not influence SMEs' performance during the COVID –19 pandemic in the study area. However, Sharing Employees with other organizations and lease / Hire Purchases were found to be positive and significant factors in influencing SME performance in the study area. The study recommended that under distressed conditions such as recession, pandemic, and epidemic SMEs should engage in sharing their employees with others to save cost, maintain liquidity, and at the same time engage in lease and Hire purchases to foster performance.

Keywords: Joint Utilization of Resources, Joint Utilization of Office Space, Hire Purchase, Lease, SMEs' performance, Covid-19 pandemic

INTRODUCTION

The contribution of Small and Medium Enterprises here referred to as SMEs at the global level could not be overemphasized with a contribution to GDP of 2.5 percent, employment of 50 percent, and 90 percent of global businesses (Susanty, Puspitasari, Bakhtier, & Prasetya, 2022; Abdulrahaman, 2021; Bularafa & Adamu, 2021; International Trade Center, 2020). The contribution of this sector in the last quarter of 2019 to the third quarter of 2020 was questioned by many studies as the period was characterized by the vicissitude of economic upheavals coursed by the COVID-19 Pandemic (Abdulrahaman, 2023b; Block, Fisch & Phisrichmann, 2021; Block et al, 2020, Statista, 2020) directly affecting the performance of the global economy with particular reference to s enterprises.

The Covid 19 pandemic originated in Wuhan province in China in the year 2019 (Abdulrahaman, 2023; WHO, 2019) and was considered a human tragedy and later metamorphosed into a global catastrophe resulting in an economic downturn, which affected the entire global economy (Susanty, et all 2022; International Monetary Fund 2020). To contain the spread of the virus, the World Health Organization (WHO, 2019) proposes some safety measures among others including shutdown of all working agencies, restriction of movement, self-distancing, and quarantine. However, these safety measures open a tin of worms that nearly kill global economic activities, especially at the height of the pandemic causing the global GDP to decrease from 2.5 percent to -3.3 percent from 2019 to 2020 (Sayegh & Afentous, 2021). The devastating nature of the COVID-19 pandemic on the global economy has led to a loss of jobs and the closure of industries, banks, and markets leading to a drop in sales accompanied by poor revenue generation among all economic enclaves in general (Abdulrahaman, 2023a).

Previous studies indicated that SMEs suffered the most during the Covid-19 pandemic when compared to other sectors of the global economy (Price Water Corporation 2020; Lakuma et al, 2020) and this resulted in making about 94 percent of small and medium

enterprises vulnerable to insolvency and liquidity problem (Susanty et al, 2022; KPMG, 2020) there-by affecting their performance. Some researchers are of the view that what makes SMEs suffer most when compared to other segments of the economy cannot be devoid owing to its peculiar characteristics such as the small nature of capital, limited scope of operation, and inability to access loans from the banks (Abdulrahaman, 2023a) and other related credit institutions halted SMEs business operation and rendering its performance low. Addressing such situations researchers such as Vancker et al (2010); Hovarth (2018), and Sanjo (2020) opines that financial bootstrapping can play a significant role that could provide sustainability to SMEs especially when they are in economic distress. However, Hovarth (2018), and Abdulrahaman (2023b) argue that not all SMEs are aware of this strategy.

Statement of the Problem

The COVID-19 pandemic has negatively affected the global economy in different forms including employment, production, sales, and revenue (Abdulrahaman, 2023b; Susanty, et al, 2022). The intensity of how the Covid-19 pandemic affects multi-national corporations, large businesses, and SMEs according to some researchers differs (Adian, et al, 2020) with SMEs being more vulnerable to the pandemic shock (Abdulrahaman, 2023; Statista, 2020). Among the reasons why SMEs are considered vulnerable is associated with their low capital base as well as their inability to secure external financing due to lack of financial records and collateral, making most of them to close their business or engage in partial operation as they cannot survive without working capital (Yusuf, Abubakar & Paul, 2022). The performance of SMEs in Nigeria deteriorated during the pandemic period (Abdulrahaman, 2023b; Bularafa & Adamu, 2021) due to insolvency and liquidity problems associated with their inability to produce, sell, and generate revenue as a result of the strategies put in place to contained the spread of the virus. However, SMEs in other parts of the world that have a competitive advantage over their resources survived the

pandemic and post-pandemic performance by using their resources as a mechanism to generate funds internally (Mabonga, 2020).

Findings from empirical studies across the globe indicated that SMEs that jointly utilized their resources as bootstrapping technique witnessed an increase in their performance at low or no cost as an alternative mechanism to keep breathing within the period of the trial (Block et al, 2021; Rakotoarizaka, Qamari, & Nuryakin, 2022). However, a plethora of studies ignore to investigate the influence of Joint Utilization of Resources in achieving SME performance during the pandemic period in Nigeria, and this creates a gap, which requires urgent attention especially, when the pandemic is expected to move to the next level (WHO. 2020). The general objective of the study is to determine if joint utilization of resources influences SMEs' performance during the COVID-19 pandemic.

Literature Review and Hypothesis Formulation

SMEs Performance

Small and Medium Scale Enterprises here referred to as SMEs have no distinctive acceptable unique definition (Amuda, 2020). However, in the Nigeria context, Small and Medium Enterprises (SMEs) are defined as entities with an asset base of N5 million and not more than N300 million excluding land and buildings with employees not more than 300 and turnover not less than 100 million per annum (Banji, 2020, NBS, 2017). Despite the limitations of SMEs, researchers (Abdulrahman, 2022; Bloom, et al, 2020) believe that it plays a crucial role in economic development (GDP). For instance, Zeidy (2020); and Abdulrahman (2021) acknowledge SMEs drive growth, create employment, and provide goods and services.

The concept of performance is viewed as achieving or excelling in one's specific area of activity (Mahudov and Kovacs, 2018), which is used as a measurable achievement in a certain domain of activity. In their contribution Collins, Remigious, and Amarachi (2022)

argue that business performance could be viewed from the financial or nonfinancial aspect of an organization to identify where there is an improvement. Aminu and Shariff (2015), and Abdulrahaman (2021) define SMEs' performance as thriving ways that management manages the firm resources to provide value to its stakeholders, such as owners, customers, society, and the government. This means stakeholders' satisfaction in terms of sales, revenue growth, outputs, employment and contribution to national income determines the level at which SMEs are operating at a high, average, or low level of performance. The performance of SMEs in terms of productivity, revenues, employment, and sales at the global level due to the negative effects of the pandemic deteriorated since the beginning of the economic recession coursed by the pandemic (Calva, 2020; World Bank, 2020; Catalan, Pretro, & Ponce, 2021). Unlike the period before the pandemic statistics from World Bank (2020) indicated that SMEs represent 90 percent of global businesses, provide more than 50 percent of global employment, and contribute 40 percent of national incomes in emerging economies. However, the current situation (reductions in sales volume, output, loss, and failure to contribute to the national economy) indicated that the pandemic explicitly negates the role of SMEs in performing their traditional role as observed by Zeidy (2020), and IMF (2020).

Joint Utilization of Resources

Joint utilization of resources is one of the financial bootstrapping techniques that enable businesses to generate funds internally (Zwane & Nyide, 2016). This involves the joint use of equipment and assets, joint utilization of office space, lease/hire-purchase, sharing employees with other organizations, and employment of temporary staff (Abdulrahaman 2023; Mabonga, 2020; Zwane & Nyide, 2016). Joint utilization of resources allows SMEs to take advantage of one another to share equipment with others especially when such equipment is difficult for a single entity to own or single-handedly (Stephens & Iskandaria, 2006) manage it. Joint Utilisation of resources according to Abdulrahaman, 2023b, Block

et al, (2021); Yusuf, Abubakar, and Paul, (2020), Mabonga, (2020) and Ongere and Juma (2015) among others include Joint utilization of assets and equipment, Joint utilization of office space, Sharing employees with others, Lease/Hire purchase and Employment of temporary staff to mention but just a few.

Joint Utilization of Assets and Equipment and SME Performance

This is a strategy where two or more SMEs can jointly use equipment due to stringent conditions to possess by a single user (Abdulrahman, 2023b; Block et al, 2021). Similarly, in a situation where the cost of purchase is not affordable due to lack of funds, however, two or more can provide the funds to enable them to jointly use the equipment. However, it should be noted that in most cases joint utilization of equipment does not end well due to irrational behavior of the users.

A Plethora of studies write much about the influence of joint utilization of assets and equipment on SMEs' performance. For instance, in Germany, a study was conducted by Block, et al (2021) the findings of the study show a positive and significant relationship between bootstrap financing and private consumption on one hand and self-employment on the other. The result dictated that the majority of the SMEs that responded to the study (17,046) that enjoy Joint utilization of assets do not witness severe conditions during the pandemic, as a positive relationship exists between severity cases and bootstrap financing. Vanacker, Manigart, Meuleman, and Sel (2010), conducted a study on the Impact of Bootstrap Strategies on Venture Development: A longitudinal approach. The findings of the study indicate that businesses that engage in joint utilization created more value for SMEs that depend on their building. The findings of the studies indicated the positive influence of joint utilization of assets on SMEs' performance, one can deduce that in the absence of funds to build, buy assets, or install new equipment, joint utilization serves as a source of funding not only during crisis periods. It should be noted that the strategy if not

well managed may create a vacuum that will cause a rift relationship between the firms on who controls what.

In another study, Block et al (2021) posited that SMEs that adopt Joint Utilization of Assets to cushion the effect of liquidity problems during the pandemic era do not suffer severe financial conditions. the study findings revealed a positive influence of Joint Utilization of assets on SMEs' performance under severe economic conditions. The result conforms with the study finding of Abdulrahaman (2023) that joint utilization of assets positively influences SME performance in Kano State, Nigeria during the pandemic era. However, Muo, Oladimeji, and Okunbadejo (2021) using primary data on sampled SMEs in Lagos found that joint utilization of assets is not statistically significant at a 95 percent confidence level on SME growth.

Similarly, Abdulrahaman (2023b) examined the influence of bootstrapping finance and SME performance in Nigeria using multiple regression on primary data collected from the sample SMEs in the study area, the study result indicated that Joint utilization of assets as a strategy of bootstrapping positively and significantly influences the SMEs performance in the study area. Based on the empirical pieces of evidence the study therefore hypothesized the following statement

H_{a1} Joint Utilization of Assets and Equipment positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria.

Joint Utilizations of Office Space

Office and office accommodation are another grey area where two or more entities may decide to use single office premises, and office furniture jointly. This happens when there is a shortage of office accommodations due to scarcity of land, rules, regulations, cost of

renting, and other vagaries due to geographical and economic misfortunes affecting the well-being of the business entities. For instance, during festivities; Christmas, and Sallah as well as business events sharing of spaces is common among different organizations. Mabonga (2020) in his study found that the majority (58: 31.2%) of the SMEs responding on the influence of sharing business premises with others strongly agreed that sharing premises with others has a positive influence on SMEs performance in the study area. the study further concludes that joint utilization of resources, in general, influences SMEs performance (sig. 0.000) at a 95% confidence level.

Similarly, Rogers, Edward, and Perera (2018) using primary data found that shared office space reported a lower appraisal of the work physical environment with a lower appraisal of working conditions in the study area. Based on the empirical pieces of evidence the study therefore hypothesized the following statement.

H_{a2} Joint Utilization of Office space positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria

Sharing employees with other Businesses and SMEs Performance

It is common among organizations to share employees with others, especially skilled laborers with extra working experience. Most medical doctors, engineers, and university professors are contracted outside in the form of visiting professors or residential doctors by other entities that require their services to augment areas that they are lacking. However, with the COVID-19 pandemic, the practice of sharing more employees is common among business enterprises (Gardey, et al., 2023) to satisfy the demand and the supply side of the labor force that is critically altered by the pandemic. One of the advantages of this method is it enables the firm to enjoy the low-cost advantage of employing permanent and pensionable employees while at the same time enjoying first-class services. The strategy enables the firm to have a low-cost advantage and enjoy high-profile services when compared to looking for a new employee.

It should be noted that during the Covid 19 pandemic business entities were under pressure to pay salaries, and failure to make payments necessitated businesses to go for temporary or permanent closure. The situation called for a reasonable sharing of employees among themselves to achieve a win-win employment approach, and this approach according to Chen (2021) provided more than 4 million employment opportunities in China alone during the pandemic.

H_{a3} Sharing Employees with other Businesses positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria

Lease / Hire Purchase and SME Performance

A lease is an agreement between two parties (lessor and lessee) where the lessor allows the lessee to use his assets for a period agreed by the term and the lessee maintains the ownership of the assets (Akpala and Oboro, 2014). The contract provides both parties the advantage of tax benefits in general and in particular the lessee possesses equipment without retaining the ownership. Firms that are facing difficulty in obtaining equipment such as factory machinery due to its cost or in the ability of the firm to source funds. A firm can look for a capital lease in which the ownership of the equipment could be transferred to the lessee after making his final payment (long-term). Similarly, a firm may look for an operating lease, which is short and the lessor retains the ownership (Yusuf et al, 2020). Most SMEs prefer to look for operating leases to meet their immediate needs, especially in a situation of uncertainty, such as that of the COVID-19 pandemic.

A study was conducted and tested empirically by Akpal and Oboro (2014) through structured questionnaires on 100 small-scale business owners in Delta State. Results of the study using the Pearson Moment Correlation Coefficient indicated that many business owners do not have access to lease financing and this negatively affects their performance.

In examining the impact of lease financing on the financial performance of Nigerian oil and gas companies, Bello, Ahmad, and Aliyu (2016) conducted a study using secondary from the annual reports and accounts of 6 sampled companies in the Nigerian Oil and Gas industry. The result of the study using OLS regression is that lease financing has a significant impact on the financial performance of sampled companies. Likewise, in their contribution Yusuf, Abubakar, and Paul (2020) examine the effects of financing sources on the financial performance of SMEs in Taraba. Using primary data on 69 SMEs the result of the study indicated that lease financing has a significant negative effect on SMEs financial performance in the study area. Based on empirical pieces of evidence the study hypothesized the flowing hypothesis.

H_{a4} Lease and Hire purchase positively influence SMEs' performance in the era of Covid- 19 pandemic in Nigeria

Employing Temporary Staff and SMEs Performance

The pandemic period is characterized by liquidity problems, insolvency, and financial crunch necessitating SMEs to come up with strategies to address the situation. To address these problems in a situation where the remuneration of permanent staff cannot be paid, a short-run policy arrangement could made by employing temporary or casual staff at a cheaper rate. The strategy is used by entities that want to reduce the cost of wages, salaries, and other benefits associated with working conditions. The strategy is applied irrespective of whatever economic situation due to the financial crunch, many business entities convert their employees into casual laborers in the meantime to sustain the vagaries of the economy brought on by Covid 19 pandemic.

Furthermore, Rakotoarizaka, Qamari, and Nuryakin (2022) found that work flexibility and employee organization relationships positively and significantly influence temporary staff performance, while perceived organizational support does not affect temporary staff performance. Ongera and Juma (2015) conducted a study on the influence of temporary

employment and employee performance in Kenya. the result of the study indicated that there is a positive and significant relationship between temporary employment and employee performance. Also, Morice et al (2021) in their findings indicated a positive and significant relationship between temporary workers and innovation performance among EU countries. The result further indicated a negative relationship between temporary workers and financial performance among the EU and non-EU countries. With these empirical findings, the study is hypothesizing that:

H_{a5} Employing temporary staff positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria.

Theoretical Perspective

The underpinning theory of this study is a resource-based theory postulated by Penrose (2009), which believes that organizations that have and can rapidly mobilize more strategic resources are likely to develop a sustainable competitive advantage and generate above-normal returns compared to their resource-constrained peers (Abdulrahman, 2016 citing Barney 1991). The theory postulates that SMEs using owner capital, assets, equipment, and inventory will strategically be better up during economic upheavals and compete favorably when compared to others that do not strategically position themselves. During the period of COVID-19 SMEs with owner capital, as a bootstrapping strategy do not witness capital shortages due to bank closure. Similarly, those having assets and equipment found it easy to manage their operations at the same time inviting other SMEs to jointly use the same assets and equipment for their operation, giving the former a competitive advantage during the said period.

Methodology

The study design is descriptive, (looking for the causal relationship between Joint Utilization of Resources and SME performance) using empirical evidence. The population of the study includes all the registered 2441 Small & Medium Enterprises (SMEs) in Kano

State according to the National Bureau of Statistics (NBS, 2021). Using the Slovincs formula calculator the study selected 362 respondents as the sample size with an acceptable margin of 0.05. Similarly, the study used a simple random probability sampling technique to give each SME a chance to participate in the survey this is in line with the study conducted by Abdulrahaman (2021). Structured questionnaires were used as the research instrument using four Likert's rating scales and distributed to the owners/managers of the registered SMEs in the study area as the study respondents.

Diagnostic Test

To check if data is normally distributed, the result from the preliminary analysis indicated that the data were normally distributed with Skewness and Kurtosis having values within the acceptable region of -1 and +1, and with the value of skewness falling between -.901 and -.516 the distribution is symmetrical as argued by –Singh (2021), Zikmond, et al (2010), and Sekaran (2000).

Statistical Model

The study statistical model is based on the assumption that SME performance depends on joint utilization of assets, joint utilization of office space, sharing employees with others, lease/hire purchase, and employing temporary staff as depicted below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where;

β	=	<i>The slope of the regression line</i>	
X_1	=	<i>JUA</i>	= <i>Joint Utilisation of Assets</i>
X_2	=	<i>JUO</i>	= <i>Joint Utilisation of Office space</i>
X_3	=	<i>SE</i>	= <i>Sharing Employees</i>
X_4	=	<i>LH</i>	= <i>Lease and Hire Purchase</i>
X_5	=	<i>ETS</i>	= <i>Employing Temporary Staff</i>
ϵ	=	<i>Error term</i>	
Y	=	<i>SMEs' Performance</i>	

Measurement of the Study Variables

In measuring the study variables, for instance, Joint Utilisation of Resources is measured based on the following constructs, Joint Utilization of Assets, Joint Utilization of Office

space, Lease / Hire Purchase, and Employing Temporary Staff with five items each as found in Abdulrahaman (2021), Block, Fish, and Hirschmann (2021), Sanjo (2020), Horvath (2018). Similarly, SMEs' performance is measured by productivity (output), sales, profit, and employment based on the studies conducted by Abdulrahaman (2021), Amuda (2020); Zeidy (2020) using four Likert rating scales with six items each.

Validity and Reliability Tests

Validity Test

Validity is the ability to produce findings that are in agreement with the theoretical or conceptual values to produce and measure what is supposed to be measured (Amin, 2006; Collins & Hussey, 2003; Mugenda & Mugenda, 1999). The study tested both the independent (Joint Utilisation of Resources), and the dependent variable (SME performance) using the Kaiser-Meiyer-Okin (KMO) validity test. Both the variables were found to be within the accepted region (0.73, and 0.70 respectively) based on the classification of George and Mallery (2003).

Reliability Test

The reliability test attempts to measure the ability of the instrument to produce the same results after using it on different occasions. To measure the reliability of the study instrument Mubaraka (2013) and Ahmed (2010) argued that Cronbach's alpha is widely used in social science research. The Cronbach's Alpha for both the independent (0.73) and the dependent (0.81) variables are good for our study based on the classification of George and Mallery (2003) which, state that values exceeding 0.9 are excellent, those between 0.9 and 0.8 are good, 0.7 to 0.8 are acceptable, 0.6 to 0.7 are questionable and 0.5 to 0.6 are poor, and below 0.5 is unacceptable.

Data Presentation, Analysis, and Results

Questionnaire Response Rate

The study sampled 362 respondents from the target population in the area of the study, to respond to the study questionnaire regarding Joint Utilisation of resources, and SME performance. Table 4.1 provides the response rate of the total questionnaire distributed.

Table 4.1 Response Rate

Response	Frequency	Percentage
Returned	350	96.5
Not Returned	12	3.5
Total	362	100

From the study, 350 respondents of 362 sampled respondents returned their questionnaire well-filled, contributing to 96.5%. Only 12 respondents do not return their questionnaire at all. It should be noted a response rate of 96.5% is excellent for providing representation for analysis and reporting as argued by Kivuti (2013) citing Mugenda and Mugenda (1999).

Descriptive Statistics of the Study Respondents

The respondents' profiles indicated that the majority of the respondents are male (320, 91.4%) and married (250, 71.4 %). Similarly, the majority of the respondents have business experience between 11 – 15 years (51.4%). Concerning the educational level of the respondents, 120 (34.3%) constituting the majority have a secondary certificate with very few attending postgraduate courses (5.7%). Furthermore, the majority of the respondents have a capital base between 50 million and 100 million (140, 61%), while only 7 percent have a capital of N 151 million and above as a capital base. Similarly, on the total number of workforce, those that employed between 40 – 59 constitute the majority with 51.4%. Table 2 further indicated that the majority of the respondents (200: 55%) are in the production business, with 15% in merchandising.

Descriptive Statistics of the Study Variables

Using SPSS (21) software the descriptive statistics of the study variables as depicted in Table 4.3 using mean and standard deviation indicate the level at which the study

respondents understand the concepts used in the research instrument. The mean average ranges from the highest 4.0245 (SE) to a minimum of 3.8129 (JUA) with a standard deviation of .94755 (SE) and .85754 (ETS) is a good of the variability of the data as it moves closer to the mean going by the classification of Field (2015).

TABLE 4.2 Descriptive Statistics of the Study Variables

	JUA	JUO	SE	LH	ETS
Mean	3.8129	3.8497	4.0245	3.9877	4.0031
Std Dev	.86573	.88689	.94755	.91811	.85754
Skewness	-.516	-.739	-.901	-.720	-.740
Kurtosis	-.135	.478	.391	-.112	.385
Minimum	1.000	1.000	1.000	1.000	1.000
Maximum	5.000	5.000	5.000	5.000	5.000

Similarly, Table 4.2 also indicated the normality distribution of the study instrument, using Skewness and Kurtosis all the values are within the acceptable region of -1 and +1, and with the value of skewness falling between -.901 and -.516 the distribution is symmetrical as argued by Singh (2021).

Pearson Linear Correlation Coefficient

In determining the relationships between the variables of the study, Table 4.3 using Pearson Linear Correlation Coefficient indicated different levels of association. For instance, the lowest association even though positive but not significant exists between SMEP and ETS with coefficient $r = .290$ at 95% confidence level. Similarly, a positive and significant relationship exists between LH and SE with an r coefficient of .680 at a 99% confidence level. Furthermore, the relationships between the independent variables: JUA,

JUO, SE, LH, and ETS, and the dependent variable (SMEP) are positive with varying degrees of levels of significance.

Table 4.3 Pearson Linear Correlation

	SMEP	JUA	JUO	SE	LH	ETS
SMEP	1					
JUA	.468**	1				
JUO	.526	.627*	1			
SE	.619	.598	.711	1		
LH	..533**	.522**	.624*	.680**	1	
ETS	.290	.396*	.419**	.408**	..344*	1

****.** Correlation is significant at the 0.01 level (2-tailed).

*****. Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

Table 4.4 Multiple regression

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
Constant	1.379	.201		6.860	.0000		
JUA	.091	.061	.089	1.487	.138	.506	1.978
JUO	.071	.060	.081	1.172	.242	..377	2.653
SE	.326	.057	.393	5.729	.000	.386	2.592
LH	.157	.057	.167	2.754	.006	.492	2.031
ETS	.002	.042	.003	.057	.954	.784	1.275

Model	1
R	.647^a
R²	.418
Adj R²	.409
Std. Error of the Estimate	.725
R² Change	.418
F Change	46.008
df1	5
df2	320
Sig. F Change	0.000

a. Predictors (Constant) JUA, JUO, SE, LH, ETS

b. Dependent Variable: SMEP

$$\text{SMEs' Performance} = 1.379 + .091\text{JUA} + .071\text{JUO} + .326\text{SE} + .157\text{LH} + .002\text{ETS} + \epsilon$$

Using multiple regression analysis the relationship between the predictor and predicted variable indicated a simple linear relationship of $r = .647$, meaning that the variables are 64.7% linear correlated. Looking at R^2 (.418) indicated that 41.8% of the dependent variables were explained by the independent variable and 58.2% were not accounted. Likewise, the adjusted R^2 (.409) indicates the predictive power of the predictor over the predicted variable.

Similarly, to address the multicollinearity and linearity problems the study used Tolerance and Variance Inflationary Factors as indicated in Table 4.4, and all values are within the accepted region closer to 0 and greater than 1.0 respectively as suggested by Field (2015). To find out if the model fit to explain the relationship between the observed and observed variables the T statistics (6.860), and the P value (0.000) from Table 4.5 all indicate that the model fit to explain the relationship between Joint Utilizations of Resources and SMEs performance.

Test of Hypotheses and Discussions

The study makes five propositions to establish the relationship between the joint utilization of resources and SME performance. Results from multiple regression analysis provide the following results.

Hypotheses One

H_{a1} Joint Utilization of Assets and Equipment positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria.

To test the hypotheses **H_{a1}**, Table 4.5 provides different results. For example to measure the relationship between JUA and SMEP, results ($\beta = .089$, **Sig. = 0.138**, and $\alpha = 0.05$) show that JUA does not influence SMEP at a 95% confidence level with a beta value less than 1%. With this result (**Sig. = 0.138**) the study hypotheses **H_{a1}** was not supported. The study therefore concludes that joint utilization of assets and equipment does not influence

SMES performance. This finding supports the earlier study results (Muo, Oladimeji, and Okunbadejo, 2020) that SMEs in Lagos did not witness positive influences on their performance as a result of using joint utilization of resources. However, the finding of the study goes contrary to the study conducted by Block, et al. (2021) emphasizing that SMEs that adopt joint utilization of resources did not witness severe conditions during the pandemic. Similarly, Vanacker et al, (2010) argue that business organizations that engage in joint utilization of resources with other organizations create more value for themselves.

Hypotheses Two

H_{a2} Joint Utilization of Office space positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria

In testing **H_{a2}** the finding from the regression results ($\beta = .081$, **Sig. = 0.242**, and $\alpha = 0.05$) indicate no influence between JUO and SMEP at a 95% confidence level. With this result, the study hypothesis **H_{a2}** was rejected in favor of the null hypothesis. The study therefore concludes that joint utilization of office does not influence SMEs performance. It should be noted that Joint utilization of office space is an area that is not well exploited especially in a situation where business organizations are facing economic vagaries. However, the study found that joint utilization of office space doesn't end well with the parties concerned. Among the reasons extracted from the study's respondents is that sharing of office space infringes privacy, and promotes gossip which affects performance.

Hypotheses Three

H_{a3} Sharing Employees with other Businesses positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria

In determining the influence of SE and SMEP as hypothesized by **H_{a3}** results from Table 4.5 ($\beta = .393$, **Sig. = 0.000**, and $\alpha = 0.05$) indicated a positive and significant influence between SE and SMEP at a 95% confidence level. It should be noted that the beta value of .393 indicates that a change in one unit of the independent variable will lead to a change of

39.3% of the dependent variable with this result the study supported **Ha3**. During the pandemic, it is a well-known fact that there was a massive layoff of workers due to the closure of factories and markets, and this necessitated SMEs in the study area to devise a strategy that will allow them to share their employees, especially those that are running morning and night shifts. This strategy assisted most of the SMEs that participated in the study to scale through the rubbles of the pandemic by cutting salaries/wages and at the same time making production move uninterrupted.

Hypothesis Four

Ha4 Lease and Hire purchase positively influence SMEs' performance in the era of Covid- 19 pandemic in Nigeria

To test **Ha4** the following results were obtained from Table 4.5 ($\beta = .167$, **Sig. = 0.006**, and $\alpha = 0.05$) indicating that LH significantly influences SMEP at a 95% confidence level. The beta result (.167) indicated that a unit increase in LH will lead to a 16.7% increase in SMEP. Furthermore, the alpha value ($\alpha = 0.05$) is statistically larger than sig. value (0.006), and with this result, the study hypotheses (Ha4) was supported. The result of the study supported the earlier research findings of the study conducted by Bello, Ahmed, and Aliyu (2016) that lease/hire purchase positively influences financial performance in Nigeria's Oil and gas industry. Contrary to Yusuf, Abubakar, and Paul (2020) who argue that lease/hire purchases have a negative influence on SME performance among the sample units in Taraba state, Nigeria. What the study observes is that using lease/purchase is a child of necessity due to the economic condition, liquidity problems persist and insolvency is the order of the day, these necessitate most SMEs to go for that strategy. Similarly, from the interactions with the respondents, the study found that before the COVID-19 pandemic, some of the SMEs were not aware of the existence of leasing as an alternative substitute to external funding.

*Hypothesis Five***Ha5 Employing temporary staff positively influences SMEs' performance in the era of Covid- 19 pandemic in Nigeria**

Looking at the relationship between Employing Temporary Staff and SME performance results from Table 4.5 ($\beta = .003$, $\text{Sig.} = 0.954$, and $\alpha = 0.05$) indicated that ETS does not influence SMEP at a 95% confidence level. The beta result (0.003) indicated that a unit increase in ETS will lead to a 0% increase in SMEP at 2 decimal places. The study results do not support the study hypothesis (Ha5), that employing temporary staff positively influences SMEs' performance during Covid -19 pandemic. This result is not in conformity with results from previous studies (Rakotoarizaka, Qamari & Nuryakin, 2022; Morice et al., 2021; Ongera & Juma, 2015) that temporary employment positively influences employee performance. However, Morice et al. (2021) added that despite temporary employment influences innovation performance negatively it affects organizational performance.

Conclusions

The objective of the study is to navigate the influence of Joint Resource Utilization on SMEs' performance during the Covid 19 pandemic. Using descriptive research design the study employed primary data on 362 sample units out of 3760 registered SMEs in Kano state to test the study hypotheses. The study findings indicated that both **Ha1**, **Ha2**, and **Ha5** had no positive influence on SMEs' performance during the period, therefore the study rejected both hypotheses. However, the study result indicated that **Ha3** and **Ha4** have positive influences on SMEs performance during the pandemic period to this regard the two hypotheses are accepted.

Based on the findings of the study, the study concludes that Joint Utilization of Assets and Equipment, joint utilization of office space, and employing temporary employees do not positively influence SMEs' performance in the era of Covid- 19 pandemic in the study

area. With these findings, the study concludes that H_{a1} , H_{a2} , and H_{a5} are rejected. Similarly, the study concludes that lease/hire purchase, and sharing staff with others positively and significantly influence performance among the sample SMEs during the Covid-19 pandemic. The study concludes that lease/hire purchase and sharing staff with others enhances performance under conditions of uncertainty.

As a matter of policy implication, SMEs should consider lease /hire purchase, and sharing employees with others as part of their management policy, especially when the economy is in a turbulent situation. The policy will pave the way for the SMEs to acquire assets and equipment with ease, and sharing employees with others will provide an easy way to augment labor lost during the pandemic and increase the SMEs' performance. Similarly, the resource-based theory poses greater implications for organizations that have resources over others to have a competitive advantage during turbulent periods such as the COVID-19 pandemic. Small and medium-scale enterprises that have more resources stand a better chance to perform better than SMEs that are lagging in terms of these resources during the COVID-19 pandemic in the study area. However, resources such as joint utilization of assets and equipment, joint utilization of office space, and employing temporary staff are significant in influencing SMEs' performance; this could be a limitation to the theory. On the other hand, the study proved the claim made by the theory indicating that SMEs with enough workforce to share with others, and those that possess resources using lease and hire purchase performed better during the pandemic.

The study therefore recommended that SMEs should use a lease/hire purchase to obtain equipment during difficult periods such as pandemics, epidemics, and economic recession. Similarly, SMEs are recommended to embark SMEs are also recommended to consider sharing staff with others as a matter of policy, and this will help to augment the loss of workforce as a result of economic misfortunes. A limitation of the study is calling for future

researchers to investigate the role played by government palliative support in the relationship between joint utilization of resources and SME performance during the COVID-19 pandemic.

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