International Journal of Integrated Science and Technology (IJIST)
Vol. 2, No. 3, 2024 : 193-211

Erratic Electricity Supply, Small and Medium Enterprises in Akwa-Ibom State: a Case Study of Uyo Local Government Area

Nathan Udoiyang
Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Rivers State, Nigeria.

Corresponding Author: Nathan Udoinyang
nathannathanudoinyang@gmail.com

A R T I C L E I N F O

Keywords: Electricty, Electricity Supply, Small and Medium Scale Enterprises

Received : 8, January
Revised : 24, February
Accepted: 18, March

A B S T R A C T

Small and medium enterprises in Uyo Local Government Area, Akwa Ibom State, Nigeria, their power usage and productivity were examined in this study. This research used primary and secondary sources to compile its population, namely all small and medium enterprises (SMEs) in Uyo senatorial district registered by the Akwa Ibom State SME directorate in 2021. The sample size was achieved at 400 using an equation developed by Taro Yamane. Using purposive sampling methodology, 400 questionnaires were distributed and finally 340 questionnaires were collected. In conclusion, SMEs in Uyo LGA, Akwa Ibom State, will gain economic benefits from a stable and reliable electricity supply, which will increase employment, sales, income, profitability and productivity while reducing expenditure and dependence on alternative energy sources. Therefore study recommends that the leadership of the council and the work together to extend the duration of electricity supply in the region, prioritize stable electricity supply, and channel taxes collected

DOI: **https://doi.org/10.59890/ijist.v2i3.15381**

ISSN: 3026-4685

https://journal.multitechpublisher.com/index.php/ijist

INTRODUCTION

Nigeria wants to stimulate its economy and guarantee its growth and development, it should look to the electricity sub-sector. It is impossible to overstate the importance of a reliable power supply to a country's economic growth, and how much of an impact it has on people's capacity to get things done and live comfortably. Moving on to the topic of small and medium companies (SMEs), the availability of electricity is a crucial component for their operations. Its importance to human capital productivity is multifaceted, and it is essential for the operation of various industrial machinery. Electrical power is essential to the smooth operation of almost any commercial enterprise, particularly manufacturing facilities. Electricity, which is used in manufacturing, also plays a significant role in advertising products. Having access to a reliable power source is crucial for many businesses, since it allows them to store completed items ahead of demand, which ultimately benefits customers by having the commodities more readily accessible when they need them. The confidence of customers is maintained when their demands are satisfied, which assists in creating the firm's image and protecting the firm's reputation. In light of the above, it is clear that a lack of reliable and consistent power to homes, businesses, and other organizations is a barrier to economic growth. Inadequate power supply, for example, caused the manufacturing subsector and the service sector to have negative growth, which in turn caused the GDP growth rate to fall from 8.8% in 2012 to 7.1% in 2013. In the long term, this hurts any country's ability to thrive and flourish economically. It is impossible to exaggerate the significance of small and medium-sized enterprises (SMEs) to economies worldwide. To put it simply, small and medium-sized enterprises (SMEs) are the engine that keeps the economy going, creating jobs and boosting GDP. In a dynamic industrial nation, they play an essential and legitimate role. In Nigeria, small and medium-sized businesses have been a driving force behind the country's economic growth, employing a large portion of the population and generating a significant portion of the country's exports (National Survey of SMEs, 2021). Inadequate, expensive, and unpredictable power supply, as well as bad policy on SMEs, have engulfed their operations, rendering most SMEs unproductive and inefficient, despite the fact that SMEs continue to be the fastest growing sector of the economies of developing countries like Nigeria and Akwa Ibom state.

This has far-reaching consequences, including the daily collapse of small and medium-scale industries and a deterioration of competitiveness due to the negative impact on productivity, both of which dampen the economy's development potential. Small and medium-sized enterprises (SMEs) rely heavily on having access to a consistent and dependable power supply for their daily operations. The second main challenge to business growth, according to the 2013 poll, was access to reliable power. As a result, 49.8% of Nigerian firms see unstable power supplies as a key limitation (World Bank Enterprise Survey, 2013). Not to mention the expenses linked to repairing or replacing machinery and other pieces of equipment, the cost of lost revenue due to rotting of completed items, and the cost of acquiring a backup power source, such as a

home or rental generator. The electrical supply in Nigeria has been unstable for decades, despite efforts by several administrations to steady the industry and use it as a motor for the country's social and economic progress. According to the documents that are available, the first power plant in Nigeria was established in 1896 with a capacity of two megawatts, which supplied just the city of Lagos. Starting with the Nigeria Electricity Supply Company (NESC), which was founded in 1929 to distribute electricity, the Federal Government of Nigeria created the National Electric Power Authority (NEPA) in 2000 as a monopoly to generate, transmit, and distribute electricity to the entire population of Nigeria.

The Power Holding Company of Nigeria (PHCN) and the 18 distribution firms were founded in 2013 as a result of efforts to restructure the electrical subsector, which had previously resulted in the 2005 Power restructure Act (Ibirogba, 2018). The electricity supply in Nigeria is now around 5000 MW, which is insufficient to meet the needs of homes and socio-economic activities. The demand should be at least 12,522 MW, according to the United States Agency for International Development (USAID). Manufacturing sectors have been hit hard by the country's consumption of 2,500 to 4,000 megawatts, which has led to investments drying up and the possibility that Nigeria would continue to see investors flee to neighboring African nations. Many small businesses are shutting down and moving to Ghana, where there is enough energy, according to MAN.

The industrial sector employs the majority of the working-age population, hence fixing the power outage is critical for the economy as a whole (MAN, 2010). It should be noted that in 2017, Nigeria spent a substantial amount of $5 billion on fueling generating sets. However, this amount pales in comparison to the fuel used by companies and households for independent power supply, which allows them to get things done without relying on the public supply, which is notoriously unreliable, particularly during the afternoon when it is most needed nationwide. According to Ibirogba (2018), Nyatsumba (2019), and others, developed countries use a variety of power sources that are prioritized in each city or state. As a result, they are unfamiliar with electrical power outages. Given that 56.5 percent of Nigerians have access to electricity, studies examining the effect of electricity on the performance of SMEs are certain to be conducted (World Bank, 2018). In order for SMEs to lower their manufacturing costs, a dependable power supply is crucial. About 80 million people throughout Nigeria's 774 LGAs still don't have access to power, despite efforts and improvements in the country's energy industry. Worldwide, 43.5 percent of people do not have access to electricity (World Bank, 2017).

According to Aniefiok Udonquak (2023), ten local government areas in Akwa Ibom state—Uyo, Ikot Ekpene, Essien Udim, Obot Akara, Ini, Ikono, Ibiono, Etinan, Abak, and Ukanafun—will benefit from the steady power supply that the Nigerian Electricity Regulatory Commission (NERC) authorized on January 23, 2023, through an independent power distribution network license to an entity known as Ibom Utility Company for Akwa Ibom. In March 2023, my

family and I moved from Woji town in Port Harcourt City of Rivers State to Uyo LGA, the capital of Akwa Ibom State. We are entrepreneurs who have been running a small business producing natural juice and chops with my wife. In our former residence in Port Harcourt, we had a reliable electricity supply that allowed us to grow both financially and otherwise. However, due to the poor and unpredictable electricity supply in Uyo LGA of Akwa Ibom State, everything about our business has plummeted. All over Uyo LGA in Akwa Ibom state, small and medium-sized businesses like that of the researcher have been hit hard by the unreliability of the power supply, despite the state government's best efforts. Base on this, the study uses Uyo LGA as a case study to investigate the effects of power outages on small and medium-sized enterprises (SMEs) in Akwa Ibom State, drawing on the researcher experiences in the area.

LITERATURE REVIEW

Conceptual Clarifications

Electricity Supply

The electrical load, measured in Joules, is the power used by an electrical equipment, which is one watt per second. James Watt (1736) defined electricity supply as the amount of electrical energy given to residential, commercial, and industrial customers. Regardless of nation, the dependability of the power supply is a major challenge. There are a lot of choices and effects on the economy as a whole that depend on the reliability of the power supply. Adequacy and security are the two components that make up dependability, as stated by the CAE (1993). The capacity of the power grid to respond to disruptions caused by equipment in the bulk power system or the local distribution system, and thus keep supply at a satisfactory frequency and voltage, is known as security, whereas adequacy "refers to the ability of the electricity system to provide and transport energy to meet the requirements of customers" (CAE, 1993). An unsolved issue in Nigeria is the limited availability to both quantity and quality of energy. The devastation affects every industry in the country that uses electric energy.

Small and Medium Scale Enterprises

Micro, Small, and Medium-Sized Businesses Typically, a small or medium-sized enterprise (SME) will have a low staff count. An agreed-upon definition of SMEs does not yet exist. A company's size, amount of capital, and revenue are all variables that may be defined differently, and these definitions can differ from one country to another. According to the European Union, when a company has fewer than 250 people and a final maximum of EUR 50 million, it is considered a medium size corporation. On the other hand, a small firm is defined as one with less than 50 employees and a financial ceiling of EUR 10 million (European-Union, 2003). Companies in the US with 500 or less workers are considered SMEs. Manufacturing, wholesale, and retail SMEs were the three categories used by Japan. Businesses in the following categories: manufacturing,

wholesale trade, and retail and service trades with capital amounts below ¥300 million (US$3.6 million), ¥100 million (US$1.2 million), and ¥50 million (US$600,000), appropriately. According to the Central Bank of Nigeria's Monetary Policy Circular No. 22 of 1988, a small or medium-sized enterprise (SME) is defined as an enterprise with an annual revenue of less than half a million naira (2010). According to the federal government's 1990 budget for commercial bank loans, small and medium-sized enterprises were defined as those with a yearly turnover below 500,000 naira and, in the case of merchant bank loans, a capital expenditure of no more than 2 million naira (excluding land costs) /a maximum of 5 million naira. Small and medium-sized enterprises (SMEs) were recently classified by the Financial System Strategy as businesses with fewer than 300 workers or a yearly revenue of less than 100 million naira (Banji, 2020).

THEORETICAL FRAMEWORK

This research work is based on Brett Frischmann's theory and Energy rebound theory.

Brett Frischmann's theory

To place the discussion in context, we used Brett Frischmann's idea of infrastructure. Public access to infrastructure is emphasized in the theory. Societal values would be created, according to Frischmann (2007, 2005), if the public had access to infrastructure. The core tenet of the thesis is that a society would reap enormous benefits from unfettered access to its infrastructure. Since infrastructure is fundamental to every civilization, the notion posits that it should be used effectively to foster growth. According to Frischmann's theory of infrastructure, a variety of sources of money, such as state resources and taxes from individuals and organisations, are within the purview of the state to fund infrastructure. The bulk of social services are often provided by the state, even if private infrastructure supply is not unprecedented (Adejumobi et al. 2013). A state's responsibility is to provide public safety, respect for individual dignity, and material and social well-being, according to traditional social contract thinkers. Liberal and Marxist views of the state were similar in that they both addressed the question of social welfare. According to liberal philosophy, "the private sector finds uneconomical" some public works projects, administration of justice, and law and order. Therefore, the state must carry out these duties. Kelleher and Wolak (2007) further on this claim by highlighting the separation of governmental duties at various administrative levels. Their main point was that political processes determine whether or not people have faith in governmental institutions.

Energy Rebound Theory

Opponents of energy efficiency initiatives seldom make the argument put forward by energy rebound theory. Since there is a decrease in energy use and emissions, the predicted decrease from energy efficiency improvements due to

the induced behavior adjustment of relevant economic agents is lower than what actually occurs (Lu, W. 2017). Consequently, there is a tendency for energy consumption to rise as a result of lower energy prices, which can lead to both economic growth and development and more CO2 emissions. Economic growth and progress are boosted by more efficient energy production and consumption. However, this might backfire if it leads to higher emission levels and greater environmental deterioration.

Literature Review

A case study of the Takum local government area in Taraba State is used by Afukonyo (2023) to analyze how a lack of sufficient electricity affects small and medium-sized businesses. The primary motivation for doing this research was to understand how the seizure-related power outages in the Takum LGA of Taraba state are affecting SMEs. The study investigated three null hypotheses at the 0.05 level of significance and addressed three research questions. The research strategy used in the study was a survey, and more specifically, a cross-sectional survey was executed in the Takum local government region of Taraba. The research relied on a basic random sampling methodology, a kind of probability sampling that ensures every individual in a group has an equal opportunity to be chosen for a sample. Thirty structured questionnaires were also sent to the chosen SMEs in order to gather primary data for the research. Researchers found that small and medium-sized enterprises (SMEs) had to pay an extra 20% to 30% on backup power because of epileptic power supplies. In addition to showing that SMEs do not suffer from an inadequate power supply, the research found that a power outage has no effect on their operational performance. In light of these results, the report concludes that the privatized power industry should be fully nationalized and that each state should make full use of its available electricity sources.

In Kano city, Kano State, Ahmad et al. (2023) look at how the availability of power affects the output of SSI. Using a systematic random selection approach, 361 small-scale firms were chosen to reflect the population in this study's analysis of primary data. The econometric method known as Ordinary Least Squares (OLS) was used to define the model. This study found that small-scale companies' turnover was positively and significantly correlated with factors such as education level, company size, the length of time that KEDCO provided energy, and the frequency with which enterprises got electricity. Alternatively, it shows that the link with the company's nature is negligible and even negative. A tiny but favorable influence on the average weekly turnover of small-scale companies is provided by the quantity of energy supplied by KEDCO, the structure of power supply in the region of operation, and the cost of alternative electricity sources. According to the research, electricity affects the outputs of small-scale companies via a number of intricate processes, and is therefore an essential part of the infrastructure. The research concludes that more work has to be done to improve the transmission and production of energy in Kano Metropolis by sustaining and improving the infrastructure and expanding the capacity of the power provided.

Furthermore, by ensuring that industrial areas have sufficient transformers and other distribution facilities, the issue of inadequate electricity supply can be mitigated. This will free up capital for businesses to invest in self-generation of electricity or alternative power sources, ultimately leading to improved production efficiency.

The impact of power distribution on the efficiency of SMEs in southern Taraba State is studied by Giwa, Rikwetishe, and Abomchi (2023). The research's stated goals are to (1) determine the impact of power supply stability on the performance of small and medium-sized enterprises (SMEs) in the study region and (2) determine the cost-effect of power supply on SMEs' performance. Primary data was collected by open-ended questionnaires and used in the research. In the Southern Zone, 114 managers from registered SMEs in the following locations: IBI, Wukari, Donga, Takum, and Ussa were given questionnaires using a simple random sample approach. In this research, only 105 questionnaires, or 92.12%, were returned in a usable format. It used conventional least squares and descriptive statistics. The research found that small and medium-sized enterprises (SMEs) in the study region were positively and significantly impacted by power supply stability and power supply cost. Researchers in Southern Taraba state came to the conclusion that small and medium-sized enterprises (SMEs) benefit from increased power distribution. Consequently, in order to boost the profitability of SMEs in Nigeria, it was suggested that the government should provide a consistent and continuous supply of power and reduce energy rates for SMEs.

Ado-Odo, Ota LGA, Ogun State is the subject of a case study by Akinyemi et al. (2021), who investigate how the availability of electricity affects the productivity of SMEs in Nigeria. Using the technique of purposive sampling, questionnaires were distributed to the participants. Analyses were conducted on the data using SPSS, ANOVA, and OLS (correlations and ordinary least squares) functions. Out of 120 surveys that were sent out, 90 were collected and examined. According to the results, SMEs in Ogun State's Ado-Odo Ota Area are significantly affected by the reliability of their power supply. In the Ado-Odo Ota Area of Ogun State, alternate power sources also significantly affect the performance of SMEs. To maximize the efficiency of small and medium-sized enterprises, the paper recommended that policymakers and company owners in Ado-Odo, Ota Area of Ogun State in particular, and by extension, Nigeria, provide an adequate supply of energy. Similarly, owners of SMEs should work towards using alternate power sources to improve SMEs' performance and achieve their market goals.

In their study, Eyitayo and Makhosazana (2021) looked at how power interruptions affected the work and economic contributions of small and medium-sized enterprises (SMEs) in Nigeria. Accordingly, the research looked at how the availability of power affected the expansion of small and medium-sized enterprises (SMEs) in Nigeria. It looked into the ways in which a lack of reliable power may stunt the expansion of small and medium-sized enterprises.

Using a survey approach, 110 operators of small and medium-sized enterprises (SMEs) in the Mainland, Shomolu, and Agege local government areas of Lagos state, Nigeria, were given structured questions. The data was analysed using descriptive statistics. The hypothesis that was formed was tested using a chi-square approach. The results showed that small and medium-sized enterprises (SMEs) in Nigeria are heavily impacted by power disruptions.

Tahir and Inuwa (2019) examined the elements impacting the performance of SMEs in Maiduguri, Borno State, Nigeria, using primary data analysis. Results from descriptive and inferential statistics, correlation, and multiple regression analysis showed that the lack of capital and inadequate infrastructural facilities are the two most important variables affecting the performance of small and medium-sized enterprises (SMEs) in Borno-State. The performance of small and medium-sized enterprises (SMEs) might be improved with the implementation of important amenities and security.

Research by Akinlemi (2018) looked at how infrastructure in Nigeria affected the expansion of SMEs. Using primary data and a chi-square test to evaluate hypotheses, we found that many small and medium-sized enterprises (SMEs) in Nigeria provide essential services like electricity to their own operations, but that the high cost of doing so forces many of these businesses to close their doors. A basic infrastructure facility should be provided by the government to help small and medium-sized enterprises (SMEs) flourish, which would improve the country's gross domestic product (GDP).

Using a survey design and analysis of variance (ANOVA) on 239 small and medium-scale enterprises, Akinyele, Akinyele, and Ajagunna (2016) investigated the relationship between infrastructure development and the performance of SMEs in Ogun state. The researchers found a positive and statistically significant correlation between the two. Consequently, the research concluded that the government should provide sufficient infrastructures for SMEs, since these businesses are unable to supply the necessary resources on their own. Additionally, SMEs need to step up their efforts to capture the interest and focus of the government.

METHODOLOGY

A survey research design was used for the investigation. Data is gathered via survey research by analyzing a sample of individuals who are thought to be representative of the whole (Asika, 2012). Data about present circumstances and data for improving current circumstances are the two main sorts of informative assistance that surveys typically aim to give. Consequently, the study population consisted of data obtained from personnel, owners, and managers of SMEs in Uyo LGA of Akwa-Ibom State.

Area of the Study

The research was place in the Uyo LGA of Akwa Ibom State. Uyo is the capital of the state and the administrative centre of the Uyo Local Government Area; it is also located in Nigeria's South South Geopolitical Zone. With coordinates 5.20 N and 7.550 E, Uyo is located in the southeastern corner of Akwa Ibom State. The city of Uyo, which is situated halfway between Oron and Ikot Ekpene, has an impressive history and a vibrant culture that is sure to wow. The indigenous people's language, "Ibibio," gives them a distinct identity and cultural background. Cultural performances in Uyo are many and include the Ekpo and Ekpe masquerades as well as dances. The population of Uyo is 427873 people, according to the National Population Census (NPC, 2006). A rainy season and a dry season characterize the Local Government. It is at Uyo that you will find the esteemed University of Uyo. Along Ikpa Road you may find the town and annexed campuses of the University of Uyo, while Nwaniba is where you'll find the main campus.

Population for the Study

The Directorate of SMEs Akwa-Ibom State counted 11,990 SMEs in the state in 2021. Senatorial records show a grand total of 11,990, with 4,396 registered in the Uyo district, 3,357 in the Eket district, and 3,837 in the Ikot Ekpene district. There has been no further assessment of SMEs in the state. This study uses the total SME population in the Uyo senatorial district as its population.

Sampling Size and Sampling Technique

Sample Size:

Using the Taro Yamane formula, the sample size for this investigation was decided.

The Yamane (1979) formula is expressed as follows:

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

Where :

n = population of study

N = population

e = degree of freedom/significance at 5% (0.05)

1= constant

Substituting numbers in to the formula we have:

$$n = \frac{11,990}{1+11,990(0.05)^2}$$

n = 399.9 = 400.

Sampling Technique

Methods for deliberate sampling were used in the study. For the sake of objectivity, the research sample was limited to the Uyo Local Area in Akwa-Ibom State. Because they give non-probability samples selected based on the features existing in a certain demographic group and the overall study, purposeful sampling techniques were used for this research endeavour. It also helps researchers identify individuals within each demographic who have really extreme views. From among the nine clans that make up the Uyo LGA in Akwa-Ibom State, Nigeria, a random selection was made of employees, owners, and managers of small and medium-sized enterprises (SMEs). Of the 400 people who were part of the sample, 340 were able to get their money back.

Sources of Data.

Using a closed-ended questionnaire derived from original sources, this research made use of primary data. Also consulted as secondary sources were books, journals, newspapers, and documents related to the instruments themselves. This source includes data collected from questionnaires given to a sample of employees, owners, and managers of small and medium-sized enterprises (SMEs) in Uyo LGA, Akwa-Ibom State.

Method of Data Collection

A self-structured questionnaire called "Erratic Electricity Supply, Small and Medium Scale Enterprises" was used as the research instrument for this study. The researcher was able to collect data that was pertinent to the study because of this. The questionnaire was carefully crafted to gather information from the participants while also catering to the specific needs and objectives of the research. There were two parts to the questionnaire. In the first part of the study, we analyzed the respondents' demographic information, including their age, gender, profession, and place of origin. The second part of the report examined the study's purpose, which is to determine how small and medium-sized businesses are affected by power outages. There is a 5-point Likert scale on the survey that goes like this: SA for strongly agree, A for agreed, U for undecided, SD for strongly disagree, and D for disagree. There are fifteen individual parts that constitute the instrument. Living in the Uyo LGA, the researcher is a native of Akwa-Ibom State. In the aftermath, he gathered all the necessary information for this study. The researcher is able to get access to the staff, owners, and managers of most SMEs in Uyo LGA (Ibibio) since he is acquainted with their personnel, dialect, and business practices. After everyone had done completing the survey, he gathered their completed copies.

Validation/ Reliability of the Instrument

Before the questionnaire was sent to the respondents, it was reviewed and revised by many academics in the Department of Economics at Ignatius Ajuru University of Education, Port Harcourt. This was done to ensure that the instrument was content valid. Along with the tool to assess the exercise's effectiveness, the researcher sent a letter to the professors outlining his goal. The questions of the questionnaire were adjusted according to the feedback given by these academics. After selecting SME employees, owners, and managers, the researcher individually gave each one the survey. The researcher introduced himself to the study's participants and described its purpose. In addition to collecting data, the researcher guides participants through the questionnaire's completion. The researcher was assisted in operating the device by a single research assistant. In only six (6) weeks, the researcher and the assistant finished the process of administering the instruments. Utilizing the Cronbach alpha approach and the Statistical Package for the Social Sciences (SPSS) software, the reliability coefficient of the instrument was ascertained.

Method of Data Analysis

The data analysis approaches used to examine the respondents' replies included descriptive statistics and non-parametric statistical tools. Data was also presented using descriptive statistical techniques such as tables, percentages, averages, and more. In contrast, the study topic was analyzed using SPSS's Mean and Standard Deviation in conjunction with a 5-point Linkert scale. An aggregate mean of less than 3.0 indicates that respondents disagree with the stated research question, while an aggregate mean of 3.0 or above indicates that respondents agree with the given research questions. These criteria were used to the research questions in order to analyze them.

Data Presentation

Table 1. Socio-demographic characteristics and businesses of the respondents

Socio-Demographic Characteristics	**Frequency**	**Percentage**
Gender		
Male	146	42.9
Female	194	57.1
Total	340	100
Marital Status		

Single	114	33.5
Married	201	59.1
Divorce	8	2.4
Widow/Widower	17	5
Total	340	100
Age Range		
Below 25 years	29	8.5
26-35 years	76	22.4
36-45 years	109	32.1
46 years and above	126	37.0
Total	340	100
Highest Educational Qualification		
FSLC/WAEC	104	30.5
NCE/ND	84	24.7
HND/BSC	126	37.1
MSC/PHD	26	7.7
Total	340	100
Position in business		
Staff	32	9.4
Manager	75	22.1
Owner	233	68.5
Total	340	100
Business Type		
Saloon	49	14.4
Welding	22	6.5
Bakeries	7	2.1

Restaurants	85	25
Tailoring	63	18.5
Cold Room	11	3.2
Recording & Photo Studios	9	2.6
Night & Drinking Bars	16	4.7
Timbers	3	0.9
Phone Technicians	25	7.4
Super Market	50	14.7
Total	340	100

Source: Survey, 2023.

In Table 1, we can see a synopsis of the SMEs' demographics and the types of enterprises they run. Among the 201 respondents, a high percentage are married men and women, accounting for 59.1% of the total. The gender breakdown was found to be 194 females (57.1% of the total) and 146 males (42.9% of the total). In terms of age, the most respondents were 46 and up, with 126 (37.1%), while the youngest were 29 (8.5%). Similarly, when asked about their educational background, those with a BSC/HND had the most respondents, while those with an MSC/PHD had the fewest. The study also revealed that out of all the respondents, 233 (or 68.5% of the total) are owners of small and medium-sized enterprises (SMEs). Among the different types of businesses, the most common is the restaurant industry, with 85 SMEs (or 25% of the total) operating in this sector. The lowest number of SMEs was found in the timber sector, with only 3 (or 0.9% of the total) owners.

Table 2. Respondents' Perceptions on the Impact of Erratic Electricity Supply on Small and Medium Scale Enterprises in Uyo LGA of Akwa Ibom State.

S/N	Factors	Mean	Standard Deviation	Decision
1	Erratic power supply has led to a decrease in our profit margin.	**4.66**	**4.20**	**Agreed**
2	Production and sells of more goods and services has reduce due to irregular power supply.	**4.47**	**4.01**	**Agreed**
3	The rate of profit had been reduce due to much spending on alternative power supply.	**3.96**	**3.58**	**Agreed**
4	More profit would have been made if we had not been spending much on alternative power supply.	**4.46**	**4.04**	**Agreed**

5	We will open more branches if we had stable and regular power supply.	**3.77**	**3.48**	**Agreed**
6	Our business is struggling due to the erratic power supply.	**4.22**	**3.80**	**Agreed**
7	The duration of power supply influences the productivity of our business.	**3.12**	**3.02**	**Agreed**
8	We will employ more workers if we had regular & reliable power supply.	**4.53**	**4.06**	**Agreed**
9	We had to lay-off some of our workers because of the energy crisis.	**3.60**	**3.33**	**Agreed**
10	The duration of power supply affect the revenue/sales of our business.	**3.94**	**3.62**	**Agreed**
11	Erratic power supply causes a reduction in our revenue generation due to the usage of other sources of electricity.	**4.46**	**4.01**	**Agreed**
12	Majority of our customer have lost trust on our products and service as a result of unstable and unreliable power supply.	**4.01**	**3.65**	**Agreed**
13	We have lost customers' satisfaction due to erratic power supply.	**3.32**	**3.15**	**Agreed**
14	Most times the demand of customers' are not met due to unstable power supply.	**4.17**	**3.83**	**Agreed**
15	Due to unmet customers' demand, satisfaction and trust, our reputation are been destroyed.	**3.80**	**3.58**	**Agreed**
	Aggregate Mean	**4.02**	**3.68**	**Agreed**

Source: Survey, 2023.

The results of the study on how small and medium-sized businesses in the Uyo Local Government Area of Akwa Ibom State are affected by power outages are shown in Table 2.

From the table above, it can be deducted that all the respondents in Uyo LGA, Akwa Ibom State agreed that the power supply is unstable which have affected their business by reducing their profit, limiting the expansion of their business, loss of customers trust and satisfaction etc. The aggregate mean cretirion is 4.02 which is above the mean criterion of 3.0 and the aggregate standard deviation is 3.68 which is above the standard deviation of 3.0 indicating that all the

respondents anonymously agreed that erratic power supply is one of the major cause of business failure in Uyo LGA of Akwa Ibom state, Nigeria.

DISCUSSION OF FINDINGS

The effects of power outages on SME owners in Uyo LGA, Akwa Ibom State, were uncovered by answering the study question. In Uyo LGA, Akwa Ibom State, small and medium-sized businesses have seen a decline in profit margins as a result of the unreliable power supply, which has led to a decrease in production and sales of goods and services (see table 2), and a decrease in profit rate as a result of the high cost of alternative power sources in Uyo LGA. The energy crisis in Uyo LGA has led to layoffs and retrenchments, and in Akwa Ibom State, it has slowed the opening of new branches, made businesses less productive, and reduced the number of people employed. In Uyo LGA, Akwa Ibom State, a decline in revenue/sales and a loss of consumer confidence in SMEs' goods and services are all consequences of the state's unpredictable and unreliable power supply. Uyo LGA, Akwa Ibom State, had a decline in consumer satisfaction as a result of an unpredictable power supply, which in turn caused SMEs to fail to fulfil customer demand, which in turn damaged their image. Afukonyo (2023) found that SMEs spent some of their profit on using alternative sources of power, Ahmad et al. (2023) found that electricity supply had a positive but negligible influence on SMEs revenue/sales, and the results of the study question are consistent with these findings. According to Giwa, Rikwetishe and Abomchi (2023) and Akinyemi et al. (2021), power supply stability and cost have a positive and significant impact on the performance and profitability of small and medium-sized enterprises (SMEs). On the other hand, Eyitayo and Makhosazana (2021) found that SMEs are negatively impacted by inadequate or outsourced electricity supply, which hinders their growth and development. Lastly, Akinlemi (2018) and Akinyele, Akinyele and Ajagunna (2016) found that SMEs often end up going bankrupt because they pay for their own basic infrastructure, like electricity. The purpose of this study was to identify the effects of power outages on small and medium-sized businesses in Uyo LGA, Akwa Ibom State, using the results of the research question and the evidence from the relevant empirical literature.

CONCLUSION AND RECOMMENDATIONS

The study's significance lies in its examination of the effects of power outages on small and medium-sized enterprises (SMEs), specifically how these effects diminish SMEs' sales, revenue, profitability, and productivities while simultaneously dampening employment levels and overall economic growth in the local government area (LGA), state, and country. The study found that small and medium-sized enterprises (SMEs) in Uyo LGA, Akwa Ibom State, would benefit from a more consistent and dependable power supply in many ways, including an increase in employment, sales, revenue, profitability, and productivity. This, in turn, would lead to a decrease in spending and reliance on other electricity sources in the area.

Based on the research findings, the study suggests the following: i) The council boss and the state government should work together to extend the duration of electricity supply in Uyo LGA, Akwa Ibom State with minimal increases to electricity bills. This will help small and medium-sized enterprises (SMEs) perform better, leading to more employment, sales, profit, and productivity. Ultimately, this will lead to economic growth and development in the LGA and the state.

ii) Since indigenes, residents, and SMEs rely entirely on stable and dependable energy supply for their livelihood, the state government and council leader should prioritize it.

iii) Instead of complaining, business owners, employees, and managers in Uyo LGA and the state should use the taxes they pay to build social amenities that will make their companies and the state proud. This will encourage them to keep up their good work and fulfil their civic duty.

iv) To address the gender gap in business, the Uyo area and state governments could incentivize male counterparts to start small and medium-sized enterprises (SMEs), which would help close the gender gap in business overall.

FURTHER STUDY

Stable electricity supply is crucial for enhancing the economy performance of Uyo LGA, Akwa Ibom state and Nigeria as a whole. It has proven to be an effective tool for steering businesses and creating employment opportunities in Uyo LGA if it achieved. Study like this need to be revisited by researchers at four years' interval in order to know the current state of electricity supply and it effect on business environment in Uyo LGA.

ACKNOWLEDGEMENT

I would like to express my sincere appreciation to my lovely and wonderful wife Mrs Veronica Nathan Udoinyang whose insightful guidance and expertise greatly enriched the content as well as for her invaluable support and encouragement throughout the research process. Her contributions and guidance have been instrumental in shaping the outcome of this work, and I extend my heartfelt thanks to her once again.

REFERENCE

Adejumobi, I.A., Adebisi, O.I., Oyejide, S.A. (2013). Developing Small Hydropower Potentials for Rural Electrification. *International Journal Recent Research Applied Studies, 17(1), 105-110.*

Afukonyo S. D., (2023). The Impact of Inadequate Power Supply on Small and Medium Scale Enterprises. *Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS), 5(2) pg. 273 – 298*

Akinyele, S. T., Akinyele, F. E. and Ajagunna, O. D., (2016). Infrastructural Development as Predictor to SMEs Performance in Nigeria. *Kuwait chapter of Arabian Journal of Business and Management Review, 6(3), 40-53.*

Ahmad et al. (2023). Impact of Power Supply on the Productivity of Small Scale Industries (SSI) in Kano Metropolis, Kano State. *Journal of Arid Zone Economy 1(3):153 – 164*

Akinlemi, O. A., 2018. The Effect of Infrastructural Facilities on SMEs Growth in Nigeria. *International Journal of Innovation Research and Development, 7(6), 196-203.*

Akinyemi et al. (2021) Impact of Electricity Supply on the Performance of Small and Medium-Scale Enterprises (SMEs) in Nigeria. *Journal of Economic Insights – Trends and Challenges Vol. X(LXXIII), 11 - 21*

Asika, N., (2012). Research Methodology in Behavioral Sciences. *Longman Nigeria Plc.*

Banji, O. O., 2020. SME: Issues, Challenges and Prospects. FSS 2020 international conference.

Brett M. Frischmann (2005) An economic theory of infrastructure and commons management. *89(4):917-*

1030 available @ www.researhgate.net

Central Bank of Nigeria (2010). N200b small and medium enterprise (SME) credit guarantee

scheme. Abuja, Nigeria: CBN. *Available at: http://www.cenbank.org/Out/2010/publications/guidelines/dfd/GUIDELINES%20ON%20N2 00%20BILLION%20SME%20CREDIT%20GUARANTEE.pdf.*

Christine A. Kelleher & Jennifer Wolak (2007) Explaining Pubic Confidence in the Branches of State Government. *Sage Journals Vol 60.4. available @ journals.sagepub.com*

Daily Trust, Saturday, 23rd January (2023). Editorial: *Review of electricity generation in Akwa Ibom State. correspondent Aniefiok Udonquak.*

Eyitayo & Makhosazana (2021). Electricity outages and its effect on small and medium scale enterprises (SMEs)

in Nigeria. *The Business and Management Review, 12(1), 98-105.*

European Union, 2003. Eurostat. Retrieved from Small and Medium Sized Enterprises: *https://ec. europa. eu/eurostat/en/web/structural-business-statistics/sme*

Fatima A. Tahir & Fatimah U. Inuwa (2019) Empirical Investigation of the Factor Affecting Micro, Small and Medium Scale Enterprises Perfrmance in Borno State, Nigeria. *International Business Research. Vol.12.4*

Giwa, Rikwetishe and Abomchi (2023). Effect of Electricity Distribution on Small and Medium Enterprises (SMEs) Performance in Southern - Taraba State. *Management, Marketing and Entrepreneurial Journal, 8(2), 128-139.*

Ibirogba, E. (2018). Africa: Solving Nigeria's Electricity Crisis through Alternative Energy Sources.*www.allafrica.com.*

Lu, W. (2017). Electricity Consumption and Economic Growth: Evidence from 17 Taiwanese Industries. Sustainability, *9(50), 1-15*

MAN (2010). Problems and prospects of small and medium scale enterprises survival in Nigeria. *Journal for Entrepreneurship and Regional Development* 1 (1): 21-31.

MAN, 2019. Energy Mix Report. June 7. *Retrieved from MAN says poor power supply affecting*

Nyatsumba, K. (2019). Political Stability, Economic Growth, Reliable Power Supply Must be at the top of the winning party's agenda. *Premium Press.www.seifa.co.za.*

Small and Medium Enterprise Development Agency Nigeria (SMEDAN) National Policy of Micro, small and medium enterprise. *Federal Republic of Nigeria, SMEDAN, Abuja, Nigeria, January, 2007.*

Yamane, T. (1973). Statistics: An introductory analysis. *Journal of Development Economics,* 11(1): 222-112.

World Bank (2013). Enterprises Survey in Nigeria.

World Bank. (2017). World Bank Data. World Bank Group. *Retrieved from http://data.worldbank.org/indicator*

World Bank, 2018. World Development Indicators. Washington D. C. *Available through http://data. World bank. org/data-catalog/world-development indicators.*