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Operational characteristics of informal sector activities in Osogbo Metropolis, Osun State, Nigeria

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Abstract

The informal sector is the part of an economy that is not fully regulated by the government. This study identified the informal sector activities in Osogbo metropolis and analyzed the spatial distribution as well as the operational characteristics of the activities of the sector. The study offers an outstanding contribution to knowledge in the field of urban economics. Data for the study were from both primary and secondary sources. The primary data were obtained through the use of questionnaires administered to 261 operators of informal sector activities. The sampled operators were selected through multistage sampling techniques. The analysis of data was conducted using descriptive and inferential statistics. The results of analysis revealed that the informal sector activities in Osogbo Metropolis, grouped into the trading and commercial activities, cottage industries and tertiary services categories, were scattered within the high, medium and low-density residential zones, though the medium residential zone had the highest percentage of the activities (36.4%). Proximity to residence (45.6%) was the most popular reason for choice of business location. The study provides insights for decision makers and government agencies on the operations and challenges of the sector. This will expectedly aid in regulating the activities of the sector.

Keywords: Spatial Distribution; Trading and Commercial Activities; Cottage Industries; Tertiary Services

1. Introduction

The informal sector is the sector of the economy comprising a diversified set of economic activities, enterprises, jobs and works that are not regulated or protected by the state (Women in Informal Employment: Globalizing and Organizing (WIEGO), 2022). This sector is characterized by small-scale operations, labour-intensive techniques, low-income families, private and indigenous ownership of enterprises that are indiscriminately located in residential homes, along street corridors and within central business districts. In Nigeria, the sector is spread across both rural and urban areas (Folawewo and Orija, 2020). The main features of the informal sector economic units include ease of entry, small scale of activity, self-employment with a high proportion of family workers and apprentices, little capital and equipment, labour intensive technologies, low skills, low-level of organization with no access to organized markets, formal credits, education and training or services and amenities, cheap provision of goods and services, otherwise known as low productivity and low incomes. The sector, as opined by Shelleng (2023), accounts for a significant portion of employment and national gross domestic product. So, the informal sector is an integral part of any economy.

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Since its discovery, the informal sector had experienced unprecedented growth resulting from urbanization, population growth, increased unemployment, economic hardship and poverty among others. The activities in the sector are variously categorized by different scholars. Some scholars categorized the activities in the sector into three major groups (Lawanson, 2011; Agbolade, 2011). These categories/groups were the trading and commercial activities, cottage industry and tertiary services. Several researchers had carried out studies on various informal economic activities in Osogbo but none had looked wholesomely into the various economic activities in the sector. Studies like Adedeji *et al.*, (2014), Ogundahunsi *et al.*, (2016), Adedotun *et al.*, (2019) and Gasu *et al.*, (2020) examined different aspects of the sector. This study is, therefore, aimed at identifying the various informal sector activities in Osogbo Metropolis, especially as related to the three different categories of activities, and examining their operational characteristics. This will provide an enlightenment on the mode of operations, the implication of operations and some of the challenges related with the operations in the sector. This knowledge will aid professionals and government agencies in promoting and regulating the activities of the informal sector in the Metropolis.

2. Material and methods

The primary data for this study was gathered through questionnaires administered to the operators of informal sector activities in the study area. The multistage sampling procedure (stratification, random, cluster, systematic and purposive sampling techniques) was adopted in the administration of the questionnaires. The Metropolis was stratified into the high density, medium density and high-density residential zones (Adedotun, 2015 and Gasu *et al.*, 2020). This stratified sampling is essential in identifying the spatial pattern of distribution of informal sector activities in the Metropolis. The study area was discovered to have thirty-four (34) neighborhoods in the high-density zones, thirty (30) neighborhoods in the medium density and twenty-six (26) in the low-density zones. The sampled neighborhoods were selected using random sampling technique. Ten percent (10%) of the neighborhoods identified in each of the residential zones were selected for survey. Thus, of the ninety (90) identified neighborhoods in the study area, nine (10%) were selected for the study. The names of the selected neighborhoods are presented in Table 1.

Table 1 Selection of Neighborhoods for Sampling

S/N	Residential densities	Number of neighborhoods	Number of neighborhoods selected (10%)	Names of selected neighborhoods
1	High	34	3	Asubiaro
				Oke Baale
				Ayepe
2	Medium	30	3	Oke Onitea
				Capital
				Ogo-Oluwa
3	Low	26	3	Halleluyah Estate
				Kobongbogboe
				Onward

Source: Author's Compilation, 2023

The identified informal sector activities in the neighborhoods were thereafter clustered into the trading and commercial activities, cottage industry and tertiary services categories. The operators of informal sector activities sampled in the selected neighborhoods were purposively selected. The purposive sampling technique was necessary because the study was targeted at a specific group of people, based on the categorization of the activities. In each of the neighborhoods sampled, the sample units in each category of activities were chosen on the basis of the judgment of the researcher. Questionnaires were administered to the owner of the activities and where the owners were not available, any available qualified person was questioned. A total of two hundred and sixty-one informal sector activities were sampled. Data was analyzed using descriptive and inferential statistics. Cross tabulation and chi square were used in evaluating significant relationships between variables.

3. Results and discussion

3.1. Spatial distribution of informal sector activities in the study area

The findings, as presented in Table 2, revealed that a greater percentage (36.4%) of the identified activities were located within the medium density zones, while the high- and low-density areas had 32.2% and 31.4% respectively. This may be due to the fact that the central business districts were located in the medium density zone. The central business districts are districts that can be regarded as the commercial and financial centers of a community and they attract population daily because of the types of activities located therein. Such activities include major markets and shopping malls, banks, hospitals, offices, eateries, entertainment hubs and other economic activities. So, the districts are usually very busy centers.

Table 2 Distribution of informal sector activities across the different residential zones

Occupation category	Residential densities						Total	
	High		Medium		Low			
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Trading and commercial activities	53	20.3	46	17.6	45	17.2	144	55.2
Cottage industry	15	5.8	6	2.3	8	3.1	29	11.1
Tertiary services	16	6.1	43	16.5	29	11.1	88	33.7
Total	84	32.2	95	36.4	82	31.4	261	100

Source: Field survey 2023

The results further revealed that informal sector activities are scattered all over the metropolis, irrespective of the residential density. The reasons adduced to the location of activities, as stated by the operators, is presented in Table 3.

3.2. Reasons for Choice of Business Location

Location is one of the very important factors considered in the operation of informal activities. As observed in Ogundahunsi *et al.*, (2016) and Agbolade (2011), some of the factors that determine the choice of business locations include patronage, centrality, proximity to operator's residence/cost of transportation, accessibility and rent, among others. The studies, however, identified high patronage as the most popular factor.

In this study, however, the most popular factor of attraction to the various business locations, as presented in Table 3, was proximity to operators' residences. This constituted 45.63% of all responses. More sales (high patronage) in business location were next in popularity with 30.4% of the responses. This shows that as much as high sales was important to the informal sector operators in the study area, proximity to their residences was more important. This would most likely be applicable to women, especially the married ones, so as to ease the combination of businesses with domestic responsibilities.

Table 3 Reasons for Choice of Business Location

Reasons		Business Categories			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Proximity to residence	Freq.	78	16	47	141
	% within category	46.7	42.1	45.2	
	% across categories	25.2	5.2	15.2	45.6
More sales in location	Freq.	54	13	27	94
	% within category	32.3	34.2	26.0	
	% across categories	17.5	4.2	8.7	30.4
Availability of shop	Freq.	11	2	7	20
	% within category	6.6	5.3	6.7	
	% across categories	3.6	0.7	2.3	6.5
Availability of space	Freq.	5	2	4	11
	% within category	3.0	5.3	3.8	
	% across categories	1.6	0.7	1.3	3.6
Cheaper rent	Freq.	4	2	4	10
	% within category	2.4	5.3	3.8	
	% across categories	1.3	0.7	1.3	3.2
My friends sell around here	Freq.	2	0	2	4
	% within category	1.2	0	1.9	
	% across categories	0.7	0	0.7	1.3
Shop was transferred to me	Freq.	3	0	1	4
	% within category	1.8	0	1.0	
	% across categories	1.0	0	0.3	1.3
No alternative	Freq.	2	0	1	3
	% within category	1.2	0	1.0	
	% across categories	0.7	0	0.3	1.0
Others	Freq.	8	3	11	22
	% within category	4.8	7.9	10.6	
	% across categories	2.6	1.0	3.6	7.1
Total	Freq.	167	38	104	309
	% within category	100	100	100	
	% across categories	54.1	12.3	33.7	100

Source: Field survey, 2023

Other reasons given for the choice of business locations were availability of shops/spaces (6.5%; 3.6%), cheaper rent in location (3.2%), friends having shops around (1.3%), transferred shops (1.3%) and lack of alternative (1.0%). Some other respondents had some reasons they were not willing to disclose. These group of responses were referred to as

'others. From the foregoing therefore, operators of informal sector activities tend to locate their businesses in areas close to their residences and where there are likely to be good sales.

4. Operational Characteristics of Informal Sector Activities in Osogbo Metropolis

The operational characteristics of informal sector activities in the context of this study include such characteristics as staff/apprentice strength, access to loan facilities, business registration, payment made to the Government and the source of energy/power for the operation of activities.

4.1. Employees of Informal Sector Activities in the Study Area

As observed by Atoloye (2007), the informal sector in Nigeria is highly labor intensive and dominated by small-sized enterprises which are mostly sole-proprietorships that employ less than twenty people, paying very little in labor wages. As revealed in Table 4, majority (80.8%) of the informal sector operators in the study area had no employee. In other words, these enterprises were mainly operated by the owners. This shows that a good number of the informal sector activities in the study area were of so small sizes that employees were unneeded. In cases where additional help was needed, the owners probably made use of unpaid help like family members. This aligns with the definition of Lewis (2020) that informal enterprises are small and mostly without employees. It opined that they are usually owned and operated by single individuals (the owners). Findings in this study showed that only 19.2% of the sampled informal sector operators had employees.

Table 4 Presence of Employees in the Informal Sector

Presence of employees	Frequency	%
Yes	50	19.2
No	211	80.8
Total	261	100
Staff strength		
1 – 2	39	14.9
3 – 4	6	2.3
5 – 6	5	1.9
Not applicable	211	80.8
Total	261	100

Source: Field survey, 2023

Findings presented in Table 4 also revealed that employees in the informal sector in Osogbo Metropolis ranged between 1 and 6 per activity. These employees constituted both males and females. More than three quarter (78%) of the activities that had employees had between one and two employees. This further confirms the size of the enterprises. Classifying businesses in Nigeria by number of employees, micro-enterprises are enterprises with a maximum of 10 employees, small enterprises are those with between 11 and 49 employees, medium sized are those with 50 to 99 employees and large enterprises are those having more than 100 employees (World Trade Center, 2023). This classification aligns also with the European Union definition of micro businesses (European Union, 2003). Informal activities in Osogbo Metropolis can, therefore, be classified as micro-enterprises.

4.2. Apprentices of Informal Sector Activities in the Study Area

Apprenticeship appeared unpopular in the study area as two hundred and five (78.5%) of the two hundred and sixty-one sampled activities had no apprentice. This may be due to the fact that majority of the sampled activities were in the trading and commercial activities category and most of the activities in this category do not necessarily entail learning. So, they do not normally take apprentices. Among the fifty-six (21.5%) activities that had apprentices, the number of apprentices in each activity ranged between 1 and 15. The findings on the presence of apprentices and their numbers are presented in Table 5.

Table 5 Presence of Apprentices in the Informal Sector

Presence of Apprentices	Frequency	%
Yes	56	21.5
No	205	78.5
Total	261	100
Number of Apprentices		
1 - 5	54	20.7
6 - 10	1	0.4
11 - 15	1	0.4
Not applicable	205	78.5
Total	261	100

Source: Field survey, 2023

4.3. Access to Loan Facilities

One of the factors that affect the quality of a man’s life is his economic status. This is determined by his job and in the context of this study, his business activities. The bigger the business, the more the profit generated and the higher the income. Accessibility to loan facilities is one of the factors needed in growing a business, because it gives access to funds, though this has always been a major challenge in the Nigerian informal sector. Accessing loan is difficult for Nigerian business owners because many small business owners lack the requirements for accessing business loans. These requirements include proper business records and business structure (Lendigo, 2024). Other barriers to accessing loans from financial institutions in Nigeria are inadequate education and skills, inexperience of business owners, exorbitant interest rates and gender discrimination (Babandi and Barjoyal, 2021). This study assesses the level of accessibility to loan facilities by the operators of informal sector activities in the study area and the results are presented in Table 6.

Table 6 Access to Loan Facilities

Access to Loan Facilities		Business category			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Yes	Freq.	33	2	25	60
	% within category	22.9	6.9	28.4	
	% across categories	12.6	0.8	9.6	23.0
No	Freq.	58	13	37	108
	% within category	40.3	44.8	42.0	
	% across categories	22.2	5.0	14.2	41.4
Indifferent	Freq.	53	14	26	93
	% within category	36.8	48.3	29.5	
	% across categories	20.3	5.4	10.0	35.6
Total	Freq.	144	29	88	261
	% within category	100	100	100	
	% across categories	55.2	11.1	33.7	100

$\chi^2 = 6.798$; $df = 4$; $p = 0.147 > 0.05$ (NS); Source: Field survey, 2023

It is evident from Table 6 that accessibility to loan facilities among the operators of informal sector activities in Osogbo Metropolis was very low. As presented, only 23.0% of the respondents had access to loan facilities. Although 41.4% claimed not to have access, 35.6% were not interested in loan facilities. This implies that many of the informal sector operators in the study area were not into loan, either because they lacked access or because they were indifferent to loan facilities. Across both the trading and commercial activities and tertiary services, a greater percentage of operators did not have access to loan facilities. Within the cottage industry, a very low percentage (6.9%) had access to loan facilities compared to the percentage in the other categories of activities. Also, a greater percentage (48.3%) of the cottage industry operators were indifferent to loan. These findings corroborate the observations of ACIOE Associates (2023) that one of the primary challenges faced by informal sector businesses is limited access to finance. This is usually because they mostly lack collateral for loans from formal financial institutions. The 41.4% operators that claimed not to have access to loan facilities were actually interested in obtaining loans but unqualified. With the Chi square result of 6.798 at $p=0.147$, there is no statistically significant variation in loan accessibility among the various categories of activities. Thus, it can be concluded that operators of informal sector activities in Osogbo Metropolis, irrespective of their line of business, lacked accessibility to loan facilities.

4.4. Business Registration Status

Informal sector has been defined to comprise of unregistered and unregulated activities (ACIOE Associates, 2023). The sector comprises unrecorded economic activities that possess monetary value and contribute to tax revenue and gross domestic product. The Bank of Industry (2022) described the sector as comprising any economic activity or source of income that is not fully registered by the government and other public authorities. They include enterprises that are not officially registered and do not maintain a complete set of accounts and workers who hold jobs lacking basic social or legal protection and employment benefits. So, informal sector activities in Nigeria exclude all economic activities that are registered with the Corporate Affairs Commission (CAC).

This study discovered, however, that some of the informal sector activities in the study area were registered with the Government and some regulatory bodies. Investigation was, therefore, conducted on the registration status of the sampled informal sector activities. The results of findings were presented in Table 7.

Table 7 Business Registration Status

Registration Status		Business category			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Registered	Freq.	15	7	11	33
	% within category	10.4	24.1	12.5	
	% across categories	5.8	2.7	4.2	12.6
Not Registered	Freq.	129	22	77	228
	% within category	89.6	75.9	87.5	
	% across categories	49.4	8.4	29.5	87.3
Total	Freq.	144	29	88	261
	% within category	100	100	100	
	% across categories	55.2	11.1	33.7	100

Source: Field survey, 2023

In investigating the registration status of the informal sector activities in Osogbo Metropolis, this study discovered that 12.6% of the activities were registered. This implies that 87.3% of the sampled activities were not registered. Within the cottage industry, 24.1% of the sampled activities were registered. This implies that operators in the cottage industry were more inclined to the registration of their businesses than operators in the other categories of businesses. This may be due to the fact that they are industries who may require the assistance of the government in forms of grants and contracts for which business registration is required.

From the information gathered through the structured interview conducted at the Ministry of Commerce and Industry, there are basically two types of business registrations in the ministry. These are the registration of business associations, that is, the indirect registration of businesses through business associations and the individual registration of businesses by business owners. So, members of registered business associations are automatically registered with the Ministry of Commerce and Industry. Such members pay their annual dues, usually five hundred naira per member, to the Ministry through the associations. All types of informal sector activities in Osun State have business associations. Individuals not interested in associations' membership register directly at the Ministry and this registration is subjected to annual renewal. The situation is a bit different for the activities in the cottage industry category because despite being members of business associations, the operators are required to do individual registration of their businesses with the State Government through the Ministry. This further explains the reason the highest percentage of registered businesses were in the cottage industry category.

Further investigations revealed that, of the thirty-three (33) registered businesses in Table 7, eighteen (5.9%) were registered with Osun State Government (Ministry of Commerce and Industry), five (1.7%) with Small and Medium Enterprise Development Agency (SMEDAN), eight (2.6%) with the Local Government and two (0.7%) with the Federal Government. However, a good number of the sampled activities (41.4%) belonged to relevant business associations. The data for the business associations' membership is presented in Table 8.

Table 8 Business Associations' Membership

Membership of Business Association		Business category			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Yes	Freq.	32	19	57	108
	% within category	22.2	65.5	64.8	
	% across categories	12.3	7.3	21.8	41.4
No	Freq.	112	10	31	153
	% within category	77.8	34.5	35.2	
	% across categories	42.9	3.8	11.9	58.6
Total	Freq.	144	29	88	261
	% within category	100	100	100	
	% across categories	55.2	11.1	33.7	100

Source: Field survey, 2023

Businesses registered with business associations are automatically indirectly registered with the Ministry of Commerce in Osun state. This is because all business associations in the state are registered with the Ministry. The registration is to ensure the regulation of the activities of the associations generally and registered businesses specifically and to generate revenue for the government. As presented in the Table 8, 41.4% of the sampled activities belonged to business associations while 58.6% did not.

As explained by the Officer-in-charge at the Ministry of Commerce, some operators prefer not to join associations but rather register directly at the Ministry. Such businesses do not belong to any association. Thus, there are some businesses that are registered with the Ministry of Commerce, though they do not belong to any business association. Transportation business associations, in addition to the registration at the Ministry of Commerce, are also required to register at the Ministry of Transportation. This registration is compulsory and any business not registered usually has its operator apprehended and fined.

From the structured interview conducted at the Ministry of Transportation, it was discovered that many hoodlums hide under transportation business to commit hideous crimes in Osogbo Metropolis. Lack of registration makes it very difficult to nab the culprits since the vehicles are unregistered. Registered vehicles have identification numbers. These identification numbers are different from the numbers on the number plates being issued by the Federal Road Safety Commission. The registration as well as the identification numbers make the regulation of this particular type of activity easier.

4.5. Payment to Government

Informal sector operators in the study area make various forms of payments to the government. These payments are in form of taxes, levies, registrations, land use charges, tickets and so on. While some of the payments are made directly through the agencies in charge, others are paid through business associations. Businesses, that is, informal sector activities that may escape payments are some unregistered mobile and online businesses. These do not belong to any business association. Some mobile business owners, most especially market hawkers, are not exempted because they pay for tickets on market days. As presented in Table 9, one hundred and eighty-one (69.4%) of the sampled informal sector operators made payments to the government while eighty (30.7%) did not. A greater percentage of those in the cottage industry (82.8%) and those in the tertiary services (76.1%) categories made payment to the Government. This may be because most of the businesses in these categories are not usually mobile, unlike those in the trading and commercial activities category.

Table 9 Payments to Government

Payments to Government		Business category			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Yes	Freq.	90	24	67	181
	% within category	62.5	82.8	76.1	
	% across categories	34.5	9.2	25.7	69.4
No	Freq.	54	5	21	80
	% within category	37.5	17.2	23.9	
	% across categories	20.7	1.9	8.1	30.7
Total	Freq.	144	29	88	261
	% within category	100	100	100	
	% across categories	55.2	11.1	33.7	100

Source: Field survey, 2023

Money paid to the government by informal sector operators in Osun State were in various forms and for various purposes. As confirmed by the operators, these included tax (31.8%), levies (15.3%), tickets (1.1%), revenue (8.4%), land use charge (0.8%), environmental sanitation (1.5%), Local Government permit (0.8%) and premises and land revenue (0.4%) among others. This buttresses the submissions of the various government agencies in charge of these informal sector activities. As submitted by the Director of the Ministry of Environment, the ministry collects revenues from the informal sector activities located in the State. These revenues are used to combat epidemics.

Also, the Ministry gets some revenue from the marketers in the State. The collection of the payment by marketers is coordinated by the market leaders. Thereafter, the leaders remit the money into the coffers of the government for waste collection in the markets. One of the agencies under the Ministry, the Osun State Waste Management Agency, is in charge of evacuation of wastes in the Metropolis. The Ministry of Transportation collects revenue from transporters (commercial motor vehicles, bikes and tricycles drivers/riders) in the study area. This is coordinated through registration with the Ministry. Payments are usually made through the coordinators assigned by the government in every area of operation within the Metropolis. This is done through the Osun State Transportation Management System.

All informal sector activities, whether registered with business associations or not are expected to be registered with the Ministry of Commerce and Industry. Payments are made for registration and also business premises and annual registration renewal at the ministry. Various forms of registrations for informal sector operations at the Ministry of Commerce include individual business registrations, business associations, trade associations and joint associations. All these are aimed at effective regulation of the activities of the informal sector as well as revenue generation for the government. All taxes are paid to the Osun State Internal Revenue Agency.

Some of the payments made to the government are made personally by the operators, others through associations and some others are collected directly by government officials visiting the business locations for collection. The operators claimed to be paying between five hundred naira and forty thousand naira per annum for these various purposes.

Variations in payment are due to the type of payment, business locations and business sizes. Also, amount paid can be affected by the mode of registration, as confirmed at the Ministry of Commerce. This is because while some businesses are registered through the business associations, others made direct registration, not being involved with any business associations. Those businesses registered through associations pays lesser amount of money compared to those registered directly. It has been popularly said that the informal sector is an unregulated sector. However, findings from this study revealed that the activities of the informal sector in the study area are regulated by different Ministries in the State.

4.6. Use of Raw Materials for Operation and Level of Accessibility

It was observed in this study that not all informal sector operations require the use of raw materials. In the study area, 73.56% of the informal sector activities sampled did not require or make use of raw materials for their operations. All the activities in the cottage industry made use of raw materials. This is because the activities of industries entail production. Also, 45.5% of the activities in the tertiary services made use of raw materials. The use of raw materials for operation was extremely unpopular in the trading and commercial services category and this may be due to the nature of the activities in the category, that is, buying and selling. Details of the findings on the use of raw materials is as presented in Table 10.

Table 10 Use of Raw Materials for Operation

Raw materials usage		Business category			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Yes	Freq.	0	29	40	69
	% within category	0	100	45.5	
	% across categories	0	11.1	15.3	26.4
No	Freq.	144	0	48	192
	% within category	100	0	54.5	
	% across categories	55.2	0	18.4	73.6
Total	Freq.	144	29	88	261
	% within category	100	100	100	
	% across categories	55.2	11.1	33.7	100

Source: Field survey, 2023

Further investigations (Table 11) revealed that the raw materials being used for the activities in the informal sector in Osogbo Metropolis were very accessible. Invariably, getting the raw materials was not a challenge to the operators. For 66.7% of the activities using raw materials, the raw materials were very accessible while to the remaining 33.3%, they were just accessible. So, raw materials were both accessible and available to the operators of informal sector activities in the study area.

Table 11 Level of Accessibility of Raw Materials

Raw Materials' accessibility		Business category			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Very accessible	Freq.	0	14	32	46
	% within category	0	48.3	36.4	
	% across categories	0	5.4	12.3	17.6
Just accessible	Freq.	0	15	8	23
	% within category	0	51.7	9.1	
	% across categories	0	5.8	3.1	8.8
Not applicable	Freq.	144	0	48	192
	% within category	100	0	54.5	
	% across categories	55.2	0	18.4	73.6
Total	Freq.	144	29	88	261
	% within category	100	100	100	
	% across categories	55.2	11.1	33.7	100

Source: Field survey, 2023

4.7. Energy for Operation

Infrastructure generally is very important in the informal sector. This is because infrastructure powers businesses and creates opportunities. The informal sector specially needs reliable infrastructure to connect supply chains and move goods and services. Infrastructure is also needed in generating power for various activities (Boyle, 2024). A stable infrastructure ensures the proper coordination of all human resources, processes and other operational tools necessary to ensure manageable and profitable growth (Pierre, 2024).

One of the infrastructural facilities examined in this study is energy. Energy is an important infrastructure in the business world. It is the foundation stone of the modern economy. Energy provides an essential ingredient for almost all human activities. These activities include cooking, lighting, health, food production and storage, education, mineral extraction, industrial production and transportation. Access to affordable energy services is important for the viability of informal sector activities (Qase, 2000). Hence, the need to investigate the availability of energy in the study area.

From Table 12, a good percentage (97.1%) of the informal sector activities in the study area made use of different forms/sources of energy. These included electricity, generator, solar, charcoal, gas and firewood. Majority (64.9%) of the activities made use of electricity. This shows that the most popular form of energy being used for informal sector activities in the study area was electricity. However, some of the operators used more than one form of energy for their activities.

Table 12 Energy Source for Operation

Energy Source		Business category			Total
		Trading and commercial activities	Cottage industry	Tertiary services	
Electricity	Freq.	104	24	70	198
	% within category	68.4	68.6	59.3	
	% across categories	34.1	7.9	23.0	64.9
Generator	Freq.	26	9	38	73
	% within category	17.1	25.7	32.2	
	% across categories	8.5	3.0	12.5	23.9
Solar	Freq.	6	1	2	9
	% within category	3.9	2.9	1.7	
	% across categories	2.0	0.3	0.7	3.0
Charcoal	Freq.	3	0	2	5
	% within category	2.0	0	1.7	
	% across categories	1.0	0	0.7	1.6
Gas	Freq.	2	1	6	9
	% within category	1.3	2.9	5.1	
	% across categories	0.7	0.3	2.0	3.0
Firewood	Freq.	2	0	0	2
	% within category	1.3	0	0	
	% across categories	0.7	0	0	0.7
Nil	Freq.	9	0	0	9
	% within category	5.9	0	0	
	% across categories	3.0	0	0	3.0
Total	Freq.	152	35	118	305**
	% within category	100	100	100	
	% across categories	49.8	11.5	38.7	100

Note: **Responses here outnumbered questionnaires administered because some respondents indicated more than one form of energy.
Source: Field survey, 2023

Activities in the cottage industry basically made use of electricity (68.6%) and generator (25.7%) for their operations. Only 2.9% of the sampled activities in the category made use of solar and gas. This is expectedly going to affect the location of the activities as activities in this category are likely going to be located where there is good and stable electricity supply. However, in the tertiary services category, there was the use of electricity (59.3%), generator (32.2%), solar (1.7%), charcoal (1.7%) and gas (5.1%).

Further investigations on the level of satisfaction with electricity stability revealed that across the various categories of activities, 58.6% of the sampled operators were satisfied with the level of stability of electricity in their business locations, 11.6% were very satisfied and 18.7% were dissatisfied. In the trading and commercial activities category, 7.7% of the operators were very satisfied with the level of electricity stability in their business locations, 16.7% in the cottage industry and 15.7% in the tertiary services category. This shows the reason for the use of generators and solar systems among the operators in the study area.

The level of electricity stability across the three different residential zones was also examined. This is because lack of stable electricity has been discovered to be the most common challenge among businesses in Nigeria (Ukwandu, 2018). It was also observed by the Central Bank of Nigeria (CBN, 2017) that poor electricity supply is the number one constraint to inclusive economic growth and development in the country. This was the conclusion of a survey carried out by the apex bank where it was noted that over 62.6% of the surveyed firms in the country identified inconsistent electricity supply as a major barrier to their economic activities. Findings revealed that more than half of the operators (58.6%) were quite satisfied with the level of electricity stability in their business locations. The highest level of satisfaction was recorded in the suburban residential zone. This shows that electricity supply was more stable in the suburban residential zone than in the core and intermediate residential zones. The core residential zone recorded the least level of satisfaction. Considering the distribution pattern of informal sector activities in the study area and juxtaposing with the level of satisfaction with electricity supply stability across the residential zones, it can be concluded that the level of stability of electricity supply is not one of the factors determining the location of the activities.

5. Conclusion

This study presents the distribution and characteristics of informal sector activities in Osogbo Metropolis of Southwest, Nigeria. The study identified the spatial distribution of the activities across the high, medium and low-density residential areas of the metropolis and examined the operational characteristics of the activities of the sector. The findings showed variation in the distribution pattern of the activities. It also revealed that a very high percentage of the operators lacked access to loan facilities. This could impact the sector negatively. Informal sector activities, in the study area, get registered with the government through various means and made payments to the government regularly. This is contrary to the established literature description of the sector has been unregistered and unregulated by government. However, it is necessary for the government to get more involved in the coordination and regulation of the activities of the sector so as to curb indiscriminate location and haphazard developments. The government should also provide financial aid in form of loans and grants to small and medium scale enterprises in the Metropolis. This will promote the operators' access to credit facilities thereby empowering them and improving the economy of the Metropolis in particular and the gross domestic product (GDP) of the nation at large.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict-of-interest to be disclosed.

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