

## **Spatial Patterns of Small Scale Industries in Dutsin-ma Town, Northern Nigeria.**

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**Abstract:** *Small scale industries have been adjudged worldwide as engines of economic growth and development. This research attempts to assess the spatial characteristics of small scale industries in Dutsin-ma town, Northern Nigeria. Data used was obtained from field surveys and interviews. Questionnaires were administered to 80 identified small scale entrepreneurs. Results obtained indicated that 65% of the industries were located on major commercial streets, either in the open, under shades or in shops within the entrepreneurs' residences. Forty percent were located within the entrepreneurs' residences where they can utilize family labour in their operations. Major problems militating against the growth and development of the industries were largely inconsistent government policies, problem of power supplies, inadequate infrastructure, competitions with foreign goods and declining markets. It was also found that labour, transport, and market were the most important factors influencing the location of industries in the area. Other constraints facing these industries include inadequate capital for expansion and reinvestment, use of manual tools and equipment as well as unskilled labour provided by family and apprentices. The perceived solution to these problems centred on government assistance, in terms of provision of soft loans and trainings. It is recommended that government and other non-governmental organizations should regularly organize trainings for potential and practicing small scale industry operators on how to plan, organize, direct and control their businesses, and that small scale entrepreneurs should device effective marketing strategies as well as effective management and customer relations at all times.*

**Keywords:** *Spatial Pattern; Small scale Industries; Dutsin-ma*

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### **I. Introduction**

Small scale industry means an industry with not more than 10 employers. These industries have the features of requiring low capital investment for their establishment. They are labour intensive, scattered and provide employment for the semi-skilled, in contrast to large scale industries that cater for the employment of highly skilled manpower (Adedeji, 2009). There is hardly any unique universally accepted definition of SMEs because the classification of businesses into small and large scales is a subjective judgment (Doyle, 1998). According to Boswel, (2003) SMEs vary both between countries and between continents. The major criteria used in the definition according to Bauer, (2003) include various combinations of the following: number of employees, financial strength, sales value, relative size, initial capital outlay and types of industry.

Chand, (2012) explained the indicators prominent in most definitions as size of capital investment (fixed assets), value of annual turnover (gross output) and number of paid employees. In countries such as the United State of America, Britain and Canada, small and medium business is defined in terms of annual turnover and number of paid employees. In Britain, for instance, a small and medium business is defined as that business with an annual turnover of 2 million pounds or less, with fewer than 200 paid employees. The Research Institute for Management Sciences, University of Delft, The Netherlands, has classified businesses into four groups and defined small-scale industry as one employing 10-99 persons in which the manager personally performs all the functions of management without actually taking part in the production. Stanley and Morse, (2005) stated that post world war Japan defined small and medium enterprise as one either having capital not exceeding 5 million Japanese Yen or having not more than 300 employees in manufacturing industry, and either having capital not greater than 10 million Japanese Yen or having not more than 50 employees in commerce and service sectors. They further reported that in Indonesia, Agency for Small and Medium Enterprises has defined small scale enterprise to mean all enterprises, household or cottage, employing less than 10 full-time workers and not using motive power or machinery, and medium sized industry as one employing between 10-50 workers and using motive power. In Nigeria, the definition of SMEs also varies from time to time and according to institutions, noted Adegbite, (2011). The Nigerian Government has used various definitions and criteria in identifying what is referred to as micro and small size enterprise. At a certain point in time, it used investments in machinery or equipment and working capital. At other times, the capital cost and turnover were used. However, the Federal Ministry of Industry, under whose jurisdiction the micro and small size enterprises are placed, has adopted a somewhat flexible definition especially as to the values of installed fixed cost (Adedeji, 2009). Amidst several definitions provided by the government and its agencies, the National Council on Industry defined micro

enterprise as an industry whose total project cost excluding cost of land, but including working capital, is not more than N500,000. Small scale enterprise on the other hand is defined by the council as an industry whose total project cost excluding cost of land, and including working capital does not exceed 5 million Naira (Nathan, 2014).

Transportation is one of the key factors responsible for the location of small scale industries. Most entrepreneurs want the highest point of accessibility in order to maximize profit. The industry must, therefore, be located at the centre point, that is, where transport cost will be equal for both raw material and finished goods, that is to say, the firm pays the same amount for bringing its raw material as it does for taking its product to the centre, so that the total distance to be covered for transport is at its minimum (Oyebanji, 1998).

A wide variety of small scale industries have sprung up in Dutsin-ma and other towns in Katsina state, northern Nigeria to provide goods and services for the ever increasing population. Such varieties of small scale industries include those of tailoring, carpentry, bakery, shoe making, printing, welding, black smithing, block making, etc.

Most studies conducted on small scale industries in various parts of Katsina state have focused on the role of small scale industries in employment generation and the environmental effects of their activities.

The aim of this work is to examine the spatial pattern of small scale industries in Dutsin-ma town. This would be achieved through identifying the different types of small scale industries in the town; examining the locational pattern of the industries as well as identifying the factors responsible for the locational patterns of such industries.

According to Olajide, (2012) the spatial pattern of economic activities is an important determinant of urban-development. He further noted that the locations of firms influence where workers live, where consumers buy products and where other firms are located. Charles, (2011) also affirmed this when he stated that the locations of firms also impact on transportation flows, since they are important attractors and producers of both personal and freight traffic. The spatial pattern of firms obviously has a profound impact on the economic viability and conditions for economic growth in a region (Tijani, 2004).

## **II. Factors Responsible For Locational Patterns Of Small Scale Industries**

Many important geographical factors involved in the location of individual industries are of relative significance, example: availability of raw materials, power sources, water, labour, markets the transport facilities (Nathan, 2014). Other non-geographical factors include capital, government policy, industrial inertia, efficient organization, banking facilities and insurance. Different scholars (Adenugba, 2004; Adedeji, 2009; Chand, 2012) have identified five major factors responsible for the agglomeration and location of small scale industries as follows:

1. **Raw Materials:** Among the factors influencing location of an industry, proximity to raw material and its regular supply are of utmost significance. Shumpeter, (1987) in a study on the locational analyses of small scale industries in some parts of India revealed that industries are set up close to, or in the regions where raw materials are available in plenty. This speaks for the localization of jute industry in West Bengal, Sugar industry in Jabalpur and concentration of heavy industries in the states of Chattisgarh and West Bengal. If the raw material is heavy and of small value, the industries are set up in the regions where the raw materials are found. In the Nigerian context, proximity to source of raw material is a major factor influencing industrial location: Iron and Steel Plants at Ajaokuta, Brick Making Factory in Funtua, and Cement Manufacturing in Obajana and Ashaka respectively are some examples (Clement, 2007).
2. **Source of Power:** All types of manufacturing industries depend upon one or the other sources of power. It may be coal, electricity, gas etc. (Stanley and Morse, 2005). Similarly, Charles, (2011) illustrates this point by stating that for heavy industries, especially those of ferrous metallurgy, coal is the main source of power, therefore, these heavy industries are closely tied down to coal fields. Similarly, Clement, (2007) affirmed that the Iron and Steel Industry of India in the Damodar valley of Chattisgarh, Jamshedpur is located near the coal fields of Raniganj and Jharia.
3. **Labour:** In different studies, Adenugba (2004) and Clement, (2007) have highlighted that modern industries require large labour force, both skilled and unskilled. Both authors agreed that the availability of cheap labour in a region is an important factor determining the location of industries. Along this line, Olanikan and Adedeji, (2007) opined that different types of industries require different types of labour forces. For example, watch-making, electronics, aeronautics, computers etc require highly skilled labour, whereas, on the other hand, cotton textile manufacturing, sugar making, jute textile etc employ more of unskilled labour. The development of plantations in Assam and Cotton Textiles in Maharashtra, stressed Chand, (2012) are attributed to the availability of cheap efficient labour. In these regions, it has also been seen that industrial centres tend to attract more industries, because plenty of labour is available in these

canters. For example, Mumbai and Kolkata have become industrial cities in India mainly because of availability of plenty of labour in and around these mega cities (Chand, 2012).

4. **Means of Transportation:** In a study on the impacts of improved transport networks on Small Scale Industries in Nigeria, Adegbite, (2011) asserted that industries depend upon efficient and cheap transportation system, which is essential for the movement of raw materials as well as the finished products. They may be rail, road or water. This view was supported by Olajide, (2012) when he stated that Railway junctions are considered to be the most suitable sites for the location of industries. These enjoy benefits of easy transportation from different directions. Similarly, sea ports also develop as industrial centres because of availability of facilities of water transportation for export and import of products (Daniel, 2009).
5. **Market:** Authors (Doyle, 1998 and Daniel, 2009) have in different studies reported that market is an important factor in determining location of industries. In his view, Doyle, (1998) observed that Goods are manufactured to be sold in the market and therefore industries are generally setup close to urban centres where large markets are found. However, Oyebanji, (1998) in a study on the “Marketing Strategy of Small Scale Industries in Lagos State” argued that sometimes dense population may not prove to be solid market for the disposal of the different industrial products. If the people are poor, the purchasing capacity also becomes poor. In some of the Asian countries, where people are poor, industries which are engaged in the manufacturing of cheap and essential goods like coarse cloth find an adequate market. This explains why under-developed countries, though densely populated are poor in manufacturing industries (Nathan, 2014).

### **III. Small Scale Industries And The Nigerian Economy**

Small Scale Industries have a lot of important contributions to make to the economic development of a country. Chand, (2012) writes some of them as follows:

Provision of employments in the marketing of goods and services, which are offered for sale, as lots of youths, retired workers and out of school graduates are now gainfully employed, thereby reducing the unemployment rate and its attendant’s social complication of armed robbery and white collar crimes. Small scale industries help in bring about new goods and services and supply the needs of large industries that rely on the small scale operators for business success. Small scale Industries represents the overwhelming majority of industrial capacity in developing countries. A fact confirmed by Adegbite, (2011); Daniel, (2009) on different case studies, these authors have postulated that small scale businesses in Nigeria constitute over 80% of all registered companies, occupying positions in agro-based and allied industries, rubber based, leather shoes industries, chemicals, electronics, general merchandising, restaurants, dress making, hair dressing, cane-chair manufacturing, leather products, pomade and toiletries, animal feeds, printing, etc. They promote the development of indigenous manpower as well as increase local participation in the manufacturing sector.

Small scale businesses check the effects of polarization by a planned and systematic development of rural areas. The much talked about rural-urban migration is reduced by the introduction of small scale industries in rural areas (Tijani, 2004). According to Bolton, (2001) the activities of small business firms have resulted in the mobilization of the resources of the environment and thereby improving on the standard of living of the population. They contribute to the labour market by absorbing an ever growing supply of workforce. In doing this, they have sufficiently helped to curtail the rising unemployment in Nigeria (Anyanwu, 1998). They have accounted for a large percentage of all businesses and a favourable percentage of the nation’s Gross National Product. This fact is more relevant in the developed countries of Great Britain and United Kingdom where proper accounting system is kept (Bauer, 2003). Other noticeable impacts are their contributions to the development of indigenous entrepreneurship.

The contributions of small scale industries to the mobilization of domestic savings and utilization of local resources, is also a noticeable factor. Small scale industries also serve as good agents for disposal of industrial products and some services and have contributed immensely to the production of raw materials in the form of semi-processed goods for use by bigger industries (Boswel, 2003). They are a base for the development of appropriate technology and provide a veritable ground for skilled, unskilled and semi-skilled workers and have provided productive self-employment to a number of educated and less educated young men and women coming out of Schools, Colleges, Polytechnics, and Universities.

Ukpabio, (2004) emphasized that the entrepreneur through the small scale business person is the most critical factor in the economic development of any Nation. Entrepreneur organizes and utilizes the various factors of production and finally sets productive machinery in action towards overall economic development, consequently, the availability of the small scale industry is, therefore, the undisputed pre-condition for economic growth (Schumpeter, 1987). It is agreed that Micro and Small Scale (MSEs) contribute to National development by positively influencing the distribution of income both in functional terms, wages and profits in nominal

terms. Focus on SMEs help to decentralize industries thereby not only accelerating rural development but also stemming urban immigration and the consequent problems of congestion in the cities (Ukpabio, 2004).

#### **IV. The Study Area**

##### ***Location and Extent***

The study area is Dutsin-ma Local Government, Katsina State. Dutsin-ma is located on Latitude 12° 27' N and Longitude 7° 29' E. It is one of the oldest towns in central part of Katsina State, Northern Nigeria. It is bounded by Kankia, Charanchi and Matazu Local Government Areas to the East, Safana and Dan-musa Local Government Areas to the South, and Kurfi Local Government Area to the North.

##### ***Climatic Conditions***

The climate of the area is tropical continental, which is dry (Koppen's Aw), with the total annual rainfall ranging from 700-800mm. The cool dry (Harmattan) season last from December to January and a hot dry season commences from March to May, with a warm wet season from May to September and there is a less marked season after rains duration the month of October which was characterized by decrease in rainfall and gradual lowering in temperature.

The region has a temperature that ranges between 21-28°C during winter season, while the least is recorded around the month of December to January, in summer season, the temperature recorded is within the range of 34-40°C. It has the annual temperature of about 19°C with clear demarcation between wet and dry season. The region experience two trade winds blowing in the country (North-East Trade Wind) which began in October to April with dusty and hazy conditions called Hamattan. The impact of these winds is much around the month of January and February. The South-West trade winds originate from Atlantic Ocean and bring rainfall to northern parts annually from May to September.

##### ***Soils***

The soil type of the region is mostly sandy which support the crops like millet, beans, and groundnut. The drift deposits of the soil are more courses resulting in light brown sandy soil that are reddish in colour with medium fertility and easily worked. In other parts of the region especially along the water body and riversides, the soil are loamy and support production of crops like maize cotton guinea corn and vegetable crops like tomato, pepper, onion etc.

##### ***Agriculture***

Fertile land of the region has played a great role in the growth and development of the region, this is because the region serves as one of the centres of cash crops production especially cotton and groundnut and this attracted many farmers, animal herders and merchants to settle in the region to carry out agricultural activities.

The area is blessed with fertile land, sandy-loamy in nature, derived from the local topography, light-brown in colour and easily worked; as such various farming systems are practiced ranging from wet season farming, irrigation farming to pastoral farming. In addition to these, some areas were kept as forest reserves to take care of livestock rearing and check out some ecological problem such as desertification and erosion. In Dutsin-ma region, the land used for agriculture is very vast, majority of the inhabitants are farmers.

##### ***Vegetation***

The regions vegetation is Sudan-Sahalian type with predominantly grass and few scattered trees. However, occasional woodland exists in some areas such as famous Runka forest reserve found in Safana and Dutsin-ma Local Government Areas. The scattered trees within the regions grow long tap roots and thick back that make it possible for them to withstand the long dry season. The existing vegetation in the region was the functions of many years of human interference and degradation. Exploitations of the forest vegetations have been largely for fuel wood, cultivation, grazing and bush fire.

##### ***Hydrology and Drainage Systems***

The drainage of the region is dominated by the two major river systems; these are rives Karaduwa and Gada. These two rivers originated around Tsamiya in Gwarzo Local Government Area of Kano State. Running from the east to the west and have their basin separated by interfluves of the local relief. Karaduwa flows to the South while Gada to the North, the rivers have several tributaries and channels making regional local river systems. The Karaduwa system is joined by Gada and Kagara streams at about 9km South/East of Dutsin-ma town around Zobe dam, it is important to note that Dutsin-ma township dam was constructed on Gada river. Other tributaries include Safana, Kekasassa, Yan-tumaki and Mara-kanga streams, which joined Karaduwa at 'Yar-lilo near Gora in Dan-musa Local Government Area. The Gada system has Banye, 'Yar-gamji, Kurfi and

Chidawaki streams as the major tributaries. The river systems and several smaller streams made a dendrite drainage pattern covering the entire region and even beyond. The climate of the region has dominant influence upon the rivers. The climate being tropical wet and dry (Koppen's "Aw") of the Sahalian region with lower rainfall making the rivers to flow intermittently. However, despite their shortcomings, these rivers provide the source of water for domestic as well as agricultural purposes. Irrigation, for example, is taking place in Tangalawa, Tuga, Makera and Taka-tsaba villages. While all settlement located close to the rivers use the water there from for their domestic purposes. Government-constructed dams in the region are Dutsin-ma Township Dam 1973 and Zobe Dam 1983.

Underground water is also found in some patches in the area where the geological conditions are favourable, these include areas like Makera, Turare, Gago and Karofi. Therefore, open (concrete) wells were dug in some scattered locations, usually family compounds, by the government and in some selected locations with high probability of underground water resources.

### **People and Population**

Dutsin-ma region falls under northern parts of Nigeria; the Hausa-Fulani are the largest and the dominant group that occupied the region, although there are various ethnic groups in the area whom arrived at one time or another for different reason usually from different part of the country and beyond. It is possible to distinguish some of the people in the region by their local history, costumes, tradition and language. Such distinction must be made with great care since in almost all parts of tradition have been complicated and interwoven. According to 1999 population projection and the 2006 National Population Census reported that the population of the area is 139,552 people as at 1999 and 169,671 as at 2006 respectively.

## **V. Research Design**

The design adopted for the study is survey method, which comprise the collection of information from primary sources of questionnaires, interviews and observations. Secondary data sources were also consulted to obtain theoretical background on the topic.

### **Sampling and Sampling Techniques**

Systematic random sampling technique was used to select respondents for the study. In so doing, the town was divided into four (4) zones, and all the small scale industries in each of the zones were identified and listed numerically, samples were then drawn at intervals of 5 from the list. A total of 80 Small Scale Industries were identified, thus, constituting the sampling unit for the work. Sixteen (16) Small Scale Industries representing 20% of the total identified numbers were randomly chosen as sample size for the study.

The sample size was determined using the formula:

$$K = \frac{N}{n} \quad \text{Where: } N = \text{Population of the study and } n = \text{sample size}$$

$$K = \frac{80}{16} = 5$$

Table 1.0 indicates the number of identified small scale industries in the town and their locations.

**Table 1.0:** Zoning of Dutsin-ma town for the Study

Zone	Neighbourhood Area	Number of small scale industries
Zone-A (Palace area)	Unguwar-Yandaka	14
Zone-B (Commercial area)	Bakin-asibiti	21
Zone-C (Low income area)	Hayin-gada	20
Zone-D (High income area)	Low-cost	25
<b>Total</b>	<b>4</b>	<b>80</b>

Source: (Field Survey, 2015)

## **VI. Results And Discussions**

### **Types and Distribution Small Scale Industries**

**Table 2.0:** Types and Distribution Small Scale Industries in Dutsin-ma

S/N	TYPE OF INDUSTRY	NUMBER OF INDUSTRIES	PERCENTAGE
1	Polythene-packaged water	5	6.25%
2	Car wash	5	6.25%
3	Carpentry/Furniture	11	13.75%
4	Tailoring/Embroidery	6	7.5%
5	Photography	7	8.75%
6	Barbing/Hair dressing saloon	8	10%
7	Bakery	6	7.5%
8	Mechanic workshop	4	5%

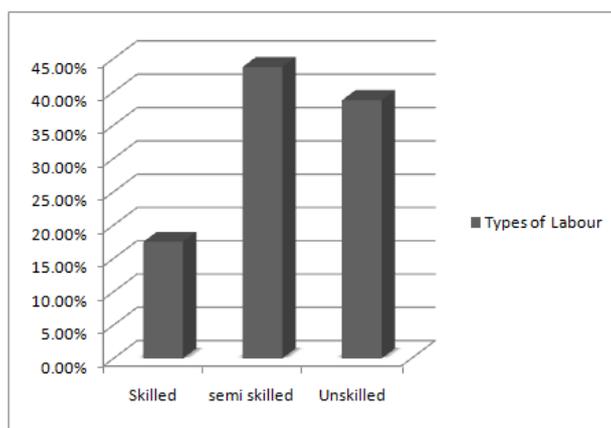
9	Shoe and Bags manufacturing	3	3.75%
10	Rubber products manufacturing	1	1.25%
11	Dyeing/Dry cleaning	3	3.75%
12	Computer centre	4	5%
13	Block making industry	8	10%
14	Welding and fabrication/Blacksmithing	4	5%
15	Henna and interior decoration	2	2.5%
16	Restaurants and food centres	3	3.75%
	<b>Total</b>	<b>80</b>	<b>100%</b>

**Source:** (Field Survey, 2015)

Table 2.0 gives a description of the types of small scale industries in the study area. It is shown that furniture/carpentry is the most dominant small scale business undertaken by the entrepreneurs of the area. This is closely followed by sandcrete block making industries which are also widespread. Other important industries that have been identified include polythene-packaged water, tailoring, bakery, barbing/hair dressing saloons etc. Rubber products industries, restaurants and interior decorations have the least numbers of the industries found in the study area.

**Labour Requirements**

Figure 1.0 revealed that only 17.5% of the industries use skilled labour, 43.75% use semi-skilled, and 38.75% use unskilled labour. This implies that the level of technical advancement of most of the small scale industries in the study area is quite low, as evident by the predominance of unskilled and semi-skilled labour. Further analyses show that the industries that utilized skilled labour include rubber products enterprises, aluminium fabrication and furniture making industries that use modern equipment and need highly trained personnel. The availability of cheap unskilled labour is one of the reasons most of the industries are located in residential areas.



**Figure 1.0:** Types of labour Requirements by Small Scale Industries of Dutsin-ma

**Sources of Capital**

Table 3.0 revealed that 27 industrialists (33.75%) sourced their capital from personal savings, followed by family and friends’ sourced capital constituting 26.25%, those who sourced their start up capital through Local Government Empowerment Schemes constitute 22.5%. Only 14 industrialists, constituting 17% of the respondents obtained their capitals through bank loans. It is evident that most of the industries rely on informal sources of capital, because, according to them, they do not have access to bank loans. This may be attributed to the low literacy levels and relative poverty of most of them, as they do not have the collateral needed to access bank loans. This finding is consistent with findings of Olajide, (2012) who cited poverty and lack of access to bank loans as one of the major factors inhibiting the growth and expansion of Small and Medium Enterprises (SMEs) in Nigeria.

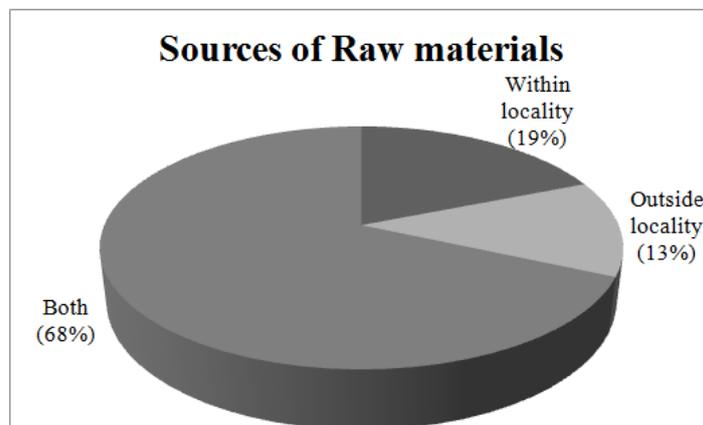
**Table 3.0:** Sources of Capital for Small Scale Industries in Dutsin-ma

S/N	SOURCES	NO. OF RESPONDENT	PERCENTAGE
1	Personal saving	27	33.75%
2	Bank loan	14	17.5%
3	Family and friend	21	26.25%
4	Local Government	18	22.5%
	<b>Total</b>	<b>80</b>	<b>100%</b>

**Source:** (Field Survey, 2015)

**Sources of Raw Material**

Figure 2.0 indicates that 38% of the industries source their raw materials from within the locality. Small Scale Industries that source their raw material from outside the locality constitute 26.25% and 35% source their raw materials both within and outside the locality. The varied nature of the sources of raw materials for different types of industries thus, influences the spatial characteristics of small scale industries in the town.



**Figure 2.0:** Sources of Raw Materials

**Range of Capital Investment**

Table 4.0 depicts that the range of capital of more than ₦200,000:00 has the highest percentage of 46.25%, this is followed by industries with a range of capital of between ₦101,000:00 and ₦200,000:00 having 38.75% and those with between ₦51,000:00 and ₦100,000:00 constitute the range of capital of only 10% of the respondents. Industrialists with a capital of between ₦1,000:00 to ₦50,000:00 have the least percentage of 5%. This indicated that the capital investments of a high proportion of the industries are high. Interviews with the respondents revealed that table water, block making, furniture making, aluminium fabrication and rubber products manufacturing industries require highest ranges of capital investments, while barbing saloons, tailoring, photography and such other traditional industries as dying and blacksmithing require low range of capital investments.

**Table 5.0:** Range of Capital Investments

S/N	RANGE OF CAPITAL (₦)	NO. OF RESPONDENTS	PERCENTAGE
1	₦1000 to ₦50,000.00per annum	4	5%
2	₦51,000.00 to ₦100,000.00per annum	8	10%
3	₦101,000.00 to ₦200,000.00per annum	31	38.75%
4	More than ₦200,000.00 per annum	37	46.25%
	<b>Total</b>	<b>80</b>	<b>100%</b>

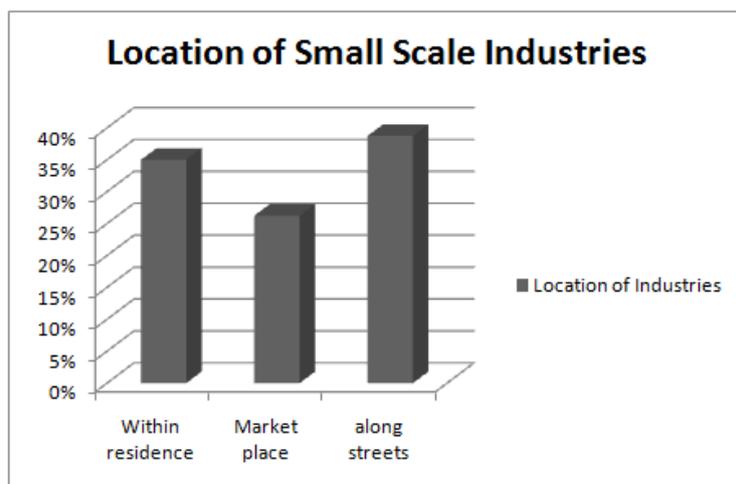
\*\$1:00 (USD) = ₦320:00 (NGN)

**Source:** (Field Survey, 2015)

**Locational Factors**

Several factors combine to influence the location of small scale industries in the study area. Among such factors are raw materials, market, capital and labour. Attempt was made to explore the extent to which each of these factors influence industrial location in the area.

Figure 3.0 shows the location of industries as 35% within households, 26.25% in the market place, and 38% along streets. The high percentage of industries sited along streets might be to take advantage of the accessibility provided by the roads, which facilitate efficient movement of raw materials and finished products in addition to ensuring regular patronage. The predominance of traditional industries which do not require workshops explain why a considerable percentage of the industries are located within households. Some of these industries include tailoring/embroidery, shoe and bags making, dying, henna decoration etc. The survey also discovered 21 industries constituting 26.25% are located in the market place where they can attract higher patronage on market days.



**Figure 3.0:** Location of Small Scale Industries in Dutsin-ma

### VII. Location Determinants Of The Industries

Table 6.0 revealed that 30% of the industries are so located to minimized transport cost, 22.5% are located in places where marketability is ensured, the location of 26.25% of the industries in the study area is influenced by availability of cheap labour, and 21.25% are located close to sources of raw materials. This implies that transport cost, Labour and proximity to market are the major determinants of industrial location in Dutsin-ma town. This conforms to the findings of Adegbite, (2011) that ‘low transport cost, accessibility to cheap labour and markets are the determinants of industrial locations in semi-urban areas of south-western Nigeria.’

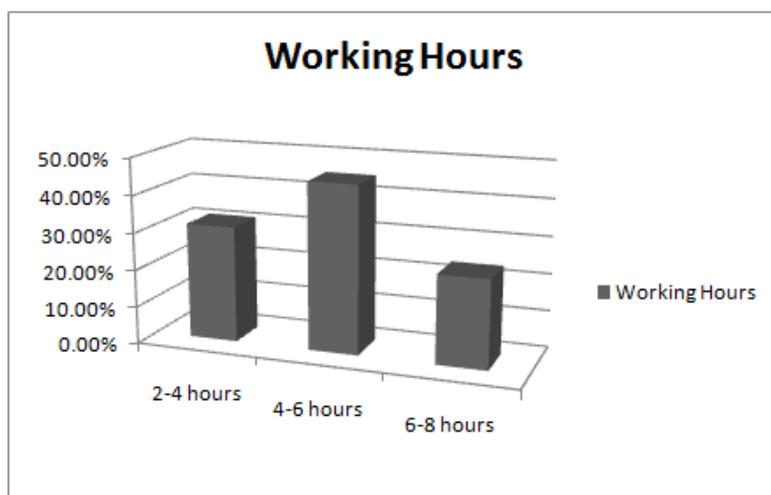
**Table 6.0:** Location Determinants of Small Scale Industries in Dutsin-ma

S/N	REASON FOR LOCATION	NO.OF RESPONDENT	PERCENTAGE
1	Transportation cost	24	30%
2	Market	18	22.5%
3	Labor cost	21	26.25%
4	Source of raw material	17	21.25%
	<b>Total</b>	<b>80</b>	<b>100%</b>

Source: (Field Survey, 2015)

### Working Hours

The survey results in Figure 4.0 shows that 31.25% of the industries operate for an average of between 2-4 hours/day, 45% work for 4-6 hours a day and 23.75% for an average of 6-8 hours a day. This shows that a considerable percentage of the industries work for short hours daily. The study also found out that the industries whose workshops are located along the streets spend more time working than those located within households. This might be because they attract more customers and the demands for their products are higher.



**Figure 4.0:** Working Hours of Small Scale Industries in Dutsin-ma

**Factors Militating Distribution of Small Scale Industries**

Even though Small-Scale Industries contributed immensely to the development of Dutsin-ma town, there are certain factors that militates their distribution, and these factors are capital, labour, market and transportation among others.

**Table 7.0:** Factors Militating Distribution of Small Scale Industries in Dutsin-ma

S/NO	FACTORS	NO. OF INDUSTRIALISTS	PERCENTAGE
1	Capital	42	52.00%
2	Labour	6	7.50%
3	Market	9	11.00%
4	Transportation	15	18.50%
5	Others	9	11.00%
	<b>Total</b>	<b>80</b>	<b>100%</b>

**Source:** (Field Survey, 2015)

Table 7.0 shows the factors limiting the distribution of small scale industries in the study area. Among them are capital 52%, labour 7.50%, market 11%, transportation 18.50% and others (outside these four) 11%. This implies that capital is the main factor that is limiting the distribution of small scale industries in the town as it affect 52% of the respondents. This means that even if such industrialists want to expand or relocate to new places, they do not have the capital required to acquire and/or build new sites. Other important factors limiting the distribution of small scale industries in the town are market, transportation and other factors. It was also gathered from the survey that labour has the least effect on distribution of industries with only 7.5%. This may be due to the availability of cheap labour in almost all parts of the study area.

**VIII. Summary, Conclusion, And Recommendation**

**Summary**

This study attempts to examine the spatial characteristics of small scale industries in Dutsin-ma Town, Nigeria. Towards this, 80 small scale industries where surveyed and questionnaires administered to elicit information from the entrepreneurs on the factors that have influenced the current locations of their industries. The most predominant small scale industries in the area are carpentry/ furniture making enterprises. Other important enterprises include photography, bakery, sandcrete block making, and polythene-packaged water industries.

The study found out that small scale industries in the town are predominantly sole enterprises that provide a wide range of goods and services for interested buyers within and outside the town. A considerable percentage of these industries operate under low capital investments, with 33% funded mainly from owners' personal savings. The industries tend to be located along streets, either in open spaces, under shades or in shops within the entrepreneurs' residences. Most (40%) of the industries are located within the entrepreneurs' residences, where they easily utilize family labour in their operations. The study also found out that demand of goods, reduction in transport and operating costs are significant factors influencing the location of such industries in the town. Furthermore, it was also discovered that small scale enterprises in the study area generally use few number of employees, manual tools and family or unskilled labour in their operations.

The industries operate under multiple disadvantages including limited capital and limited access to new and improved technologies. Other constraints include poor management due to lack of appropriate entrepreneurial skills, as well as inadequate space for expansions.

**Conclusion**

It is apparent that the growth of the small scale industrial sector is critical to the socio-economic development of developing towns. Based on the findings, small scale industries play both positive and negative roles in the development of Dutsin-ma town. Some of the positive roles played include provision of employment and income to a considerable number of citizens, especially youths and households as many residents are absorbed by this sector. Negative roles often played by these small scale industries include noise and environmental pollution. Effects of these problems are serious because most of the industries tend to be located within residential neighbourhoods.

Finally, the main conclusion drawn from this study is that the pattern of small-scale industrial location in Dutsin-ma town has evolved over time and has been chiefly influenced by the desire of the entrepreneurs to maximize profit (cost reduction and productivity enhancement) through exploitation of local markets and cheap labour provided by family members and neighbours within residential neighbourhoods. However, the extent to which this is successful has not been adequately investigated by this study and constitutes an important research gap that may be filled by other researches in the future.

### **Recommendations**

Since capital is the main factor that limits the distribution of small scale industries in the study area, efforts should be made by the state and federal governments to assist the entrepreneurs through effective provision of funds for the promotion of such enterprises. Efforts should also be made to provide basic utilities and infrastructures such as energy, water and good roads, as all of these are inadequately provided. There should be Government assistance in locating sources of raw materials and finding suitable markets to such enterprises in order to increase demand from outside the town.

Since technical knowhow is limited as a result of limited education and training amongst the local entrepreneurs, information dissemination should be pursued vigorously with the aim of enlightening entrepreneurs on how to go about securing loans from banks and improve their production techniques. Microfinance banks and financing agencies should be established by the government and private institutions for entrepreneurs to secure loans. There is the need to harmonize the activities of the industries in a manner that would optimize their contribution to industrial and commercial developments of the area through planning policies that provide separate estates for them.

### **References**

- [1]. Adedeji, O. (2009). Industrial Location and Development Policy: A Case Study of Nigeria. *Journal of Economic and Social Studies*. 10:1. Pp 275-302.
- [2]. Adegbite, E. S. (2011). *Redistribution of Growth*. Oxford, Oxford University Press.
- [3]. Adenugba, A. S. (2004). *Developing a Long Term Sustainable Microfinance Sector in Nigeria: The Way Forward*. Small Enterprises Promotion Network. Washington, DC.
- [4]. Anyanwu, F. O. (1998). The Effects of Micro-level Government Policies in Rural Development and Poverty Alleviation in Nigeria. *Social Science Journal*. 3:1. Pp 1-9.
- [5]. Bauer, O. (2003). Impact of Micro-finance on Entrepreneurial Development: A Case of Nigeria. *International Conference on Economic and Business Administration*. University of Bucharest, Romania.
- [6]. Boswel, Y. A. (2003). *Entrepreneurship and Small Scale Business Enterprises Development in Nigeria*. Ibadan University Press.
- [7]. Chand, J. O. (2012). Small-Scale Industries in Nigeria: Their Spatial and Structural Characteristics. *Nigerian Geographic Journal*. 23:1&2. Pp 99-111.
- [8]. Charles, C. E. (2011). *Successes in Economic Geography*. University of Ibadan Press.
- [9]. Clement, D. M. (2007). Role of Small-Scale Industries in Economic Development. *Journal of Economics*. 5:2 Pp 56-59.
- [10]. Daniel, J. A. (2009). Small-Scale Enterprises Development Strategies: A Critical Option for Long Term Economic Progress in Nigeria. *Indian Journal of Economics*. 5:8. Pp 159-171.
- [11]. Doyle, A. (1998). *Small and Medium Scale Enterprises and the Nigerian Economy*. Ibadan, Akindele and Co., Ltd.
- [12]. Nathan, U. (2014). *Equity Investments in Small Scale Businesses*. Ibadan. University of Ibadan Press.
- [13]. Olajide, A. (2012). *The Contribution of Various Schemes to the Growth of SMEs in Nigeria*. Abuja, Habib Nig., Ltd.
- [14]. Olanikan, E. and Adedeji, O. (2007). *Small Firms and Clean Technologies, Part 1: Information on Brick making in Ciudad Juarez, Mexico*. In Olanikan, E. (2009) *Small Firms and the Environment in Developing Countries*. Washington, DC. Resources for the Future.
- [15]. Oyebanji, J. O. (1998). Small Scale Industries in Nigeria: Spatial and Structural Characteristics. *Nigerian Geographic Journal*. 2:3. Pp 99-111.
- [16]. Schumpeter, S. A. (1987). Development of Small Scale Sector: What Role for the Federal Government? *Nigerian Banker*. 17:1. Pp 7-13.
- [17]. Stanley, M. O. and Morse, C. I. (2005). Issues, Challenges and Prospect of Small and Medium Scale Enterprises in Port-Harcourt, Nigeria. *European Journal of Sustainable Development*. 3:1. Pp 102-115.
- [18]. Tijjani, Y. (2004). Technological Development in Nigeria: The Nigerian Machine Tools Industries Experience. *Journal of Economics*. 7:1. Pp 11-14.
- [19]. Ukpabio, O. (2004). Evaluation of the Privatization Performance: Evidence from Privatized Insurance in Nigeria. *Research for Development*. 19:1&2. Pp 191-220.