Determinants of the Locational Decisions of Informal Sector Entrepreneurs in Urban Zaria

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Received: May 3, 2011 Accepted: May 24, 2011 doi:10.5539/jgg.v3n1p215

Abstract

This paper examines the factors that determine the locational decisions of small-scale informal enterprise promoters in urban Zaria. The paper relied on data obtained through the administration of structured questionnaire that was designed to gather information on the relative importance of the locational factors considered by entrepreneurs in making decisions of the enterprise location. For the purpose of this study, Zaria area was divided into seven neighborhood clusters and three clusters were purposively selected for indepth study. The three selected neighborhoods have high density of informal activities. The first step in the survey was the identification of the small-scale informal enterprises in the selected clusters. A purposive sampling technique was adopted in selecting the sampled informal enterprises. The data was analyzed using descriptive statistics, Kruskal-Wallis non parametric test and Spearman Rank correlation matrix. The results indicate that proximity to family was the most critical factor (Mean = 2.83) that entrepreneurs consider in making their locational decisions. The results further indicates that proximity to family members was positively correlated with entrepreneur's residence (rho = 0.406, $p < 0.001$). The implications of this result is crucial for urban planning because the location of informal enterprises in residential areas poses serious environmental challenge and disamenity effects to residential clusters that were not designed for industrial activities.

Keywords: Entrepreneurs, Determinants, Informal sectors, Locational decisions, Zaria

1. Introduction

High levels of urban growth have been recognized to be associated with increasing levels of industrialization which further raises the prospect of economic growth (Balchin *et al,* 2000). Indeed, as a result of rapid urban change, the location of commercial activities has been based more on the assessment of profitability or utility. The pattern of urban land use reflects the competition between supply and demand especially where urban land supply for informal activities slowly reacts to dynamics of land demand. Since the adoption and implementation of structural adjustment program (SAP) in the 1980s, industrial activities have tended to be focused more on small-scale activities rather than large scale manufacturing systems. Informal activities, as is the case of retailing, often seek to maximize profits by locating as close as possible to consumers and other servicing activities, but as far as possible away from its direct competitors (Stahl, 1987).

Some studies elsewhere (Bryson and Rusten, 2005; Rusten and Bryson, 2007) have acknowledged that small scale industries have the potentials of lifting the economy out of backwardness. The argument is anchored on the premise that it plays a vital role in strengthening the industrial structure of the economy, facilitates the tapping of resources for productive purposes with minimum amount of capital investment, contributes greatly to the provision of employment opportunities, fostering entrepreneurship and further occupies a crucial position in accelerating economic development. According to Bryson and Rusten (2005) small scale enterprises accounts for over 90 percent of all Norwegian firms.

The definition of informal sector has been shrouded in considerable degree of ambiguity. Since the term was first introduced by Hart (1973) to refer to small scale industries, retail trade, cottage industries, artisans and self employed, several scholars have considered it from different perspective. For instance, Tokman (2001) described

it as comprising firms with limited ownership, that is, self employed that utilize unpaid family members, domestic servants, less-educated employees and have less than five workers including the owner. Loayza (1997) opined that the informal sector is a set of economic units that do not comply totally or partially with government regulations. To some however, informal sector relates to micro or small enterprises without stating the 'smallness' a firm should be to warrant its categorization as informal (Mlinga and Wells, 2002; Anderson, 1998). Quite frankly, some scholars have simply applied a cut-off limit in their definition of informal sector such as ten people (Arimah, 2001) and five people (Tokman, 2001) as the total size of its workforce.

These various shades of opinion outlined above nevertheless agree that informal sector should have the following characteristics: ease of entry, reliance on indigenous resources, family ownership of enterprises and small scale operations. Other characteristics include labour intensiveness, use of simple but appropriate technology, skills acquired outside the formal education system, operate in unregulated but competitive markets and it is heterogeneous. According to Ramanujam *et al* (1998) the sector manifests itself in different ways in different countries, in different cities and even in different parts of the city. This sector has been identified to account for about 70 percent of employment in sub-saharan Africa (Becker, 2004).

Recent observations in Nigeria, and indeed in Zaria, have shown that the location of these small scale informal manufacturing industries tends not to conform to the optimal location theories of Weber (1929) and Losch (1954). Rather, industrial promoters of these informal sectors locate their activities on the basis of some sub-optimal behaviour as well as on some personal factors with peculiarities that vary from one environment to another. In the words of Ogbu (1998), personal factors are imperative in explaining actual location decisions of industries as the sitting of such small scale or informal sectors might be the result of sub-optimal behaviour.

In Nigeria and in Zaria in particular, some studies have been undertaken to explain the characteristics, functions and spatial distribution of industrial plants (Mbagwu, 1983; Onyemelukwe, 1983; Sanni, 1997; Ajayi, 2007; Babaraus, 2008). Others like Akintoye (2008) and Onyenechere (2011) merely considerd the employment generating capacity of the informal sector and environmental implications respectively. It is however important to note that none of these previous studies focused on the locational factors influencing the locational decisions of entrepreneurs in the informal sectors in Zaria. Furthermore, such studies where they exist, failed to address the locational factors and the major costs which these entrepreneurs seek to minimize in order to maximize their returns. It is therefore these gaps in research knowledge that this study intends to fill.

The fundamental purpose of this study is to identify the factors that determine the locational decisions of informal sector promoters in urban Zaria with a view to identifying their relative importance.

2. Materials and methods

2.1 Study area

Zaria, the second largest city in Kaduna State is the study area. It is located between longitude 7^{o} 36' to 7^{o} 42' E and latitude 11^{o} 00' to 11^{o} 10' N of the equator. Zaria is found on the high plains of northern Nigeria, in sub-Saharan Africa (see Fig. 1). The nodal function of the city has helped to encourage the rapid growth of the city. Zaria is the second largest city after Kaduna metropolis in Kaduna State. Its growth is due to the fact that historically Zaria was an important trading centre between 16^{th} and 20^{th} centuries with a well established powerful oligarchy. Presently, the town is home to about 13 federal establishments/institutions that have attracted migrants from within and outside the country. The rapid and persistent increase in population has been attributed to rural-urban migration and natural increase due partly to sustained high total fertility rate due to relatively early age at marriage and improved medical facilities and good sanitary conditions (Ubogu, 2008).

The city is one of the major indigenous cities founded as early as 1536 AD as the capital of Zazzau Kingdom. The town being indigenous suggests that it has evolved through a period of both pre and post-colonial urbanization. The space economy of Zaria comprises of commercial, residential, educational, transportation, agricultural and industrial landuse with the industrial activities presently dominated by small-scale informal sector. In terms of its ethnic composition, the city by virtue of its vibrant socio-cultural system coupled with its historical past has become a choice place for migrants of other ethnic groups like Yoruba, Ibos, Atyab, Bajju, Igallas, Efiks, Ibibios, Tivs, Jukuns and other numerous ethnic groups aside from the Hausa-Fulani that constitute the majority of the inhabitants. This study was carried out in 2009 with the active period of data collection spanning between October and November.

2.2 Instrument and analytical method

The instrument used was a structured questionnaire designed to obtain information on, among other things, the industry type, demographic characteristics of the entrepreneurs, age of the enterprise, sources of raw materials,

sources of capital, initial and present labour force as well as the factors that influence the choice of location of the enterprise. The questionnaire was administered in three selected neighborhood clusters (Samaru, Sabon Gari and Tudunwada) out of the seven neighborhoods in the town (Fig 1). Based on the land use characterization of urban Zaria, these selected clusters were purposively chosen because they have a mix of industrial, commercial and residential functions. The other four clusters not selected are purely residential in land use function. The choice of these sampling areas was designed to reflect the high density of informal sector activities in the sampled clusters added to the general land use character of the area.

As a prelude to this study, the researchers first carried out a reconnaissance survey of the area under investigation to acquaint themselves with the geography of the area with regards to the areas where the informal sectors are concentrated and to pretest the questionnaire. In view of the dearth of information as to the population size of these informal enterprises, the study resorted to the use of purposive sampling technique. The major reason for adopting this method is that the enterprises in the sampled areas are typical of the clusters under investigation. Thus, they are characteristic of the small-scale enterprises in the selected areas. The study then relied on the identification of these informal sectors in the areas selected for this study and thereafter, entrepreneurs of the sampled enterprises were administered with the structured questionnaire. In order to ensure good responses from the respondents, research assistants were employed to help administer the questionnaire because it was conceived that some of the entrepreneurs may not be able to read nor write or at best may not be patient enough to fill-in the questionnaire.

The purposive sampling technique was adopted to select the sampled small-scale operational enterprises that carry out welding/mechanics, tailoring, carpentry, bakery, hairdressing and shoe making. The categorization of these small-scale businesses was based on the following definitions. Tailoring is any enterprise that makes garment while welding refers to any organization that welds or fuses pieces of metal by heating or pressure and unites into a whole. A mechanic on the other hand refers to an enterprise that repairs vehicles. A place where bread is baked and sold is hereinafter referred to as a bakery. As regards shoe maker, it is an entrepreneur that repairs or makes shoes or footwear for sale. Any person or enterprise that is skilled in the repairs or making wooden objects is called a carpenter. A hairdresser is any entrepreneur who cuts, washes and styles a persons' hair.

The analytical technique employed in this study includes the use of descriptive statistics such as percentage distribution of the variables under consideration. Furthermore, Kruskal-Wallis non-parametric test was used to determine the relative importance by rank-ordering the factors that entrepreneurs consider in the location of their informal sector. In order to ascertain the level of significance of the relationship of rank-ordered variables, Spearman rank correlation technique was adopted. This method is perhaps versatile especially where variables are ranked.

3. Results and discussion

3.1 Characteristics of the informal enterprises

The distribution of the informal sector enterprises as shown in Table 1 reveals that tailoring is an important component of this sector. This category accounted for the largest proportion (39.4%) of the entire informal activities in the study area. This was closely followed by hairdressers who own saloons that are either operated by males or females. The least proportion of the operators was observed to be electronic repairers, shoe making and bakeries accounting for 8%, 4.0% and 2.7% respectively.

The distribution of the sampled informal ventures by their socio-demographic characteristics (Table 1) reveals that majority of the entrepreneurs are within the age of 30-34 years with a proportion of 27.8%. Those who are between 35-39 years accounted for 25.7% of the sampled entrepreneurs. All together, these two age groups constituted over half of the entire respondents. It is therefore apparent that most of the entrepreneurs of this informal sector are young men and women that are in the active workforce. Indeed, the distribution by gender equally shows that most of the sampled activities are dominated by males (66.7%). This is not surprising as socio-cultural factors play an integral part in the type of activity that females participate in Zaria. For instance, aside from tailoring, hairdressing and to some extent baking, other activities are men dominated with cultural and religious restrictions discouraging women from engaging in those activities. Furthermore, hairdressing and tailoring which constitute a significant proportion of females, males also engage in such activities. Majority of the entrepreneurs (58.7%) are married. This is not very unusual as age at marriage in Africa and indeed Nigeria is very low (NPC, 2009).

It is estimated that the proportion of urban workforce engaged in the informal sector (50%) is the highest in sub-saharan Africa (Nwaka, 2005; Onyenechere, 2011). Similarly, it is equally argued that the share of this

sector's employment out of the total gainful employment in Nigeria increased from 27.3% in 1970 to 38.25 in 1989 (FGN, 1993; Onyenechere, 2011). This phenomenal increase has been attributed to the events that culminated into the economic downturn of the 1980s during the SAP era. Since then however, the informal sector has continued to grow and has firmly supported the economy of Nigeria.

Consequent upon the industrial shift that was occasioned by the SAP, the trend has been a sustained increase in the activities of the informal sector enterprises away from the erstwhile import substitution industrialization policy of Nigeria. The results of this survey show that a large proportion of the surveyed enterprises in Zaria are nine years or less. This category accounted for 84.6% of the enterprises (see Table 1). This means that majority of the organizations were recently established and by extension, an avenue for self employment in the face of rapid unemployment in Zaria's formal sector of the space economy.

The sources of capital for the establishment of the ventures in Zaria are many and include among others, personal savings, grants and loans from relations and friends, loans from banks and other financial institutions, and finally capital raised from private money lenders. Table 2 shows the sources of capital for the establishment of small-scale informal business. The result shows that large proportion of the entrepreneurs (65.3%) established their enterprises with personal savings. This was followed by those who raised their initial capital from relations and friends (25.4%). The most probable reason for this result is the relatively small amount of capital needed to establish most informal ventures. Incidentally, very few operators (9.3%) sourced capital from bank loans and private money lenders. This result is a confirmation of the constraints prospective entrepreneurs encounter in sourcing capital from financial institutions in the country because of their inability to present viable collateral securities, evidence of registration and submission of feasibility report.

The result of the survey presented in Table 2 similarly reveals that the initial labour force of these micro enterprises is fairly small in size. A comparison of the initial and present labour force of the surveyed enterprises gives us an indication of growth or otherwise of the establishment over a period of time. For instance, substantial proportion (63.3%) of the enterprises surveyed started with less than three (3) workers with 22.7% starting with between 3-5 workers. The initial size of labour force when compared with the present size of labour force indicates that those enterprises employed less than 3 workers has reduced to 30.7% with those having work force of between 3-5 persons increasing to 37.3%. Virtually, very few of the enterprises had initial and present work force size of nine (9) and above persons. This category accounted for 1.3% and 10.7 respectively, although with a noticeable increase from the initial size to the present work force size of nine and above workers.

This result is consistent with the earlier assertion of Tokman (2001) which applied a work force size of five persons while Arimah (2001) relied on a work force size of ten persons. Also majority of the enterprises rely on semi-skilled and unskilled workers. The proportion of the enterprises that employ semi-skilled workers accounted for 46.7% while those employing unskilled workers constituted 42.6% (see Table 2). According to Anderson (1998) informal enterprises make use of semi-skilled and unskilled workers. Also, equally revealing is the employment status of the work force. As Table 2 indicates, very large proportion of informal enterprises in Zaria relies on apprentices as workers of the establishments. This category accounted for 54.7% of the enterprises. Paid workers accounted for 20% while family labour accounted for 18.6% of the surveyed enterprises. This result seems to suggest that since substantial proportion of the entrepreneurs rely on apprentices and family labour, exploitation is a hallmark of informal enterprises. It is therefore not out of place to regard this sector as exploitative in nature because most of their workforce is not paid.

3.2 Entrepreneurs location decisions

The literature is replete with the factors that industrial promoters consider before choosing a location for their enterprise. These factors vary from the postulations of optimal theorist who contend that business enterprises are located where they will command maximum profit possible. Other theoreticians have suggested sub-optimal reasons with a mix of personal factors. In this study however, micro enterprise promoters were requested to rank-order eight commonly cited factors that influence entrepreneur's location decisions from one (1) to eight (8) so that the most important factor is ranked 1 while the least factor is ranked 8. These factors include available space for business, location of residence, local contact and familiarity with a given location, proximity to family members, available market for the business, agglomeration economies, personal attachment to an area and place of birth.

The rank-order of the eight factors that influence the location of an enterprise is displayed in Table 3. The Kruskal-Wallis non-parametric analysis of variance test for repeated measures was significant, $p < .001$. The result as presented in Table 3 indicates that proximity to family members emerged the most important factor that industrial entrepreneurs consider, with a mean of 2.83 and a standard deviation of 1.44. This implies that because

informal enterprises depend much on family labour, the choice of enterprise location is often made within the context of this factor. Indeed, this result is consistent with findings of other studies that suggest that informal enterprises largely depend on family labour. This factor was followed in order of ranking by the location of entrepreneurs' residence (Mean = 3.21), available market in terms of prospective customers (Mean = 3.65) and personal attachment of the entrepreneur to the area (Mean = 4.45). These factors are the four most critical factors that entrepreneurs consider before choosing a location for their business. The least determinant factor identified that micro enterprise entrepreneurs consider in their locational choice is agglomeration economy. The reason is that small-scale enterprises are sited in areas where they will carve out the largest market area possible with the needed threshold to sustain the business. So they tend to locate far away from their competitors.

An in-depth examination of the three locational factors that were ranked most in order of magnitude reveals that more entrepreneurs ranked them first than in other categories. Figure 2 shows the percentage distribution of the three most ranked factors that entrepreneurs consider most in their choice for the location of business. As shown in Fig 2, 34.7% of the entrepreneurs ranked proximity to family members first. This was followed by 14.7% that ranked it second, 10.7% ranked it third, and 9.3% fourth, fifth was 8.0%, sixth, seventh and eighth position accounted for 12.0%, 9.3% and 1.3% respectively. This result is not surprising as enterprise promoters rely heavily on family labour as a cost saving effort. The reliance on family labour is strategic to entrepreneurs because most of them are not remunerated. Similarly, 24% ranked the location of entrepreneurs' residence first as important factor that is often considered in the choice of micro-enterprise location. About 17.3% ranked it second, 2.7% ranked it third, with the remaining fourth to eight accounting for 6.7%, 9.3%, 8%, 12% and 20% respectively.

Available customer threshold was listed the third most important factor that entrepreneurs consider before choosing a place to site their business. About 12% ranked it first with 42.7% and 20% ranking it second and third respectively in order of magnitude. The fourth to seventh rank was 9.3%, 10.7%, 2.7% respectively. Micro-enterprise promoters very often consider locations that either possess the needed customer threshold, or at best, generate and attract the effective customers needed to sustain the enterprise in business.

Detailed consideration of the factors influencing entrepreneurs' location decisions led the researchers to evaluate the nature and magnitude of the association between the location factors. Table 4 shows the Spearman's correlation matrix for the eight location factors tagged X_1(entrepreneurs personal attachment to the area), X_2 (enough space), X_3 (location of entrepreneurs residence), X_4 (local recognition of the entrepreneur), X_5 (entrepreneur's place of birth), X_6 (proximity to entrepreneur's family members), X_7 (agglomeration economies) and X_8 (enough customer threshold). It is glaring from the correlation coefficients in the matrix table that fourteen pairs of the variables were significantly correlated. Apparently, the strongest positive correlation, which can be considered to be a medium to typical effect size (Cohen, 1988;Morgan *et al*., 2004) was between entrepreneurs personal attachment to an area and the desire for enough space for the business, $rho = 0.438$, $p < .001$. This means that as entrepreneurs are personally attached to an area, they are more likely to consider enough space as a factor in the quest for the enterprise location. This result is not surprising as the more an entrepreneur is personally attached to a given location, the more will be his desire to seek a sizable space for the business. This has more to do with entrepreneur's business ego.

Proximity to entrepreneur's family members was also positively correlated with entrepreneur's residence, ($rho = 0.406$, $p < 0.001$). The implication of this association is that the more the entrepreneurs consider the proximity of the enterprise to family members, the more likelihood is the consideration of entrepreneur's residence increasing. This is also expected as entrepreneurs generally, depends to an extent on family members for cheap labour, therefore, the location of the enterprise is expected to be near the entrepreneur's residence.

Indeed, the correlations provide an important integrity checks on the entrepreneurs responses of the variables. For instance, the presence of negative associations confirms that, perhaps some of the variables under consideration seem to be inversely related. This is true of local recognition of the entrepreneur which was negatively correlated with entrepreneur's personal attachment to a given location ($rho = -0.543$, $p < 0.001$). This negative correlation can be considered to be a large effect size. This is not surprising as enterprise promoters sometimes seeks to locate far away from where they are recognized in order to avoid giving credit facilities to those, who because of familiarity with the entrepreneur, may request for credit facilities. Similarly, local recognition of the entrepreneur was also negatively correlated with enough space for the enterprise ($rho = -0.485$, $p < 0.001$).

It has been documented that the minimization of cost is an effort to maximize cost (Smith, 1981; Ogbu, 1998) with spatial economics recognizing that discussions of location should be considered within the framework of 'minimax locational' approach of both cost and demand factors. Indeed, many factors influence the amount of

profit made by an entrepreneur of small-scale enterprises in Nigeria, and in Zaria in particular. The factors include cost of raw material input, transport cost, labour cost, costs incurred on power supply and proximity of the business to the source of market. In order to determine the factors influencing entrepreneurs of micro-enterprises location decision in Zaria, the entrepreneurs surveyed were asked to rank the factors in order of importance. The result is presented in Table 5.

The results of the Kruskal-Wallis test as shown in Table 5 indicates that the most significant factor is the minimization of power cost (Mean = 1.35). This was closely followed by the effort to minimize labour cost (Mean = 2.63) and the third most raked factor being effort to minimize the cost of transporting raw materials to the enterprise, finished products to the market as well as other transportation costs incurred by the entrepreneur (Mean = 2.89). The implication of this result is that most enterprise promoters in Zaria often consider locating their enterprise in certain clusters of the city where the supply of electricity is fairly constant. The reason is that locating the business in an area that experience inconsistent supply of electricity will obviously increase the costs of operating the enterprise. Furthermore, this result when viewed from the standpoint that all these micro-enterprises require electricity to function efficiently, and that the attempt to use entrepreneurs' own generator will increase the cost of operation. Consequently, it is imperative to note that most entrepreneurs (72%) ranked power costs minimization as the most critical location factor an enterprise consider in order to maximize its profit.

From the results presented so far, it is apparent that the informal sector enterprises in the study area have evolved over time. They play both positive and negative role in the development of urban Zaria. Some of the positive roles played by the informal sector includes providing employment and income to most people and households. Majority of the residents are absorbed by this sector. However, the negative role often cited is their environmental degradation which constitutes a serious concern to planners. There is therefore the need to harmonize their activities in a manner that optimizes their contribution to industrial and commercial development of the area through appropriate planning policies.

3.3 Policy implications of the findings

According to Nwaka (2005) the attitude and opinion of planners differ as to the role informal enterprises play in the development of an urban center. To the critics, the sector is considered to be an anomaly, a source of disorder and an obstacle to development. The arguments of this school of thought are that this sector is unregulated, unregistered, evade taxes and exploit workers employed in the sector. Nonetheless, the proponents of this sector argue that the sector is a vital source of employment and income for the poor, promotes popular development and a seedbed of local entrepreneurship. These diverse opinions, indeed helps to confuse planners and policy makers regarding the official attitudes towards the sector. However, the major policy challenge is how to plan and regulate the informal enterprises in urban Zaria especially those located in residential areas.

It has been observed that the location of informal enterprises in residential areas poses serious challenge to other tenants who have to contend with high increase in rental rates. High rental rates, which appears to be a direct consequences of small-scale enterprises in purely residential areas has helped to increase the pressure on housing in residential areas. This problem is often complicated when an erstwhile residential building is converted to commercial or industrial use. Presently, residential areas are now widely used for small-scale enterprises in complete disregard for zoning arrangements especially when certain land uses are deem incompatible. Consequently, there is the need for the government policy makers to strictly enforce the zonation arrangements in Zaria since most informal activities also come with its externalities like congestion and environmental pollution.

The activities of the informal sector on streets and other public places have been regarded as undesirable for environmental management especially by city planners and policy makers (Onyenechere, 2011). On account of the externalities associated with their activities, some planners are of the opinion that they should be evicted from the city centre. Most informal enterprises generate waste products that overtime deface the streets and clog the drainage channels. Micro-enterprises are generally anthropocentric in character and function, bringing significant alterations to the original urban landscape. As a consequence, such undesirable landscape elements might generate disamenity effect on neighbouring properties (Farber, 1998; Chen and Jim, 2010). Disamenity effect on urban properties potentially affects the value of urban properties simply because of the externalities associated with some informal enterprises.

4. Conclusion

The location of small-scale enterprises in residential zones in urban Zaria has wide ranging effects on urban landscape such as environmental health, planning policy and property value. Although, the informal enterprises

in the city has contributed immensely in the areas of employment opportunities as well as sustaining the economic well-being of most urban centers in Nigeria including Zaria, there is the need to streamline their locational pattern. The result of this study reveals that majority of the informal sector activities came on stream in the last eight years. Since the proportion of those in the informal activities seems to be increasing, it is an indication that the economy is not developing as expected. This calls to question government policies towards enhancing the formal sector of the economy. There is need for a restructuring of the economy and policy drive to meet the country's vision 2020.

Specifically, regional governments should strengthen the services of town planning units and environmental protection agencies to regulate the activities of small scale enterprises. The principle of landuse zoning should be strictly enforced so that micro-enterprises can be adequately catered for in terms of the provision of infrastructural facilities such as the establishment of industrial estates. With this planning initiative appropriately enforced, the conversion of residential building to commercial and industrial uses will be reduced substantially. This will enhance their growth and ultimately sustain the sector.

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Table 1. Distribution of the Informal Enterprises by Type, Age, Gender, Marital Status of Entrepreneurs and the Age of Establishment

Industry type	**Frequency**	**Percentage**
Tailoring	148	39.4
Hairdresser	97	25.9
Welders/Mechanics	37	9.3
Carpentry	40	10.7
Electronic Repairers	30	8.0
Shoe making	15	4.0
Bakeries	10	2.7
Age of entrepreneurs		
< 20	11	2.9
20-24	46	12.3
25-29	31	8.3
30-34	105	28.2
35-39	97	26.0
40-44	66	17.7
45-49	10	2.6
50-54	4	1.1
55-59	2	0.5
60>	3	0.8
Sex of entrepreneurs		
Male	250	66.7
Female	125	33.3
Marital Status of entrepreneurs		
Never married	140	37.3
Married	220	58.7
Divorced	10	2.6
Widowed	5	1.3
Age of the enterprise		
< 5 years	160	42.7
5-9 years	160	42.7
10-14 years	55	14.6
>14years	0	0
Total	**375**	**100**

Source: Field survey, 2009

Table 2. Percentage Distribution of the Informal Enterprises by Source of Capital, Skill, Employment Type and Size of Labour Force

Entrepreneurs source of capital	**Frequency**		**Percentage**	
Personal savings	245		65.3	
From friends and relations	95		25.4	
From bank loans	20		5.3	
Private money lenders	15		4.0	
Skill of the workers				
Skilled workers	40		10.6	
Semi-skilled workers	175		46.7	
Unskilled workers	160		42.7	
Type of employment				
Apprentice	205		54.7	
Paid workers	75		20.0	
Family labour	70		18.6	
Part-time workers	25		6.7	
Size of labour force used	Initial	Current		
< 3	245	115	65.3	30.7
3-5	85	140	22.7	37.3
6-8	40	80	10.7	21.3
9-11	5	30	1.3	8.0
11 >	0	10	0	2.7
Total	**375**		**100**	

Source: Field survey, 2009

Table 3. Rank-order of the Determinant Factors Considered by Enterprise Promoters

Rank	**Location factors**	**Mean**	**Std. Deviation**	**Frequency**	**Percentage**
1	Proximity to family	2.83	1.438	130	34.7
2	Entrepreneurs' residence	3.21	2.196	90	24.0
3	Enough customer threshold	3.65	1.742	45	12.0
4	Personal attachment to the area	4.45	1.399	45	12.0
5	Local recognition of entrepreneur	4.65	2.797	45	12
6	Enough space	5.00	2.157	15	4.0
7	Place of birth	5.11	1.876	5	1.3
8	Agglomeration economies	7.09	1.279	0	0
Total				**375**	**100**

Source: Field survey, 2009

ISSN 1916-9779 E-ISSN 1916-9787

Table 4. Correlation Matrix of Association of the Locational Factors

	X1	X2	X3	X4	X5	X6	X7	X8
X1	1.00							
X2	0.438*	1.00						
X3	-0.303*	-0.213*	1.00					
X4	-0.543*	-0.485*	0.002	1.00				
X5	0.208*	-0.014	-0.372*	-0.458*	1.00			
X6	-0.376*	-0.346*	0.406*	0.144	-0.195	1.00		
X7	-0.030	-0.110	-0.122	-0.236*	0.167	-0.144	1.00	
X8	0.389*	0.132	-0.510	-0.431	0.250*	-0.388*	0.011	1.00

Source: Field survey, 2009

Table 5. Rank-order of Entrepreneur's Maximizing Factors as Determinant of Location Decision

Rank	**Minimization factors**	**Mean**	**Std. Deviation**	**Frequency**	**Percentage**
1	Costs of power	1.35	0.664	270	72.0
2	Costs of labour	2.63	1.176	50	13.3
3	Costs of transport	2.89	1.139	45	12.1
4	Costs of rent	3.75	0.926	5	1.3
5	Other miscellaneous costs	4.38	0.816	5	1.3
Total				**375**	**100**

Source: Field survey, 2009

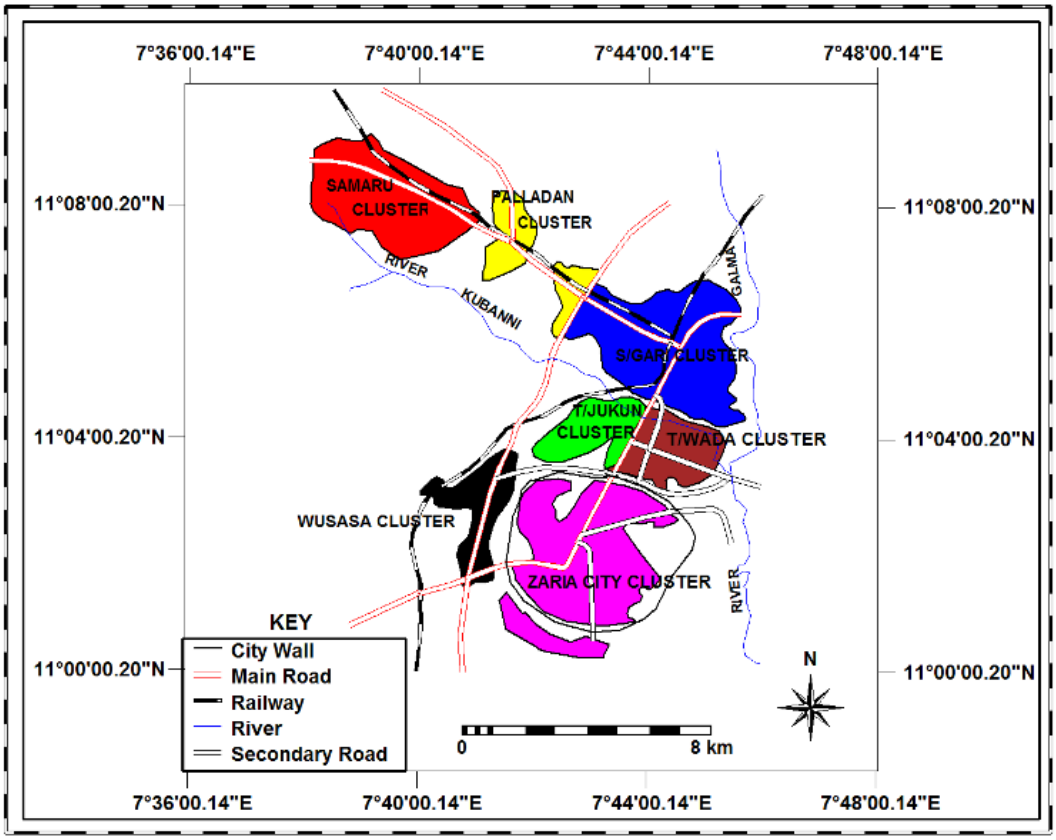

Figure 1. Zaria showing the clusters

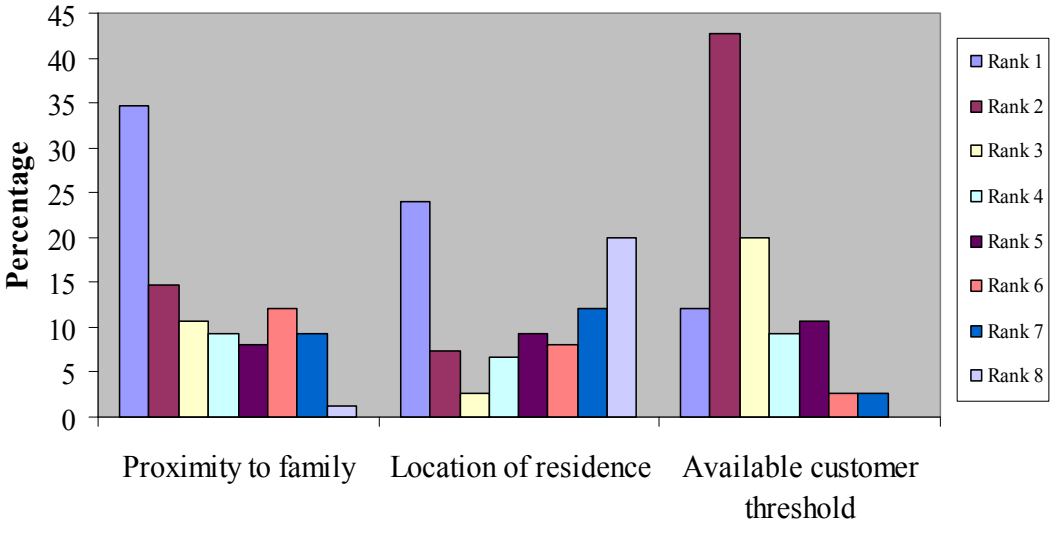

Figure 2. Distribution of the rank order of most important locational factors

ISSN 1916-9779 E-ISSN 1916-9787