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Towards cities inclusiveness: the land use paradigm option for Nigeria

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Abstract

Guided by the Inclusive Cities’ vision, a pilot study of the locational characteristics of automobile repair artisans’ workplaces in 69 locations of Idah in Nigeria was conducted. The workplaces along arterial roads of the town and within available open spaces around residential areas negate global best practices. Respondents claimed it is for easy access to customers, but in the absence of comprehensive urban planning accommodating them, their negative impacts manifest in urban space. Correlation and regression analysis however shows an inverse relationship between location and patronage. The Mixed-Use model option is recommended for their integration in land use planning.

Keywords: Inclusiveness; Mixed-Use; Paradigm; Artisans; Informal Sector

1. Introduction

Nigerian urbanisation process has witnessed massive incursion of rural population into the urban centres, accelerated by perceived opportunities abound in these centres. However experience has shown that migrants to the cities most often have to contend with unemployment realities and as a alternative, many find opportunities in the informal economic sector which are usually characterised by low income earnings and uncertainties. Statistics shows that the informal sector play crucial roles in Nigeria, maintaining more workers than the formal employment, it accounts for over 70% of the urban employment (Abumere, et al 1996, ILO, 2002). Akande and Akerele (2008)

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projected the growth rate of employment in the informal sector to be about 11% in the next five years, it thus play a crucial role in poverty alleviation and contribute to the country’s national earning about 57.9% of gross national product (GNP) or an equivalent of US$212.6 billion in the year 2000 (Onyebueke, 2011). The recent rebasing of the Nigerian economy, the biggest in Africa, has debunked earlier belief that natural resources, essentially oil and gas dominates and drives its economic growth. On the contrary, despite the country being classified among nations that are resource driven, 86% of its GDP is from outside the resource sector especially from services including informal sector and agriculture (Dobbs et al, 2014).

The informal sector economic activities not only play a major role in the Nigerian economy but also in urban land use dynamics. In physical planning and housing development, the sector and its activities are mostly treated as incidental (Onyebueke, 2000). The implication of this neglect in planning is an oxymoron of economic “gain” and spatial “pain”. Interestingly, developed and many emerging economies are taking proactive measures to reposition their cities to contribute not only for livability but as attractive activity destination for national economic development. In order to achieve this goal, an all encompassing policy framework have been developed by these countries to make the entire population an active participant in the workings of the city without compromising urban quality; a paradigm of an inclusive city organised around key economic, social and political elements. This is achieved through urban planning that takes into account economic, social and governance tool, enabling all residents to have a sense of belonging in the city. Researches on informal Home-Based Enterprise (HBE) across the cities of Nigeria like Simon, 1998, (Kaduna); Onyebueke, 2000, 2001; Onyebueke & Geyer, 2011; Ezeadichie, 2012 (Enugu); Jelili & Adedibu, 2006, (Ilorin); Adeyinka et al, 2006; Lawson and Olanrewaju, 2012 (Lagos) agreed on the multifunctional nature of residential areas in both formal and informal settlements. However, planning effort in Nigeria shows that the only city with a holistic plan document implemented from inception as a New Town is Abuja, the Federal Capital City, but despite all effort at development control and enforcement of planning standards, informal economic activities still occur within residential developments and on neighbourhood streets in a haphazard manner. (See fig. 1). This has necessitated new approaches to accommodate these informal home-based enterprises in land use planning.

Fig. 1. Nature of Informal Artisans’ Workplace Location in Apo Residential Neighbourhood of Abuja, Federal Capital City
Source: The Courier-Mail April 14-April 15, 2012

2. Methodology

A pilot study was conducted in Idah, a medium-sized settlements of about 80,000 populations in Kogi state of Nigeria. The spatial characteristics of informal automobile repair artisans’ workplaces provide an empirical data for this study. The result which is a general reflection of the nature of informal occurrences in residential domains of Nigerian cities provides an insight into understanding their nature. A purposeful observation and listing of workplaces
was carried out, workplace attributes such as locational characteristics, waste generation and disposal was recorded on an observation chart. All 103 artisans in 69 locations within the town were surveyed to elicit information on locational characteristics of workplaces. Physical measurement of workplaces was carried out to the nearest arterial road to establish if location has relationship with patronage by customers. Each of the 69 available workplace locations was measured to the centre of the nearest arterial road. The analysis of the data was by tabulation through descriptive statistics using means and percentages for data summary. Correlation and regression co-efficient models were used to establish a relationship between location of artisans’ workplaces and patronage.

3. Theoretical Framework

3.1 Home-Based Enterprise and the Inclusive City Campaign

Home-Based entrepreneur as typified by the automobile repair artisans in both formal and informal urban spaces in Nigeria has suffered exclusions in urban development process. One of the underlying principles of an Inclusive City is to have a design structure that encompasses the concept of multi-objective city planning that is based on economic, social, environmental and culturally sensitive policies. Such policies will allow inhabitants to improve economically with corresponding physical improvement of the city. The United Nation Center for Human Settlement (UNCHS-HABITAT) global campaign for good urban governance recognised that inclusive decision is the heart of good urban governance and physical, social and economic exclusion will prevent certain group of persons from participating in the cities where they live (Taylor, 2000). The emphasis here is that urban planning and design has to offer every individual the right to full and equal participation in the built environment. This is regardless of ability or disability and that residents can shape their own environment to meet their own needs through their direct involvement (Goltsman & Iacofano, 2007). It is necessary for planners to create economic inclusiveness in the city that will guarantee capital formation infrastructure through land use and public policy decisions capable of providing opportunities for all to be engaged in a variety of income generating activities. This can be done along with social inclusiveness to deliver clean, healthy and safe environments achievable with right use of urban space. It will take the form of mixed but compatible land uses that can guarantee convenient access to a range of social and economic amenities.

There is a correlation between cities inclusiveness and urban growth and development. A Master Card ranking of African cities with top potential for inclusive growth used several indicators such as economic and governance level, ease of doing business; infrastructure and human capital development to measure urban growth which are in line with the principles of inclusiveness. Nigerian cities ranked low among the African growth index, with selected cities of Lagos, Abuja and Kano were ranked the last in the low growth potential of 13th, 14th, and 17th out of the 19 cities selected for measurement. However Accra Ghana, strengthened by the implementation of a broad- based, inclusive platform for growth is top with the highest growth potential and promise in Africa. Fifteen other cities are ranked between medium-high and medium-low growth potentials (Hedrick-Wong and Angelopou, 2013).

Campaign on Good Governance launched by the United Nation Centre for Human Settlement (UN-HABITAT) in 1999 was designed to reduce poverty among city dwellers with effort to eradicate all forms of exclusion. The vision and strategy is for cities to promote growth and equity and to be a place for everyone regardless of their economic means, gender, race, ethnicity or religion, where people are empowered to fully participate in the social, economic and political opportunities that cities have to offer (UN-HABITAT, 2004).

Informal home-base enterprises can be a catalyst for growth only if concerted efforts are put in place to include them in both local and national policy framework and participatory decision. Their continuous exclusion in planning issues in Nigeria has limited their potential for growth and their capacity for urban activity participation. This in turn negates the vision of inclusive city that is unhealthy for national growth and development.

In Abuja for example, outcry for city inclusiveness has echoed the need for mixed-use planning approach. The Centre on Housing Rights and Evictions and Social and Economic Rights Action Centre, in their report captioned “The Myth of the Abuja Master Plan Nigeria (May, 2008 p.52)” affirmed that due to multi-cultural, multi-ethnic and plural environments, cities across the globe cannot rely on master plan blue print to accommodate cities complexities.
They contend that “increasingly, mixed land use has replaced the rigid separation of residential and commercial uses”. A land use planning paradigm that will be all encompassing but flexible, dynamic and productive is not only desirable but profitable.

3.2 Land Use Planning Paradigm for urban inclusiveness

Contemporary land use dynamics has seen an increasing departure from age long Euclidian urban planning practice of land use separation in favour of Mixed-Use concept among many developed and developing economies. Mixed-Use is often used either as a component of Smart Growth promoting New Urbanism or as a tool of revitalisation of neighbourhoods (Miller & Miller 2003 in Wardner, 2014). Mixed use zoning entails regulations that permit a combination of different uses to exist within a single development or a variety of uses to occur within one zoning district. Globally cities are reawakened to the fact that micro-entrepreneurs provide a wide variety of goods and services to people, at convenient locations with negligible investment and infrastructural costs. This is evident in both cities of developed and emerging economies and plans are being designed to accommodate them in the urban space (Nohn, 2011). This realisation is not only for economic gain as studies has shown that hitherto the problems associated with the informal sector are not attributes inherent to the sector but a manifestation of unresponsive urban planning.

Provision of spaces to informal sector could also be an effective measure to reduce the environmental problems associated with such activities in the urban space (Rukama, 2007)

The application of the mixed-use models put forward by Alan Rowley (1996) to land use planning has featured in a number of literatures. (Hoppenbrouwer & Louw, 2005; Hirt, 2007; Barer, 2011). Rowley views mixed-use development as essentially an aspect of the internal texture of settlements. His model focuses on mixed-use development in the horizontal dimension, or between adjacent buildings and proposes that the physical form of mixed-use development is a function of urban texture, setting, and location. He therefore, proposed that the urban texture of a settlement is the product of three things: grain, density and permeability. The grain of a settlement symbolises the way in which the various elements of that settlement are mixed together in space. It thus means that, a fine grain represents settlement where like elements are widely dispersed among unlike elements while a coarse grain signifies settlements that the extensive areas of one element are separated from extensive areas of another element. It added that, an abrupt transition from a cluster of like elements to unlike elements is referred to as a sharp grain and a gradual transition is referred to as blurred grain. Density is used to refer to the amount of space or number of units that is contained within a certain area. It is a measure of the intensity of land uses. The density is inextricably linked with mixed-use and grain and its intensity or activity is dependent on the number of users as well as the mix of the uses. Permeability is used to refer to the number of possible routes a pedestrian has to choose from in the course of movement within a particular planned development. This is determined by the layout of the roads, the corresponding shape and size of the blocks, and the placement and design of the buildings and public spaces within each block (Rowley, 1996).

Rowley’s conceptual model also feature three other components, firstly, public policy and regulations, property markets as well as cultural ideas and values are external factors that influence the form of mixed-use development. Secondly, activities and land uses within mixed-use developments generate different degrees of vitality, this characteristic he called transactional quality of a use (See fig. 2) Lastly, different uses produce activity on varying time schedules, therefore, any one facility can be shared by multiple users over any given time period. The complex interactions of these variables result in what Rowley described as a “mixed-use situation” (Herndon, 2011).

This model can be applied in city or town centres comprising the commercial and civic core of towns and cities, inner-city areas and run-down neighbourhoods, vacant or built-up land requiring regeneration as well as sub-urban or edge-of-town locations and greenfields in the urban fringe.
Figure 2 illustrates the conceptual mixed-use situation, highlighting the transactional qualities of use (levels of exchange), which are influenced by the physical layout (including district, streets, street blocks and buildings) and the characteristics of the place (level of intensity of mix in terms of grain, density and permeability).

4. Discussion

4.1 Spatial Characteristics of Nigerian Informal Home-Based Enterprises

The broad definition of the home by Strassman (1987) to mean a “dwelling unit and/or structure attached to a dwelling unit and/or an open area adjacent to a dwelling unit” has been fully understood and utilised by the Nigerian home-based entrepreneur. A pilot study conducted in Idah, a medium-sized settlement of about 80,000 populations on automobile repair artisans’ workplaces reveals that artisans carry out their activities in virtually all areas of the home within the informal residential domain. A study of all 103 artisans in 69 locations shows a youthful age bracket of operators, with 65% between the ages of 15 to 45. Artisans location shows that 32% operates at frontage of buildings/part of residential building, 25.5% are found on open spaces between buildings, 21.4% within road set-backs and road junctions/intersection. Others who operate from demarcated but undeveloped plots represent 10.7%, those in uncompleted buildings, 7.8% and artisans occupying make shift temporary structures, 1.9%. (See fig. 3).

Field observation shows that there is no purpose-built workplace in the town where these artisans can carry out their activities and the implication of this is glaring on the urban space. The road sides are littered with scrap vehicles and motor parts, oil spills within residential domain, on-street parking and encroachment on right of ways and building set-backs. Littered scraps within the environment pose danger to residents and serve as hiding places for rodents and harmful reptiles.
The use of part of residential buildings and frontages are popular because many residential neighbourhoods and the urban environment particularly in Idah, and Nigeria generally are informal. Land use plans for cities are absent and where it exists, they are hardly implemented. The choice of location is mostly to gain advantage of easy accessibility for increased patronage. (See table 1). Over 60% of the respondents gave this reason as the factor for location choice.

Table 1. Reason for Choice of Workplace Location

<table>
<thead>
<tr>
<th>Choice of workplace location</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearness to Place of Residence</td>
<td>17</td>
<td>16.5</td>
</tr>
<tr>
<td>Access to facilities</td>
<td>07</td>
<td>6.8</td>
</tr>
<tr>
<td>Location on available vacant space</td>
<td>14</td>
<td>13.6</td>
</tr>
<tr>
<td>Advantage of accessibility to customers</td>
<td>63</td>
<td>61.2</td>
</tr>
<tr>
<td>Proximity to related professionals</td>
<td>01</td>
<td>0.9</td>
</tr>
<tr>
<td>No reason</td>
<td>01</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100</td>
</tr>
</tbody>
</table>

A regression and correlation analysis to establish relationship between the location of the automobile artisans’ workplaces and patronage was carried out; artisans’ workplace location distance to the nearest arterial road was measured against average daily patronage for each location. Each of the 69 available workplace locations was measured to the centre of the nearest arterial road, with a total number of 45 workplaces falling between 3 metres to 45 metres (45 metres being a minimum standard limit permissible for development along highways in Nigeria), while those located beyond 45 metres to the farthest of 865 metres are 24, average daily patronage recorded, ranges from the lowest of 2 customers to the highest of 15 customers for all workplaces.

The correlation analysis shows the following:
\[ \text{corel}(x, y) = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 (y - \bar{y})^2}} \]

t.e. \[ \frac{-13518.5}{\sqrt{1474918.51 \times 533.765}} = -0.481804567 \]

Correlation co-efficient = -0.481804567

\[ \text{Regression}(x, y) = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sum (x - \bar{x})^2} = -\frac{13518.5}{1474918.51} \]

Regression co-efficient = -0.009165591121

The test shows a correlation co-efficient of -0.48, indicating a moderately weak relationship between location of workplaces and patronage. The regression co-efficient of 0.01 also means a weak relationship between location and patronage.

The main problem encountered on a periodic basis by the artisans is that of insecurity of land tenure, 46.6% of artisans complained of the lack of permanent space, as they are forced to relocate once the land being used is ready for intended development, other complaints are high rent paid for space utilisation and continuous increase of rent, 29.0%; low patronage, 14.6%, insecurity of tools and valuables and lack of basic facilities on site, 4.9% each.

It is evident that there is a kind of economic and spatial exclusion for a sector that drives the transportation industry provides employment for many, and training for their numerous apprentices. The exclusion is driven by the fact that there is no provision made by the authorities for these artisans in the urban space to carry out their activities.

5. Conclusion

Studies has shown that the old practices of land use planning still hold sway in few efforts of government intervention in space allocation and organisation. The implication has not favoured the group of people who struggle to provide jobs for themselves and earn little income for sustenance. The home-based enterprises have not been an exemption from this misnomer. However, campaign by global organisations for social, economic and governance inclusion for sustainable city development has rekindled the need for integration of informal entrepreneurs to participate in revitalising the city. With inverse relationship between location and patronage, rehabilitation by way of relocating artisans from roadside is a feasible option as it will bear no economic loss to them, rather it will solve the problem of insecure tenure of workplace and improve living. The Rowley’s mixed-use model is quite suitable here since residential land use planning in Nigeria usually follow horizontal dimension. Residential housing development designs should incorporate neighbourhood markets as traditional Nigerian cities rely on either daily or periodic markets for shopping needs. Such markets with define operational hours can offer a wide range of goods and services at short walking distance with enhanced neighbourhood permeability. However vertical mix can be encouraged in areas where compact developments are inevitable in an effort to promote land conservation and eco-friendly city. Here, mixed-use development, where a single building accommodates multiple uses which are layered on floor by floor basis with more active uses (e.g retail/commercial) located on the ground level and residential, office or other uses above is encouraged. Vertical mix can be restricted to four floors where residences are layered on top of offices, commercial/retails and parking spaces and auto artisans’ workshops in descending order. The restriction of building floors to four layers is in consideration of erratic power supply which characterises Nigerian cities that may hinder the use of elevators in buildings.

The role of urban planners is to adopt measures that can actualise this vision. In doing this, age long planning ordinances and legislative framework supporting separation of land uses will require review with new standards and
template to harness the gains of mixed-uses. This will not only enhance socio-economic inclusion with decent workplaces but promote compact development that is pedestrian friendly, secure, and an avenue for social interaction. Ultimately, the goal of sustainable urban development and New Urbanism will be achieved.

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