

Residents' Economic Perspectives of Public Open Space in Informal Settlements

The Case of Riverside Commercial District in Kibangu Informal Settlement

Mark Dickson Godfrey, Dr. Liberatus Mrema

Abstract - It is apparent that sustenance and growth of any city squarely relies on the stability of its economy. All over the world, cities, Dar es Salaam not being an exception, are struggling for rebirth, trying to market themselves in the world maps with the intention of achieving economic breakthrough. Accompanied with notable trends of economic shifts from socialism to capitalism, Dar es Salaam has been searching for better economic gears that would swing its development and prosperity, however, investing in public spaces seemed to be unclear both in the formal and informal settings. This study aims at exploring the economic potentials of public-space-landscapes in shaping sustainable cities. The current stance is that the existing public open spaces in the urban Tanzania are silent potential economic avenues which could be activated for the well being and prosperity of the urbanites. The study used Kibangu informal settlement as a case study area and public open spaces and their commercial uses as the unit of analysis because Kibangu is one of the saturated informal settlements with clear structure of commercial urban spaces which were naturally and culturally shaped by residents themselves. Moreover, Kibangu informal settlement was picked because of its commercial vibrancy on streets accompanied with diverse activities by people from within and outside the settlement. This study was conducted through observations, interviews and decoded through mapping, sketching and photographing the current economic uses of public spaces; streets being the central focus. Commercialization of informal settlements is the reflection of business operators and investors' preferences as well as the needs of their clientele. Road network is the central element of commercialization of properties in the informal settlements as it invites businesses, creates visibility to shops, brings in people from different areas, facilitates delivery of goods and services, and used as temporary parking area. Prosperity and endurance of commercialized properties is determined by provision of utilities including water, electricity and physical accessibility. Moreover, good customer care, clean and attractive environment, affordability of customers and wide range of choice and quality of goods contribute to sustenance of the commercialized properties. For a business hub to be comprehensive it must have service business type, merchandising business type, and manufacturing business type. The concentration of business activities along the perimeter roads and thoroughfares and the formation of rental houses away from the commercial streets create a clear dichotomy between pure commercial and pure residential areas and also between pure vibrant commercial areas and tranquil rental and

owner occupier houses. Commercialization of properties creates a shift from pure residential neighborhoods to mixed use neighbourhoods for economic survival of its residents and poverty reduction. Commercialization of properties if well monitored can foster sustainable city development, self-reliance and intensification of national tax base.

Index Terms- Urban transformation based economic perspectives, informal settlements, and investment location preferences.

I. INTRODUCTION

“When we think about the landscape, we rarely consider that it may have an economic value or even any links with economy (Tempesta, 2013), but public spaces have always gone hand in hand with commerce (Kent, 2003)”. Public open space and urban space are basically a limited resource that exists naturally and upon which real life human transactions and acts are orchestrated upon. In the urban Dar es Salaam public spaces include the streets, squares, parks, and beaches and the living of many dwellers depends on small scale businesses on the streets and in spite of a series of evictions by Municipal Authorities. The scarcity of employment opportunities and the demand for commercial services are evident as showcased by the enduring commercialization of streets. The incompatibility of the formal businesses in the licensed shops and the informal businesses on streets and the simmering discontents are also conspicuous. The possibility of shrinking the government tax base is evident as the informal business operators on streets do not pay tax. The intention of this study is to explore the economic potentials embedded in landscaping the public open spaces, streets being the central focus. Streets are manipulated for economic viability to its users.

Public open spaces are the hearts of cities used for social activities, recreation activities, academic purposes, historical archives, political forums, healthy supporting, and environmental footprints, aesthetically elements of beauty, recreational centers and also economically market places that attract business activities to take place in them. Also commented that public [open] spaces are vital ingredients of successful cities as they help to build the sense of community, civic identity and culture. Moreover, they facilitate the social capital, economic development and community revitalization (The Project for Public Space Report, (2012)).

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Both formal and informal settlements are the product of integrated network of public open space systems. Henceforth, public open spaces become the “media of communication” between people from one space/place to another; “urban spinal cords” that connect people, spaces and activities. The prosperity and sustainability of cities depend also on the quality of these spaces, as elaborated by the European Union that, “*A sustainable city must have attractive public [open] spaces and promote sustainable, inclusive and healthy mobility*” (EU, 2011).

In the urban Dar es Salaam, public open spaces have been recognized as sleeping massive spaces that are potentially unexploited, objects that have been designated only for social-cultural, ecological and recreational roles while neglecting their economic attributes that could lead to the production of funds for their endurance. Unnecessary limitations of their usage for economic activities from the accountable authorities has resulted to deprived quality parcels of land that are not developed in both formal and informal urban settings though attract a lot of business activities that are regrettably outlawed to operate, under the cover of unsuitable space usage. But streets must serve as places of everyday life, focal points for the social interactions, leisure destinations and economic drivers in order to augment the urban livelihoods and support sustainable development. Ayitio et al, (2014) pin down the extended role of public open space *from serving just the utility/infrastructure roles to currently integrating the economic realms*, a concern that has not received official blessings from government authorities because, streets which are potential corridors have become arena for competition between city authorities who intend to preserve the public order, decrease the enduring fear of crime among city residents and get better public space which do not give room to the homeless, beggars, street vendors who are blamed for inappropriate use of the public space.

The urban dwellers, mainly the poor need these spaces to conduct small business activities, while at the same time protecting themselves against heavy tropical rains and severe heat and sunrays and thus compelled to build makeshift barns which worsen the urban form.

The Project for Public Space, (2012) urged that, when municipalities are struggling economically, investment in public spaces may be seen as a non-essential response. Streets, squares and parks, especially in the informal city, are often landscaped with respect to the needs and aspirations of the local inhabitants contrary to conventional approaches which require the modern landscaping standards to be adhere to. Therefore, there is a need to examine how public open spaces can be manipulated for multi-faceted significance, objects that can be self-sustained, places that could hub activities while rescue people from poverty. The study focuses on exploring the streets as public open spaces and potential corridors for economic generation.

In Tanzania, both formal and informal settlements are characterized by the shrinkage and conversion of public open spaces to other uses due to the lack of management and funding as well as poverty. Congo Street in Kariakoo, Dar es Salaam is a prominent commercial street as showcased by diverse trading operations with the associated displaying and selling of commodities at shops abutting the road and on the street (see Figure 1).



Figure 1: Economic vibrancy at Congo Street in Dar es Salaam

Source:

<https://www.pinterest.com/pin/109493834667104401>

II. BRIEF LITERATURE REVIEW

“Better streets mean better business. Attractive public space and better designed streets are not simply aesthetic or safety improvements. Better streets attract more people and more activity, thus strengthening both communities, the businesses that serve them and the city’s economy as a whole”. (NYC DOT, (2014))

Layton et al (2011) conducted a study on restoration of Michigan State where the city was in a serious economic decline, where jobs had been lost, housing foreclosures had decimated communities and the mass exodus of talented and creative people continued at an alarming rate. The study pinpointed that, landscaped places are among the economic drivers especially when they are provided according to the wishes of the people who want to live there, i.e. *creating dynamic, walkable and sustainable places*. The New York City Department of Transportation, (2014) also investigated the connection between sustainable streets and the economic vitality of a place and noted that, there was *increase in number of businesses, increase in employments, and boosting of retail sales on streets* which have improved their functions by providing benches, tables and chairs and way finding signage, reducing noise and increasing shades; enhanced design by distinctive paving, landscaping, pedestrian-scale street lighting and public art; and incorporated more activities for visitors through event programming and food concessions. Furthermore, the study revealed that an improved street environment also affect other economic outcomes in a less direct way, such as retail and office rents

and property values, by changing the perceived desirability of a street or neighborhood. "Moreover, it is unfortunate that within the public policies context, open spaces seem to poses significant non-monetary value. Lack of policy and urban development guidelines that address the economic aspect of public (open) spaces is a primary contributor in making these spaces unsustainable" (Fausold et al, 1996). In spite of the key role of public open spaces in ascertaining daily livelihood in Tanzania, the economic values of public open space landscaping have not been comprehensively studied and documented. Instead, researchers dwell on socio-cultural, environmental, political, and aesthetic values only.

This study poses some questions: *How can public open spaces be locally managed through the internally raised funds/finances? How can public open spaces be resourceful in ascertaining the city development? How can public open spaces produce economic opportunities to residents? How can public open spaces stand alone as economic productive institutions without jeopardizing the generic socio-cultural, environmental and psychological meanings of public open spaces?* For this reason, there is a need to identify means of reactivation of such spaces for economic benefits of the urban dwellers.

Currently, landscaping in urban public open spaces of Dar es Salaam city is not prioritized, and the economics of it are unclear. This study believes that; streets and other public open spaces can be exploited for multi-faceted significance, playing both social, cultural, environmental, political, academic, aesthetic and economic roles and eventually reduce and/or eradicate poverty. Therefore, this study seeks to examine the economic potentials of the existing streets and other public open spaces; to investigate the current economic opportunities offered by the existing streets/public open spaces in the urban context; and to analyze the factors for commercialization of public open spaces.

In explaining economics, Marshall (1890) placed emphasis on human activities or human welfare rather than on wealth. Marshall defined economics as "a study of men as they live and move and think in the ordinary business of life." He argued that economics, on one side, is a study of wealth and, on the other, is a study of man. According to Marshall, wealth is not an end in itself as was thought by classical authors; it is a means to an end—the end of human welfare (ibid).

Informal sector and informal settlements are closely related. Informal settlements are characterized by informalities. These are places for living but also for working. Some of such activities include carpentry, metal works, food processing and retailing, garbage collection and scrap metal business. Small shops, workplaces and house extension are also integral part of the informal sector (Bhatt, et al., 1984). "Streets are vital public places that foster social and economic activity, in addition to their more traditional roles as corridors for travel" (NYC DOT, 2008). After decades of prioritizing through-movement and vehicle

priorities on streets, governments have started to rediscover the broad role that streets can and should play in the public arena such as commerce, socialization, community celebration, and recreation (ibid).

Public spaces have always gone hand in hand with commerce. Markets, vendors, and retailers are essential components of many great places. Quite often, it seems, commercial interests take advantage of public spaces at the expense of people who regularly use them. Due to this, excessive commercialization has struck public spaces everywhere (Kent, 2003). The business location is a key to successful operations and overall growth (Smith, 2014). While many start-up mistakes can be corrected later on, a poor choice of location is sometimes impossible to repair (Lesonsky, 2006a). The importance of location for a new business depends on the type and style of business, the facilities and other resources needed, as well as where the customers are (Lesonsky, 2006b). Babere (2015) also argued on this as he said, "The location of spaces which informal livelihood operators are attracted to are generally those with a good flow of customers, accessibility, range of goods, and safety and security. It was revealed that the availability of customers is the main factor which is considered when selecting a given location for the business operations". (Babere, 2015)

III. RESEARCH METHODOLOGY

This study required the adoption of **case study** strategy as it attempts to study the human behavior and his environment. A case study is defined by Yin (1994:23) as 'an empirical inquiry that seeks to understand a contemporary phenomenon in its real life context, especially when the boundaries between phenomenon and context are not evidently clear and in which multiple sources of evidence are used'. Also Bent notes about the importance of case study strategy in the study of human affairs state that: "... first, the case study produces precisely the type of context-dependent knowledge which makes it possible to move from the lower to the higher levels in the learning process; second, in the study of human affairs, there exists only context dependent knowledge, which thus presently rules out the possibility of epistemic theoretical construction" (Flyvbjerg, 2001:71).

A. The study approach

The study analyzed business site selection criteria, investors', business operators' and street vendors' business related factors and or preferences, factors of success and endurance of businesses in the informal settlements. Moreover, the study classified the business activities.

B. Research strategy

This study employed case study strategy because the phenomenon of commercialization is principally underpinned by processes and actors' meanings which cannot be unraveled without deployment of qualitative investigation.

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Moreover, quantitative investigation of the case was used in order to ensure rationality of the validity and reliability of the empirical findings. The combination of qualitative and quantitative methods was stirred by the fact that the study aims at answering 'what', 'how', and 'why' questions which require use of multiple data collection techniques which can easily be accommodated by case study strategy. The qualitative approach in this study was essentially on seeking the information on the processes of commercialization and perceptions of the residents and agents of commercialization. Additionally, qualitative data involved visual observation on business activities and the apparent types, use and maintenance of commercial spaces. The quantitative approach was useful for statistical justification of the actors preferences to business site selection, commercialization-actors' preferences or attributes of successful commercialization and factors of thriving of business centres.

C. Case selection criteria

The selected case study area is a business precinct called Riverside in Kibangu informal settlement within Ubungo Municipality in Dar es Salaam, Tanzania. The choice was based on the economic vibrancy, large catchment area of the business district, and richness of information to answer the research question: *How informal settlements get commercialized and what are the underpinning perceptions and actors?*

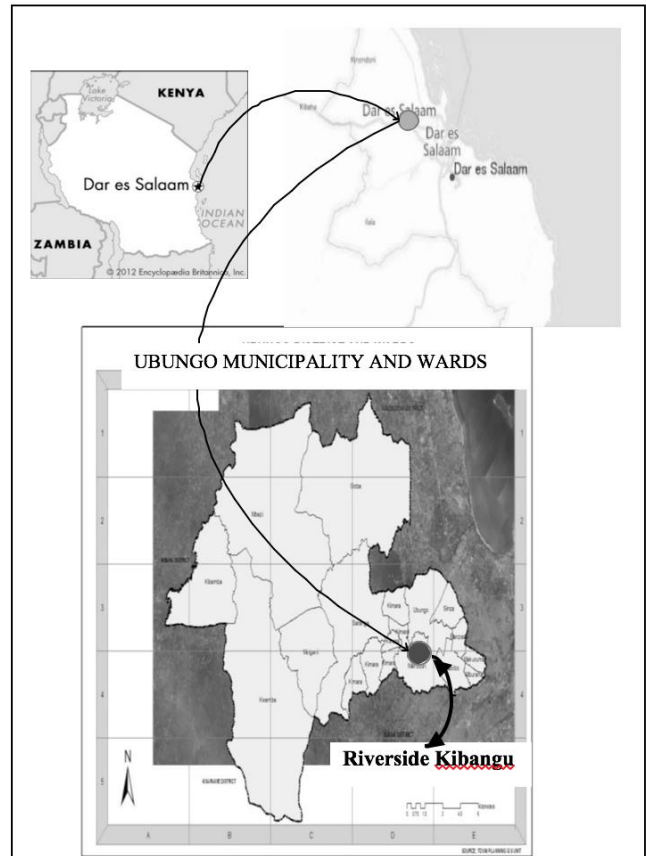
D. Case area description

Riverside is located at Makuburi Ward in Ubungo Municipality, Dar es Salaam, Tanzania (see Map 1). It is one of the five sub wards of Makuburi Ward, located about 10 kilometers from the Dar es Salaam city center. Residents said that Kibangu settlement emerged from a paddy farm and built up slowly into residential area in the 1980s with fast development going on in the 1990s. The construction and completion of Mandela Road which is abutting the case area contributed further to the rapid development in terms of housing. Construction of Makoka Road which starts from the selected case leading to Makoka Ward also contributed to the speedily rising of informally built Kibangu River side business district and the surrounding informal urban development as it brings people in and take them out of the commercial district and therefore acts as a repose space. Currently, Riverside settlement dictates a relatively high-density character with a mix of land uses, dominantly economic activities.

Kibangu is one of the recently urbanizing informal settlements which developed rapidly and now consolidating especially at Riverside. Its population is 70,038 people. Kibangu started as a paddy farm, until 1940s. The original settlers of this area were paddy cultivators and cattle keepers. The densification process started with large farm owners subdividing into smaller building plots and selling to new developers. The remarkable housing developments started in

1970s. Rapid urbanization started after the completions of Port Access or Mandela Road in 1980s and farm land subdivision processes (see Figure 2).

The rapid population increase was caused by the nearby industries including Urafiki Textile Mill, Ubungo Farm Implements (UFI), Dar Kibuku Brewery and the TANESCO Electric Power Plant. Others were the Milk Processing Industry and the establishment of institutions such as the University of Dar es Salaam and the Water Resources Department at Ubungo (Kironde, 1994: in Lupala, 2002). These industries and institutions provided employment to several people who developed their houses or rented at Kibangu.



Map 1: Riverside Location Map

Source: Adopted from Encyclopedia Britannica Inc, 2012; Dar es Salaam city council, 2004; and Ubungo Municipal Profile, 2016.

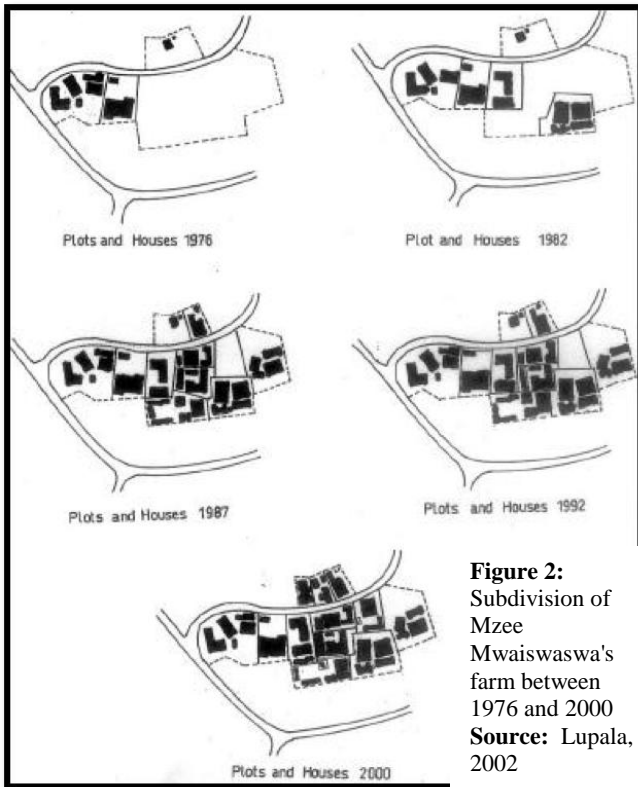


Figure 2:
Subdivision of Mzee Mwaiswaswa's farm between 1976 and 2000
Source: Lupala, 2002

Table 1: Population growth at Kibangu settlement in Makuburi Ward.

S/N	WARD	SUB-WARD	POPULATION BY SEX 2012			POPULATION BY SEX 2016		
			MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
1.	MAKUBURI	5(Kibangu)	28,021	29,387	57,408	34,186	35,852	70,038

Source: National Population Housing Census (2012) adapted in Ubungo Municipal Profile, (2016). Growth rate 5%

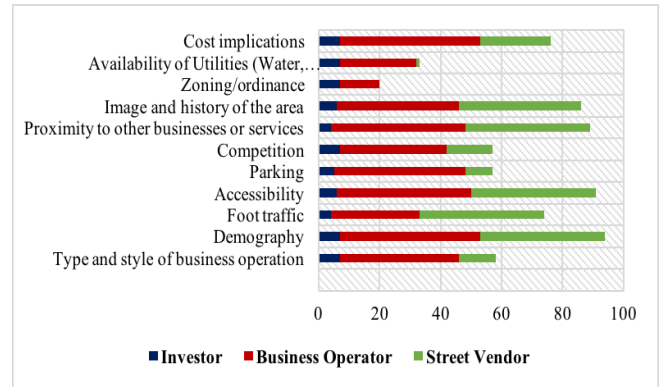
Currently, Kibangu settlement, specifically Riverside is experiencing a big number of people who are by-passing, working, living and shopping in such a finite street (Table 1). Entrepreneurs have taken advantage of the catchment areas along the streets, opened shops in buildings abutting the roads, display items and products in sidewalks and access roads. Property owners have changed the uses of their buildings from residential to commercial-residential and commercial buildings.

IV. RESULTS AND DISCUSSIONS

A. Criteria for selection of a business location

Housing development and transformation at Riverside portray an organic growth form, whereby, buildings were constructed by property owners without having building permits. House extension is a common practice along the Makoka Street. The street is densely populated by diverse people, building properties and activities. The plots are densely built. Access to inner buildings is restricted to footpaths only which are created by donation of small

portions of land from plot owners. There is mushrooming of business activities on the streets. These business activities have activated the street in such a way that people are busy working from morning to night hours.



Bar Chart 1: Landscape based criteria for selecting a business location

Source: Author's field interviews, 2017.

Bar Chart 1 reveals that business operators' main preferences to site selection for commercial activities are: less cost implication, image and good history of the area (variety of choices), parking, proximity to other businesses, accessibility, great number of people, competition, type and style of business operation, and cost implications while the secondary preferences are: availability of utilities (water and electricity), high volume of pedestrian traffic, and zoning of land uses.

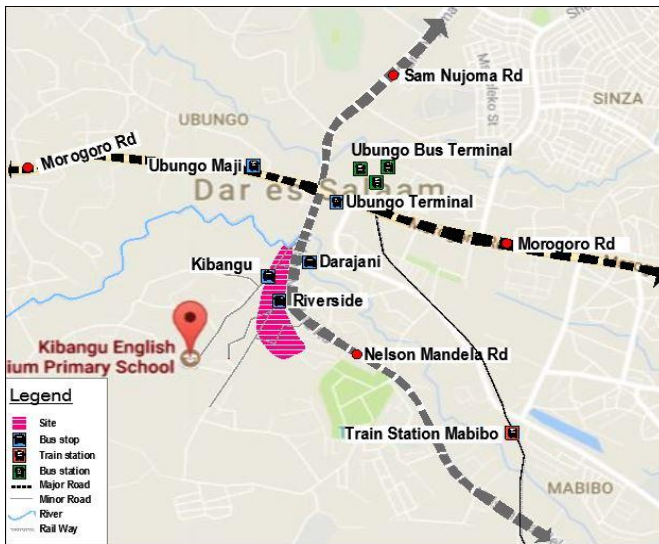
Street vendors main preferences to site location selection are: proximity to other businesses, accessibility, great numbers of people, high volume of pedestrian traffic, and good image of the area while secondary preferences are cost implications (cost for starting and running the business), competition, parking and type and style of business operation. Availability of utilities and zoning of uses are not in the priority list. To the investors, all the variables of suitable site location selection are almost equally important (see Bar Chart 1 above).

Riverside commercial district clearly demonstrates the benefits attained through the employment of the drivers of commercialization of an area stated in Bar Chart 1. It has turned into a commercial hub with crawling social and commercial life. It is a nameless market and a shopping district magnetizing both residents and outsiders. It is an area with a variety of shopping experiences, commercialization of public open spaces, social experiences, and continuous in and out traffic. Both investors, business operators and street vendors associate the commercial image and urban vibrancy of Riverside commercial district with Nelson Mandela Highway. Riverside is a knob attached to Nelson Mandela Highway. It gets connected to the other parts of Dar es Salaam metropolis (Map 1). It is the main determinant of commercialization of Riverside precinct and its large

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catchment area as asserted by one of the respondents who said:

“If Nelson Mandela Road was not present, there would have been no vending activities conducted here as there wouldn't be a big number of people who use/pass along the street as it is now. This road is bringing a lot of people from different areas to Ubungo. Businesses in this area depend on those people as target customers. Some of the customers are Makoka residents who pass by Riverside business precinct while going and returning from their working areas to board buses at Makoka bus stand.”

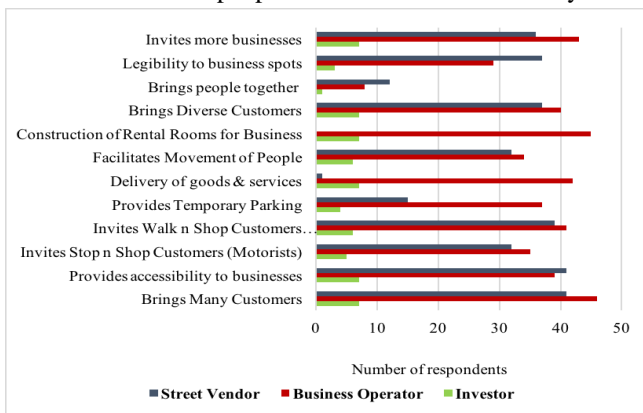


Map 2: Accessibility to Riverside Street

Source: Author's construct, 2017 adapted from Google map.

B. Economic significance of road networks

On the other hand, what gave Riverside commercial district energy to undergo commercialization is also its physical and visual legibility (see Bar Chart 2 below). It is easy to locate the area from many angles in Dar es Salaam. Moreover, it is a strategic potential link between the city center of Dar es Salaam where most people work and areas where they live.



Bar Chart 2: Economic Significance of Road Networks

Source: Author's field interviews, 2017.

At Riverside, street vendors, business operators and investors see road network as the field underpinning all the commercialization processes as it invites more businesses, it

makes legible all business spots, brings people in, attracts construction of rental rooms, facilitate movement of people and delivery of goods, provides temporary parking, invites pedestrians, and provides accessibility to customers. Both investors and business operators ensure safety and security of the street through hired guards and by having business operators' eyes on the street.

C. Factors for commercialization of properties at Riverside

Commercialization of a settlement is the process of making a settlement or a precinct commercial in character and eventually in the spirit of space through commercial activities and disposition of buildings and spaces between buildings. Moreover, it is the act of transforming meanings of human settlements from mere places to live in to the harmonized space to live on and to live in but not at the expense of quality. In order to create a clear understanding of the processes of commercialization it is prudent to unravel the site selection preferences of investors, street vendors and business operators for the purpose of establishing the common preferences. Fifty business operators, fifty street vendors and seven investors (see Bar Chart 3) were interviewed and the statistical evidences are as follows.

D. Business operators' preferences to business site location

The most critical factors of commercialization are associated with great number of people 92%, road type 90%, high movement of people 86%, physical accessibility 78%, and street vibrancy 76%. The critical factors are associated with location within a business district 74%, interaction of people 70%, residents' demands 66%, visual legibility 62%, linkage between working place and residence 62%, availability of rental rooms for businesses 60%, catchment area of customers 58%, diversity of people 54% and near to bus stop 52%. The less critical factors are associated with proximity to place of residence 48%, frequent movement of people 46%, diverse activities 42%, business dependency 36% and safety and security 30%. The uncritical factor is space for specific business 22%.

E. Street vendors' preferences to business site location

The most critical factors of commercialization are associated with the presence of bus stop 82%, physical accessibility 82%, high frequency of movement of people 80% and visual legibility 78%.

The critical factors are street vibrancy 70%, diversity of people 66%, frequent movement 66%, large number of people 64%, linkage between working place and residence 64%, large catchment area of customers 62%, road type 56% and interaction of people 54%. The less critical are residents' demand 44% and business dependency 34%.

The uncritical factors are availability of space for specific business 18%, good business environment 16%, and proximity to residence 10%.

F. Investors' preferences to business site location

The most critical factors of commercialization are associated with linkage between working place and residence 100%, large catchment area of customers 100%, residents demands

100%, street vibrancy 100%, high intensity of movement of people 100%, and physical accessibility 85%, and bus stop 85%.

The critical factors are large number of people (population) 71%, and location within a business district 71% while the uncritical are visual legibility 43%, safety and security 43%, road type 29%, space for specific business 29% and diversity of people 29%. The uncritical factors are proximity to residence 14% and interaction of people 14%.

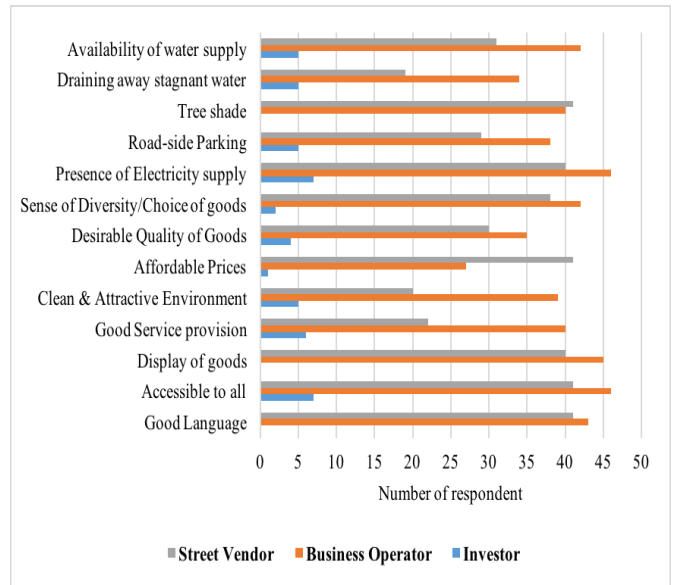
From the above statistical analysis it is apparent that the business operators' and investors' preferences are more inclusive, more grounded than the street vendors' preferences simply because the business operators incur significant rental cost and sometimes transform existing buildings to suit their business purposes while investors put in money hoping to invite tenants. The street vendors' preferences are more opportunistic than comprehensive.



Bar Chart 3: Factors for commercialization of Riverside commercial district
Source: Author's field interviews, 2017.

G. Factors for thriving of trading activities

Businesses were increasing day after day and were experienced to thrive along Riverside Street. The effectiveness and efficiency of businesses operations along the street were fostered by several factors as expressed by traders in Bar Chart 4 below. The most critical factors for vibrancy and viability of businesses depended on accessibility to all 92%, electric power supply 92%, display of goods 90%, good handling of customers 86%, wide choice of goods 84%, constant availability of water 84%, tree shading 80%, good service provision 80%, clean and attractive environment 78%, and road side parking 76%. The critical factors are quality of goods 70%, draining away of stormwater 68% and affordable prices (see Bar Chart 4).



Bar Chart 4: Factors for thriving of trading activities
Source: Author's field interviews, 2017.

Most of the street vending businesses that are conducted along the Riverside commercial district include selling of clothes, kitchen utensils, electronic equipment and other household commodities sourced from big shops. Street vendors are increasing spontaneously and it has been commented by the Kinondoni Municipal Planning and Coordinating officer that there is a business shift from indoor shops to outdoor shops which has resulted into loss of government revenue as street vendors operate freely without paying taxes to the government. The officer said that, "Nowadays, we experience an increase of street vendors along the streets who obtain stocks from the abutting shops given in a form of loan at an exorbitant interest or bought at a low price. Hence, shops have remained to be stores and the business has shifted from the shops to the streets. Most of the shop owners claim for paying high tax despite the business market drop while in the background they sell their stocks to the street vendors who do not pay tax."

In fact, this shift has created jobs within the informal economy especially to the urban poor. This shift could generate government revenue when and only if the responsible authorities could facilitate commercial activities on streets after undergoing proper urban design. Mr. Mushi, a business operator explained that, "The government is losing a lot of revenue for not collecting taxes from street vendors under the excuse of not having permanent addresses. This is not logical, because, while they hesitate to collect taxes from them, the street vendors are exploiting the public asset for doing freely the trading activities and they generate a lot of income and at the same time shrink the business opportunities of the tax payers. It is time for the government to wake up and provide conducive street environment that can accommodate vendors who can add up in the tax base even by charging Tshs. 500/= per day per vendor". The respondent also added that, street vendors

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should not be chased away from the streets, instead they should be amiably identified, accommodated in convivial spaces and taxed for the national economic interest. However, this calls for proper urban design which shall examine the possibility of attaining a co-existence of street vending, medium income businesses and pedestrian movement without putting at risk the benefits of the urban dwellers, business operators and the government at large.

H. Business Activities at Riverside

The Riverside commercial district covers a surface area of 91,298.91m². and is defined by a series of mixed-use buildings adjacent to each other. All the shops on both sides of the street face each other. The street attracts pedestrian traffic and visibility to shops and display of trading items. The land subdivision along the street is invisible as the spaces between buildings are characteristically narrow to the extent of making the building setbacks insignificant and thus amplifying the connectivity of buildings and the formation of an urban fabric. The makeup of the street is largely an effect of the construction of its boundary and the exteriors of the abutting buildings are surrounded by the street. Whatever people do in their landscapes at Riverside is basically hinged on economics. *“At this street I obtain all my needs, including food for my family. I normally go to the city centre rarely because we get all our requirement here. This is a city by itself.*

Just imagine in a strip of 930m length urban fabric, there are more than 40 different business activities which include selling of food, fruits, vegetables, and stationeries, transportation, butchery, pharmacy, betting, hardware shops, monetary transactions, salon, rentals, boutique, bar and pubs, toileting, carpentry, veterinary, bus ticketing, internet café, garages, tailoring, and shoe shining.

Business activities at Riverside are of two forms namely formal and informal. Formal business activities constitute 29% of all activities while 71% of business activities are informal business activities operated in the outdoor spaces which comprise road reserve, sidewalks, setbacks, bus stops and some in rental rooms. Both formal and informal activities were operated at the same street and depended on one another.

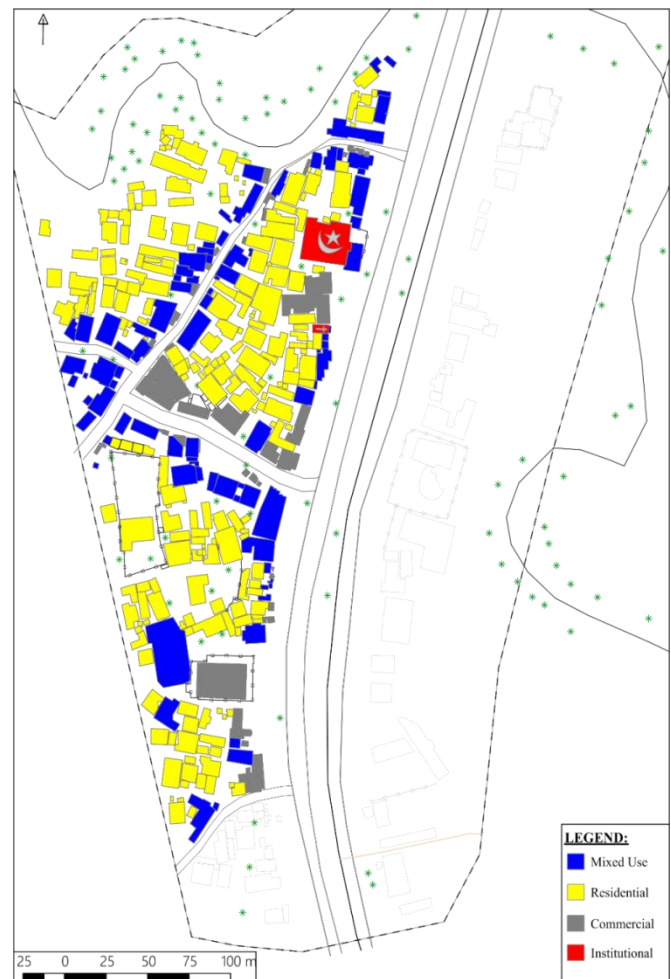
Taking advantage of the improved road networks, business activities are still increasing day to day at Riverside. 53% of the business activities take place in buildings/shops, 28% take place at building-frontages and setbacks, while 19% take place on streets, road reserves, sidewalks, and bus stops.

The fact that Riverside is a catchment area and a hub of diverse business activities has promoted the street vibrancy in such a way that, the street is actively occupied with many activities for longer hours of the day. From morning to night hours, Monday to Sunday, January to December, Riverside commercial district is commercially busy. In the morning hours the street is populated by pedestrians walking to board

buses to their respective workplaces and some to hinterlands. Shops are opened from 07:00 hours to 21:00 hours. Business is found to be very active roughly between 15:00 and 21:00 hours when most people are returning to their homes from working areas. 21% of the businesses take place in the mornings, 27% in the afternoons and 52% in the evenings.

I. Types of Businesses at Riverside

Riverside is a business/commercial entity. The entire place is commercial oriented. Building developments for residential and commercial uses are wheeled by informal actors without having building permits as a result uncontrolled density become inevitable. The transformation of the built environment is determined by the lower level of change which is the building. The plot level is of less importance as showcased by non-demarcated boundaries and spaces between buildings used as public open spaces. Buildings at Riverside are used for residential, commercial, institutions and mixed-use. The linear commercial transformations take place along the Nelson Mandela Road, and Makoka Road (Map 2 below).



Map 2: Building Uses at Riverside Kibangu Street
Source: Author's construct from field mapping, 2017.

Riverside is a commercial hub to more than 500 enterprises which operate both formally and informally. Diverse businesses in these enterprises can be grouped into four major types which are named service business, merchandise, manufacturing business and hybrid business as classified by Verse (2017).

The service-type-business provides intangible products with no physical form. At Service type of business include firms which offer professional skills, expertise, advice, and other similar products. At Riverside, services include shoe shinning, salons, barbershops, pedicure, manicure, shoe repair shops, banking agents, pharmacy, veterinary services, guest houses, rental halls, rental houses, market, rental office, church and mosque, advertisements, money transactions (Mpesa, AirtelMoney, TigoPESA), mobile telecommunication agents, bus ticketing, garages, betting, toileting, stationary and internet café.

Merchandising businesses involves buying products at wholesale price and selling the same at retail price, in other words known as "buy and sell" businesses. They make profit by selling the products at prices higher than their purchase costs. A merchandising business sells a product without changing its form. At Riverside, merchandise businesses include grocery stores, butcheries, pharmacies, hardware, stationeries, bars and pubs, boutiques, fruits and vegetable shops and sundry shops.

Manufacturing businesses involve buying products with the intention of using them as raw materials for making a new product and thus, there is a transformation of the products purchased. Manufacturing processes are factored with *raw materials, labor, and factory overhead and thus the products are sold at much higher prices.* Manufacturing businesses conducted at Riverside are welding, wood carving, tailoring, carpentry and restaurants. When walking along the Makoka Street, it is a common thing to experience number of street food vendors selling boiled and roasted maize and coconuts, popcorns, honey, fried fish, fruits, vegetables, sugarcane juice, coffee, sundries and cookies.

Hybrid Businesses are classified in more than one type of business. Bars and restaurants are good examples. Foodstuff of various types are bought, recipe designed and new menus are obtained. This is a combination of merchandise and manufacturing businesses. More so, in bars drinks are bought and chilled to add value and sold at the customers' order.

V. CONCLUSIONS

Commercialization of informal settlements is the reflection of business operators and investors' preferences as well as the needs of their clientele. Road network is the central element of commercialization of properties in the informal settlements as it invites businesses, creates visibility to shops, brings in people from different areas, facilitates delivery of goods and services, and used as temporary parking area. Prosperity and endurance of commercialized properties is

determined by provision of utilities including water, electricity and physical accessibility. Moreover, good customer care, clean and attractive environment, affordability of customers and wide range of choice and quality of goods contribute to sustenance of the commercialized properties. For a business hub to be comprehensive it must have service business type, merchandising business type, and manufacturing business type. The concentration of business activities along the perimeter roads and thoroughfares and the formation of rental houses away from the commercial streets create a clear dichotomy between pure commercial and pure residential areas and also between pure vibrant commercial areas and tranquil rental and owner occupier houses. Commercialization of properties creates a shift from pure residential neighborhoods to mixed use neighbourhoods for economic survival of its residents and poverty reduction. Commercialization of properties if well monitored can foster sustainable city development, self reliance and intensification of national tax base.

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