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Urban Land Management and Housing Informality in Kenya: A Case of Eldoret Urban Area

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Abstract

The informality in housing generally tends to complicate the urban land management in many cities of the world. Urban land management aims at the provision of affordable urban land in sufficient quantities and also aims at guiding the growth of cities and ensuring their efficient functioning. Eldoret Urban Area, is the previous Eldoret Municipality, established by the colonial government as an urban center in 1908 and as per the population census of 2009, has a population of 497,446. It has been growing at 6% and is one of the significant urban centers in the North-Rift in terms of industrial, academic, administration and business development. This study used The Becker and Selod (2009), dual- market framework model of urban economic theory to informality. This model emphasis that different levels of risk aversion or other differences among households would be a sufficient but not necessary condition for the two markets (i.e. formal and informal) to co-exist. The urban economic models- The Brueckner and Selod (2009), make assumptions that are at odds with the reality in most developing world cities. The model also assumed all land is fully serviced and that the rental market is complete. However, the housing strategies of significant segment of the urban population in developing countries violate many of these conditions. Economics models of the informal housing markets assume implicitly or explicitly; the residents can afford to live in the formal market but stay in informal settlements for institutional reasons (such as community ties, inertia and lower risk aversion) or for purely opportunistic reasons. Urban Residents that are unable to bid competitively in formal markets use variety of strategies to gain housing occupying areas not open to formal markets for instant, environmentally protected zone occupying areas not yet urbanized, thereby saving on the serving costs transferred by developers; crowding into existing buildings and building progressively overlong period. To overcome the negative consequences of housing informality and to ensure appropriate management of urban land management, this paper tends to explores the applications of traditional policy approaches to informality, which aims at increasing the capacity of low income families to pay for housing, while also holding down the prices of housing and serviced land. The key policy alternatives considered under this discussion are; transportation costs as a substitute credit system; the property tax as a planning tool and using value capture to fund urban services. In conclusion, it is true that informality is a problem of land market management that urban economic theory has yet to explain, if the urban households both poor and rich to be provided with affordable and quality housing in our cities.

Keywords: Urban Land Management; Transportation Costs, Property Tax, Value Capture and Housing Informality.

INTRODUCTION

Informality in housing has remained a major problem in third world cities. Rapid urbanization has catch up with the third world in the 21st century. In 2001, it says 924 million people, 31.6% of the world's urban population, lived in slums and this has been projected by the UN-Habitat to be over 1 billion by 1050. It is also true that it has been estimated that over 90% of future urban growth will occur in the cities of Asia and Africa (UN-Habitat, 2011). This has by itself put pressure on African cities and urban areas, hence causing housing informality. Informality in housing has been viewed as a multidivisional phenomenon involving challenging issues related to insecure land and regulations; inadequate provisions of public services and infrastructure; overcrowding of housing units; and improvised building materials and processes. Informality in housing may refer to informal provisions of housing by the poor themselves, which is a double-edged sword (Bell & Bowman, 2002). On one hand, it represents entrepreneurship energy and admirable flexibility on the part of the poor who build their own houses, on the other hand, informal provisions of housing creates large and chronic inefficiencies and imposes huge costs on both the poor and the government in terms of future costs of infrastructure provisions.

Housing is one of the major socio-economic standards quality problems in most cities. Housing encompasses a lot more than the physical structure called the house. Urban households around the world face a crisis of housing informality, with the authorities inadequately prepared to solve. Most of these urban areas lack the capacity to solve the insufficient social housing production, informal settlements, socio-spatial issues, formal market outcomes and unrealistic planning. The authorities in these cities, especially in developing countries, have failed to cope with the increasing demand for urban infrastructure and other social services resulting from urbanization. According to Acioly Jr. (2007) and Boakye (1994) one

third of urban households live in overcrowded and inadequate settlements across the world. Within this trend, the fastest growing type of slums is informal settlements including self-constructed housing lacking property titles, planning, infrastructure, and social services. That all households comply with urban standards and regulations acquire land through monetary contracts with the same transaction costs request permission when charging land uses and pay for fiscal charges and the hike.

The drive for man to live comfortably, the need for adequate shelter must be fulfilled (Muchima, 2004). According to the UNHABITAT, "adequate shelter means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water supply, sanitation and waste management facilities; suitable environmental quality and health related factors; and adequate and accessible location with regard to work and basic facilities; all of which should be available at an affordable cost. Adequacy should be determined together with people concerned, bearing in mind the prospect for gradual development (UNCHS, 1997)

These cities are, in part, detached from the official legal order, deprivation such as insecurity of land tenure, low standards of urban services, and even non-durable housing structure. Their emergence represent alternative paths of city construction. Such informality practices show that different phases in this development, each with particular characteristics, can be discerned. The poor continue to struggle to survive within urban areas, mainly through informal shelter and informal income-generation strategies, and about the inadequacy of both public and market responses to the plight of the urban poor. Efforts to improve the living conditions of informal settlers (especially within developing countries) have been inadequate and incoherent over the many

decades, having peaked during the 1980s (Brand & Dávila, 2011).

It implies that access to affordable land and housing is recognized as a basic human right that governments of many countries must satisfy. But in most cases, government policies to recapture the public share of land value increments and to provide social housing for the poor are hampered by overly bureaucratic land and housing administrations, inflexible regulatory framework, lack of fiscal resources and political will to tackle informal shelter problems, and failure to encourage public participation. The urban land is not static as its size. Activities such as public investment in infrastructure, changes in land use regulations, demographic change and Property Tax, private investment in land, and land productivity take place aimed to improve its value. Yet such changes are not captured towards improving urban formal housing sanity it deserves (Blanco & Kobayashi, 2009).

Adequate urban policy approaches and practices enabling informal housing holders to participate in socio-economic activities that would enable them increase land value of their holdings are inadequate (Brand & Dávila, 2011). Such approaches and practices that enhance financing of investment in infrastructure and services to reduce physical vulnerabilities to unlock land value; secure, recover and reinvest upfront infrastructure funding; levy direct beneficiaries of public improvements, which would otherwise benefit from such improvements as windfall gains; unlock more financing in situations of limited access to traditional sources of public sector financing and promote infrastructure cost-sharing and incentivize wider policy measures that increase land value are critical but lacking.

Moreover, a healthy physical resilience across sectors, institutional resilience and reforms and financial resilience and capital market engagement are needed that may improve the current housing informality

menace. It means that urban agencies may fail to promise provision of reliable transportation and transit-related assets, water-supply sanitation and sewage and landfill. Also, the informal settlements are unable to mitigate flood, poorly handled slum upgrades and resettlement, water-basin and land decontamination, environment cleaning and rehabilitation, historic preservation and land consolidation (Brown-Luthango, 2006). Yet these are the basic services that drive most rural urban migration or natural urban growths. Further on the current practices and research studies have inadequately covered this situation in relation to localized facts. But most of happenings in urbanization are influenced by transformational demographic and cultural changes. This means that informal settlements with illegal, irregular and unapproved non-upgraded, unimproved, expansions, housing extensions are unregulated. This denies the informal settlers mostly the slum dwellers capacity to recover and reinvest any land value increases that result from infrastructural and services investment and other government actions. Also known as “value sharing,” it's rooted in the notion that public action should generate public benefit (Cerdá *et al.*, 2012).

The drive towards urban transit and infrastructure improvements, affordable housing, parks and open spaces, utility upgrades, and other critical services are hardly realized. This has continued to result in unsustainability of urbanization, urban fiscal health, lack of infrastructure investment, hence failing to address the challenges of sustainable urbanization. It means that housing policies that will make property developers to provide some units that are affordable to low- and moderate-income residents are critical. Equally, strategies that ensure that the benefits of development are shared widely are desired yet inadequate. This means that some sections of urban dwellers are excluded in the urban housing development, pushing them further to the extreme of informal settlement (Chowdhury, 2013).

The affordable housing crisis affecting a number of urban areas. Thus informal housing represents a large portion of housing markets, mostly in developing countries. These cities present a picture of unchecked sprawling slum development, which cannot absorb growth within a formal and planned urban framework. The mostly affected are the middle and lower income households who are grappling with severe housing shortages. At the same time, the drive to ensure that some of the additional value created through the planning system can benefit the whole urban communities. But this has not been achieved (Dodson, 2005).

It is recognized that land value capture provide a range of mechanisms and policies that return land value to the public. Such mechanisms and policies are designed to create value, capture created value and reinvest captured value, enhance betterment contributions and special assessments, charges for building rights, exactions and impact fees (linkage fees) guaranteeing that requirements do not overburden development. However, the current practice is inadequately utilizes these tools (Hassan *et al.*, 2018). This could link to the continued exclusion of the urban informal settlers into formal housing system. In Europe, Asia, and Latin America, various forms of land value capture have been used to great effect across since the sixteenth century. It means that housing approaches that produce a modest yet steady supply of new affordable housing resources. Such approaches need to also generally preserve long-term housing mobility, accessibility, affordability; the pool of local inclusionary units can grow steadily into a significant share of an area's housing stock. However, the current practices are ever incomplete informal expansions (Guan, 2012).

Emblematic Rampant housing informality, of large cities, especially in developing countries, poses many challenges. It is meaningless to consider cities having great importance as the drivers of economic growth if they cannot provide formal housing

(Jain & Brecher, 2014). Continued existence of informal situation in urban areas disorganises the functioning of urban land markets, implying that irregular, illegal and underground operators are able to hide in the name of informality yet actually not qualifying to be considered for the same (Jewkes & Delgadillo, 2010). This would deny the slum dwellers in urban areas the opportunity to access the cost of protecting the land from invasions, or the cost of providing basic urban infrastructure and services. It implies that urban households in these informal housing systems are exposed to unexplained invasions, constant demolitions continuing being squatters. Such populations would be prone to frequent movements, relocations, lack of specific permanent dwelling place. This would deny such households are not able to constantly participate in self-development and contribution to national development (Lee Giddings & Anyigor, 2014; Lipman, 2006).

This situation reflects the structural inability of public administrations to guarantee sufficient access to accessible and affordable serviced housing units in urban areas (Smolka & Larangeira, 2008). It means such development activities are not considered legal, and are often prone to demolitions at any time, the government concerned intends to carry out public projects. This is an indication that a population living in such areas are just but squatters who are homeless, houseless and cannot account for asset ownership in form of the houses they reside in. This denies them access to equal wealth distribution and job creation, which play a central role in determining the process of formal development. Approaches that can provide critical sources of funding for schools, police and fire protection, improved inclusionary housing, slum upgrading and other public services are fundamental but lacking. Equally, tools that can direct a portion of land values captured toward specific public purposes, for example upgrading housing informality, infrastructure development, industrial investments and others are missing.

Globally, such approaches are well established in Europe, Australia, and throughout Latin America, and they are under development in Eastern Europe, Africa, and China (Zyed, 2014).

It seems that calls to promote Property Tax and infrastructures and services investment by informal settlers have fallen to deaf ears. The desire to create more activities that improve slum and informal settlement land value are not easily realized. Hence, any revenues from anticipated increases in assessed informal settlement land values within designated cities is missed. It is understood that property tax is a tool useful in generating higher assessed values for properties in planned public infrastructures and services investments (Quiqley & Raphael, 2004). But in urban areas where informal housing systems are practiced, little is known of improving values. Most of the informal settlements and slums in developing countries continue to remain tools for global case study, validating benchmarking of the other developed worlds urban situations (Osman *et al.*, 2017d).

Hence, the slums, and any other informal settlements continue to experience challenges such as lack of good schools, good housing, low level of security provision, no water supply, sewerage and refuse handling, industrial investment that provide stable and sustainable job opportunities and sources of income, a metro system of modern transportation. So slums and the informal settlements continue to remain informal for decades. A situation that may be confirming that their informality remain a slum belt and need not to worry anybody.

Although urbanism is explored, urban growth of the 21st century is taking place in the developing world, yet many of the theories of how cities function remain rooted in the developed world. It creates a gap on development of local models. Some of the considered developed cities have been there for over 300 years. However, informality of tenure and the spread of slums in developing

countries have frequently been attributed to the incapacity of cities to accommodate the enormous influx of the poor masses from the countryside. Likewise, the recognition of squatters' claims and slum dwelling can be perceived as strengthening the rule of law. It can also equally well understand as undermining it by violating existing property rights and urban planning norms (McAuslan, 2003). A conflicting situation that most cities find themselves into.

The informal settlements have no infrastructure for motorised transport. In this case, one might therefore speak of transport markets; for each segment of that market a suitable supply should be provided.

The informal settlements have no infrastructure for a range of transportation modes. Most of the informal zones and the slum belts rely mostly on walking and cycling. Other modes of transportation such as electric rail, modern road, and improved water and air transportations are lacking. In most cases, the slum areas are often considered a no-go zone. Yet urban areas are considered engines for industrial investment, communication and administrative service provision. The neighborhoods' linkages with urban area like Eldoret in Kenya, is critical for socio-economic activities. But becoming a transport hub for the western region, linking Kenya to the East African countries via rail, road, and air is hardly a drive pursued. Moreover, aerial modes of transport can be useful in locations where the topography limits other forms of public transport (Litman, 2014).

During the past five years, housing prices in the urban areas are becoming severely unaffordable. Housing affordability ensures that housing provided is affordable for every income groups, especially the low and middle income group. Households are unable to make trade-offs. This is because there is lack of formal transportation systems and choosing more affordable housing in suburban areas, with higher commuting cost (Jain & Brecher, 2014). Most urban areas in most mega cities in the world have

experienced a rapid growth in transport-related challenges, including pollution, congestion, accidents, public transport decline, environmental degradation, climate change, energy depletion, visual intrusion, and lack of accessibility for the urban poor.

In this case, one might therefore speak of transport markets; for each segment of that market a suitable supply should be provided. The formal housing shortage is important problem in urban areas in terms of both quantity and quality. Like most of the developing countries, demographics, urbanization, inward migration, and renewals among others, are accepted as the leading factors of the growing housing demand in urban areas (Jain & Brecher, 2014). This means that producing adequate housing available and accessible to meet the diverse housing requirements of the ever-increasing populations of the urban settlements remains to be a challenge for most cities. This insufficiency in social housing production is aggravated by the inadequate conditions of existing housing projects. Most of such housing are illegal in some way, often because of lack of registration or municipal licenses, or violations of zoning and building standards. Although the number of low cost houses is deteriorating, efforts to address the present-day housing crisis in Kenya have yielded little fruit, and millions of urban citizens are living in squalor (Guan, 2012; Dodson, 2005).

According to World Bank (2017), a grim picture of the situation with six out of 10 households living in slums. It presents a deficit situation of over two million houses countrywide as annual production remains at a paltry 50,000 units, way below the targeted provision of 250,000 units with majority of urban households living in slums. Practices that can solve this continuously rising deficit to balance demand and supply are inadequate. Yet the benefits of increased access to affordable formal housing are diverse. For example, economic growth, job creation, and deepening of the financial

sector are some benefits attributed to formal housing multiplier effect. But most urban households, especially in Kenya, are unnecessarily living in slum dwellings because of limited supply and lack of affordable houses (Republic of Kenya, 2018).

Infrastructure investment has typically been spatially biased to certain areas. For example, in Kenya, and Eldoret in particular, Elgon View areas and near Eldoret International Airport, housing units are spatially formal. Public authorities have rarely made a consistent effort to recapture for the community any surplus value generated by public infrastructure service provision and changes in land use and development regulations. But it is also clear that not all those residing in the informal settlements are indeed poor, poverty is not the sole cause of housing informality. According to available studies, (Sani, 2013) indicate that the levels of absolute poverty have decreased while informality continue to grow.

The outcome of such paradoxes and paradigm shifts results in inability to provide adequately balanced housing that fits diverse urban demand. This has created lack of affordable dwelling options, inadequate building and planning regulations and lack of suitable housing finance amongst other things that exclude low-income populations from formal sector urbanization. In many countries informal urbanism has become the dominant force of urbanization, and mainly the only alternative to access the city. Therefore, the binaries of informall versus formal cannot be understood as absolutes. These are working definitions of an urban reality that is much more complex and dynamic (Mallach, 2009; Litman, 2014).

On realizing this, the Kenya government pledged to deliver half a million decent and affordable homes to working Kenyans by means of subsidy approaches that include credit facilities and adoption of cutting-edge innovative technologies and materials, is highly ambitious (Litman, 2012). These cost-

effective measures are expected to foster production growth starting from increase in raw material output and decrease in manufacturing cost related to the real estate sector (Devas, 1993; Boakye, 1994).

There are no practices or policy approaches that support informal housing dwellers to increase their slum or informal settlement land values. These informal housing households have not been able to access financing so as to improve investment in infrastructure and services to reduce physical vulnerabilities to unlock land value; secure, recover and reinvest upfront infrastructure funding; levy direct beneficiaries of public improvements, which would otherwise benefit from such improvements as windfall gains; unlock more financing in situations of limited access to traditional sources of public sector financing and promote infrastructure cost-sharing and incentivize wider policy measures that increase land value (Bell & Bowman, 2002).

The affected households in question are not able to create value, capture created value and reinvest captured value, betterment contributions and special assessments, charges for building rights, exactions and impact fees (linkage fees) guaranteeing that requirements do not overburden development (Mattingly & Morrissey, 2014). However, the current practice is inadequately utilizes these tools also urban transit and infrastructure improvements, affordable housing, parks and open spaces, utility upgrades, and other critical services are hardly realised. This has continued to result in unsustainability of urbanization, urban fiscal health, lack of infrastructure investment, hence failing to address the challenges of sustainable urbanization. Continued illegal, irregular, uncontrolled extensions and expansions of informal structures take place in informal settlements, slums enhancing rapid informal housing provision. This paper pursues the use of land value capture as a possible tool of urban land management in eliminating informal housing (Streimikiene, 2015).

Urban authorities have failed to ignite activities that would generate revenues from anticipated increases in assessed informal settlement land values within a designated city. However, it is understood that property tax is a tool useful in generating higher assessed values for properties in planned public infrastructures and services investments (Sabri *et al.*, 2013).

This has made it difficult to provide fundamental urban public goods and services to people in the slums and informal settlements. Hence public services like adequate good schools to provide quality education, adequate privacy, space; physical accessibility; adequate security of tenure, structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water supply, sanitation and waste management facilities among others industrial investment that provide stable and sustainable job opportunities and sources of income, a metro system of modern transportation are missing. Studies have not undertaken this approach n understanding housing informality (UN-HABITAT, 2011). At the same time the current practices in Africa and Kenya in particular, have not embraced the same. This paper therefore, focuses on property tax as an approach that can be useful in managing urban areas in financing the housing informality to upgrade or improve the housing menace in slums and informal settlements in urban regions in Kenya, with a look at Eldoret Town (Sani, 2013).

In addition to that, the car ownership costs, vehicle miles travelled, car fuel and even expenditure on public transport are considered so high to most urban dwellers. Majority of slum and informal settlement dwellers continue to rely mostly on walking long distances, cycling. Lacking of modern rail system, road network, urban taxi, cableways for aerial cable cars (to inaccessible slum and informal settlement zones) and air including are lacking locking investment, commercial activities industrial development opportunities to improve in the

informal settlements (Sani, 2013; Whitehead, 1991). This has forced these areas to lag behind and depend on illegal and irregular socio-economic activities. Hence remaining low income earners, high rate of unemployment, including other problems. But there are no studies that have findings in this aspect. This study pursued the transportation cost as a means to manage informal housing in urban areas.

Significance of the Study

Urban Land Management is an important aspect in creating and maintaining formality and sanity that our cities deserve. This study is a reminder to housing informality that is experienced in urban areas that it is something that is artificially created and hence can be improved. This study informs all concerned agencies that focusing in creating inclusionary housing system is critical to social and economic wellbeing of a nation. It also informs Kenyan urban land use managers that creating upgrading informal settlement areas would create sources of financial support enhancing improved service delivery to all urban citizens including low income and middle income earners.

The study hopes that with better practices such as urban land management the gains made in addressing any challenges identified can be sustained. Likewise, the practice in most urban areas is use of land use land value capture, and Property Tax hoping to develop safe and secure environment for the rising urban population hence support and sustain desired household income and employment, household investment and financial credit, housing quality and quantity and housing mobility. This way, socioeconomic and environmentally related urban housing informality can be managed.

This study investigated any influence of Urban Land Management in dealing with housing informality in Kenya. The target population was drawn from Eldoret town. The study was limited to only Urban Land Management and housing informality in Eldoret urban area, Kenya. It recognizes that

there are other fundamental factors that can be used to manage housing informality in urban areas. In fact other factors that contribute to the management of housing informality may include political good will to implement policies, land tenure security, land use and access rights, land policy, land administration and land management and others.

This study sought views of dwellers in informal settlements slums in Eldoret town informal settlements such as Hururua, Keroka, Kamukunji, and Langas in Eldoret urban area in Kenya, where Urban Land Management can be a useful tool in controlling housing informality. This is hoped to influence improved, upgraded, and provision of inclusionary housing, socio-economic activities, public goods and services. It was therefore justified to contribute towards generating research data and findings fundamental to urban migrants and urban land use managers in changing the slum belt image affecting the beauty of household well-being and livelihoods in Eldoret town.

Literature Review

In past decades, informal settlements was researched, discussed and addressed in a variety of ways in developing countries. Informal settlements are called by various local names such as ghettos in Kenya, Favelas in Brazil, Kampung in Indonesia, Tugurios in Mexico and other local names depending on which part of the world they are located in, yet they share the same miserable living conditions (Schilderman & Lowe 2002). For the purpose of this study, the term informal settlements will refer to housing settlements that are built without formal guidelines and outside the context of comprehensively conceived layout plans (GRZ 1-950: 12) built by informal builders. Insufficient social housing production is aggravated by the inadequate conditions of existing housing projects (many of which are illegal in some way, often because of lack of

registration or municipal licenses, or violations of zoning and building standards).

As in most other Latin American cities, a principal way of accessing housing for the urban poor in Buenos Aires has been through the illegal occupation of land. Over a period of roughly eight decades, this has led to the formation of hundreds of informal settlements in the city. This article traces the historical development of informality in Argentina's capital. It shows that different phases in this development, each with particular characteristics, can be discerned.

Moreover, the credentials required by many lending agencies to approve mortgage applicants have excluded most poor people from access to loans and even too many public housing programs. The process of informal access to urban land and housing results in part from factors related to the configuration of the spatial order. The current situation reflects what has been called the structural inability of public administrations in Latin American countries, especially at the local level, to guarantee sufficient access to accessible and affordable serviced land and/or housing units in urban areas (Smolka & Larangeira, 2008).

Infrastructure investment has typically been underfunded or spatially biased to high-income areas. Public authorities have rarely made a consistent effort to recapture for the community any surplus value generated by public infrastructure service provision and changes in land use and development regulations. Informal settlements also stem from the exclusionary nature of the regulatory framework governing land development, as well as the bureaucratic nature of land and urban management systems that are arbitrary and fail to involve effective popular participation. In many Latin American cities, the licensing of subdivisions can take up to five years (Goytia *et al.*, 2010).

The imposition of strict obligations, the requirement of inflexible guarantees, and the lack of one-stop-shops to help potential

developers or residents all contribute to high transaction costs. However, it remains difficult to quantify the extent to which bureaucratic costs are imbedded in land and property prices (Biderman *et al.*, 2008).

The cost and time needed to register land also discourages many people from obtaining legal security of tenure through that process. In Peru, for example, transactions in titled settlements are recorded for only one-fourth of sales, indicating that many others simply ignore the process (Smith, 2019). However, registration is the sole factor that constitutes legal ownership in many Latin American national legal systems.

The magnitude and persistence of informality in Latin American cities cannot be fully explained by poverty rates (which are declining, also most slum dwellers are not poor), insufficient public investment in social housing or urban infrastructure (which is expanding), or even government tolerance of certain opportunistic practices on the part of informal developers and occupants (The Economist, 2007). While these factors are undoubtedly important, inappropriate land use and building regulation also seems to play a role in the resilience of the problem. It can be argued as a corollary that an alternative regulatory framework may help to alleviate informality in urban land markets.

Scarcity of developed urban land is a major policy issue in many parts of the world. In India, for example, this scarcity problem can be tackled by rationalizing the use of existing developed land (built up or vacant). Decreasing the demand or else by large-scale development of urban land. The first option has only a limited utility in easing the problem on the supply side regarding the second option, it can be safely be assumed that the demand will escalate but not reduce. Thus the most plausible viable alternative to tackle the scarcity problem is to develop large new areas for urban purposes.

Informal settlements are neglected sections of cities where housing and living conditions

are appallingly lacking. They range from high density, squalid central city structures to spontaneous squatter settlements without legal recognition or rights, sprawling on the periphery of cities (Schilderman & Lowe, 2002). Residents live in overcrowded and unserviced dwellings often situated on marginal and dangerous land. They struggle for access to clean water, for which they are expected to pay a premium. Their waste, which is not collected, surrounds them daily and affects their health. And as illegal or unrecognised residents, they have no property rights or security of tenure. Instead, they make whatever arrangements they can in an informal, unregulated and parallel market. (Muchima, 2004 citing Cities Alliance, 2002).

According to UNCHS Global Report on Human Settlements (2003) the majority of informal settlement dwellers in the world today live in developing countries, especially in sub-Saharan Africa and their population is increasing. Therefore informal settlements are physical manifestations of urban poverty and intra-city inequality. Most of their inhabitants earn their living from informal activities, mostly from within the area (Majale, 2002; Schilderman & Lowe, 2002; Muchima, 2004). This is an indication that livelihood sources are not searched from far. A condition that does not need a better transportation system.

Most governments perform night evictions and demolitions as a way of dealing with informal settlement. Other methods include self-help and site and service schemes, and currently, more participatory approaches. However, even with all these efforts, the informal settlements problems continue to worsen especially in Africa, Asia and South America (Muchima, 2004). But it is recognized that solutions to informal settlements require a multi-dimensional approach involving all stakeholders. UNCHS and World Bank promoted Enabling Shelter Strategies (ESS), as approaches that could effectively bring all key stakeholders together through Public-

Private Partnerships (PPPs). They advocate the re-alignment of the state's role in the housing market from that of providing, to supporting housing development. However, these approaches consider only housing as a shelter without focusing on other fundamental basics. The Global Strategy for Shelter to the Year 2000 (GSS) states that "all efforts should be made to involve, in full partnership, all concerned governmental, non-governmental, public and private sector bodies, agencies and institutions at all levels and, in particular, the communities and people concerned, in planning and implementation of shelter strategies" (UNCHS 1988).

According to Turner (1976) advocates for a housing delivery model that places households at the centre of the planning, budgeting and implementation processes. Turner (1976) contended that households should have the freedom, and right to choose their own housing, direct the construction, and play a major role in the delivery processes aimed at meeting their housing needs. This should enable local communities to join government and other stakeholders in addressing their own housing problems. Households were paying more than half of their income on housing expenditure usually spends substantially less than other families on essential expenses such as food, clothing, and health care (Streimikiene, 2015). As the size of the family increases, these difficulties tend to worsen. If the provision and conditions of low cost and middle-cost housing are good on the one hand, the high housing expenditure on the other side constitutes a major concern for households.

In Ahmedabad, India, a Riverfront project was developed that reclaimed 30 hectares of land for sale, in which only 15% of sale proceeds recovered the cost of entire upfront public investment, which was \$17 million. The low-income group, however, have extra strain on a budget for others essential expenditures such as food, transportation, healthcare and education. But in many large African cities, zoning laws and building

codes have been completely ignored by people erecting shelters on private land or land zoned as institutions or open space (Obudho, 1997). Syagga *et al.* (2001), argue that 60% of all urban growth can be attributed to natural growth. However, this situation is quite different across the third world, particularly when placed within the spectrum of national incomes. This means that continued expansions of slums and informal settlement denies the opportunities that can be tapped from slum dwellers. According to Lee Pugalis *et al.* (2014) the entrepreneurial potential of the inhabitants of informal settlements is under-acknowledged in 'upgrading' interventions and also underplayed in the research literature.

According to Turner (1938) the connection between informality and excessive housing standards is not really new in the literature. At the same time, the economic connection between land use regulation and the elasticity of housing supply was proposed by Ellickson (1977). What is new is applying to developing countries the same framework used to understand the housing price dynamics in the United States. The few empirical papers in economics attempting to connect regulation and land use have not formally modeled the substitution between formal and informal markets. Consequently, they did not use the differences in the two markets as their main variables.

This means that informality and precarious housing menaces has been a problem facing the world for decades, and are major concerns in developing countries. According to United Nations estimates there are more than one billion slum dwellers worldwide, accountings for 32 percent of the global urban population (UN Habitat, 2006). In Latin America, the percentage of irregular housing measured by observable indicators such as land tenure or sewer connections is declining in some countries, albeit at uneven rates. Disregarding the prevalent dispute around the proper measure of informality, in most Latin American cities the problem is still sizeable, and a better understanding of

its dynamics is necessary to inform sound housing policy.

In practice, measurable indicators of informality based on lack of land title or access to infrastructure and services are easier to obtain than those based on noncompliance with land use regulations and building standards. Poverty (in all dimensions) and insufficient public investment (in social housing, infrastructure, and services) are the common explanations for the persistence of informality. But there is also increasing awareness that urban land markets in general and urban norms and regulations in particular are relevant contributing factors. High transactions costs in urban land markets accrue from red tape, lack or obfuscation of information, and discriminatory practices, as well as from other market dysfunctions derived from land ownership structure, monopolistic and speculative practices, and land use and building regulation that hinder compliance by low-income families.

These factors increase market inefficiency and sustain informality. In this article we argue that land use and building regulation managed by urban planners and officials at the local level may actually contribute to the incidence of informality. Among the 20 percent of Brazilian municipalities that reduced poverty the most over the past nine years, 23 percent also reduced untitled housing drastically, but 24 percent increased informality by more than 3.2 percent, the fastest pace observed in the country (IBGE, 2000). Such differences in the performance of the low-income housing market cannot be explained only by the incidence of poverty, the pace of urbanization and population growth, or other commonly used macro-level measures.

There are many types of research on housing affordability conducted in Malaysia which focus on socio demographic such as low-income group and also on youth. Nevertheless, none of that research has made a comparison between two income groups (Zyed, 2014; Bujanget *al.*, 2010). Housing

within an urban area is more expensive as compared to housing in a rural area, added further there were few differences in the locations of greatest housing affordability between housing tenures, and this proven with the spatial mismatch of location and affordable houses (Dodson, 2005; Osman *et al.*, 2017) Housing prices are also heavily dependent on location since there is a relation to the role of location in the housing market (Guan, 2012; Lipman, 2006). Therefore, location does have an influence not just on housing expenditure but also towards on-going transportation expenditure, in particular, the distance between residential neighborhoods' and employment Centre's (Lipman, 2006; Mattingly & Morrissey, 2014).

Conceptual Framework

Managing any informal settlement and housing informality is an idea built on practice through systematic model implementations, declaration ratifications. The framework presents the relationship between housing informality and urban land management in a theoretical understanding amenable to empirical testing. Although not complete, this conceptual framework provides a view that urban land management is an important element in upgrading and

improving the informal settlements and creating cities that are inclusionary to all; ow income, middle income and high income earners alike.

Although a livelihood keeps improving, poverty levels are also improving yet informal settlement continues to expand. The informal housing continue to expand with informal extension remain solidly growing among the urban citizens. Very often, the majority of urban citizens are the ones living in slum and informal settlement areas with the designed dwelling structures unworthy for occupation, proximities without incentives that support sustainable employment, lower or no wages, poor grounds convenient for markets access, lacks rail and air transport that are major in Property Tax. This framework is built on the understanding that urban land management may play a crucial role in creating urban areas with compliant buildings constructed to offer access to quality and quantity housing, housing mobility and other socioeconomic services. This conceptual framework therefore tries to link the Urban Land Management variables and the housing informality variable being explored in this study. The graphical view is presented on Figure 1.

Independent Variable (IV)

Dependent Variable (DV)

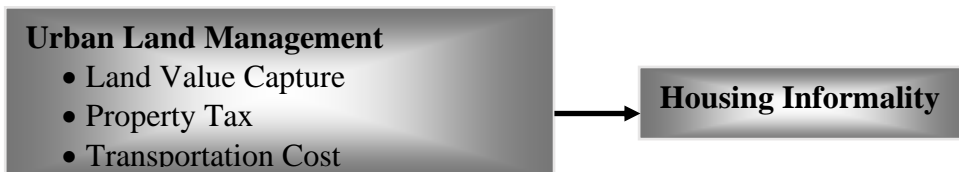


Figure 1: Conceptual Framework Lining Study Variables.

MATERIALS AND METHODS

This section presents research methodology that was used to collect and analyse the data.

Research Design

A Mixed methods approach where both qualitative and quantitative methods were combined in this study focusing on both quantitative description of trends, attitudes or

opinions of a population by studying a sample of that population.

The Study Area

The study was done in Huruma, Keroka, Kamukunji and Langas areas of informal settlement and housing informality in Eldoret town in Uasin Gishu County, Kenya.

Target Population

In this study, the target population of 25,000 comprised of all the households of Huruma, Keroka, Kamukunji and Langas in Eldoret town.

Sample Size and Sampling Design

The sample for this study was 300 participants based on the recommendation by Kathuria (1959) who recommended that a sample size of between 20 and 500 for case study research (Orodho, 2003; Mugenda, 1999). A Stratified Proportional random sampling method was used where households were categorized and equal proportion representation of each stratum was considered for selection. The sample size required for the study was determined by using a 95% confidence level and a sample error of 5% using the Fishers Exact formula for populations larger than or equal to 10,000 as follows:

$$n = \frac{Z^2 Pq}{d^2}$$

Where, n is the sample size; Z , is the z -score corresponding to 95% confidence interval = 1.50; d , is the amount of discrepancy allowed = 0.0193; p , is prevalence of Urban Land Management = 0.97; q = 0.03.

$[(1.50)^2(0.97)(0.03)] \div (0.0193)^2 = 300.11694$ which is equivalent to 300 desired sample size. The sample was proportionately distributed using the formula below: Formal area, Informal Settlements, Slum areas and Pre-urban area population multiply by the sample size divide by the area population.

Research Instruments

The study used questionnaire, and FGDs instruments to collect primary data. Likert scale was used since it was generally considered to be the most useful type of scale for use in a group-testing situation (Burns,

1998; Mugenda, 2008) and is easy to administer. The questionnaires were presented in the form of statements measured on a scale of 1 to 5 Likert scale for respondents to score statements.

Data Collection Procedure

Authorizing for data collection was sought using authenticated documents submitted to relevant officers. On receipt and acceptance response, data collection was done by the researcher. Primary data was collected using questionnaire forms distributed to sampled participants. The questionnaires consisted of both closed and open-ended questions. The questionnaire had two main sections, where section one dealt with demographic characteristics of the participants, and section two sought information on the Urban Land Management and Housing informality in Eldoret Urban Area, Kenya.

Pilot Study

A pilot study was conducted in similar environment of Kitale town where 40 households were sampled for piloting and participated in this study. The process was repeated again using the same respondents after an interval of one week. The results of the instruments were subjected to the statistical package for social sciences through which reliability was determined. The necessary adjustments to the questionnaire and the content of document analysis were made as a result of what the findings of the pilot study revealed.

Validity and Reliability of the Study

The validity of the instrument was thus realized after the researchers had examined the content of the instruments, through judgment of experts and the supervisors' validations, which guided the researcher. The study applied different techniques to assess the Cronbach's (1951) reliability coefficient alpha and to assess face and construct validity.

Table 1: Pearson Correlations of all Constructs with the overall Housing Informality (HI) (n=250)

Subscales	HI	LVC	PT	TC
(HI)	1.00	.785	.697	.703
Land Value Capture (LVC)	.785	1.00	.685	.654
Property Tax (PT)	.697	.685	1.00	.587
Transportation Costs (TC)	.703	.654	.587	1.00

All correlations are significant at the 0.01 level (2-tailed)

The study reliability of the instruments was determined using a sample of respondents. The items were measured by a 5-point Likert-scale, which ranged from strongly disagree (1) to strongly agree (5). Reliability analysis was subsequently done using

Cronbach's Alpha which measures the internal consistency to establish if certain items within a scale measure the same construct. Cronbach Alpha was established for every variable.

Table 2: Reliability & Validity Analysis

Constructs	No of original items explained	No of items retained	Alpha value (.61 and above) <.50	Mean	Variance	Std. Dev
Housing Informality	8	4	0.74231	4.12	.418	.51
Land Value Capture	7	7	0.8542	3.87	.464	.55
Property Tax	10	4	0.5054	3.81	.332	.33
Transportation Costs	8	5	0.3813			
Total	30	20		3.50	.61	

(Number of items retained that has corrected-item total >.40)

The results in Table 2 indicate that land use Property Tax had the highest reliability ($\alpha=0.5054$), followed by land value capture (0.8542) and Housing informality ($\alpha=0.74231$). This is an illustration that all the two variables were reliable as their reliability values exceeded the prescribed threshold of 0.7. This concurs with Gliem & Gliem (2003) who established the Alpha value threshold at 0.7.

In addition, the β coefficients for each independent variable generated from the model was subjected to a z-test, in order to test each of the hypotheses under study. The equation used is:

$$y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

The variables are:

y_i equals 1 if a household has undertaken any housing informality measure and 0 otherwise. That is $y_i =$ Housing informality (HI)

- X_1 is a vector measuring the level and intensity of influence of land value capture on housing informality. X_1 – Land Value Capture (LVC)
- X_2 is a vector measuring the intensity and level of influence of Property Tax variable on housing informality. X_2 – Property Tax (PT)
- X_3 is a vector measuring the intensity and level of influence of Transportation Costs variable on housing informality. X_3 – Transportation Costs (TC)

- \mathcal{E}_i is a stochastic error term that is assumed to be distributed normally, $\mathcal{E}_i \sim N(0, \sigma^2)$.
- α - Constant
- $\beta_1, \beta_2,$ and β_3 - Coefficient indicating rate of change of Housing informality as measured by its two dimensions of Land Value Capture, Property Tax and Transportation Costs changes.

Data Analysis

Data was analyzed using descriptive statistics. The analysis classified and tabulated the information collected. The completed questions were selected and edited to ensure completeness and consistency. Coding of data was done to convert responses into measurement that could be statistically analyzed. Descriptive statistics was used to describe data collected from the research. This included the mean and standard deviation. Measures of central tendency were used to determine the mean score from the group of scores in the study. The mean was then used to draw conclusion on the results.

Measures of variability were also computed to show variance within population and this was done using standard deviation. Frequencies and percentages were used to describe and summarize the data. Statistical Package for social sciences (SPSS) version 25 was used to analyses data.

Ethical Considerations

The study observed and complied with the ethical procedures to protect the rights of the research participants, involving the principle of voluntary participation which requires that participants do not need to be coerced into participating in this research. The following ethical measures were adhered to (Sekaran, 2003). The thesis strived to ensure that no attempt is made to harm participants deliberately and those who could experience any form of harm be it through victimization, emotional or otherwise, were informed in advance of their right to withdraw from participating in the study. Confidentiality means that information from participants

were not be divulged to the public nor made available to colleagues, subordinates or superiors. In this study, all information about participants was treated with confidentiality and the participants were anonymous (Saunders *et al.*, 2003). A covering letter also assured respondents that all responses would be treated with confidentiality and anonymity.

RESULTS AND DISCUSSION

The study achieved a response rate of 83.3% that was good enough for data analysis. According to Mugenda & Mugenda (2003), a response rate of 50% is adequate for analysis and generalization of results.

The results showed that majority of participants were female that accounted for 134 (53.6%). Those household with married status were the highest while majority of the sampled household respondents are in their prime middle age or youthful age, between 30 -40 years. Equally majority 53 (40.3%) of household respondents had secondary level of education. Majority were renting and paying rents of less than Kshs. 5000 indicating they could only afford average (iron sheet roof, mud walls, non-cement floor or thatched, brick wall); moreover, majority 29% spend between 20-40% of their incomes on food leaving less for investments and other disaster risk preparedness and resilience. In terms of land size ownership, majority 92 (36.8%) of sampled households were living in a $< 1/8$ acres for residential purposes. Further on, expansion and extension of illegal structures dominated the activities undertaken by the dwellers. Majority of the respondents indicated that they invest in residential properties and struggle to attain homeowner mobility.

The findings infer that housing informality in Huruma, Keroka, Kamukunji and Langas is a challenge. The sampled households at the time of the survey indicted lack proper housing, good system of value capture, insufficient social housing production, informal settlements, socio-spatial issues, formal market outcomes and unrealistic

planning, inadequate shelter means more than a roof over one's head. It also means inadequate privacy; inadequate space; physical accessibility; inadequate security of tenure; structural stability and durability; inadequate lighting, heating and ventilation; inadequate basic infrastructure, such as water supply, sanitation and waste management facilities; suitable environmental quality and health related factors; and inadequate and accessible location with regard to work and basic facilities.

The other challenges were insecurity of land tenure, low standards of urban services, and

even non-durable housing structure financing of investment in infrastructure and services to reduce physical vulnerabilities to unlock land value; secure, recover and reinvest upfront infrastructure funding; levy direct beneficiaries of public improvements, which would otherwise benefit from such improvements as windfall gains; unlock more financing in situations of limited access to traditional sources of public sector financing and promote infrastructure cost-sharing and incentivize wider policy measures that increase land value.

Table 3: Distribution of Elements of Land Value Capture (LVC)

Variable	N	Range	Min	Max	Mean	Std. Error	Standard Dev	Var
LVC	250	79.20	-44.7	68.1	4.357	1.03	6.84	95.10
Create Value	250	5.48	3.11	4.15	3.231	0.781	0.677	0.419
Capture Created Value	250	4.61	1.88	2.87	4.52	0.587	1.184	2.581
Reinvest Captured Value	250	5.10	1.74	3.84	8.133	0.657	1.80	2.333

The results from Table 3 show that the land value capture has shown a large deviation. It shows a mean influence of 4.357%, the maximum reported influence is 68.1% and the minimum is -44.7% with deviation of 6.84 between the households from sampled study areas. The mean of land value capture is 4.357, with the maximum and minimum are 68.1 and -44.7, respectively.

These results also indicate that the capture created value has shown a small deviation. The mean of capture created value is almost 58.7%, which is 58.7% of influence on housing informality leaving the rest 41.3% be influenced by other factors. The create value implies that urban land management considers the kind of activities that can be

undertaken to improve on informality settlement problem. The mean of create value is almost 78.1%, which is 78.1% of influence on housing informality leaving the rest 21.9% be influenced by other factors.

The reinvest captured value of the land value capture shows an experience of annual frequencies of a maximum of three times influence in housing informality. This implies that reinvest captured value registered quite a significant influence. The mean of reinvest captured value of the land value capture is only about 65.7%, which is 65.7% of the land value capture influence on housing informality leaving 33.3% to be influenced by other factors.

Table 4: Distribution of Land Value Capture Influence

	Statement		SD	D	A	SA	Total
1.	Develop transport infrastructure	f	23	38	93	98	250
		%	09.0	15.0	37.0	39.0	100
2.	Promote industrial development	f	58	8	80	105	250
		%	23.0	03.0	32.0	42.0	100
3.	Create land policies good for commercial investment	f	43	58	53	98	250
		%	17.0	23.0	21.0	39.0	100
4.	Finance urban development	f	33	48	48	123	250
		%	13.0	19.0	19.0	49.0	100
5.	Subsidise public transportation system	f	48	38	78	88	250
		%	19.0	15.0	31.0	35.0	100
6.	Invest in improving water and sanitation	f	38	43	78	93	250
		%	15.0	17.0	31.0	37.0	100
7.	Betterment taxes and land leasing	f	50	38	70	93	250
		%	20.0	15.0	28.0	37.0	100

The results in Table 4 show that that strongly agree accounted for 98 (39.0%), agree 93 (37.0), disagree 38 (15.0%) and strongly disagree 43 (09.0%) with the statement that develop transport infrastructure. This implies that majority, strongly agree 98 (39.0%) and agree 93 (37.0%) that develop transport infrastructure.

The next item of land value capture was that land value capture can promote industrial development. The results show that strongly agree accounted for 105 (42.0%), agree 80 (32.0%), disagree 8 (03.0%) and strongly disagree 58 (23.0%) that land value capture can promote industrial development. This implies that majority, strongly agree 105 (42.0%) and agree 80 (32.0%) that land value capture is able to promote industrial development. Moreover, it was shown that strongly agree accounted for 98 (39.0%), agree 53 (21.0%), disagree 58 (23.0%) and strongly disagree 43 (17.0%) that land value capture can promote land policies good for commercial investment. This implies that majority, strongly agree 98 (39.0%) and agree 53 (21.0%) that land value capture can promote land policies good for commercial investment.

Apart from that, the study also asked to find out if land value capture can enhance financing urban development. In Table 4, the results show that strongly agree accounted for 123 (49.0%), agree 48 (19.0%), disagree

48 (19.0%) and strongly disagree 33 (13.0%). This implies that majority, strongly agree 123 (49.0%) that land value capture can enhance financing urban development.

In relation to land value capture able to subsidise public transportation system, results in Table 4 show that strongly agree accounted for 88 (35.0%), agree 31.0%(78), disagree 38 (15.0%) and strongly disagree 48 (19.0%). The results is an indication that majority agree at 88 (35.0%) that land value capture able to subsidise public transportation system, the results also show that strongly agree accounted for 93 (37.0%), agree 78 (31.0%), disagree 43 (17.0%) and strongly disagree 38 (15.0%) that land value capture is useful to invest in improving water and sanitation. This is an indication that majority who agree at 93 (37.0%) are of the opinion that the land value capture is useful in invest in improving water and sanitation.

This question sought to establish if land value capture is capable of betterment taxes and land leasing. The results show that strongly agree accounted for 93 (37.0%), agree 70 (28.0%), disagree 38 (15.0%) and strongly disagree 50 (20.0%). This implies that majority, strongly agree 93 (37.0%) and agree 70 (28.0%) that land value capture can betterment taxes and land leasing.

These results concur with the findings of Whitehead (2018) who found out that land

value capture help in creating and managing land use practices and their choices among specific growth management policy instruments determining how land use policy choices are shaped by institutional features of national and county governments and the household demands. That these tools and

instruments that can enhance improvement and upgrading of housing structures. Thus urban authorities need tools and methods that can create value, capture created value and reinvent the captured value thereby improving the value of informal settlements and slums.

Table 5: Descriptive Statistics for Elements of Property Tax

Variable	N	Range	Min	Max	Mean	Std. Error	S.D.	Var.
PT	250	72.3	-42.0	56.00	5.343	1.21	11.15	0.100
Inclusionary Housing	250	4.84	2.99	4.98	5.100	0.626	0.647	0.310
Land Readjustment	250	5.50	2.65	3.55	6.245	0.516	1.312	2.540
Rail plus Property Co-Development	250	5.33	3.18	4.52	0.314	0.601	0.533	0.621
Transfer of Development Rights	250	5.62	3.17	4.67	0.315	0.611	0.544	0.633

The results from Table 5 show that the property tax has shown a moderate deviation of 11.13% among the sampled household from the study locations. It shows a mean influence of 5.343%, the maximum reported influence is around 56.0% and the minimum is -42.0% with deviation of 11.15 between sampled household respondents. Inclusionary housing and zoning shows an experience of annual frequencies of a maximum of five times and a minimum of three times the influence in the total degree of influence of Property Tax.

The mean of inclusionary housing and zoning is 62.6%, which is 62.6% of influence of the total influence of Property Tax on housing informality leaving the rest 37.4% be influenced by other factors not covered in this study. The land readjustment of the property tax shows an experience of annual frequencies of a maximum of four times influence with a minimum of three levels of experiences. This implies that Land Readjustment registered quite a moderate level of influences. The mean of Land Readjustment influence is only 51.6%,

which is 51.6% of the Property Tax influence on housing informality.

The Transfer of Development Rights indicates an experience of annual frequencies of a maximum of five times and a minimum of three times the level of influence. This implies that the Transfer of Development Rights registered quite a moderate level of influences on the board effects on Urban Land Management approaches. The mean of Transfer of Development Rights is 60.1%, which is 60.1% of the total Property Tax influence on housing informality.

The Transfer of Development Rights indicates an experience of annual frequencies of a maximum of five times and a minimum of three times the level of influence. This implies that the Transfer of Development Rights registered quite a moderate level of influences on the board effects on Urban Land Management approaches. The mean of Transfer of Development Rights is 61.1%, which is 61.1% of the total Property Tax influence on housing informality.

Table 6: Distribution of Influence of Property Tax

Statement		SD	D	A	SA	Total
1. Developers provide the municipality with a certain amount of low or moderate-income housing in exchange for the right to construct market-rate residential or commercial properties	f	23	38	93	98	250
	%	09.0	15.0	37.0	39.0	100
2. Landowners collectively cooperate with a municipality or developer to pool their land to accomplish a redevelopment project. The investments in infrastructure and services undertaken on the pooled land are intended to increase the value of the properties in the redeveloped area; afterward, each landowner receives a smaller parcel of land that has greater value due to the improvements made.	f	58	8	80	105	250
	%	23.0	03.0	32.0	42.0	100
3. Enable government to transfer land development rights to a transit authority at the before-transit development price. The authority then partners with private developers to further develop properties near the new transit route, shares the profits, and uses the funds to reinvest in the rail system and other public improvements	f	43	58	53	98	250
	%	17.0	23.0	21.0	39.0	100
4. Landowners pay a government entity a fee to transfer the density potential (as established in the local zoning law or ordinance) of one tract of land to a noncontiguous parcel of land that is better suited to greater densities. The fee generates revenue for public investment, and the transfer of density can also further urban planning objectives.						

The results in Table 6 show that strongly agree accounted for 98 (39.0%), agree 93 (37.0), disagree 38 (15.0%) and strongly disagree 23 (09.0%) with the statement that Developers provide the municipality with a certain amount of low or moderate-income housing in exchange for the right to construct market-rate residential or commercial properties. This implies that majority, strongly agree 98 (39.0%) and agree 93 (37.0%) that developers provide the municipality with a certain amount of low or moderate-income housing in exchange for the right to construct market-rate residential or commercial properties. The next item of Property Tax was that provide responsive and high-quality services and process support for businesses at all stages of growth.

The results show that strongly agree accounted for 105 (42.0%), agree 80 (32.0%), disagree 8 (03.0%) and strongly

disagree 58 (23.0%) that landowners collectively cooperate with a municipality or developer to pool their land to accomplish a redevelopment project. The investments in infrastructure and services undertaken on the pooled land are intended to increase the value of the properties in the redeveloped area; afterward, each landowner receives a smaller parcel of land that has greater value due to the improvements made. This implies that majority, strongly agree 105 (42.0%) and agree 80 (32.0%) that landowners collectively cooperate with a municipality or developer to pool their land to accomplish a redevelopment project. The investments in infrastructure and services undertaken on the pooled land are intended to increase the value of the properties in the redeveloped area; afterward, each landowner receives a smaller parcel of land that has greater value due to the improvements made.

Moreover, it was shown that strongly agree accounted for 98 (39.0%), agree 53 (21.0%), disagree 58 (23.0%) and strongly disagree 43 (17.0%) that landowners pay a government entity a fee to transfer the density potential (as established in the local zoning law or ordinance) of one tract of land to a noncontiguous parcel of land that is better suited to greater densities. The fee generates revenue for public investment, and the transfers of density can also further urban planning objectives. This implies that majority, strongly agree 98 (39.0%) and agree 53 (21.0%) that landowners pay a government entity a fee to transfer the density potential (as established in the local zoning law or ordinance) of one tract of land to a noncontiguous parcel of land that is better suited to greater densities. The fee generates revenue for public investment, and the transfer of density can also further urban planning objectives.

Apart from that, the study also asked to find out if property taxes enable government to transfer land development rights to a transit authority at the before-transit development price. The authority then partners with private developers to further develop properties near the new transit route, shares the profits, and uses the funds to reinvest in the rail system and other public improvements. In Table 6, the results show that strongly agree accounted for 123 (49.0%), agree 48 (19.0%), disagree 48 (19.0%) and strongly disagree 33 (13.0%). This implies that majority, strongly agree 123 (49.0%) that landowners pay a government entity a fee to transfer the density potential (as established in the local zoning law or ordinance) of one tract of land to a noncontiguous parcel of land that is better suited to greater densities. The fee generates revenue for public investment, and the transfers of density can also further urban planning objectives.

In relation to enable government to transfer land development rights to a transit authority

at the before-transit development price. The authority then partners with private developers to further develop properties near the new transit route, shares the profits, and uses the funds to reinvest in the rail system and other public improvements, results in Table 6 show that strongly agree accounted for 88 (35.0%), agree 31.0% (78), disagree 38 (15.0%) and strongly disagree 48 (19.0%). The results is an indication that majority agree at 88 (35.0%) that Enable government to transfer land development rights to a transit authority at the before-transit development price. The authority then partners with private developers to further develop properties near the new transit route, shares the profits, and uses the funds to reinvest in the rail system and other public improvements, the results also show that strongly agree accounted for 93 (37.0%), agree 78 (31.0%), disagree 43 (17.0%) and strongly disagree 38 (15.0%) that Property Tax is useful in Plan and facilitate a joint public-private venture to develop the urban areas into commercial site. This is an indication that majority who agree at 93 (37.0%) are of the opinion that the Property Tax is useful in plan and facilitate a joint public-private venture to develop the urban areas into commercial site.

These results concur with the findings of Yusoff *et al.* (2014) who found out that Property Tax help in creating and managing urban areas supportive of businesses, industries, job creations, income generations, attraction of investments and skilled workforce. So these Property Tax decisions reflect a balance of the conflicting interests and responses to socioeconomic and environmental pressures. Thus urban authorities need structure and rules that are critical to the acquisition of economic Inclusionary Housing and Zoning, Transfer of Development Rights, and correcting Land Readjustment.

Table 6: Descriptive Statistics for Elements of Transportation Costs

Variable	N	Range	Min	Max	Mean	Std. Error	S.D.	Var.
PT	250	70.3	-45.0	68.5	5.221	1.11	11.26	0.100
Own Car Fuel Cost	250	4.83	2.89	4.98	5.100	0.666	0.647	0.333
Walking	250	5.58	2.65	3.55	6.215	0.696	1.312	2.641
Cycling	250	5.62	3.15	4.36	0.314	0.641	0.533	0.665
Bus Ticket Costs	250	5.33	3.20	4.54	1.322	0.672	0.512	0.643
Taxi Costs	250	5.47	3.55	4.32	0.317	0.677	0.556	0.622

The results from Table 6 show that the Transportation Costs has shown a moderate deviation of 11.26% among the sampled household from the study locations. It shows a mean influence of 5.221%, the maximum reported influence is around 68.5% and the minimum is -45.0% with deviation of 11.26 between sampled household respondents. Own Car Fuel Cost shows an experience of annual frequencies of a maximum of five times and a minimum of three times the influence in the total degree of influence of Transportation Costs.

The mean of Own Car Fuel Cost is 66.6%, which is 66.6% of influence of the total influence of Transportation Costs on housing informality leaving the rest 33.4% be influenced by other factors not covered in this study. The component of Walking in the independent variable, the Transportation Costs shows an experience of annual frequencies of a maximum of four times influence with a minimum of 2.65 levels of experiences. This implies that Walking registered quite a moderate level of influences. The mean of walking influence is only 69.6%, which is 69.6% of the Transportation Costs influence on housing informality.

The mean of Cycling is 78.5%, which is 78.5% of influence of the total influence of Transportation Costs on housing informality leaving the rest 21.5% be influenced by other factors not covered in this study. The component of Cycling in the independent variable, the Transportation Costs shows an experience of annual frequencies of a maximum of 4.36 times influence with a minimum of 3.15 levels of experiences.

The Bus Ticket Costs indicates an experience of annual frequencies of a maximum of five times and a minimum of three times the level of influence. This implies that the Bus Ticket Costs registered quite a strong level of influences on the housing informality. The mean of Bus Ticket Costs is 67.2%, which is 67.2% of the total Transportation Costs influence on housing informality.

The Taxi Costs indicates an experience of annual frequencies of a maximum of five times and a minimum of three times the level of influence. This implies that the Taxi Costs registered quite a moderate level of influences on the board effects on Urban Land Management approaches. The mean of Taxi Costs is 67.7%, which is 67.7% of the total Transportation Costs influence on housing informality.

Table 7: Distribution of Influence of Transportation Costs

	Statement		SD	D	A	SA	Total
1.	I cannot afford better housing elsewhere due to high cost of transportation involved since I have small business I run here	f	25	35	90	100	250
		%	10.0	14.0	36.0	40.0	100
2.	Walking is the only means of transportation available to me, no any other better means of transport	f	50	15	73	113	250
		%	20.0	06.0	29.0	45.0	100
3.	I cycle because I cannot afford public transport expenditure that is so high and so cannot purchase better housing also	f	38	50	63	100	250
		%	15.0	20.0	25.0	40.0	100
4.	Cost of the available buses is so high that I would prefer to stay in formal housing at the moment	f	55	13	75	110	250
		%	22.0	05.0	30.0	44.0	100
5.	There are no better transportation infrastructure in my place so no Taxi services available	f	63	13	75	100	250
		%	25.0	05.0	30.0	40.0	100

The results in Table 7 show that strongly agree accounted for 100 (40.0%), agree 90 (36.0%), disagree 35 (14.0%) and strongly disagree 25 (10.0%) with the statement that I cannot afford better housing elsewhere due to high cost of transportation involved since I have small business I run here. This implies that majority, strongly agree 100 (40.0%) and agree 90 (36.0%) that I cannot afford better housing elsewhere due to high cost of transportation involved since I have small business I run here. This implies that the respondents cannot move to other better places in search for alternative housing because of the livelihood activities attachment to the current dwelling place. This is an indication that the low transportation expenditure and other better alternatives elsewhere then the respondent could opt for.

The results show that strongly agree accounted for 113 (45.0%), agree 73 (29.0%), disagree 15 (06.0%) and strongly disagree 50 (20.0%) that walking is the only means of transportation available to me, no any other better means of transport. This implies that majority, strongly agree 110 (45.0%) and agree 75 (30.0%) that walking is the only means of transportation available to me, no any other better means of transport.

Apart from that, the study also asked to find out if Transportation Costs, I cycle because I cannot afford public transport expenditure that is so high and so cannot purchase better housing. In Table 7, the results show that strongly agree accounted for 100 (40.0%), agree 63 (25.0%), disagree 38 (15.0%) and strongly disagree 50 (20.0%). This implies that majority, strongly agree 100 (40.0%) that I cycle because I cannot afford public transport expenditure that is so high and so cannot purchase better housing.

Moreover, it was shown that strongly agree accounted for 110 (44.0%), agree 75 (30.0%), disagree 55 (22.0%) and strongly disagree 13 (05.0%) that Cost of the available buses is so high that I would prefer to stay in formal housing at the moment. This implies that majority, strongly agree 110 (44.0%) and agree 75 (30.0%) that Cost of the available buses is so high that I would prefer to stay in formal housing at the moment. This implies lack of investment in better affordable public transportation or private investors in transport service delivery. An indication that transportation infrastructure and housing development, improvement or upgrading is still a problem.

In relation to there are no better transportation infrastructure in my place so no Taxi services available, results in Table 7 show that strongly agree accounted for 100

(40.0%), agree 75 (30.0%), disagree 13 (05.0%) and strongly disagree 63 (25.0%). The results is an indication that majority agree at 100 (40.0%) that there are no better transportation infrastructure in my place so no Taxi services available.

These results concur with the findings of Yusoff *et al.* (2014) who found out that Transportation Costs help in creating and managing urban areas supportive of businesses, industries, job creations, income generations, attraction of investments and skilled workforce. So, these Transportation Costs decisions reflect a balance of the conflicting interests and responses to socioeconomic and environmental pressures.

Thus, urban authorities need structure and rules that are critical to the acquisition of economic Own Car Fuel Cost, Bus Ticket Costs, and correcting Land Readjustment.

Regression analysis of Land Value Capture, Property Tax and Transportation Costs influence housing informality as shown in Table 8 indicates that Land Value Capture, Property Tax and Transportation Costs have positive relationship with housing informality. It means that the high level of household income, employment, quality and quantity housing, housing mobility and investment and financial credit, the high level of housing informality.

Table 8: Correlations of Overall Variables

		HI	LVC	PT	TC
HI	Pearson	1	0.81**	0.74**	0.78**
	Correlation				
	Sig. (2 tailed)		0.000	0.005	
	N	250	250	250	
LVC	Pearson	0.81**	1	0.78*	0.76**
	Correlation				
	Sig. (2 tailed)	0.007	0.016	0.006	0.000
	N	250	250	250	250
PT	Pearson	0.74**	0.78**	1	0.69*
	Correlation				
	Sig. (2 tailed)	0.002	0.006	0.66	0.018
	N	250	250	250	250
TC	Pearson	0.78**	0.76**	0.69*	1
	Correlation				
	Sig. (2 tailed)	0.002	0.006	0.66	0.018
	N	250	250	250	250

**Test is significant at the 0.01 level (2 tailed)

*Test is significant at the 0.05 level (2 tailed)

The findings show that Land Value Capture, Property Tax and Transportation Costs are all significantly related to housing informality (HI). The results indicate a strong positive correlation. The results shows that Land Value Capture is positively associated with housing informality with summary of Pearson Correlations show that Land Value Capture was positively and significantly correlated to influence on housing informality ($r=0.810$, $p<0.05$). Thus Land Value Capture had 81.0% a strong

positive relationship with housing informality.

The Component of Property Tax was significantly associated with housing informality as shown by ($r = 0.74$, $p<0.05$) implying that Property Tax had a 74.0%, a strong positive relationship with housing informality.

The Component of Transportation Costs also indicated a significantly strong positive association to housing informality as shown

by ($r = 0.78, p < 0.05$) implying that Transportation Costs had a 78.0%, a strong positive relationship with housing informality.

Multiple Liner Regression Analysis

This method is used when the independent variables are correlated with one another and with the dependent variable. The following regression equation is estimated as follow:

$$HI = \alpha^0 + \beta_1LVC + \beta_2PT + \beta_3TC + \varepsilon \dots \dots \dots 2$$

Where: HI: Housing Informality

α^0 : Constant

LVC: Land Value Capture

PT: Property Tax

TC: Transportation Costs

ε : Error term.

Table 9: Summary of the Regression Model

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.763 ^a	.582	.580	.31748	.582	70.193	3	477	.000

^a Predictors: (Constant), Land Value Capture, Property Tax, Transportation Costs

^b Dependent Variable: Housing Informality

Table 9 shows multiple regressions which is related to HI as dependent variable. The Table shows the influence of independent variable LVC, PT and TC on dependent variable HI. Table 9 indicates that the independent variables determine 76.3% of the HI variance. This means that the other factors influence HI by 23.7%.

Table 10: The Coefficients of Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error				Beta
1	(Constant)	.663	.057		11.715	.000
	Land Value Capture	.641	.044	.774	3.240	.001
	Property Tax	.480	.021	-.227	-9.951	.342
	Transportation Costs	.589	.020	.054	1.415	.158

a. Dependent Variable: Housing Informality (HI)

$$HI = \alpha^0 + \beta_1LVC + \beta_2PT + \beta_3TC + \varepsilon$$

$$0.663 + .641LVC + .480PT + .589TC + \varepsilon \dots \dots \dots 3$$

Statically, there is significant relationship between two Components of the LVC mechanisms; LVC, PT and TC, on the Housing informality (HI). Increasing the percentage of Urban Land Management dimensions, HI will increase leading to reduced level of informal settlement structures of a slum or the housing

informality, this could be the cause of improved housing programs, upgraded housing design including other services delivery and infrastructural development. Using the equation three (3) if Urban Land Management Components LVC, PT and TC are equal to zero, HI will be .663 units level of housing informality. That is an improvement towards formality of housing in the area.

The equation would increase or decrease on both sides an implication that Urban Land Management dimensions have a significantly positive correlation with

dependent variable, housing informality. It implies that it will enhance availability, inclusion and affordability of housing for low income, middle income and high income urban citizens. This may reduce the current state of unaffordable and exclusion housing system.

Hypotheses Testing

The first hypothesis ($H0_1$) stated that there is no relationship between Land Value Capture

and Housing informality. Hypothesis one sought to establish the relationship between Land Value Capture dimensions of Urban Land Management on Housing informality. This hypothesis was tested by regressing Land Value Capture and Housing informality guided by the equation $\gamma = \beta_0 + \beta_1 LVC$ Where LVC represented Land Value Capture and γ denoted Housing informality measures. The results of the regression are presented in Table 11.

Table 11: Relationship between Land Value Capture and Housing informality

Model Summary

Model	R	R ²	Adjusted R Square	Std. Error of the R ² Estimate
1	.876 ^a	.767	.765	.56741

Predictors: (Constant), Create Value, Capture Created Value, Reinvest Captured Value

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.124	1	1.546	6.6573	.000 ^b
Residual	15.312	250	.279		
Total	24.516	125			

^a. Dependent Variable: Housing informality

^b. Predictors: (Constant), Create Value, Capture Created Value, Reinvest Captured Value

Coefficients^a

Model Coefficients	Un-standardized Coefficients		Standardized t-value	Significance p-value
	β	Std Error Beta		
(Constant)	.5787	.132	4.261	.064
Land Value Capture	.876	.134	4.598	.000

^a. Dependent Variable: Housing Informality

^b. Predictors: (Constant), Create Value, Capture Created Value, Reinvest Captured Value

$$\gamma = \beta_0 + \beta_1 LVC = .5787 + .876 LVC$$

The results from Table 11 are observation that there is a significant positive relationship between Land Value Capture and Housing informality (R=.876). This was an indication that Land Value Capture explained 76.7% (R²= .767) of Housing informality. The other variables affecting Housing informality explained. The analysis from the model had the F value of 6.6573 at p-value <0.05, the findings were sufficient to support the relationship between Land Value Capture and Housing informality, inferring that Land

Value Capture had statistically significant positive effects on Housing informality.

The results indicate that there is a positive significant relationship between LVC and Housing informality activity level. The functional, form based, intensity, and incentives increases as LVC increases. Therefore given the equation $\gamma = \beta_0 + \beta_1 LVC = .5787 + .876 LVC$ when LVC is zero γ will be equal to .5787 and when LVC is increased to 10 units then γ will be .5787+.876(10), which will be 9.3387 units of HI showing an increasing effects of LVC on HI. Therefore the null hypothesis that there is no

relationship between Land Value Capture and Housing informality is rejected. Although in the literature there are varied results but this finding concurs with the finding of Zyed (2014) who found that urban areas with strong system of land value capture, would enhance informal structure upgrading, improving and development in other infrastructure including service delivery, which could be useful in eliminating housing informality. They found out that Land Value Capture as a dimension of Urban Land Management can help in developing transport infrastructure, promoting industrial development, create land policies good for commercial investment, finance urban development, subsidise public transportation system, invest in improving water and sanitation and betterment taxes and land leasing.

This way land value would be created, captured and reinvested hence returning land value to the public. Through the betterment levies from property owners in the former informal settlement, it would contribute to the revenue base for urban infrastructure financing useful in funding road improvements, urban renewal, and the renovation of notable projects such as the informal housing; charges for building rights sold on a securities exchange hence

generating financing to fund infrastructure and planning programs within a designated redevelopment area.

It can also help where developers who seek changes in existing building norms pay cash, land, or other in-kind to obtain special approvals or permissions required to develop or build on a parcel, in order to defray the cost of additional public services required by new development. Moreover, land value capture makes developers pay a one-time charge designed to cover the costs associated with a development's impact on certain public services and infrastructure, which is invested this revenue in public services and infrastructure such as parks, fire stations, police cruisers, and other public-safety investments.

The second hypothesis ($H0_2$) stated that there is no relationship between Property Tax (PT) and Housing Informality (HI). Hypothesis two sought to establish the relationship between Property Tax and Housing informality. This hypothesis was tested by regressing Property Tax (PT) and Housing informality guided by the equation $\gamma = \beta_0 + \beta_1 PT$ where PT represented Property Tax (PT) and γ denoted Housing informality. The results of the regression are presented in Table 12.

Table 12: Relationship between Property Tax (PT) and Housing Informality

Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.785 ^a	.616	.611	.00545

Predictors: (Constant), Inclusionary Housing and Zoning, Land Readjustment, Rail plus Property Co-Development, Transfer of Development Rights

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	9.123	1	1.789	5.4153	.000 ^b
Residual	16.340	250	.287		
Total	25.513	125			

^a. Dependent Variable: Housing informality

^b. Predictors: (Constant), Inclusionary Housing and Zoning, Land Readjustment, Rail plus Property Co-Development, Transfer of Development Rights

Coefficients^a

Model	Un-standardized		Standardized	Significance
	Coefficients	Coefficients	t-value	p-value
	β	Std Error Beta		
(Constant)	.875	.0142	3.355	.050
Property Tax (PT)	.785	.0122	4.322	.000

^a. Dependent Variable: Housing informality

^b. Predictors: (Constant), Inclusionary Housing and Zoning, Land Readjustment, Rail plus Property Co-Development, Transfer of Development Rights

$$\gamma = \beta_0 + \beta_1 PT = .875 + .785 PT$$

The results from Table 12 show an observed significant positive relationship between Property Tax and Housing informality (R= .785). This was an indication that Property Tax explained 78.5% (R²= .616) of Housing informality. The other variables affecting Housing informality explained the remaining 21.5%. The analysis from the model had the F value of 5.4153 at p-value <0.05, the findings were sufficient to support the relationship between Property Tax and Housing informality, inferring that Property Tax had statistically significant positive effects on Housing informality. Therefore, the null hypothesis that there is no relationship between Property Tax and Housing informality is rejected.

The results indicate that there is a positive significant relationship between PT and HI. The household income, household employment, household investment/ financial credit, household quality and quantity housing, and household housing mobility increases as well as increase in HI resiliency hence low vulnerability. The property Tax would facilitate developers to create low or moderate-income housing units of affordable rental and ownership in exchange for the right to construct market-

rate residential or commercial properties in new developments located throughout the informal settlement. Investments in infrastructure and services increase the value of the properties in the redeveloped area; afterward, each landowner receives a smaller parcel of land that has greater value due to the improvements made. The tax collected on the improved value of the property or land, is used to provide services that used not to be accessed in such informal areas, such as lack of sewerage management, water and electricity supply, modern public transportation system, rail, air transportation system.

Although in the literature there are varied results but this finding concurs with the finding of Sabri *et al.* (2013) who found that PT tend to introduce sanity in urban development leading to more attraction of modern highways, businesses, industries, rail and air transports and grounds convenient for access to markets. Such incentives lead to realization of employment opportunities in near localities attracting skilled workforce in such urban areas. They found out that Property Tax as factor for ULM; pursue higher level of improvement to raise urban sanity level and value affected by informal models.

The first hypothesis ($H0_3$) stated that there is no relationship between Transportation Costs (TC) and Housing Informality. Hypothesis one sought to establish the relationship between Transportation Costs dimensions of Urban Land Management on Housing Informality. This hypothesis was

tested by regressing Transportation Costs and Housing informality guided by the equation $\gamma = \beta_0 + \beta_3TC$ Where TC represented Transportation Costs and γ denoted Housing informality measures. The results of the regression are presented in Table 13.

Table 13: Relationship between Transportation Costs and Housing Informality

Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.789 ^a	.623	.623	.69473

Predictors: (Constant), Own Car Fuel Cost, Walking, Cycling, Bus Ticket Costs, Taxi Costs

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.111	1	1.332	6.1456	.000 ^b
Residual	15.411	250	.312		
Total	24.643	125			

^a. Dependent Variable: Housing informality

^b. Predictors: (Constant), Own Car Fuel Cost, Walking, Cycling, Bus Ticket Costs, Taxi Costs

Coefficients^a

Model	Un-standardized		Standardized	Significance
	Coefficients	Std Error Beta	t-value	p-value
(Constant)	.647	.014	4.335	.061
Transportation Costs	.789	.204	4.348	.000

^a. Dependent Variable: Housing Informality

^b. Predictors: (Constant), Own Car Fuel Cost, Walking, Cycling, Bus Ticket Costs, Taxi Cost

$$\gamma = \beta_0 + \beta_1TC = .647 + .789TC$$

The results from Table 13 are observation that there is a significant positive relationship between Transportation Costs and Housing Informality (R=.789). This was an indication that Transportation Costs explained 62.3% (R²= .623) of Housing informality. The other variables affecting Housing informality explained. The analysis from the model had the F value of 6.1456 at p-value <0.05, the findings were sufficient to support the relationship between Transportation Costs and Housing informality, inferring that Transportation Costs had statistically

significant positive effects on Housing informality.

The results indicate that there is a positive significant relationship between TC and Housing informality. The improvement of housing informality to formality increases as TC activities are enhanced. Therefore, given the equation $\gamma = \beta_0 + \beta_3TC = .647 + .789TC$ when TC is zero γ will be equal to .647 and when TC is increased to 10 units then γ will be $.647 + .789(10)$, which will be 8.537 units of HI showing an increasing effect of TC on HI. Therefore, the null hypothesis that there is no relationship between Transportation Costs and Housing Informality is rejected.

The finding concurs with the finding of Yusoff *et al.* (2014) who found that urban areas with strong system of Transportation Costs, would enhance informal structure upgrading, improving and development in other infrastructure including service delivery, which could be useful in eliminating housing informality. They found out that Transportation Costs as a dimension of Urban Land Management can help in developing transport infrastructure, promoting industrial development, create land policies good for commercial investment, finance urban development, subsidise public transportation system, invest in improving water and sanitation and betterment taxes and land leasing.

This way transportation costs components would be developed, improved and maintained. Through the betterment levies from property owners in the former informal settlement, it would contribute to the attraction of serious development projects of housing schemes, including upgrading, new development, industrial parks, commercial activities and learning centers.

In summary, the findings indicate that all the three components of Urban Land Management pursued in this study have significant positive relationships with the housing informality. Since, there are strong interdependence among the three variables of Urban Land Management therefore their significant positive relationships on housing informality are indicators that Urban Land Management has a significant positive relationship with the housing informality.

CONCLUSIONS

The findings provided a proof that Land Value Capture have influence on housing informality since it contributes to the improvement or decrease in the housing informality, an indication of its significant positive magnitude effect. There is enough evidence from the findings there is a strong evidence of proof to conclude that land value capture has a relationship to housing informality. Ensuring that urban areas are

safe and secure on Create Value, Capture Created Value, and Reinvest Captured Value is critical for urban household access to standard quality socioeconomic and environmental services.

The other conclusions are that property tax has significant effect on housing informality. This implied that property tax could enhance generation of funds that would support upgrading of housing or construction of new housing in the slums and informal settlements thereby eliminating informal housing problem.

On the last component of the Urban Land Management, the conclusions made were that transportation costs too have a significant effect on housing informality. This is important in making agencies to invest on transportation system that is affordable, accessible to all. This component is significant to housing informality by promoting these attributes by planning for increased household incomes, improving their jobs-to-housing balance, and by attracting expanded retail, commercial and industrial business within the urban locations' target sectors, as revised from time to time due to socioeconomic and environmental paradigm shifts. Housing informality

The overall conclusion was that Urban Land Management has a significant influence on housing informality. The findings above provide evidence of proof that the components of Urban Land Management are significantly related to housing informality. Therefore, it is concluded that Urban Land Management is a critical tool or technique in designing and developing informal housing problem notwithstanding the other factors that are too critical in this aspect.

RECOMMENDATIONS

Urban Land Management is a significant tool of control to housing informality, which is preventable if appropriate measures such as Urban Land Management are used. If proper Urban Land Management is implemented then housing informality in urban areas such

as Eldoret town can be eliminated. Therefore, the right authorities in urban areas and cities need to design, develop and implement Urban Land Management to help in managing housing informality.

The urban authorities must ensure that the slums and informal settlement areas improved on their value, when the value is created even in the current informal settlement areas and slums dwellings then this value would act as a source of funds that can be reinvested into the same land or housing to make better the areas. Moreover, this value created and captured, can be a source of property or land taxation system thus improving on the financing of modern projects that will change the face of the informal housing and slum problem.

The findings also indicated that Property Tax and transportation costs are also having a significant effect on housing informality. Thus, the Urban Land Management must be pursued using property tax and transportation costs in dealing with the housing informality in urban areas. Increase land or property value create more large-scale investments such as commercial buildings, learning institutions, industries, better road networks, improved transportation systems to reduce transport costs and business parks among others.

These infrastructural projects would improve revenue collection including property or land tax that enhance service delivery to urban households, improve livelihoods and make their wellbeing improved and sustained.

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