International Journal of **Finance** (IJF)

COST AND ACCESSIBILITY RELATED FACTORS INFLUENCING THE SELECTION OF AREAS OF RESIDENCE IN KENYA: A SURVEY OF NAIROBI RESIDENTS

Grace W. Njoroge Kahura and Prof. Joe K. Kamaria

JONVINE





COST AND ACCESSIBILITY RELATED FACTORS INFLUENCING THE SELECTION OF AREAS OF RESIDENCE IN KENYA: A SURVEY OF NAIROBI RESIDENTS

^{1*} Grace W. Njoroge Kahura
^{1*} Post graduate student: United States International University
*Corresponding Author's Email: gracewanga@gmail.com

² Prof. Joe K. Kamaria Lecturer: United States International University

Abstract

Purpose: The purpose the study was to investigate the cost and accessibility related factors influencing the selection of areas of residence in Kenya in the case of Nairobi residents.

Methodology: The researcher used descriptive research design. The scope of the study was limited to Nairobi County. The study identified a population of 985,016 households in Nairobi County out of which a sample of 150 respondents were used. Random sampling technique was used to select the respondents from each category. The study used primary data that was collected using questionnaires. Data was analyzed using Statistical Package for Social Sciences (SPSS). The data was then analysed in terms of descriptive statistics like frequencies and percentages.

Results: The results indicated that majority of the respondents found economic and accessibility factors as being important while choosing their places of residence. The results indicated that the most important economic factor is income, followed by transfer costs, cost of living, price, and transport costs. Ease of qualifying for a mortgage, availability of mortgage, ease of qualifying for a mortgage, availability of mortgage, ease of qualifying for a mortgage, maintenance costs were least ranked. The study also found that the most important accessibility factor was road network, followed by water, nearness to workplace, parking space, health centers, internal space, and electricity, and transport costs. The least ranked factors were drainage, parks and open spaces, availability of garden, and floor plans.

Unique contribution to theory, practice and policy: The study recommended that cost related factors such as cost of living among others should be given a priority when making a decision on where to reside since such economic related factors touch on one's disposable amount. It is also recommended that it would be significant for landlords to put into consideration such economic factors before concluding on either the rent prize or the prize of a piece of land since their potential tenants' or buyers' decision is most likely to be influenced by such factors. It is also recommended that landlords should put into consideration accessibility factors before building rental houses. Such factors as road network are very important and will obviously influence the tenants' decision on residing in a certain area.

Keywords: cost, accessibility, selection, areas of residence



1.0 BACKGROUND OF THE STUDY

Neighborhoods are physical areas within which people organize their lives, base a significant portion of their social time and therefore connect with the world outside the home (Jargowsky, 1994). Urban neighborhoods usually cover around 2000 homes, 5000 people, a typical primary school catchment. Neighborhoods often have sharp boundaries, either physical or atmospheric, but the layers of neighborhood life are like an onion with a tight core and a loose outer skin (Gottlieb, 1998).

Neighborhoods have three interlocking aspects: the home and immediate surroundings – the elements people pay as much as they can to secure; services such as shops and schools which reflect the social composition of the neighborhood; and the neighborhood environment, giving an intangible but powerful signal of who we are and how we should behave (Jargowsky, 1997). Neighborhoods offer a sense of familiarity and security to the people who live there, which counters fear of the unknown, even where the neighborhood is poor, run-down or unpopular (Katz, 1999).

According to Owusu (1999), housing invariably means shelter for most people, especially for the lower working class in most societies. Housing also represents a core element in human settlement. Owusu (1999) further observed that new immigrants from Ghana to Canada tend to choose sub-urban areas to settle down. In addition, they tend to concentrate within certain neighborhood and even residential apartments due to mainly affordability. Jones (2004) on his study of Glasgow observed a relationship between mobility and housing sub-markets.

Colom and Mole (2008) found that for decades housing choice changes in response to changes in social, economic and demographic factors such as age, education and income level. Personal factors that may be specific to different individuals such as experience, involvement and time pressure often play an important role in housing choice decision. Moreover, Sirgy (2005) observed that psychological factor such as occupant's image affects homebuyer's evaluation process, which coupled with the factors mentioned previously shape the final housing choice. This mean the choice is made mainly on perception.

Contrary to popular thinking, affordability is but one of the determining factors in whether people buy or rent housing. For many people, rental tenure is a deliberate choice (Dewandeler, 2008). In America, home-ownership is traditionally seen as an arrival to the middle class. Wheary (2006) noted that it is also a particularly critical pathway to financial security for African Americans and Latinos as these Americans are far more dependent than whites on homeownership to facilitate asset accumulation. While property values are typically lower in nonwhite neighborhoods, home equity constitutes the majority of wealth for the subset of nonwhites who own their homes. Estimates suggest that two-thirds of the wealth of African American homeowners is tied to housing equity (Wheary, 2006). Wheary (2006) also observed that home equity represents only about a third of white homeowner wealth.

Urahn and Hearne (2008) explains that 1 in 33 American homeowners are projected to lose their homes to foreclosure in the next few years due to sub-prime loans, and more than 40.6 million homes are projected to drop in value. Also homeowners more frequently have to cash out the equity on their homes to meet basic living expenses, causing homeowners equity to fall, which means American homeowners now own less of their homes than they actually did in the 1970s



(Urahn and Hearne, 2008). In response to this problem, a trend has emerged where not-for-profit organization builds houses on subsidized land and gives them at a price much below the prevailing market rate (Leinberger, 2005).

Zheng et al (2006) found that whether the housing is subsidized or not also influences significantly the direction of which to move. The author further note that a majority of Chinese households face three obstacles in making housing choice decisions: blurred or incomplete property rights leading to problems in reselling their own house, limited access to housing finance and mortgage facilities, and mismatch between the job-market and housing-market locations. Location allows access to employment and income (Li et al, 2007). Precarious employment, varying sources of income and unexpected expenditures force tenants to rely extensively on familial solidarity and informal networks, while minimizing unnecessary expenses on utilities, services or transportation. Hence, the importance of living near relatives or friends, within easy access to school or work place, with an adequate provision of utilities in or near home and with a sufficient level of social infrastructure in the vicinity (Liu et al, 2008; Li, 2007).

UN-Habitat (2006) observed that the level of security may be less fragile in inner city areas because of the density of social networks and the availability a wide range of housing options due to the variety of job opportunities and income levels, in peripheral informal settlements, security may be more problematic as there are fewer options available. The Ministry of Housing (2004) noted that the phenomenon of rapid urbanization being experienced world-wide has brought about many challenges, the most critical being a general deterioration of the living standards of an increasing majority of urban dwellers. In Kenya, the problem of urban housing is characterized by an acute shortage in the number of dwellings, overcrowding in the existing housing stock as well as the existence of sub-standard human settlements such as extensive slums and squatter settlements (Nabutola, 2004).

1.1 Problem Statement

According to the Ministry of Housing (2005), Improvement of housing for the Kenyan population is a major concern. This concern has been influenced by the fact that the improvement in housing stock is a strategically important social and economic investment. In addition, well-planned housing and infrastructure of acceptable standards and affordable cost when combined with essential services affords dignity, security and privacy to the individual, the family and the community as a whole (Ministry of Housing, 2005).

In many developing contexts, the so-called pro-poor housing programmes often provide accommodation of poor standards, in remote locations, with little consideration to the residents' lifestyle and livelihood strategies (Golubchikov, 2012). It is seldom, especially in developing countries, that the social, cultural, environmental, and economic facets of housing are addressed in an integrated fashion (Golubchikov, 2012). For example, affordable housing is commonly considered on a cost basis, while environmental and social issues (including people preferences, lifestyles, and cultural aspirations), as well as economic impacts are thought to be addressed separately or totally ignored (Golubchikov, 2012).

Global studies concentrate of two major issues; demand and supply of housing (Chow & Niu, 2009). Studies that focus on demand include Chow and Niu (2009) who concentrated on the supply and demand for housing in China and concluded that income and prices were significant



factors influencing the demand of housing. The supply related factors were price of housing and the cost of construction. However, Chow and Niu (2009) treated all agents as homogenous and failed to address the qualitative factors that influence the individual choice of residence. Gans and King (2003) evaluated the policy Options for Housing for Low Income Households and concluded that the problem of housing affordability is easily stated: low income households are unable to purchase housing services that satisfy minimum levels of quality. However, Gans and King (2003) failed to address the qualitative aspects that influence the individual choice of residence.

Local studies are also inadequate since they only concentrate on the supply and demand of affordable housing without addressing the qualitative factors affecting the individual choice of residence. For instance, Nabutola (2004) focused on affordable housing in Kenya and took a case study of Policy on Informal Settlements, and concluded that Land Tenure, Financing, Legal Framework, Building Materials and Appropriate Technology seem to be the greatest challenges to affordable housing in both rural and urban areas. These factors led to informal settlements in towns and rural areas alike. The study had a gap since its focus was on policies affecting the supply of housing units and it failed to address the underlying qualitative individual factors influencing the choice of a residence.

Bellagio Study and Conference Center (2005) conducted a study on housing market in Kenya and concluded that the steady rural-urban migration and the annual population growth rate of the urban areas have led to the rapid growth of informal settlements. However, the study failed to discuss the qualitative factors influencing the individual choice of residence. The main research gap stems from the scarcity of studies on this area and the failure to address the qualitative factors influencing the individual choice of residence. Thus, this research study sought to investigate the underlying cost and accessibility factors which result in Kenyan individual choosing to live in the areas they currently live in.

1.2 Research Questions

- i. To what extent do cost related factors influence the choice of location of residence?
- ii. To what extent do accessibility related factors determine the choice of location of residence?

2.0 LITERATURE REVIEW

Cost of housing has generally been rising steadily over the years in the different countries over the world (OECD, 2005). Different measures have been used to ascertain if the cost of housing is appropriate under or overpriced. One common measure used to assess housing markets conditions is the price to income ratio; a gauge of whether or not housing is within reach of the average buyer. If this ratio is above its long term average, it could be an indication that prices are overvalued. For many countries, the price to income ratios in 2005 is substantially above their long term average.

Another approach is the asset- pricing approach measure that is used to indicate over and undervaluation of housing is the price to rent ratio. This is calculated as, nominal house price index, divided by the rent component. This can be interpreted as the cost of owning versus renting a house. According to OECD (2005), when house prices are too high relative to rents, potential buyers find it more advantageous to rent, which in turn exert downward pressure on



housing prices. This ratio has generally outstripped the affordability measure, hitting historical peaks in several countries. The United Kingdom and the Netherlands have very high real house prices implying poor affordability of housing.

According to OECD (2005), housing prices can also be affected by other features that are particular to the market such as, restrictions on the availability of land for residential housing development that can constrain the responsiveness to supply. These include tough zoning rules, cumbersome building regulations, slow administrative procedures, all of which would restrict the amount of developable land. In the United Kingdom, Hunt (2005) noted that complex and inefficient local zoning regulations and slow authorization process are among the reasons for the rigidity of housing supply, underlying both the trend rise of house price and their high variability. This seems to be the case in Korea, where Gallent (2001) reports that government limitations on urban land supply (Restricted Development Zone) have been important causes of the rapid rise in housing prices. Glaeser (2003) also noted that heavy land use regulations in some US metropolitan areas have been associated with considerably lower levels of new housing construction which have restricted housing supply and thus increased house prices in the regulated municipalities as well as in neighboring towns.

Rent plays a key role in determining the choice of residence. Housing should cost no more than 30% of income. If housing is greater than 30%, a household is housing cost burdened. When rents are unaffordable, it is difficult to cover other necessities such as food, thereby contributing directly to food insecurity. When families spend more than 50% of income on housing, it significantly reduces amounts that can be spent on recreation, food, and other social determinants of health. This has made people to move from up market suburbs to cheaper residential homestead. The compromise of housing is a small cost to pay for many city dwellers if they will meet their daily essential bills at the end of the day (KIHBS, 2005).

In Nairobi province, KIHBS (2005) shows a tenancy pattern, with 87.9% of the households that live in rented dwelling stands at 61.0% Mombasa district. Nairobi has flats constitute the dominant type of housing units 35.2%, followed by shanties at 26.5% and Swahili type dwelling units 19.6%. Lipman (2006) noted that different residential settings face different transportation problems and costs. In America for every 1 dollar saved in housing, 77 cents is spent on transport. On average working families in metropolitan areas spend about 57% of income on housing and transportation, with 28% of income going to housing and 29% going to transportation. While the share of income devoted to housing or transportation varies from area to area, the combined cost of the two expenses are surprisingly constant. In area where families spend more on housing, they tend to spend less on transportation and vice versa.

In search of lower cost housing, Lipman (2006) stated that working families often locate far from their place of work; dramatically increasing transportation costs and commute times. In such cases transportation costs exceed housing cost. Of the 20 fastest growing counties in the United States, 15 are located 30 miles or more from the closest central business district. For up market sub urban community, the major transportation hurdles faced are the high cost of fuel and automobile dependency arising from the fact that their regions are not well served with public transport thus forcing residents to either purchase automobiles or if they are unable to afford hire taxis which are equally expensive. Inaccessibility of the region acts from time to time as a disadvantage although it has its upside of improved security. Lipman (2006) suggests that encouraging of car sharing and to reduce the cost of car ownership. For families who cannot



easily get to work via public transit could reduce the problem. For low are moderate income workers in USA more than 85% drive to work in private vehicles (Lipman, 2006). In New York, almost one-third of workers take public transit. Even where public transit is heavily used, many households own vehicles for errands, weekend trips and work trips. Other prefers to bike, or simply to walk.

However, Buis (2009) noted that the trend in the developing world is still largely in favor of the expansion of infrastructure for private motor vehicles. Policies for more and more road construction have clearly failed to cope with ever increasing demand from rapid motorization, resulting in a vicious circle. This cycle shows how the increase of infrastructure to alleviate travel demand will have apparently positive consequences in the short term, but some months later there will be a much greater congestion than before, thus increasing the problem rather than solving it.

Loken (2011) states that the length of time it takes to get to work can be a determining factor in the decision to move to a new locale. Previous studies have shown that women who commute long distances experience more stress and time pressure, and feel less successful in their work, than men who commute. The findings indicate that long-distance commuters run a 40 percent higher risk of separating than other people do, and it's the first years of long-distance commuting that are the most trying for a relationship. The commuting also drastically reduces the amount of time parents spend at home. This has caused more problems in marriages and the children by being unsupervised develop vices and unruly.

A recently released report from Sweden by Sandow (2000) at Umeå University indicates that long-distance commuters actually have an increased risk of divorce. The length of time it takes to get to work can be a determining factor in the decision to move to a new locale. If you have a family, commuting can also drastically reduce the amount of time you spend at home. Henry & Goldstein (2010) also noted that with gas prices rising and commute times becoming longer, utilizing public transportation options like light rail, train, or bus can be an inexpensive, time-saving way for you and your family to get around – and cut the cost of commuting to work. A good public transportation system is a major plus when choosing a place to live.

However some literature confirms as soon as these areas become accessible due to improved transport systems and the amount of comminuting time reduced has an effect in the land and house prices. Bajic (1983) notes that there was an effect of the new subways lines in Toronto, and housing prices reacted to changes in commuting time. The author estimates that the commuting time savings in the affected area raised prices by \$2237 on average, implying a \$120 valuation of the average 34 hours of time saved annually. This turns out to be about 40% of the local wage rate.

UNESCAP/UN-Habitat (2006) notes that basic infrastructure, quality of housing are measured by the ease of access to utilities like electricity, running water and sanitation. Self-contained housing units have the easiest access; rooms with shared access score lower. Housing quality diminishes as access to utilities is further away from the accommodation or is not permanently available. Tenants are likely to share utilities and utility areas such as toilets, washing and cooking spaces. In the latter case, they may be supplied by the resident landlord or neighboring houses at fees far above the official rates (UNESCAP/UN-Habitat, 2006).



KIHBS (2005) notes that the distribution of communities in Nairobi by distance to the nearest health facilities are as follows: 0% of the public nearest health facility are 500m or less from a health facility, 10.9% of the nearest public health facilities are 500m - 1km from a health facility, 8.2% of the public are 1.1 - 2.9kms, 60.7% of the public health facilities are 3 - 4.9 Kms, 20.2% of the public health facilities are 5 or more Kms away from the communities.46.6 % of the sick in Nairobi visit private health facilities. That is private hospitals, dispensaries and clinics.

Briggs (2006) notes that the provision of public amenities might be overlooked but most of the social problems being experienced today crop from lack of proper and even distribution of public amenities. Schools that are well equipped attract residences to reside in a particular area especially the primary level of education which requires the students to report each morning. Briggs (2006) further notes that in the USA, there is a rigidly defined system of catchment areas or attendance zones from which the children of that location are meant to attend a specific school only. However in the UK many pupils do not attend their nearest school. Gibbons (2007) stated that the site of schools is rarely randomly determined. Schools may have been located for historical reasons close to existing residential areas, near town centers, or near other facilities such as churches, in the case of faith schools. Hence any measure of school accessibility which takes into account the distance between a house and its nearest school could easily capture accessibility to any number of other local amenities.

Dennis (1999) noted that residents consider the presence of religious institutions in their choice of residence. A Muslim for instance would feel uneasy if he resided in a Christian infested neighborhood with no presence of a mosque nearby and the same case would apply to a Christian under similar conditions. This has caused some areas of residence to be occupied by a specific residence who share a common belief as well social and ethical background. Dennis (1999) further notes that (13%) of the places of worship are located within a designated centre, (43%) are located within 400 meters of a centre, and (62%) of those located outside of a designated centre are within a convenient distance of a bus route. This pattern of distribution is not surprising and probably reflects three things: the organizational structure of some denominations - Roman Catholic and Anglican churches are based on a parish system, for example, and are not tied to town centers'. Other denominations have no such 'catchment' boundaries and have a greater freedom of choice of location; land values in town centers'; and the need to protect other important land uses, such as shops and workplaces.

Moving in and out of an urban environment has become an inherent part of life for many Kenyans. Whether it is to pursue higher education, seek a job to supplement the family income, negotiate an economic transaction, take administrative action, or build a professional career, one cannot avoid the city in the conduct of study, work, trade or leisure. Holzer (2007) noted that while both populations and jobs are growing in suburban areas this suburban areas include both high and low income areas. Some are job centers while others are bedroom communities. However more jobs are located in higher income suburbs than lower suburbs.

Scott (2007) stated that due to suburbanization, some low wage workers are making opportunity moves in order to better access jobs, safe neighborhoods, high performing school systems and other resources. These opportunity neighborhoods typically are mixed income areas with both affordable and market rate housing. Residents can find it challenging to reestablish a routine in a new neighborhood. Opportunity moves frequently require workers and families to leave



neighborhoods containing friends, relatives and familiar services such as child care and public transit.

Crime and fear of crime are self- evidently major issues in modern urban economies, and seem to be at the forefront of many people worries about urban life. Brand and Price (2000) noted that the real social cost of crime has not really been established. There are the direct costs reported in victimization surveys, such as the British Crime Survey, accumulating information on loss of property, loss of earnings through incapacity, cost to the health services resulting from injury. However there are the psychological costs associated with the real risk of being a crime victim, and the fear of crime. Gibbons (2004) noted that the level of security in different areas is relative because of how crime is viewed. A place with high burglary rates may not be considered very insecure because local burglary rates are not well known or it is easy to install effective security measures relatively cheaply. On the other hand, highly visible, but ostensibly more trivial offences such as criminal damage, including vandalism, graffiti, arson and damage to property seem to impose high level of crime. The cost imposed by crimes of this type seem high relative to their seriousness, which may mean that these crimes are taken as signals or symptoms of community instability, disorder, lack of social cohesion and neighborhood deterioration in general.

3.0 **RESEARCH METHODOLOGY**

The research was carried out through descriptive survey design that involves gathering of facts, opinions and views of residents on the factors that influence the choice of residence among Nairobi Residents. The target population for this research study included the entire households in Nairobi County. According to 2009 Census, the entire households are 985,016 (KNBS, 2009). This study adopted random sampling method. The survey instrument of collecting primary data was used for this study, structured as a questionnaire. Data analysis was done using SPSS. Data was represented in easy to interpret methods like tables and charts.

4.0 **RESULTS AND DISCUSSIONS**

4.1 Response Rate

A total of 100 responses/questionnaires were received out of a possible 150 questionnaires. This indicated that a response rate of 66.67% was obtained.

4.2 General Information of Respondents

4.2.1 Gender Distribution of the Respondents

From the study findings, both male and females constituted equal shares (50%:50%) of the respondents. The findings compare well with those of Kenya Census 2009/2010 which found that the gender distribution in Kenya was almost equal.

4.2.2 Level of Education of the Respondents

From the study findings, majority of the respondents (30%) were middle level college graduates while 29% of the respondents were university graduates. Twenty Six percent (26%) of the respondents were secondary leavers while 15% were post graduates. The findings imply that most of the respondents were literate thus it is assumed that they were able to interpret the questions posed to them with ease.



4.2.3 Age of the Respondents

The study findings also showed that majority of the respondents (29%) were between the age of 30 to 39 years old while 26% were aged between 40 to 49 years old. Twenty four percent (24%) of the respondents aged between 18 and 29 years old and finally 21% of the respondents were aged 50 years and above. The finding implies that most of those who responded to the question were below the age of 50 and this is in line with Kenya 2009/2010 census which noted that majority of people in Kenya are young.

4.2.4 Marital Status of the Respondents

59% of the respondents were married while only 41% of the respondents were single.

4.2.5 House Ownership by the Respondents

The study findings further revealed that majority of the respondents (52%) indicated that they were renting while 32% indicated that they had built their own houses and 16% indicated that they had bought the houses they were living in. The finding implies that most of the respondents were still renting which might have forced them to prefer certain areas of residence.

4.2.6 Monthly Income Range of the Respondents

From the study findings, majority of the respondents (45%) indicated that they were earning less than 50,000 monthly while 21% indicated that they were earning an amount between 150,000 and 250,000 monthly. Nineteen percent (19%) of the respondents indicated that they earned an amount between 50,000 and 150,000 monthly and finally 15% of the respondents indicated that they earned more than 250,000 monthly.

4.3 Economic/Cost Related Factors Influencing Choice of Residence

4.3.1 Price

The respondents were asked to rate the importance they attached to price when they chose the house they currently live in. A majority (50%) indicated that they rated price as important while 45% rated price as moderately important and 5% of the respondents rated price as being most important. The results are presented in Table 1.

Table 1: Price

	Frequency	%
Least important	0	0%
Lowly important	0	0%
Moderately important	45	45%
Important	50	50%
Most important	5	5%
Total	100	100%



4.3.2 Maintenance Costs

The respondents were asked to rate the importance they attached to the maintenance cost when they chose the house they currently live in. A majority of 46% indicated that they rated maintenance cost as moderately important while 30% rated it as lowly important and 24% of the respondents rated it as important. The results are presented in table 2.

Table 2: Maintenance Cost

	Frequency	%
Least important	0	0%
Lowly important	30	30%
Moderately important	46	46%
Important	24	24%
Most important	0	0%
Total	100	100%

4.3.3 Income

The respondents were asked to rate the importance they attached to income when they chose the house they currently live in whereby a majority of 65% indicated that they rated it as important while 35% rated it as most important. The results are presented in Table 3.

Table 3: Income

	Frequency	%
Least important	0	0%
Lowly important	0	0%
Moderately important	0	0%
Important	65	65%
Most important	35	35%
Total	100	100%

4.3.4 Transfer Costs

The respondents were asked to rate the importance they attached to the transfer costs when they chose the house they currently live in. Majority (61%) indicated that they rated transfer costs as important while 35% rated it as moderately important and finally 4% of the respondents rated it as most important. The results are presented in Table 4.



Table 4: Transfer Costs

	Frequency	%
Least important	0	0%
Lowly important	0	0%
Moderately important	35	35%
Important	61	61%
Most important	4	4%
Total	100	100%

4.3.5 Cost of Living

The respondents were asked to rate the importance they attached to the cost of living when they chose the house they currently live in. Majority (68%) of the respondents indicated that they rated cost of living as important while 32% rated it as moderately important. The results are presented in Table 5.

Table 5: Cost of Living

	Frequency	%
Least important	0	0%
Lowly important	0	0%
Moderately important	32	32%
Important	68	68%
Most important	0	0%
Total	100	100%

4.3.6 Availability of Mortgage

The respondents were asked to rate the importance they attached to the availability of mortgage when they chose the house they currently live in. Majority (41%) indicated that they rated availability of mortgage as important while 39% rated it as moderately important and finally 20% of the respondents rated it as lowly important. The results are presented in Table 6.

Table 6: Availability of Mortgage

	Frequency	%
Least important	0	0%
Lowly important	20	20%
Moderately important	39	39%
Important	41	41%
Most important	0	0%
Total	100	100%



4.3.7 Ease of Qualifying for Mortgage

The respondents were asked to rate the importance they attached to ease of qualifying for mortgage when they chose the house they currently live in. A majority of 39% indicated that they rated ease of qualifying for mortgage as important while 38% rated it as moderately important and finally 22% of the respondents rated it as lowly important. The results are presented in Table 7.

Table 7: Ease of Qualifying for Mortgage

	Frequency	%
Least important	1	1%
Lowly important	22	22%
Moderately important	38	38%
Important	39	39%
Most important	0	0%
Total	100	100%

4.3.8 Transport Cost

The respondents were asked to rate the importance they attached to transport cost when they chose the house they currently live in whereby a majority of 56% indicated that they rated it as important while 36% rated it as moderately important. Seven percent (7%) of the respondents indicated that they rated transport cost as lowly important and finally 1% of the respondents rated it as most important. The results are presented in Table 8.

Table 8: Transport Cost

	Frequency	%
Least important	0	0%
Lowly important	7	7%
Moderately important	36	36%
Important	56	56%
Most important	1	1%
Total	100	100%

4.3.9 Ease of Securing Mortgage

The respondents were asked to rate the importance they attached to ease of securing mortgage when they chose the house they currently live in whereby a majority of 55% of the respondents indicated that they rated it as moderately important while 35% rated it as important. Eight percent (8%) of the respondents indicated that they rated ease of securing mortgage as lowly important and finally 2% of the respondents rated it as least important. The results are presented in Table 9.



	Frequency	%
Least important	2	2%
Lowly important	8	8%
Moderately important	55	55%
Important	35	35%
Most important	0	0%
Total	100	100%

Table 9: Ease of Securing Mortgage

4.3.10 Ranking of Factors

The means of the economic factors were ranked in order to establish their order of importance. The results indicate that the most important economic factor is income, followed by transfer costs, cost of living, price, and transport costs. Ease of qualifying for a mortgage, availability of mortgage, ease of qualifying for a mortgage, maintenance costs were least ranked. The results are presented in table 10.

					Std.	Rank
	Ν	Minimum	Maximum	Mean	Deviation	
Income	100	4	5	4.35	.479	1
Transfer costs	100	3	5	3.69	.545	2
Cost of living	100	3	4	3.68	.469	3
Price	100	3	5	3.60	.586	4
Transport cost	100	2	5	3.51	.643	5
Ease of securing mortgage	100	1	4	3.23	.679	6
Availability of mortgage	100	2	4	3.21	.756	7
Ease of qualifying for mortgage	100	1	4	3.15	.796	8
Maintenance costs	100	2	4	2.94	.736	9

Table 10: Ranking of Factors

4.4 Physical Facilities Influencing Choice of Residence

4.4.1 Floor Plans

The respondents were asked to rate the importance they attached to floor plans when they chose the house they currently live in. 46% indicated that they rated it as moderately important while 30% rated it as lowly important and finally 24% of the respondents indicated that they rated floor plans as important. The results are presented in Table 11.



Table 11: Floor plans

	Frequency	%
Least important	0	0%
Lowly important	30	30%
Moderately important	46	46%
Important	24	24%
Most important	0	0%
Total	100	100%

4.4.2 Road Network

The respondents were asked to rate the importance they attached to road network when they chose the house they currently live in. 65% of the respondents indicated that they rated it as important while 35% rated it as most important. The results are presented in Table 12.

Table 12: Road Network

	Frequency	%
Least important	0	0%
Lowly important	0	0%
Moderately important	0	0%
Important	65	65%
Most important	35	35%
Total	100	100%

4.4.3 Nearness to Workplace

The respondents were asked to rate the importance they attached to nearness to workplace. 61% of the respondents indicated that they rated it as important while 35% rated it as moderately important and finally 4% of the respondents indicated that they rated it as most important. The results are presented in Table 13.

% Frequency 0% Least important 0 Lowly important 0 0% Moderately important 35 35% Important 61 61% 4 4% Most important 100% Total 100

Table 13: Nearness to Work



4.4.4 Parking Space

The respondents were asked to rate the importance they attached to parking space. A majority of 68% of the respondents indicated that they rated it as important while 32% rated it as moderately important. The results are presented in Table 14.

Table 14: Parking Space

	Frequency	%
Least important	0	0%
Lowly important	0	0%
Moderately important	32	32%
Important	68	68%
Most important	0	0%
Total	100	100%

4.4.5 Parks and Open Spaces

The respondents were asked to rate the importance they attached to parks and open spaces when they chose the house they currently live in whereby a majority of 41% of the respondents indicated that they rated it as important while 39% rated it as moderately important and finally 20% of the respondents indicated that they rated it as lowly important.

Table 15: Parks and Open Spaces

	Frequency	%
Least important	0	0%
Lowly important	20	20%
Moderately important	39	39%
Important	41	41%
Most important	0	0%
Total	100	100%

4.4.6 Availability of Garden

The respondents were asked to rate the importance they attached to availability of garden when they chose the house they currently live in whereby a majority of 39% of the respondents indicated that they rated it as important while 38% rated it as moderately important. Twenty two percent (22%) of the respondents indicated that they rated it as lowly important and finally 1% of the respondents rated it as least important. The results are presented in Table 16.



Table 16: Availability of Garden

	Frequency	%
Least important	1	1%
Lowly important	22	22%
Moderately important	38	38%
Important	39	39%
Most important	0	0%
Total	100	100%

4.4.7 Electricity

The respondents were asked to rate the importance they attached to electricity when they chose the house they currently live in whereby a majority of 56% of the respondents indicated that they rated it as important while 36% rated it as moderately important. Seven percent (7%) of the respondents indicated that they rated it as lowly important and finally 1% of the respondents rated it as most important. The results are presented in Table 17.

Table 17: Electricity

	Frequency	%	
Least important		0	0%
Lowly important		7	7%
Moderately important		36	36%
Important		56	56%
Most important		1	1%
Total		100	100%

4.4.8 Water

The respondents were asked to rate the importance they attached to water when they chose the house they currently live in whereby a majority of 78% of the respondents indicated that they rated it as important while 15% rated it as most important. However, (7%) of the respondents indicated that they rated it as moderately important. The results are presented in Table 18.

Table 18: Water

	Frequency	%
Least important	0	0%
Lowly important	0	0%
Moderately important	7	7%
Important	78	78%
Most important	15	15%
Total	100	100%



4.4.9 Health Centers

The respondents were asked to rate the importance they attached to health centres when they chose the house they currently live in whereby a majority of 70% of the respondents indicated that they rated it as important while 27% rated it as moderately important. However, (2%) of the respondents indicated that they rated health centres as lowly important and 1% of the respondents indicated that they rated it as least important. The results are presented in table 19.

Table 19: Health Care

	Frequency	%
Least important	1	1%
Lowly important	2	2%
Moderately important	27	27%
Important	70	70%
Most important	0	0%
Total	100	100%

4.4.10 Internal Space

The respondents were asked to rate the importance they attached to internal space when they chose the house they currently live in whereby a majority of 56% of the respondents indicated that they rated it as important while 36% rated it as moderately important. However, (7%) of the respondents indicated that they rated it as lowly important and 1% indicated that they rated it as most important. The results are presented in Table 20.

Table 20: Internal Space

	Frequency	%
Least important	0	0%
Lowly important	7	7%
Moderately important	36	36%
Important	56	56%
Most important	1	1%
Total	100	100%

4.4.11 Drainage

The respondents were asked to rate the importance they attached to drainage when they chose the house they currently live in. Majority (55%) of the respondents indicated that they rated it as moderately important while 35% rated it as important. However, (8%) of the respondents indicated that they rated it as lowly important and 2% indicated that they rated it as least important. The results are presented in Table 21.



Table 21: Drainage

	Frequency	%
Least important	2	2%
Lowly important	8	8%
Moderately important	55	55%
Important	35	35%
Most important	0	0%
Total	100	100%

4.4.12 Ranking of Accessibility to Physical Facilities Factors

The means of the accessibility factors were ranked in order to establish their order of importance. The results indicate that the most important accessibility factor is road network, followed by water, nearness to workplace, parking space, health centers, internal space, and electricity, and transport costs. The least ranked factors were drainage, parks and open spaces, availability of garden, and floor plans. The results are presented in table 22.

	Ν	Minimum	Maximum	Mean	Std. Deviation	Ranking
Road network	100	4	5	4.35	.479	1
Water	100	3	5	4.08	.464	2
Nearness to workplace	100	3	5	3.69	.545	3
Parking space	100	3	4	3.68	.469	4
Health centers	100	1	4	3.66	.572	5
Electricity	100	2	5	3.51	.643	6
Internal space	100	2	5	3.51	.643	7
Drainage	100	1	4	3.23	.679	8
Parks and open spaces	100	2	4	3.21	.756	9
Availability of garden	100	1	4	3.15	.796	10
Floor plans	100	2	4	2.94	.736	11

Table 22: Ranking of accessibility to physical facilities factors

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

One of the objectives of the study was to determine the extent to which cost related factors influence the choice of location of residence in Kenya. Results indicated that majority of the respondents found economic factors as being important while choosing their places of residence



since they rated the following factors as being important while choosing their residential areas. These factors were price, income, transfer costs, cost of living, availability of mortgage, ease of qualifying for mortgage and transport cost.

The study also sought to determine the extent to which accessibility related factors determine the choice of location of residence in Kenya. Results indicated that majority of the respondents found physical facilities and factors such as road network, nearness to workplace, parking space, parks and open spaces, availability of garden, electricity ,water, health centres and internal space being important while choosing their places of residence. The findings imply that accessibility related factors influence the choice of location of residence.

5.2 Conclusions

Following the study results, it was possible to conclude that cost related factors such as cost of living, transfer costs e.g rent, transport cost among other economic factors are important aspects to consider while choosing a place of residence and in most cases they influence one's choise of where to reside. The results indicate that the most important economic factor is income, followed by transfer costs, cost of living, price, and transport costs. Ease of qualifying for a mortgage, availability of mortgage, ease of qualifying for a mortgage, maintenance costs were least ranked.

Following the study findings, it was possible to conclude that accessibility related factors such as road network, nearness to work place, among other physical factors such as water, electricity among others are important aspects to put into consideration while choosing a place of residence and in most cases they influence one's choise of where to reside. The results indicate that the most important accessibility factor is road network, followed by water, nearness to workplace, parking space, health centers, internal space, and electricity, and transport costs. The least ranked factors were drainage, parks and open spaces, availability of garden, and floor plans

5.3 **Recommendations**

Following study results, it is recommended that cost related factors such as cost of living among others should be given a priority when making a decision on where to reside since such economic related factors touch on one's disposable amount. It is also recommended that it would be significant for landlords to put into consideration such economic factors before concluding on either the rent prize or the prize of a piece of land since their potential tenants' or buyers' decision is most likely to be influenced by such factors.

Following study results, it is recommended that it is significant to prioritize accessibility related factors such as road network, nearness to place of work among others while making a decision on where to reside. It is also recommended that landlords should put into consideration accessibility factors before building rental houses. Such factors as road network are very important and will obviously influence the tenants' decision on residing in a certain area.

5.4 Suggested Areas of Further Research

The study recommends that further investigation be done on the underlying factors that influence the selection of residence in other urban areas such as Mombasa, and Kisumu. The same study can be replicated to smaller town such as Eldoret, Nakuru, Meru Town, Thika Town. Further studies should investigate the determinants/factors influencing the values/rents/prices of house in Nairobi. Such a study would assume a hedonic approach and would model the hedonic prices of real estate against the social cultural factors, cost/economic factors, environmental factors,



accessibility factors. The output of such a study would be to estimate the degree of change of change in rents/prices when the factors change.

REFERENCES

- Abelson, P., Joyeux, R., Milunovich G. & Chung, D. (2005). Explaining House Prices in Australia: 1970-2003. *Economic Record*, Vol. 81, pp. S96–S103.
- Akbarov, A. (2009). *Providing energy efficiency for homes in Tajikistan*. Paper presented at the International Forum on Energy Efficiency in Housing "Towards an Action Plan for Energy Efficient Housing in the UNECE Region", Vienna.
- Bajic, V. (1983). The effects of new subway line on housing price in metropolitan Toronto. *Urban Studies* 20:147-158.
- Banister, D. & Anable, J. (2009). *Transport policies and climate change*. InS. Dovoudi, J. Crawford and A.Mehmood (eds.), Planning for Climate Change: Strategies for Mitigation and Adaptation for Spatial Planning. London: Earthscan.
- Brand, S. & Price, R. (2000). Home Office Research Study 217. *The Economic and Social Cost* of Crime. London, Home Office Research Development and Statistics Directorate
- Briggs, A., Burgess, S., McConnell B. & Slater H. (2006). School choice in England: Background facts. CMPO working paper, 06/159
- Buis, J. (2009b). *A new Paradigm for urban transport planning*: Cycling inclusive planning at the pre-event training workshop on non-motorized transport in urban areas, 4th Regional EST Forum in Asia, 23 February 2009, Seoul, Republic of Korea
- Chow, G. C. & Niu, L. (2009). *Demand and supply for residential housing in urban China*. Princeton University and WISE, Xiamen University.
- Compton, J., & Pollak R. A. (2007). Why are power couples increasingly concentrated in large metropolitan areas? *Journal of Labor Economics*, 25, 475-512.
- Consuelo C. M. & Cruz M. M. (2008). Comparative analysis of the social, demographic and economic factors that influence housing choices in Spain in 1990 and 2000. *Urban Studies*. 45(4), 917-941.



- Dennis, A. (1999). *Place of worship supplementary planning*. Guidance No. 9. London Borough of Croydon.
- Fack, G. & Grenet J. (2007). *Do better schools raise housing prices*? Evidence from Paris School Zoning',mimeo.
- Frank (2012). Solution to provision of affordable housing in Kenya. January 2, 2012. www.a4architect.com
- Gallent, N. & Kim K. (2001). The long run relationship between house prices and rents. *Finance* and *Economics Discussion Series*, No. 2004-50, Board of Governors of the federal Reserve System.
- Gans, J. & King S. (2003). Policy options for housing for low income households. University of Melbourne
- Gibbons, S. & Machin, S. (2006). Paying for primary school: Admissions constraints, school popularity or congestion, *Economic Journal*. 116:C77-C92.
- Gibbons, S., & Machin, S. (2007). Valuing school quality, better transport and lower crime: Evidence from housing prices.
- Gilbert, A. (2003). Rental housing: An essential option for the urban poor in developing countries, UN-Habitat, Nairobi. Washington
- Glaeser, E., Gyourko J. & Saks R. (2005). Why have housing prices gone up? *Harvard Institute* of *Economics and Discussion Series*, No. 2005-4, Board of Governors of the Federal Reserve System.
- Hoek, G., Meliefste, K., Cyrys. J, Lewne, M., Bellander, T., Brauer M. (2002). Spatial variability of fine particle concentrations in three European areas. *Atmosphere Environ*;36:4077-4088.
- Holzer, J. H., & Michael S. (2007). *Where workers go, do jobs follow*? Metropolitan Labor Markets in the U.S., 1990- 2000. Brookings Institution



- Hulchanski J.D. (2001). A tale of two Canadas: Homeowners getting richer, renters getting poorer: Income and Wealth
- Jargowsky, P. (1994). Ghetto poverty among blacks in the 1980s. *Journal of Policy Analysis and Management*, 13: 288-310.
- Jargowsky, P. (1997). *Poverty and place: Ghettos, barrios, and the American City.* New York: Russell Sage Foundation.
- Jones, C. L. & Watkins C. (2004). Intra-urban migration and housing submarkets: Theory and evidence. *Housing studies*, Vol 19, No.2, 2004, pp.269-283.
- Katz, B. (1999). *Beyond City Limits: The emergence of a new metropolitan agenda*. (Unpublished manuscript, Brookings Institution, Washington, DC).
- Klein, L. R. & Rubin H. (1948). A constant utility index of the cost of living. *Review of Economic Studies*, 2, 15, 84–87
- Konüs, A. (1939). The problem of the true index of the cost of living. Econometrica, 7, 10–29
- Leinberger C. B. (2005). *Turning Around Downtown: Twelve Steps to Revitalization*. Metropolitan Policy Program. The Brookings Institution.
- Li, S. M., Song Y. L. & Chiang N. (2007). Displacement, housing conditions and residential satisfaction: An analysis of Shanghai residents. *The Centre for China Urban and Regional Studies, Occasional Paper*, Vol. 78, August pp. 1-24.
- Lipman, B. P. (2006). A heavy load: The combined housing and transportation burdens of working families, Center for Housing Policy, Washington.
- Liu M., Reed R. & Wu, H. (2008). Challenges facing housing affordability in Beijing in the twenty-first century. *international journal of housing Markets and Analysis*, Vol. 1, No. 3, 2008, pp. 275-287.
- Macoloo, G. (1994). The changing nature of financing low income urban housing development in Kenya, *Housing Studies*, 9(2), 189-281.



McMillen, D. P. & McDonald, J. (2004). Reaction of house prices to a new rapid transit line: Chicago's Midway Line, 1983-1999, *Real Estate Economics* 32: 463-486.

Ministry of housing, (2004). National Housing Policy for Kenya: Sessional Paper No.3

- Mitullah, W. (2003). *Urban slums report: The case of Nairobi, Kenya*, Understanding Slums: Case Studies for the Global Report on Human Settlements.
- Mumford, L. (1955). The roaring traffic's boom. The New Yorker
- Mwaura, A. (2006) Policy Review for Zones 3, 4 and 5, Nairobi, Kenya 42nd ISoCaRP Congress
- Nabutola, W. (2004). Affordable housing in Kenya: A case study of policy on informal settlements, land administration and housing issues in informal environments, 3rd FIG Regional Conference, Jakarta, Indonesia.
- Numbeo (2012). Cost of living comparisons: Distribution of cost of living expenses in Kenya. http://www.numbeo.com/cost-of-living/country_result.jsp?country=Kenya
- Okonkwo, O. (1998). *Housing finance and housing delivery systems in Kenya*: Bottlenecks, recent developments and the way forward, Housing Finance International.
- Owusu, T.Y. (1999). Residential patterns and housing choices of Ghanaian immigrants in Toronto, Canada. *Housing Studies*, 14(1), 77-98.
- Pollak, R. A. (1989). The theory of the cost of living index, New York: Oxford University Press.
- Roback, J. (1982). Wages, rents and the quality of life. *Journal of Political Economy, December* 1982, 1257-78
- Scott W. A. (2007). Mismatches and unmet need: Access to social services in urban and rural America. *National Poverty Center Working Paper Series*, no. 07-14, June 2007.
- U.S. Department of Housing and Urban Development. (2008). U.S. Housing Market Conditions, 4th Quarter 2007.



- UNCHS (2003). *Rental Housing: An essential option for the urban poor in developing countries.* Nairobi: UN-Habitat.
- UN-Habitat (2006). *State of the World Cities 2006-2007*. Earthscan/United Nations Human Settlements Program.
- Urahn S. & Hearne S. (2008). *Defaulting on the dream states respond to America's Foreclosure Crisis*: The PEW Charitable Trusts.
- Wandeler, D. K. (2006). Lessons from rental housing. Paper presented at the International Symposium on Architecture and Housing Rights, held at the School for Architecture and Design, King Mongkut's University of Technology Thonburi, Bangkok, 31 May-3 June 2006
- Wang, Y. P. & Alan M. (1996). The process of commercialization of urban housing in China. *Urban Studies* 33(6): 971-89.
- Wu W. P. (2006). Migrant intra-urban residential mobility in urban China. *Housing Studies*, 21(5), 745-765