EFFECT OF HOUSING IMPROVEMENT PROJECTS ON POVERTY REDUCTION: A CASE OF SHINYALU CONSTITUENCY, KAKAMEGA COUNTY, KENYA

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ABSTRACT
The general objective of this study was the effect of housing improvement projects on poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya. Specific objectives of the study were; to examine the influence Housing Locality on poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya, to find out the effect of Housing Cost on Poverty reduction of registered women groups of Shinyalu Constituency, Kakamega County; Kenya, to examine the influence of Housing Tenure on Poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya and to determine the influence of quality of housing on Poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya. The study used a descriptive survey research design on a population target of 284 registered women groups’ representatives. Data collection was done through structured questionnaires. Analysis of data of the study was done by use of Statistical Package for Social Sciences (SPSS 23) in order to solve concerned information of descriptive and inferential content based on descriptive statistics of (frequencies, percentages and means), correlation analysis, and regression analysis. The results revealed was handled, recorded and analyzed in accordance with the objectives of the study. All the four variables had positive significant effect on poverty reduction in Shinyalu Constituency; Housing Locality had a significant influence on Poverty Reduction, Housing Cost had a significant influence on Poverty Reduction, Housing Tenure had a significant effect on Poverty Reduction, Quality of a shelter had a significant influence on Poverty Reduction. In terms of ranking as concerns the strength of impact strength on Poverty Reduction; Quality of Shelter was first, followed by Housing Locality, Housing Cost and the last was Housing Tenure. This study recommended embracing the house improvement projects by registered women groups in Shinyalu; Kakamega County.

Key words: Housing Locality, Housing Cost, Housing Tenure, Quality Housing, Poverty reduction, women groups

INTRODUCTION

In the study by United Nations (2003) on poverty, housing, food and clothing are basic requirements for achieving adequate standard of living. This consideration was based on the assumption that one billion people, primarily in developing world live in urban slums and experience lack of housing that is a major basic necessity to the human being. Globally poverty is one of the most persistent social problem plaguing places specifically in developing countries. Poverty has had several definitions where by basically it is the state of material deprivation with respect to a number of basic needs, including shelter. Concept of poverty has evolved over the past half a century with little resemblance of definitional consensus amongst stakeholders. Since its recognition and dominance in international and national discussions, different writers, researchers and international organizations have provided different definitions to the concept of poverty, among them (Pillari & Newsome, 1998). According to Sen (2000) academic interest has become fashionable with scholars actively engaged in the challenging task of defining the concept of ‘poverty. Vollmer (2010) embraced the burgeoning interests and the proliferation of poverty interpretations which used several terms to define and measure the concept of poverty and hence the final result could be coupled with a lack of universally agreed definition, causing confusion among stakeholders.

According to Pillari and Newsome (1998), poverty can be defined as a structural problem causing homelessness, unemployment, and oppression. On the other hand, Sen (2000) embraced poverty being seen in terms of poor living, rather than just as lowness of incomes and nothing else. More so, Whelan (2007) expressed Poverty was basically about inadequate or lack of resources which makes participation in political processes and socio-economic activities impossible. Despite the focus on the ‘basic needs’, poverty was largely defined in the late 1960s in economic terms. In the 1970s, these problems associated with economic definition of poverty led to the formulation of a ‘new’ interpretation and focus which was concerned with human welfare. This new focus explained poverty within the broader concept of development. Redefining the whole purpose of development was vital, hence to develop things but to develop man. Man has basic needs – food, shelter, clothing, health and education. Any process of growth that does not lead to their fulfillment or even worse, - disrupts them is a travesty of the idea of development.

In the study by Kimalu, Nafula, Mande, Mwabu and Kimenyi (2002) on situation analysis of poverty in Kenya, fighting poverty has remained a strong war since independent in order to improve social services. However, according to Kristjanson, Mango, Krishna, Radeny and Johnson (2010), most of such effort have not yielded expected results, hence a half of the country’s population is in poverty. More so, the Population of Nairobi, Kenya’s capital city has been growing at an estimated annual rate of 5 percent. Apart from natural increase, much of this growth is linked to rural-urban migration. Using asset-based welfare measures in Kenya, Barrett, Marenya, Minten, Murithi, Oluoch, Place, Randrianarisoa, Rasambainarivo, and Wangila (2006) on welfare dynamics found evidence of poverty traps and suggested that asset transfers, insurance against shocks and removal of barriers restricting opportunities of historically disadvantaged groups might be the most effective poverty reduction measures (noting that income-based studies typically recommend productivity-enhancing interventions).

In the study by Narayan and Nyamwaya (1996), Participatory approaches have been used in Kenya, and at least helped to provide more in-depth information about people’s situations and about housing inadequacies, indignities and sufferings commonly experienced by poor people. Organizations among them, AMREF (1998) and Action-Aid, (2006a, 2006b) reinforced the idea that poverty is multifaceted and should be viewed differently by different people. Data from these
studies these scholars helped to provide a reasonably good account of who the poor are, where they live and how poor they are. This information was very useful to policy makers and donors, but it failed to answer some critical questions; why do some people succeed in escaping from poverty, even as others are left behind? For what reasons do other people fall into the trap of poverty?

Okwi, Ndeng’e, Kristjanson, Arunga, Notenbaert, Omolo, Henninger, Benson, Kariuki and Owour (2007) explored the links between GIS-based environmental data and spatial poverty differences across Kenya. Results found evidenced geographic poverty traps and that different spatial determinants of poverty (for example type of housing, rainfall variability, length of growing period, elevation) were significant in different regions, as well these sentiments were supported by other scholars (Bigman & Srinivasan, 2002). Analysis of the non-spatial factors behind poverty movements highly complemented their findings, and supported the logic of using livelihood zones to examine zonal differences in poverty movements and reasons behind them, and their conclusions that pro-poor policies needed to be regionally defined.

The Kenyan government through her national housing session paper No. 3 of 2004 on National housing policy of Kenya, confirmed the intention to arrest the deteriorating housing conditions countrywide and to bridge the shortfall in housing stock arising from demand that far surpasses supply, particularly in urban areas. According to Narayan, Patel, Schaft, Rademacher, Koch-Schulte (2000) on voices of the poor, situation in Kenya has been exacerbated by population explosion, rapid urbanization, widespread poverty, and escalating costs of providing housing. This shortage in housing has given rise to overcrowding that has resulted into slum and informal settlements especially in urban areas.

**Statement of the Problem**

In Kenya, poverty manifests itself in form of shelter and failure to access essential services such as education, food, health, water and sanitation. Poverty especially in the urban areas has been made severe by low labour absorption capacity of the non-agricultural sector especially manufacturing which has limited growth due to low growth of investment and technological innovation. In the study by Ekwiet al., (2007) on poverty, weak governance which is manifested in corruption on resources, rent seeking, inappropriate planning has contributed immensely to low access of basic necessities specifically housing for middle and low income Kenyans. In the study by Wilcox (2012) on shelter and poverty, housing benefit changes are at the heart of the coalition of the government and the private sector. However, the significance of the links between housing and poverty deserves recognition from both those interested in housing and those interested in poverty. According to Serumaga (2017), Kenya being a developing nation with devolution set up functions at hand, has counties that are struggling for developing, noting the poor habitat and poverty levels existence that leads to poor shelter and infrastructure. In Kakamega County, various women registered groupings have come up to improve their living standards with having improved shelter projects as priority, as well, collectively sharing resources on building the projects in that, less resources are employed.

In the study by Kamaluet al., (2002) on poverty while considering study variables; housing locality is seen as an attribute of housing, locality is concerned with the conditions that can make a site habitable, hence when unfavourable affects employment and locals end up with less disposable income. On housing cost, it contributes direct impact on housing that leads to deprivation of material benefits, hence involved costs should either be foregone or not depending on disposable income available to the surrounding, housing tenure refers to whether there should be rental
practices or home ownership where by rental conditions leads to no savings for the citizens, quality of housing ends up with recognition of pricing of houses and affordability that has material deprivation from the citizens. Apart from Serumaga (2017) studying on habitat and poverty in Kenya and recommending for further research on the same, many scholars among them Kristjansonet.al., (2010) researched on poverty as a regressing variable on various independent variables in general but did not emphasize shelter as a major independent variable on poverty, hence considering recommendations of these scholars and findings, gives rise to a knowledge gap to necessitate for the study of effect of shelter improvement projects on poverty of registered women groups in Shinyalu Constituency; Kakamega County in Kenya. This study included locality, housing costs, housing tenures and quality of housing as independent variables while poverty being dependent variable.

**Research Objectives**

- To examine the influence of Housing Locality on Poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya
- To find out the effect of Housing Cost on Poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya
- To examine the influence of Housing Tenure on Poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya
- To determine the influence of Quality Housing on Poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County; Kenya

**LITERATURE REVIEW**

**Multi dimension theory of poverty**

Multi dimension theory of poverty was initiated by Oxford Poverty and Human Development Initiative (2010). This Oxford University initiative used index of health, education and standard of living to determine the degree of poverty of a population. Most countries around the world define poverty as the lack of money. However, the poor themselves consider their experience of poverty much more broadly. A person who is poor can suffer multiple disadvantages at the same time – for example they may have poor health or malnutrition, a lack of clean water or electricity, poor quality of work or little schooling. Focusing on one factor alone, such as income, is not enough to capture the true reality of poverty. Multi-dimensional poverty measures can be used to create a more comprehensive picture. They reveal who is poor and how they are poor – the range of different disadvantages they experience. As well as providing a headline measure of poverty, multidimensional measures can be broken down to reveal the poverty level in different areas of a country and among different sub-groups of people.

In the study by Sen (2000) on poverty, the concept of poverty has evolved over the past half a century; however, there is little resemblance of definitional consensus amongst scholars. Since its recognition and dominance in international and national discussions, different scholars, researchers and international organizations have provided different definitions to the concept of poverty. More so according to Pillari and Newsome (1998) embrace academic interest has become fashionable with scholars actively engaged in the challenging task of defining the concept of poverty. In the study by Vollmer (2010), burgeoning interests and the proliferation of poverty interpretations which use several terms to define and measure the concept coupled with a lack of universally agreed definition have resulted in a great deal of confusion among scholars, regarding the true meaning of the concept, hence this section reviews the definitions of poverty that depict and address its multidimensional character in relation to the situation in the developing countries.

According to Pillari and Newsome (1998), poverty can be defined as a structural problem causing homelessness, unemployment, and oppression. On
contrary Sen (2000) being challenged with the multidimensional nature of the concept, stipulated that poverty must be classified in context of poor living, rather than just as lowness of incomes and nothing else. Whelan (2007) expressed Poverty being basically about inadequate or lack of resources which makes participation in political processes and socio-economic activities impossible. However, Townsend (1979) embraced poverty as individuals, families and groups in the population being said to be in poverty when they lack the resources to obtain the type of diet, participate in activities and have the living conditions and amenities which are customary, or are at least widely encouraged or approved, in the society to which they belong. Their resources are seriously below those commanded by the average individual or family. European Commission (2007) defined poverty as individuals and groups of persons whose limited resources have excluded them from enjoying life at the minimum acceptable level considered by the Member State they belong.

Nyasulu (2010) argues that European Commission (2007) definition concentrates on the individual entity whose level of resources would exclude them from the minimum acceptable way of life deemed acceptable by a member state. This scholar contests that the definition assumes that it is acceptable to be in certain conditions, however deplorable as long as the member state has not declared them as such, and thus abrogates the responsibility of focusing on a less contentious issue of ‘person’ or ‘group of persons’ in a member state. However Nyasulu (2010) argues that poverty should be viewed as a condition that undermines individuals’ dignity, and more so indicates that poverty is not what a member state says or thinks, or what a particular culture accepts, but rather, poverty is poverty, regardless of one’s geographic location and has everything to do with the dignity of the human spirit in particular conditions and not what is considered politically correct or culturally acceptable.

Dependency Theory
According to Hans Singer (1949), who is as well a first proposer of dependency theory, the scholar embraced dependency theory as an approach to understanding economic underdevelopment that emphasizes the putative constraints imposed by global political and economic order. More so, the second proposer was Raul Prebisch in 1950s that had same sentiments. Both scholars had explanations of terms of trade between the developed and underdeveloped countries. In the study by Hinga (2007) on dependency, the focus was on the centre-periphery relationship whereby dependence of the periphery on the centre resulted in the poor development of the periphery.

In the study by Vollmer (2010) on dependency theory, sometimes called foreign dependency, it is used to explain the failure of non-industrialized countries to develop economically despite investments made into them from industrialized nations. The central argument of this theory is that the world economic system is highly unequal in its distribution of power and resources due to factors like colonialism and neocolonialism. This places many nations in a dependent position. The dependency theory states that it’s not a given that developing nations will eventually become industrialized if outside forces and natures suppress them, effectively enforcing dependency on them for even the most basic fundamentals of life. The dependency theory in relation to the topic suggests that the inability of the government to projects will reflect on the cultures and values of the people which are the major constraints to development.

Policies that were sought from western developed economics have been contributing immensely to the development of the country. Indeed, policies are not to be imposed upon people. The failure of the Structural Development Programme (SAP) to revamp the Kenyan economy can be associated with the fact that it was an imported policy which was designed to suit the interest of the west and their domestic agents. Kenya has highly been in
need of capital for the development of project and thus dependent on the west who dictates almost everything. Over the years Kenya has been busy implementing western induced policies and the little domestic policies such as National Economic Empowerment and Development Strategy that could not be successfully implemented and internally financed largely owing to large scale corruption in the country. Also loans borrowed from the developed societies to finance poverty reduction programmes are diverted by the few.

Independent variable
Dependent Variable

Figure 1: Conceptual Framework

Empirical Review
Esther Garga (2015) had a study on effects of insecurity and poverty on human development at municipal level in the Northern Nigeria. The study expressed pervasive violence in Nigeria was structural in nature where by structural violence referred to such unjust situations that clasp citizens in the vice grip of poverty and hunger, hence these were human rights infractions arising from unjust socio-economic and political systems. They often resulted into physical and psychological harm. The study recommended for restoring security for National Development. National dialogue was essential for the communities to have peace and encourage economic activities that could alleviate poverty. As such, a dialogue was to be initiated by the Government of Nigeria. Economic empowerment was to be provided with special focus on youth employment, infrastructural provisions and education.

In the study by Cobbinah, Black and Rik (2013) on dynamics of poverty in developing countries, the term poverty has been described in different ways throughout the world due to its multidimensional nature. Whereas some countries and geographical regions view poverty as deprivation, others are concerned with social exclusion and inequality in resource distribution. Despite the differences in poverty interpretations, many countries in the developing world have adopted universal poverty reduction approaches over the years. The study was to analyze the conceptual underpinnings of poverty focusing on its evolution, multidimensional
definitions and poverty reduction efforts implemented over the past 50 years. The study used secondary data analysis; paper revealed universal approaches to poverty reduction have yielded few successes and hence recommends that poverty should be viewed as a global phenomenon but tackled at the local level using local indicators. However, for achieving sustainable development, developing countries should focus on meeting the basic needs of their inhabitants and be committed to ensuring stable political and economic environment.

Tunstal, Bevan, Bradshaw, Karen, Stephen, Caroline, Anwen, Julier, Alison and Steve (2013) did a study in United Kingdom. The study analyzed the past decade of United Kingdom evidence to explore the relationship between housing circumstances and the experience of poverty. It considered the relative importance of housing cost, quality and location in the impact of poverty on people’s lives, and the role of housing in enabling people to increase their income from work. The study concluded People’s experience of poverty and material deprivation and their housing circumstances are intertwined. This is because housing acts both as a charge on income and, potentially, as a source of income or income-like flows of benefits. It constituted an important part of people’s material living conditions and makes a contribution to life chances. Homes – households – are also the places where individuals pool and share incomes and costs.

Addae (2014) did a study on causes of poverty. The study analysed and reviewed the causes of poverty in Africa. The study found that poverty in Africa is caused by a number of factors including corruption and poor governance, limited employment opportunities, poor infrastructure, poor resource usage, wars and unending conflicts, poor World Bank and IMF policies, among others. The study as well revealed poverty being caused by cultural and structural factors. The poor lacks the capacity to influence social processes, public policy, and resources allocation, more so, Poor people are also said to lack access to relevant skills and knowledge, education and personal development that could improve their livelihoods. The study concluded that poverty can only be fought in the presence of strong institutions, and equitable distribution of resources. This requires a non-corrupt government. However, in Africa, programmes designed to fight poverty are not fully implemented because the funds end up in the hands of corrupt individuals, who pocket the majority.

In the study by Kristjanson, Mango, Krishna, Radeny and Johnson (2010) did a study on understanding poverty dynamics in Kenya. The study Combined qualitative and quantitative approaches. The study focused on examination of reasons behind household movements into and out of poverty across Kenya, and how they could differ by livelihood zones. Among the 4773 households studied, 42 per cent were poor 15 years ago and 50 per cent are poor at the present time of study. Over the same period, 12 per cent of the households escaped poverty, while another 20 per cent fell into poverty. While some national trends were evident – such as the role of health problems in driving people into poverty and the importance of off farm income in getting them out – many reasons differed across livelihood zones. The study provided an example of how regionally differentiated anti-poverty policies could be investigated and designed.

**METHODOLOGY**

This study used descriptive design which involved collecting data of the answered questions about the respondents of the study. This study considered target population consisting of 284 persons of all registered women groups’ representatives in Shinyalu Constituency, as provided by the department of social services, Ministry of Labour and Social protection, Kakamega County. Sample frame was drawn from Ministry of Labor and Social Protection, Department of Social Development from Kakamega County, Shinyalu Constituency (Statistics Section, 2019). For ease of field data collection; women group inventory was acquired from ministry of women group inventory that contained all active registered women groups in
Shinyalu Constituency. Since the target population was 284 respondents, sample of 163 respondents was used in the study based on Krejcie and Morgan formula for determination of sample size of research activity. The researcher used close ended (structured) questionnaires to collect primary data from leaders of women groups who were involved in solar energy technology adoption in Shinyalu Constituency, Kakamega County, Kenya. Data was collected by self-administered questionnaire. Validity was achieved using content validity. The study used test-retest technique to determine reliability of study instruments and Cronbach’s Alpha coefficient was computed for reliability tests. The quantitative data collected was analyzed by Statistical Package for Social Sciences (SPSS 23) where descriptive statistics was computed to help in describing and interpreting data in line with study objectives. The Analytical model for the study was ordinary least squares regression model that took the form as below:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where;
\[ Y \text{= poverty of women groups} \]
\[ \alpha \text{= Constant Term} \]
\[ \beta \text{= Beta Coefficient – This measured how many standard deviations a dependent variable changed, per standard deviation increase in the independent variable.} \]
\[ X_1 = \text{Housing Locality.} \]
\[ X_2 = \text{Housing Cost} \]
\[ X_3 = \text{Housing Tenure} \]
\[ X_4 = \text{Housing Quality} \]
\[ \varepsilon = \text{Error term} \]

**FINDINGS**

**Housing Locality and Poverty Reduction of Registered Women Groups**

Housing locality variable was used in the first objective which sought to examine the influence of Housing Locality on poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County. The results were presented in Table 1 in which percentages were presented outside brackets while frequency in the brackets. The agreement ranged from 1 strongly disagree, 2-Disagree, 3-undecided, 4-agree and 5 strongly agree. SDV is the standard deviation.

<table>
<thead>
<tr>
<th>Housing Locality</th>
<th>Mean</th>
<th>SDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximity to the town Centre plays a role on housing projects</td>
<td>9.4</td>
<td>1.041</td>
</tr>
<tr>
<td>Area locality topography have effects on housing projects</td>
<td>9.4</td>
<td>1.052</td>
</tr>
<tr>
<td>Security of the locality have effects on housing projects</td>
<td>5.8</td>
<td>1.069</td>
</tr>
<tr>
<td>Community ethical norms plays a role on housing projects</td>
<td>7.2</td>
<td>0.952</td>
</tr>
<tr>
<td>Weather conditions have conditional effects on housing projects</td>
<td>4.3</td>
<td>1.046</td>
</tr>
<tr>
<td>Average income of citizens in the community has effects to housing projects</td>
<td>10.1</td>
<td>1.169</td>
</tr>
<tr>
<td>Overall mean</td>
<td>3.19</td>
<td></td>
</tr>
</tbody>
</table>

From Table 1, it was clear that 36.2% of the respondents agreed that Proximity to the town Centre played a role on housing projects and additional 5.8% of the respondents strongly agreed. A mean of 3.16 suggested that Proximity to the town Centre played a role on housing projects. From the results 29.0% of the respondents agreed that area locality topography influences housing locality while additional 13.0% strongly agreed having a mean of 3.13. Significant standard deviation implied that some groups did not consider housing locality having any effect on poverty of...
registered women groups of Shinyalu Constituency, Kakamega County; Kenya.

In regard to Security of the locality having effects on housing projects, 31.9% of the respondents were undecided. However, 34.1% of the respondents agreed to be considering security of the locality and 13.0% strongly agreed that they have strong consideration of the security of the locality. Furthermore, 23.9% of the respondents agreed and 2.9% strongly agreed that Community ethical norms play a role on housing projects. Lastly, 15.9% of the respondents were undecided that Average income of citizens in the community has effects to housing projects while 10.1% of the respondents strongly agreed although 20.3% of the respondents disagreed that Weather conditions have conditional effects on housing projects.

**Housing Cost on Poverty Reduction of Registered Women Groups**
The second objective, which had the variable of Housing Cost sought to find out the effect of Housing Cost on Poverty reduction of registered women groups of Shinyalu Constituency, Kakamega County; Kenya. The results were presented in Table 2.

**Table 2: Housing cost**

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>SDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building materials are within the locality of housing projects</td>
<td>1.4(2)</td>
<td>2.2(3)</td>
<td>0(0)</td>
<td>23.9(33)</td>
<td>72.5(100)</td>
<td>4.64</td>
<td>0.734</td>
</tr>
<tr>
<td>Personnel for building house projects are easily available</td>
<td>2.9(4)</td>
<td>26.8(37)</td>
<td>31.2(43)</td>
<td>30.4(42)</td>
<td>8.7(12)</td>
<td>3.15</td>
<td>1.010</td>
</tr>
<tr>
<td>Locality topography for housing projects is friendly. Kakamega County Government offers training on housing projects implementation to the community of persons registered</td>
<td>2.2(3)</td>
<td>13.8(19)</td>
<td>39.9(55)</td>
<td>32.6(45)</td>
<td>11.6(16)</td>
<td>3.38</td>
<td>0.937</td>
</tr>
<tr>
<td>Personnel for building houses are sourced by tendering</td>
<td>7.2(10)</td>
<td>13(18)</td>
<td>19.6(27)</td>
<td>50.7(70)</td>
<td>9.4(13)</td>
<td>3.44</td>
<td>1.107</td>
</tr>
<tr>
<td><strong>Overall mean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>3.56</strong></td>
<td></td>
</tr>
</tbody>
</table>

The finding in Table 2 meant that 72.5% of the respondents agreed that Building materials are within the locality of housing projects and 23.9% of the respondents strongly agreed. With a mean of 4.64 means that respondents agreed that Building materials are within the locality of housing projects. However, 30.4% of the respondents agreed that Personnel for building house projects are easily available and 8.7% strongly agreed on the same. A mean of 3.15 indicated that some personnel for building house projects are easily available. It was also revealed that 32.6% of the respondents agreed that locality topography for housing projects is friendly while 11.6% strongly agreed. A mean of 3.38 showed that the locality topography for housing projects being friendly affects the housing cost.

The results further revealed that 26.8% and 11.6% of the respondents agreed and strongly agreed respectively that the Kakamega County Government offers training on housing projects implementation to the community of persons registered. A mean of 3.21 implies that the training is not always readily available and easy to reach. Lastly, 50.7% and 9.4% of the respondents agreed and strongly agreed respectively that the Personnel for building houses are sourced by tendering. A mean of 3.44 implies that some of personnel for building houses are sourced by tendering.

**Housing Tenure on Poverty Reduction of Registered Women Groups**
Housing Tenure variable was used as the third objective which sought to examine the influence of Housing Tenure on Poverty reduction of registered women groups in Shinyalu Constituency, Kakamega County. The results were presented in Table 3.
Table 3: Housing Tenure

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>SDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion for home owners occupation is higher than social renters</td>
<td>6.5(9)</td>
<td>15.2(21)</td>
<td>25.4(35)</td>
<td>37(51)</td>
<td>15.9(22)</td>
<td>3.41</td>
<td>1.125</td>
</tr>
<tr>
<td>Average earners are more of renting house facilities than home ownership</td>
<td>4.3(6)</td>
<td>18.1(25)</td>
<td>8.7(12)</td>
<td>37.7(52)</td>
<td>31.2(43)</td>
<td>3.73</td>
<td>1.205</td>
</tr>
<tr>
<td>Land prices in the given localities determine the type of tenure</td>
<td>11.6(16)</td>
<td>18.1(25)</td>
<td>13.8(19)</td>
<td>42(58)</td>
<td>14.5(20)</td>
<td>3.30</td>
<td>1.252</td>
</tr>
<tr>
<td>Community ethics and norms determine the type of tenure</td>
<td>12.3(17)</td>
<td>23.9(33)</td>
<td>20.3(28)</td>
<td>36.2(50)</td>
<td>7.2(10)</td>
<td>3.02</td>
<td>1.181</td>
</tr>
<tr>
<td><strong>Overall Mean</strong></td>
<td><strong>3.87</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 3, 37.0% and 15.9% of the respondents agreed and strongly agreed that Proportion for home owners’ occupation is higher than social renters. A mean of 3.41 implied that respondents were undecided that Proportion for home owners’ occupation is higher than social renters. However, 37.7% of the respondents agreed that average earners are more of renting house facilities than home ownership while 31.2% strongly agreed on the same with a mean of 3.73. This implies that average earners are more of renting house facilities than home ownership.

On the other hand, 42.0% of the respondents agreed and 14.5% strongly agreed that land prices in the given localities determine the type of tenure.

Table 4: Quality of a shelter on Poverty Reduction

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>SDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximity to the town has effects on Quality of a Shelter, since many people would like to be near towns</td>
<td>2.2(3)</td>
<td>22.5(31)</td>
<td>31.2(43)</td>
<td>38.4(53)</td>
<td>5.8(8)</td>
<td>3.23</td>
<td>0.938</td>
</tr>
<tr>
<td>Average income of individuals determines who should own a given type of shelter</td>
<td>5.8(8)</td>
<td>8.7(12)</td>
<td>15.9(22)</td>
<td>45.7(63)</td>
<td>23.9(33)</td>
<td>3.73</td>
<td>1.098</td>
</tr>
<tr>
<td>Occupation of persons have effects on quality of the housing facilities</td>
<td>13.8(19)</td>
<td>13(18)</td>
<td>29.7(41)</td>
<td>27.5(38)</td>
<td>15.9(22)</td>
<td>3.19</td>
<td>1.253</td>
</tr>
<tr>
<td>The topography of the locality has effects on quality of housing facilities</td>
<td>9.4(13)</td>
<td>13(18)</td>
<td>32.6(45)</td>
<td>36.2(50)</td>
<td>8.7(12)</td>
<td>3.22</td>
<td>1.086</td>
</tr>
<tr>
<td>Kakamega County Government administration has effects on quality of housing facilities</td>
<td>10.1(14)</td>
<td>15.2(21)</td>
<td>23.9(33)</td>
<td>39.9(55)</td>
<td>10.9(15)</td>
<td>3.26</td>
<td>1.155</td>
</tr>
<tr>
<td>Quality of shelter facilities are determined by availability of building materials</td>
<td>2.2(3)</td>
<td>8.7(12)</td>
<td>42.8(59)</td>
<td>46.4(64)</td>
<td>4.33</td>
<td>0.728</td>
<td></td>
</tr>
<tr>
<td><strong>Overall mean</strong></td>
<td><strong>3.47</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 showed that 38.4% and 5.8% of the respondents agreed and strongly agreed respectively that proximity to the town has effects on Quality of a Shelter, since many people would like to be near towns. A mean of 3.23 implies that proximity to the town has effects on Quality of a Shelter, since many people would like to be near towns. On the other hand, 45.7% of the respondents agreed that average income of individuals determines who should own a given type of shelter. A mean of 3.30 suggested that land prices in the given localities determine the type of tenure. Lastly, 36.2% and 7.2% of the respondents agreed and strongly agreed respectively that community ethics and norms determine the type of tenure. A mean of 3.02 implies that not all groups’ community ethics and norms determine the type of tenure.

Quality of a shelter on Poverty Reduction of Registered Women Groups

Quality of a shelter variable was used as the fourth objective which sought to determine the influence of quality of housing on Poverty reduction of registered women groups in Shinyalu Constituency, Kenya. The results were presented in Table 4.
type of shelter while 23.9% strongly agreed with a mean 3.23. This implies that to a great extent, average income of individuals determines who should own a given type of shelter.

The results also revealed that 27.5% and 15.9% of the sampled respondents agreed and strongly agreed respectively that occupation of persons have effects on quality of the housing facilities. However, small number of the respondents was undecided that occupations of persons have effects on quality of the housing facilities as shown by 29.7% with a mean of 3.19. Similarly, 36.2% and 8.7% of the sampled respondents agreed and strongly agreed respectively that the topography of the locality has effects on quality of housing facilities. However, 32.6% of the respondents were undecided whether the topography of the locality has effects on quality of housing facilities with a mean of 3.22.

The results further revealed that 39.9% and 10.9% of the respondents agreed and strongly agreed respectively that Kakamega County Government administration has effects on quality of housing facilities. A mean of 3.26 implies that Kakamega County Government administration has effects on quality of housing facilities. Majority of the respondents represented by 46.4% strongly agreed that Quality of shelter facilities are determined by availability of building materials while additional 42.8% of the respondents agreed with a mean of 4.33. This implies that, quality of shelter facilities is determined by availability of building materials.

### Poverty reduction of registered women groups in Shinyalu Constituency

Poverty reduction of registered women group variable was as dependent variable. The results were presented in Table 5.

<table>
<thead>
<tr>
<th>Table 5: Poverty Reduction in Shinyalu; Kakamega County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locality infrastructure has improved for the well-being of residents</td>
</tr>
<tr>
<td>Homelessness has reduced from the locality</td>
</tr>
<tr>
<td>Social housing has reduced and citizens tending to home ownership</td>
</tr>
<tr>
<td>Employment rates have grown up in the locality for both skilled and unskilled. More small business ventures have been created to improve on income of the locals</td>
</tr>
<tr>
<td>Overall</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

The results in Table 5 showed that 32.6% of the respondents agreed and 33.3% also strongly agreed that locality infrastructure has improved for the well-being of residents. However, 12.3% of the respondents were undecided on whether Locality infrastructure has improved for the well-being of residents with a mean of 3.86. On the other hand, 14.5% and 17.4% of the respondents agreed and strongly agreed respectively that homelessness has reduced from the locality. A mean of 2.88 implies that not all homelessness has reduced from the locality. The results also revealed that 52.2% of the respondents agreed that employment rates have grown up in the locality for both skilled and unskilled while 3.6% strongly agreed. A mean of 3.41 indicate that their employment rates have grown up in the locality for both skilled and unskilled.

Similarly, 5.8% and 41.3% of the respondents agreed and strongly agreed respectively that more small business ventures have been created to
improve on income of the locals. With mean of 3.57, it implied that more small business ventures have been created to improve on income of the locals. Finally, 41.3% of the respondents agreed that social housing has reduced and citizens tending to home ownership and 26.1% of them strongly agreed. A mean of 3.83 implied that social housing has reduced and citizens tending to home ownership.

Inferential Analysis
The general objective of this study was to investigate the effect of housing improvement projects on poverty reduction: A case of Shinyalu constituency, Kakamega County; Kenya. This was achieved by carrying out standard multiple regressions. The study was interested in knowing the influence of each of the housing improvement projects (Housing Locality, Housing Cost, Housing Tenure&Quality of housing) on poverty of registered women groups when all these constructs were entered as a block on the model. The results of multiple linear regression analysis are presented in Table 6.

Table 6: Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.779a</td>
<td>.607</td>
<td>.595</td>
<td>.3756979</td>
</tr>
<tr>
<td></td>
<td>a. Predictors: (Constant), (Housing Locality, Housing Cost, Housing Tenure&amp;Quality of housing)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Dependent Variable: Poverty Reduction</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANOVA Results
The results from the model summary in Table 6 gave us information on the overall summary of the model. The R square value indicates that promoters’ incentives accounts for 60.7% significant variance in poverty of registered women groups (R square =.607) implying that 39.3% of the variance in poverty of registered women groups is not accounted for by other variables not captured in this model. In order to assess the significance of the model, simply whether the study model was a better significant predictor of the poverty of registered women groups, the study resorted to F statistic. From the findings, the F value was more than one, as indicated by a value of 51.401. The large F value was very unlikely to exist by chance (99.0%), thus implying that the final study model has significant improvement in it is prediction ability of poverty of registered women groups in Shinyalu Constituency, Kenya (F (4,76) = 51.401, P=0.000). Therefore, housing improvement projects are a significant predictor of poverty of registered women groups.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>29.021</td>
<td>4</td>
<td>7.255</td>
<td>51.401.000b</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>18.773</td>
<td>133</td>
<td>.141</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>47.794</td>
<td>137</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Dependent Variable: Poverty Reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Predictors: (Constant), (Housing Locality, Housing Cost, Housing Tenure&amp;Quality of housing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Constant)</td>
<td>.506</td>
<td>.227</td>
<td>.208</td>
</tr>
<tr>
<td></td>
<td>Housing Locality</td>
<td>.218</td>
<td>.065</td>
<td>.208</td>
</tr>
<tr>
<td>1</td>
<td>Housing Cost</td>
<td>.207</td>
<td>.060</td>
<td>.226</td>
</tr>
<tr>
<td></td>
<td>Housing Tenure</td>
<td>.167</td>
<td>.059</td>
<td>.224</td>
</tr>
<tr>
<td></td>
<td>Quality of housing</td>
<td>.262</td>
<td>.056</td>
<td>.339</td>
</tr>
<tr>
<td>a. Dependent Variable: Poverty Reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Regression Coefficients

A regression of the four predictor variables against Poverty established the multiple linear regression models as indicated above in Table 6.

\[ Y = 0.506 + 0.218X_1 + 0.207X_2 + 0.167X_3 + 0.262X_4 \]

Where;

- \( X_1 \) = Housing Locality
- \( X_2 \) = Housing Cost
- \( X_3 \) = Housing Tenure
- \( X_4 \) = Quality of housing

\( \varepsilon \) = the error of term

It was clear that all factors had significant positive influence on the poverty reduction of registered women groups as shown by B coefficients. If the four factors are held at zero or it is absent, poverty of registered women groups would be 0.506, \( p=0.027 \).

The results meant that Housing Locality had significant positive influence on poverty of registered women groups with \( B=.218 \ p=.001 \) implying that controlling of other variables (Housing Cost, Housing Tenure and Quality of housing) in the model, a unit change in Housing Locality would result to significant change in poverty reduction of registered women groups by 0.218 units in the same direction (\( P<0.05 \)). Therefore, Housing Locality had significant positive influence on poverty reduction of registered women groups.

Housing Cost is a key factor in countering the effects of market dynamics. The presence of market subsidies in the locality increases the chances of reducing the gap of availability and accessibility of building materials. Due to the novelty of most of the housing materials, it is important to develop locally available housing materials in the area. Nevertheless, the scattered nature of consumers’ income status coupled with their low buying power and lack of capacity makes the notion of setting up local housing materials in the distribution regions unsustainable.

The coefficient of Housing Cost was 0.207, which was significant ( \( p=.001 \) ). When the variance as explained by all other variables (Housing Locality, Housing Tenure and Quality of housing) in the model is controlled, unit change in Housing Cost, would result to change in poverty of registered women groups uptake by 0.207 units in the same direction. Therefore, there is adequate evidence to reject second null hypothesis since Housing Cost has significant influence on poverty of registered women groups in Shinyalu Constituency, Kenya. 'Housing costs induced poverty' has been increasing over the last two decades. However good quality, low-cost housing has, at least partly, broken the link between poor housing conditions and poverty in the UK.

An extra 3.1 million people in the UK are in poverty after their housing costs have been paid. One million of these are in London, reflecting its high housing costs. Low rents are important in reducing poverty. The private rented sector is paying an increasingly important role with 18 per cent of private tenants in poverty before housing costs are taken into account and 38 per cent in poverty after housing costs are paid.

In the social sector, which is highly targeted on people with low incomes, 29 per cent of social renters are living in poverty before housing costs. Despite sub-market social rents, 43 per cent are living in poverty after housing costs have been paid. For over 20 years, home-owners have made up more than half of people living in (before housing costs) poverty in the UK. Although they receive only 2 per cent of all state support for housing costs home-owners are less likely to be living without essential items than tenants on the same income.

Policy needs to pay closer attention to links between housing and poverty. Efforts to reduce poverty need to consider limiting rent costs, maintaining good housing conditions in all tenures and monitoring the impact of welfare reform cuts (Rebecca Tunstall et al.2013)

Housing Tenure also had significant positive influence on poverty of registered women groups (\( B=.167, \ p=.005 \)). When other variables in the
model are controlled (Housing Locality, Housing Cost and Quality of housing), a unit change in Housing Tenure would result to significant change in poverty of registered women groups by 0.167 units in the same direction. From the study findings, the study rejected the third null hypothesis as Housing Tenure had a significant positive influence of poverty of registered women groups in Shinyalu Constituency, Kenya.

The main characteristic of housing reported in studies of income and poverty, and other large-scale surveys, is housing tenure. Home-ownership is widely seen as more desirable than rented tenures, although views of the relative desirability of social renting and private renting vary. Those living in poverty have lower rates of home-ownership overall than those on higher incomes. They have markedly lower rates of mortgaged home-ownership, and markedly higher rates of social renting than those on higher incomes. Since the 1980s, researchers have commented on the increasing proportion of social housing residents who were disadvantaged (Forrest and Murie, 1988; Tunstall, 2011). The relationship between social rented tenure or the impact of poverty on housing circumstances 25 rented tenures, and low income and deprivation is so strong that many broad social science studies, medical studies and even indices of deprivation have used tenure as an all-purpose indicator of disadvantage (Townsend, 1987).

Quality of housing had also significant positive influence on poverty of registered women groups (B=0.262, p=.000 implying that when other variables in the model are controlled (Housing Locality, Housing Cost and Housing Tenure), a unit change in Quality of housing would result to significant change in poverty of registered women groups by 0.262 units in the same direction. Basing on the findings, the study rejected the fourth null hypothesis as P<0.05. This implies that Quality of housing have a significant positive influence on the poverty of registered women groups. Increase in Quality of housing would results to decrease in poverty of registered women groups.

Relatively few sources covering housing conditions focus on people experiencing poverty specifically. Available data suggests that people living in poverty are more likely to experience most of the forms of housing quality problems and neighborhood problems than other people, but the differences were not always large. People not living in The impact of poverty on housing circumstances 23 poverty have a very slightly higher risk of lacking heating, indoor toilets and bath, or showers than people in poverty. The difference may be within sampling error and could be attributed to the near-universal achievements of these standards in the UK. The majority of people living in poverty did not experience these poor housing conditions, and some people on higher incomes did (Rebecca Tunstall et al., 2013).

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that housing locality influences poverty reduction of registered women groups. Improvement in housing locality would result in solar energy technology. Women groups in Shinyalu Constituency have little knowledge of different aspects of housing locality like proximity, local topography, security, community ethical norms etc as few of them have undergone sensitization on housing or real estate matters. This has affected the poverty reduction of registered women.

From the findings, we comfortably concluded that Housing tenure has significant influence on poverty reduction of registered women groups in Shinyalu Constituency, Kenya. Therefore, the study rejects the third null hypothesis as Housing tenure influence poverty reduction of registered women groups. It is important to establish that women
groups were not fully aware of aspects such as land prices determining types of tenure, community ethics and norms and there was limited formal occupation to support eradication of poverty eradication of registered women groups in Shinyalu Constituency, Kenya.

Finally, our study concluded that Quality of a shelter has significant influence on the poverty eradication of registered women groups in Shinyalu Constituency, Kenya. Consequently, the fourth hypothesis was therefore rejected. One of the impending factors of poverty is quality and this was demonstrated by limited knowledge about quality aspects. This implies that, fewer women are able to access impress quality.

Since most of women group lacked required knowledge, the study recommended that there is need for increased training and capacity building for women group members so as to enable them acquire knowledge and skills in the eradication of poverty. This would also enable them to appreciate the aspects of quality of a shelter, housing tenure, housing cost and housing locality. This can be achieved by knowledge dissemination.

Therefore, the study recommended that there is need to make information on housing improvement projects available not only to women groups but also to other stakeholders. This can be achieved by using various way of disseminating information not limited to one form media. The information would enable women groups to utilize different housing improvement projects in the market.

Thus the study recommended that there is need for the county government and other development partners to come up with variety of knowledge dissemination alternatives on housing improvement projects which incorporate various tastes, preferences and needs of different members in the society. This would ensure that, women group members are given opportunity to incorporate these aspects that best suits their individual needs.

The study therefore recommended that the government and other development partners should enable availability of housing improvement projects aspects information. This can be done through collaboration between the government, development partners and professionals. The women groups should also come up with innovative ways which would allow members to upgrade their housing improvement projects.

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