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INFLUENCE OF FUNDING ACTIVITY AS ACOMPONENT OF SANITATION FINANCING PROGRAM ON COMMUNITY LIVELIHOOD IN URBAN INFORMAL SETTLEMENT OF OBUNGA, KISUMU COUNTY, KENYA

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Abstract:
The study sought to investigate the influence of funding activities as a component of sanitation financing programme on community livelihood in urban informal settlements of Kisumu County, Kenya. The purpose of the study was to assess the influence of funding activities on community livelihood in urban informal settlement of Obunga, Kisumu County Kenya. The study adopted inferential analysis and descriptive survey research design with sample size of 384 households and 10 key informants. The study sample was obtained through stratified simple random, and purposive sampling strategies. Quantitative data was analysed using means, standard deviations, frequencies, and percentages. Qualitative data was transcribed and analysed in emergent themes and sub-themes. Results were interpreted and requisite recommendations made. According to the results, there is a statistically significant positive correlation between funding activities and community livelihood ($p < 0.05$). Coefficient of determination showed that funding activities accounted for 24.1% of the changes in community livelihood. Findings from the study established that there was statistically significant correlation between funding activities as a component of sanitation financing program and community livelihood. The study recommends the funding activity should be sustained in the sanitation financing program for purposes of improving community livelihood .The study concluded that investing in funding activities of sanitation financing programme in Obunga urban informal settlement of Kisumu County, Kenya has a positive influence on community livelihood. The study calls for further research on the influence of funding activities as a component of sanitation financing program on community livelihood using other predictors of community livelihood as well as influence of sanitation financing program on community livelihood; a comparison between formal and informal urban settlements.

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Keywords: sanitation financing, funding activities, community livelihood

1. Introduction

Sanitation financing programme since its inception has grown to become a global movement which aims to offer financial inclusion to low-income population as noted by (Annamraju, Calaguas and Gutierrez, 2001). United Nations International Decade for Drinking Water and Sanitation heightened global awareness to the severity of the Sanitation problem and created innovative solutions to the provision of water and sanitation, increased financial commitments to the sector and improved the absolute number of people with access. In addition, the 2030 Agenda for Sustainable Development introduced a new level of ambition for water, Sanitation and hygiene (WASH) services, encouraging countries to aspire to even higher levels of service and thus greater health, economic, social, and environmental benefits as noted by (World Bank Group, 2017). According to Geissler, Goldberg and Leatherman (2016), numerous strategies have been attempted by national and international aid organizations to promote access to household latrines; including community led total sanitation, subsidies for latrines or installation and the development of functioning markets for low-cost latrines (Knapp and Mehta, 2004).

Globally, 40% of the world's people don't approach an essential level of sanitation program; one out of five practices open defecation (WHO/UNICEF, 2015). This emergency in sanitation has clear outcomes. Diarrhoea murders more than 1.5 million children every year, and 88 percent of these deaths are credited to faecal contamination from deficient sanitation, cleanliness, and water supply; absence of sanitation spreads numerous different sicknesses, dirties both water and land, and burglarizes the poor of essential respect. The cost of these issues is high in financial and additionally human term (World Health Organization, 2014). The current levels of funding flowing to WASH services are in line only with the capital costs of meeting basic WASH services The costs of achieving safely managed WASH, on the other hand, are a multiple of the costs of achieving basic WASH (Fonseca and Pories, 2017). The World Bank estimates that $114 billion per year in overall global investment is needed to meet SDG targets 6. In essence, feasibility of achieving the SDG WASH targets depends on the ability to mobilize and redirect significant additional resources if services are to reach poorer, harder to reach populations (World Bank Group, 2017). Aside from the staggering social contentions, there are likewise effective economic and environmental explanations behind enhancing WASH services for poor people. Human waste is a big polluter of waterways and groundwater resources. As water demand rises unyieldingly with social and financial advance, shortage of water turns into a noteworthy thought being development planning. Industrialization and food security may both be undermined unless water resources are protected and conserved. For every one of these reasons, enhanced WS&S services have been viewed as a high priority need by the development community for over 20 years (Well, 1998).

According to World Health Organization, UN-Water (2014), at the Fourth African Conference on Sanitation and Hygiene (Africa-San) in Dakar, Senegal, May 2015, the Ngor Declaration was adopted by African Ministers responsible for sanitation and hygiene. The declaration includes a target for allocating 0.5 percent of GDP to sanitation and hygiene by 2020. At the moment, urban sanitation is being mainly funded through household own contributions or tariffs, and through transfers (aid), leaving the single most important source of funds taxes untapped as a financial source. In the last GLAAS survey (World Health Organization; UN-Water, 2014) 80 percent of country respondents stated that there was a significant funding gap for WASH, especially for sanitation. According to United Water Global Analysis & Assessment of Sanitation and Drinking Water (GLASS, 2014). There is room for public finance to contribute to ending the global sanitation crisis, but funds must be mobilized through effective governance, taxation mechanisms and accountability.

India estimated inadequate sanitation cost of almost $54 billion or 6.4% of the country's GDP in 2006. Over 70% of this economic impact or about $38.5 billion was health-related, with acute lower respiratory infections accounting for 12% of the health-related impacts (WHO, 2004). Sectorial demands for water are growing rapidly in India owing mainly to urbanization and it is estimated that by 2025, more than 50% of the country's population will live in cities and towns. Population increase, rising incomes, and industrial growth are also responsible for this dramatic shift. National Urban Sanitation Policy 2008 was the recent development in order to rapidly promote sanitation in urban areas of the country. India's Ministry of Urban Development commissioned the survey as part of its National Urban Sanitation Policy in November 2008 (UNICEF and WHO, 2008).In rural areas, local government institutions in charge of operating and maintaining the infrastructure are seen as weak and lack the financial resources to carry out their functions. In addition, no major city in India is known to have a continuous water supply and an estimated 72% of Indians still lack access to improved sanitation facilities (Habib and Jubb, 2015).

Sub-Saharan Africa region faces most severe water and sanitation challenges of any region in the world. More than 1 in 3 Africans residing in urban areas lack access to adequate water and sanitation services; in rural areas, the situation is even worse. Direct economic losses related to treatment of water related disease and loss of economic activity total $28.4 billion annually, about 5% of region’s cumulative GDP. It is least likely region of the world to meet the (MDGs) for water or sanitation (Africa water and sanitation, 2008). However, according to Salami, Stampini, Kamara, Sullivan, and Namara (2014), in the face of heterogeneous performance in the water and sanitation sector by different countries in Sub-Saharan Africa, investment in water and sanitation comes from in-country publicly funded projects, and from international loans and aid.

According to UNICEF (2015), within the East Africa the provision of sanitation services in low-income urban areas is one of the greatest challenges in development. Population growth in developing countries currently outpaces sanitation growth,

especially in urban areas. (Hutton, 2013) noted that, in urban areas where poor people reside, and where 'formal' sanitation services are not available to them, they experience the compounded effect of serious economic disadvantages such as high risk to public health; a dirty and contaminated environment; no basic human dignity and safety risk for a large part of the world's population, especially for adolescent girls and women. However, Series of interventions have been undertaken by the governments with support from the World Bank and other development partners, to improve access to microcredit finance in the water and sanitation sector in order to enhance the living condition of the people in slums. According to Statement (2015), household connections are financed with a combination of subsidies from WSP, up-front customer deposits, and loans through the local utility. According to WSP report, (Financing sanitation for cities and towns, 2014), the poor are more willing to take loans if they have the option to pay more frequently and in small amounts that reflect the micro-economy in which they operate.

Kisumu County in particular, several measures have been taken from all the stakeholders anchored towards providing sanitation funds to help solve the socioeconomic issues arising from lack of sanitation. Umande Trust for example is currently promoting a cooperative movement amongst groups involved in water, sanitation and solid waste management services. For example, the bio-centres are providing vital avenues for testing alternative schemes that involve profit-sharing and community shareholding models in basic urban services which demonstrate that with appropriate financing, urban communities have the capacity to mobilize their own resources and establish a Sanitation Development Fund (SANDEF) (Umande Trust, 2016). This study therefore, examines the influence of sanitation financing on socioeconomic stability of the community households in Kisumu, Kenya.

1.1 Statement of the Problem

Sanitation financing program can lead to improved social status and dignity (Jenkins and Scott, 2007), gender-equity benefits (Mahon and Fernandez, 2010) and increased school attendance for girls. Much progress has been achieved over the past years in the sector (World Health Organization; 2014) where, through sanitation credit, 2.3 billion People gained access to improved drinking-water between 1990–2012 (WHO and UNICEF, 2014) The number of children dying from diarrhoea diseases which are strongly associated with poor water, inadequate sanitation and hygiene has steadily fallen over the two last decades from approximately 1.5 million deaths in 1990 to just above 600,000 in 2012 (WHO, 2014). Kenya, urban slums like Kibera in Nairobi, Obunga, Manyatta and Nyalenda in Kisumu, Community households for example where through the bio sanitation facilities are constructed, jobs have been created and lives improved through provision of improved and dignified sanitation services adding up to improved health (Omotto, 2013). Despite the substantial amount of resources being allocated to sanitation financing worldwide, developing countries of which Kenya is part are struggling and pressed with huge debts obtained to provide basic

services such as sanitation especially for the continued mushrooming of urban slums (Republic of Kenya, 2016). This has escalated crippling economies amongst other socio-economic challenges (Annamraju et al., 2001), huge financing gap between budget allocation for sanitation and planning for appropriate use of the funds, with 80% of countries indicating insufficient financing for the sector (WHO, 2014). Significantly, less private capital has been committed into water and sanitation than other infrastructure sectors, long-term financial resources are required to support infrastructure development while commercial finance is needed to support short- and medium-term sanitation rehabilitation, operating expenses and bridge financing gap.

Therefore, if efforts are not put in place to fill this gap in order to stimulate household investment in sanitation at a larger scale, then Kenya is bound to face serious crippling economies amongst other socio-economic challenges. Furthermore, studies have established that Sanitation financing innovation is more successful in developed countries. Thus need to establish reasons for success which can be adopted to improve growth in developing countries as asserted by Garg (2017) and WHO (2014). This way Kenya will find a way to leverage household and community resources to sustainably close the sanitation financing program challenges gap as noted by Knapp and Mehta (2004).

1.3 Purpose of the Study

The Purpose of this study was to establish the influence of funding activities as a component of sanitation financing Programme on Community livelihood in urban Informal Settlement of Obunga, Kisumu County, Kenya.

2. Review of Related Literature

2.1 Funding Activities and Community Livelihood in Urban Informal Settlements

Funding activities is providing financial solutions to the global water sanitation and hygiene crisis that give women hope, children health and community a future (Lyos, 2017). This includes Water, Sanitation and Hygiene Water, sanitation services and good hygiene, termed as WASH in the humanitarian community, are three closely connected preconditions for public health. The humanitarian community has responded by increasing funding for humanitarian WASH needs 30-fold over the last decade (UNICEF Madagascar, 2012). This involves loans application and access modalities, Loan Offers, Management structures, as well as membership and networks (Omotto, 2014).

According to OECD (2009), the sums involved in operating and maintaining services and infrastructure, expanding their coverage and upgrading them to meet current social and environmental expectations are huge yet most systems are underfunded, with dire consequences for WSS users, especially the poorest. The quest for sustainable finance for water and sanitation is therefore motivated by the large financial implications of the Millennium Development Goals (MDGs) and a realization

of the dire results of underfunding of existing systems (Norman, Fonseca, and Jacimovic, 2012). There are many funding activities available as in many definitions. This study will focus on the world's most urgent issues thus lack of safe water, sanitation and hygiene. Water-related improvements which are crucial to meet the development goals, reduce child mortality, and improve health in a sustainable way (United Nations, 2015).

The problem of adequate safe water provision is mostly felt in developing countries where many people have poor access to this important commodity. Africa water and sanitation magazine (2008) edition states that around the world 1.1 billion people lack water and 2.4 billion lack sanitation with 300 million of these living in Africa. Poor access to adequate water and sanitation is a main reason to stagnant development for many regions in Sub-Saharan Africa. Most countries in which a large proportion of the urban population lives in informal settlements are unlikely to meet the water-related MDGs (Dagdeviren and Robertson, 2009). The situation of water access is by day worsening in informal settlements since appropriate measures by relevant stakeholders such as local authorities and governments are not being put in place to address the existing and upcoming challenges. Although the number of slum-dwellers is predicted to reach over two billion by 2030, access to safe water in urban slums does not seem to be improving (Limido, 2011).

Water is an important resource for economic development of any given community. Combating poverty is the main challenge for achieving equitable and sustainable development and water plays a vital role in relation to economic growth (Reba, 2003). He continues to argue that poor access to water contributes to hunger and food insecurity. A close examination and analysis of the millennium declaration confirms the central role of water and sanitation in sustainable development and the major contribution that expanded access to safe drinking water and adequate sanitation can lead to poverty alleviation. According to Hesselbarth (2005), the provision of safe drinking water and basic sanitation contributes to sustainable improvements in peoples' lives regarding their health and education situation, the preconditions for productive employment as well as for the eradication of extreme hunger and the empowerment of women. Fox and Liebenthal (2006) argues that water, sanitation and hygiene are essential for achieving the MDGs- and hence for alleviating global poverty. An investment in the water sector is an investment in all the MDGs. The impact of water sector investments directly targeted at poor consumers is anything but subtle (UN-Water, 2009). Around the world, poor people place a high priority on drinking water.

A wide-ranging international review of financing mechanisms study which explored how financing mechanisms can be used to promote sector reform; how additional resources can be leveraged into the water supply and sanitation (WSS) sector in a sustainable manner; and how different WSS linked subsidies can be more effectively designed and used to serve the poor (Mehta, 2003) revealed that, to ensure progress, we must put in place appropriate and effective financing mechanisms that

leverage the needed change, promote and support sector reforms that yield effective institutional frameworks, guarantee appropriate use of limited public resources, and encourage well-targeted subsidies to achieve equity (Mehta, 2003).

Similarly, the study carried out on Progress on drinking water, sanitation and hygiene (WHO/UNICEF Joint Monitoring Programme, 2017) revealed that, 71 per cent of the global population (5.2 billion people) used a safely managed drinking water service; that is, one located on premises, available when needed and free from contamination. 39 per cent of the global population (2.9 billion people) used a safely managed sanitation service; that is, excreta safely. The study as well, which critically examined the different sources of financing available for the water and sanitation sector at a global level (Annamraju et al., 2001). Noted that financing gap is huge, but not unbridgeable and that to ensure investment is put towards achieving sector targets, and prioritizing within those targets services for the poor and un-served, further efforts as well to be directed to northern and southern governments to recognize and facilitate the investments currently being made by households and communities (Annamraju et al., 2001). The study lobbied for increased investment, however the gap exists whereby the researcher did not mention promotion activities to be used to achieve the target funds, and this will be addressed in this study by looking at the influence of promotion activities on community livelihoods.

Similarly, another study carried out by Salami, Stampini, Kamara, Sulivani and Namara (2014) to compare countries' performance in the water and sanitation sector and to analyze how effectively they used the associated development aid (Salami et al., 2014). The study recommended increased investment in WASH sector, particularly with much greater attention given to adequate public awareness and sensitization, especially hygiene education, for the correct use of latrines and cleaning of hands after defecation. Additionally, study carried out to estimate the economic benefits and costs of a range of interventions to improve access to water supply and sanitation facilities in the developing world (Hutton, 2013). Finding were that, all water and sanitation improvements are cost-beneficial in all developing world sub-regions. Further country case-studies were therefore recommended as a follow up to this global analysis. One of the major barriers to safe water and sanitation is affordable financing. This study wills therefore use Water Credit to address this barrier head-on. According to UNICEF (2014), Water Credit brings small, easily repayable loans to those who need access to affordable financing and expert resources to make household water and toilet solutions a reality.

Bill & Melinda Gates Foundation commissioned a study to assess the potential market for using microfinance in the water and sanitation sector (Hutton, 2013) and to identify specific opportunities for potential learning, investment, and support; examined the potential market for expanding small-scale banking and credit services to the poor, enabling them to pay for sustainable water and sanitation. One of the findings was that, investments suggest a potentially large demand for microfinance of over USD 12 billion in loans over the next decade. Demand for sanitation is very large,

particularly for rural sanitation. Those demands could be increased further through appropriate policy changes (Meera Mehta, 2008).

As noted above, despite the potential demand and the benefits for the microfinance sector, in practice, only a few MFIs have shown an interest in engaging in this sector. To create greater interest among the MFIs, the author suggested another strategic partner could be the microfinance associations at the country or regional levels. Many countries in these regions have their own associations, and in Africa, there is an association of associations. 88 MFI associations can source appropriate external technical expertise to carry out a WSS industry assessment (to determine the potential for using microfinance in the water and sanitation sector), These research therefore seeks to fill the gap by positively seeking to establish if there are other factors contributing to sanitation problems which includes failure of microfinance institutions to partners with public institutions.

Sub-Saharan Africa and Oceania continue to use rivers, lakes, ponds and irrigation canals as their main source of drinking water Globally the study by WHO/UNICEF (2015) which examined trends over the Millennium development goals period by region and by level of service; paid particular attention to the numbers of people who have gained the highest level of service in drinking water supply , piped water on premises and those with no service at all, who use surface water for drinking and practice open defecation. (WHO/UNICEF, 2015)

The study on the Impact of Microfinance and its Role in Easing Poverty of Rural Households Estimations from Pakistan (Ghalib, Malki, and Imai, 2011) which examined if household access to microfinance reduces poverty in Pakistan, and if so, to what extent and across which dimensions of well-being by taking account of the multi-dimensional aspect of poverty. It was confirmed that microfinance programmes had a positive impact on the welfare of participating households, that is, the poverty reducing-effects were observed and statistically significant on a number of indicators, including expenditure on healthcare or clothing, monthly household income, and certain dwelling characteristics, such as water supply and quality of roofing and walls (Ghalib et al., 2011). Future researchers were advised to employ the improved survey design and methodologies through, for example, the panel data survey data to be collected in Pakistan to overcome some of the limitations of the study. This research therefore seeks to fill the gap by carrying out the research on influence of sanitation financing on households livelihoods in Kenya, with descriptive cross-sectional as the research design.

The study carried out to establish the influence of community intervention strategies- participation, empowerment, capacity building, conflict management and ownership on the perceived sustainability of water sanitation and hygiene (WASH) projects (Otieno, 2015). Community ownership had a significant moderating effect on the interaction between capacity building and sustainability of WASH projects. Community participation, capacity building, community empowerment and conflict management had a significant independent and simultaneous influence on

sustainability of WASH projects (Otieno, 2015). Future research was recommended to explore WASH projects sustainability against dependency on sorely internally generated funds and sustained external funding.

Study carried out as well to establish the implications of water supply and sanitation projects on livelihoods of slum dwellers in Kenya: A case of Kosovo village in Mathare constituency, Nairobi (Munyao, 2013) found out that water and sanitation projects in slums had contributed positively towards improved livelihoods of the residents at the local level through safe water access, reduced water pricing and improved sanitation provision (Munyao, 2013). I agree with the statement on finding that Nairobi water and sanitation projects in slums had contributed positively towards improved livelihoods of the residents at the local level through safe water access, reduced water pricing and improved sanitation provision, however the author recommended several interventions as mentioned in his abstract without clear indications, the context as well is different in my research, therefore the research will seek to fill the gap by studying a different county and area with different population as I believe the findings will not be the same.

According to Koskei and Koech (2013), the study conducted to determine effect of socioeconomic factors on access to improved water sources and basic sanitation in Bomet Municipality, Kenya, confirmed that the type of toilet facility used by household was significantly influenced by the marital status of house hold head and that there is need for inclusive growth, basic education and women empowerment in order to achieve the Millennium Development Goals (MDGs). In addition, the study noted that Safe water supply and basic sanitation has multiple impacts on socio economic development in sub-Saharan Africa

Study conducted by Wsp (2014) Delivering Water Supply and Sanitation Services in Fragile States in Zimbabwe confirmed that the Beitbridge Emergency Water Supply and Sanitation Project had a very positive impact on access to water and sanitation services, and at least a marginally positive effect on restoring confidence in local institutions (Supply, 2014). However, significant gaps remained in terms of service access and equality, as well as in other areas such as project communications.

In Kisumu county, a cross sectional Study aimed at estimating the cost of sanitation, and investigating the social and economic dynamics within Kisumu's informal settlements, Kenya that hinder provision and uptake of sanitation facilities reported findings that, Provision of sanitation in informal settlements is intertwined in social and economic dynamics, and development approaches should target both landlords and tenants, while also engaging various stakeholders to work together to identify affordable and appropriate sanitation technologies (Simiyu, Swilling, Rheingans and Cairncross, 2017). Study which aimed at estimating the cost of sanitation, and investigating the social and economic dynamics within Kisumu informal settlements that hinder provision and uptake of sanitation facilities found out that sanitation constitutes approximately 54% of the rent paid in the settlements; and

dynamics such as landlords and tenants preferences, and sharing of sanitation facilities influence provision and payment for sanitation (Simiyu et al., 2017).

Study carried out to establish the influence of community intervention strategies on perceived sustainability of water sanitation and hygiene projects. Trainings were found to be significant (Otieno, 2015). The study recommended that WASH projects should ensure informed and active participation of communities in project identification and implementation. The study asserted that, communities should be strongly empowered and their capacities, especially of the management committee, sufficiently built in project management particularly in project establishment, technical, financial and conflict management. Further, WASH projects should be initiated and implemented in a manner that facilitates

3. Methodology

The study adopted a descriptive survey research design which was used in communities to establish the extent of range of issues such as education, health, which needs to be addressed Mugenda and Mugenda, (2008). The target population focused on residents of households within the selected slum of Kisumu amongst whom government or donor funded water, sanitation and hygiene (WASH) projects are implemented. The selected informal settlement was Obunga. The target population comprised of 3,553 households. This was informed by the population of households in the informal settlement and targeted household heads. The study further targeted all the sanitation projects within the study area that were funded by either the government of Kenya, donor agencies like NGOs, civil society organizations, intergovernmental institutions, international organizations and other foreign agencies. Sample size of 384 households was selected using a combination of stratified and simple random sampling strategies. The data was analysed using the Statistical Package for Social Scientists (SPSS) Version 24. Descriptive and inferential statistics was analyzed using the software. Descriptive statistics included the means, standard deviations, and frequency percentage. For inferential statistics, simple linear regression analysis including the Analysis of Variance (ANOVA), correlation and regression analysis was computed to determine the relationship or associations between the independent variables and the dependent variable A number of ethical issues were considered in this study. In order to ensure confidentially of data received from respondents, a unique identifier was used while recording the same. Additionally, neither names nor phone numbers were requested for from respondents. Information that was obtained from other sources has been acknowledged in the reference section of this project. The researcher explained to all respondents the purpose of the study and sought their consent to participate in the study while explaining to them that their participation was purely on voluntary basis.

4. Results

4.1 Questionnaire Return Rate

The response rates for quantitative and qualitative researches were considered excellent. Of the 384 questionnaire distributed, only 341 questionnaires were returned with 6 having some questions unanswered; hence, considered incomplete. This means that only 335 were used representing a response rate of 87.2%. On the other hand, of the 10 interviewees, 1 withdrew from the study along the way due to numerous calls resulting into a response rate of 90%. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate to conduct analysis and report in research, with a response rate of 70% and over being excellent

Table 5.1: Questionnaire Return Rate

Questionnaire issued	Questionnaire returned	Incomplete Questionnaires	Complete Questionnaires	Response rate
384	341	6	335	87.2%

4.2 Demographic Characteristics of Respondents

This section presents the Bio Data of the respondents who participated in the study. The respondents characteristics examined include Age, Gender, Education status and occupation. Bio data of the respondent always serves a great purpose in giving a grim light as far as the sample population and the research topic is concerned. These sub-thematic areas are further discussed as follows.

4.2.1 Distribution of Respondents by Gender

The researcher was interested in the gender composition of the respondents. The respondents were asked to state their gender and the results are shown in Table 5.2.

Table 5.2: Distribution of Respondents by Gender

Gender of Participants	Frequency	Percent
Male	168	50.1
Female	167	49.9
Total	335	100

Table 5.2 depicts that 168 (50.1%) were male while the remaining 167 (49.9%) were female. This implied that sanitation programme financing challenges affect both men and women (Water Aid, 2011). On the other hand, of the 9 interviewees, 5 (56%) were male whereas the remaining 4 (44%) were female giving the same implication that both men and women are equally involved in issues relating to sanitation programmes. Despite having more males than females, these findings reveal that representation in terms of gender was almost 50-50% for both males and females, which is in line with the Kenyan constitution embracing the idea of at least a third of either gender.

4.2.2 Distribution of Respondents by Age

The study sought to establish the age of the respondents who participated in the study. The information was important in studying the population. One's age is always related to experience and understanding of a given issues of interest. Individuals of different age groups usually have different opinions of a given topic of study and this provides comprehensive data on the topic from all dimensions. The findings were as summarized in Table 5.3.

Table 5.3: Distribution of Respondents by Age

Age Bracket	Frequency	Percentage
Between 18 - 30 years	143	42.7
Between 31- 35 years	71	21.2
Between 36 - 40 years	50	14.9
Between 41 - 50 years	43	12.8
Between 51 - 60 years	21	6.3
Above 60 years	7	2.1
Total	335	100

Most of the respondent ages ranged between 18-30 years which comprised of 143 (42.7%), 71 (21.2%) were aged between 41-50 years, 21 (6.3%) were between 51 and 60 years and 7 (2.1%) were over 60 years. Table 4.2 shows that Majority of the respondents 143 (42.7%) were in the age bracket of 18-30 years old. This was followed by those aged between 31 and 35 years with 71 (21.2%). Those who were aged between 36 and 40 years were 50 (14.9%), those with 41 - 50 years were 43 (12.8%) while those between 51 - 50 years were 21 (6.3%) and above 60years were 7 (2.1)%. It can be concluded that majority of the households heads were between the ages of 18-30 years.

The implications of the findings are that apart from all ages being affected by issues to do with water and sanitation, the youths are the majority. Given that 264 (78.8%) were in the age bracket of 18 – 40 years, the implication is that majority of individuals that are affected or influenced by sanitation financing programmes are young adults as opposed to children and the elderly. This is the largest proportion of population in Kenya according to KNBS. As a result, majority of Kenyans can be identified as being influenced or impacted on by various sanitation programme financing.

4.2.3 Distribution of Respondents by Level of Education

The Level of education was operationally defined using four intermediate variables mainly none, primary, tertiary and university. There was no problem in the statement of one's level of education therefore all respondents disclosed this vital information. Ones level of education provides a good picture of how one understands the topic of study. Furthermore, education level can provide a clue on how individuals are willing to contribute to the development of research knowledge on a given area. In to find out

the influence of level of education on Sanitation financing, the respondent were asked to indicate their level of education and the results are shown in Table 5.4.

Table 5.4: Distribution of Respondents by Level of Education

Education Level	Frequency	Percent
None	46	13.7
Primary	114	34.0
Tertiary	90	26.9
University	85	25.4
Total	335	100.0

The statistics showed that Majority of the respondents had a primary level of education. This was ascertained by 114 (34.0%) of the respondents, 90 (26.9%) had tertiary, 85 (25.4%) university and 46 (13.7%) never went to school. This implied that most of the respondents were able to understand how the water and sanitation projects would have influenced their livelihood. In addition, the findings imply that if community livelihood is being influenced negatively, then there is something else other than level of education, which in this case could have been issues around water and sanitation.

4.2.4 Distribution of Respondents by Occupation

The study sought to establish the occupation of the respondents as indicated in Table 5.5.

Table 5.5: Distribution of Respondents by Occupation

Occupation	Frequency	Percent
Self employed	120	35.8
Employed	44	13.1
Casual work	58	17.3
Unemployed	113	33.7
Total	335	100

Table 5.5 showed that majority of the respondents 120 (35.8%) were self-employed, 113 (33.7%) of the respondents were unemployed. 58 (17.3%) were casual workers and finally 44(13.1%) of the households were employed. his implies that most of respondents were low income earners depending on temporary jobs and small scale businesses. The findings imply that there is a 33.7% unemployment rate in urban settlements. This is a reflection of the whole country in which unemployment has continued to be one of the major challenges. From the findings, 67.3% of the respondents have some form of employment that earns them a living. In this respect, the implication is that there is some form of livelihood. Therefore, in a situation where the community livelihood is being influenced negatively, unemployment, though at 33.7% cannot be identified as the main factors since there are more people employed than unemployed. Therefore, water and sanitation could be identified as other reasons for negative community livelihood in the urban informal settlements.

4.3 Descriptive Analysis of Funding Activities and Community Livelihoods in Urban Informal Settlements

The first objective of the study was to determine the influence of Funding activities as a component of sanitation financing program on Community livelihood in urban informal settlement of Obunga Kisumu, Kenya. In order to achieve this objective, respondents were requested to respond on two questions from each subtheme of Water, sanitation and hygiene respectively, using a five point liker scale; where, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The mean which is a measure of central tendency was used to identify among the components of funding activities which was ranked first and last. The summary of the responses are as shown on Table 5.6.

Table 5.6: Funding Activities and Community Livelihood

Item	Statement	1	2	3	4	5	Mean	SD
Q1.1	Receive funds on credit for toilet construction	13 3.9%	14 4.2%	71 21.2%	164 49.0%	73 21.8%	3.81	.955
Q1.2	Satisfaction with the toilet in use	72 21.5%	136 40.6%	78 23.3%	38 11.3%	11 3.3%	2.34	1.040
Q1.3	Water is a necessity in life	4 1.2%	11 3.3%	58 17.3%	154 46.0%	108 32.2%	4.05	.857
Q1.4	Water being received is not enough	0 0.0%	0 0.0%	16 4.8%	212 63.3%	107 31.9%	4.27	.542
Q1.5	Clean environment adds value to life	0 0.0%	0 0.0%	0 0.0%	211 63.0%	124 37.0%	4.37	.484
Q1.6	Funds required to support solid waste management	0 0.0%	0 0.0%	65 19.4%	198 59.1%	72 21.5%	4.02	.640
Composite Mean and Standard Deviation							3.81	.306

The composite mean (M = 3.81, SD = .306) indicated that on average the respondents agreed with the aspects relating to funding activities and community livelihood. Compared to the composite mean and standard deviation, funds on credit for toilet construction (M = 3.81, SD = .955), water necessity (M = 4.05, SD = .857), water being received is not enough (M = 4.27, SD = .542), clean environment adds value to life (M = 4.37, SD = .640), and supporting solid waste management (M = 4.02, SD = .306) are considered to be having significant influence on the dependent variable, which is community livelihoods. On the other hand, toilet use in the Obunga informal settlements (M = 2.34, SD = 1.040), which had a lower mean than composite mean does not have influence on dependent variable. These findings imply that funding activities for sanitation programmes, despite being very essential in enhancing the community livelihood, are very low in the urban informal settlements. The respondents agreed with a number of statements pointing to the fact that such funding activities are still insufficient within the urban informal settlements.

4.4 Correlation analysis of funding activities and community livelihoods in urban informal settlements

Correlation analysis of funding activities and community livelihoods in urban informal settlements was performed and the results are as follows:

Table 5.7: Correlations between Funding Activities and Community Livelihood

		Funding Activities	Community Livelihood
Funding Activities	Pearson Correlation	1	.241**
	Sig. (2-tailed)		.000
Community livelihood	Pearson Correlation	.241**	1
	Sig. (2-tailed)	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

According to Table 5.7, at 5% significance level there is a statistically significant positive correlation between funding activities and community livelihood with $p < 0.05$. However, since r = 0.241 < 0.5, the implication is that the correlation is weak. The statistically significant positive correlation implies that increasing funding activities is likely to result into an increase in community livelihood within the urban informal settlements

5. Discussions

Table 5.8: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.488	.288		-1.69	.091
Funding Activities	.155	.055	.119	2.82	.005
Financing Linkages Activities	.115	.073	.085	1.57	.005
Financing Training Activities	.402	.112	.294	3.59	.000
Financing Promotional Activities	.457	.104	.332	4.402	.000

a. Dependent Variable: Average for community livelihood

Table 5.8 shows that the various coefficients have varied p values. Since p-value for Funding Activities = 0.005 ≤ 0.05, it can be concluded that at α = 0.05 level of significance, there exists enough evidence to conclude that the slope of the funding activities variable is not zero and, hence, that funding activities are useful (with the other variables) as a predictor of community livelihood in the urban informal settlement. In conclusion, the study indicates that funding activities as a component of sanitation financing programmes influence community livelihood in urban informal settlements. This study revealed that funding activities influenced community livelihood. The main funding activities that influence community livelihood identified included funds on credit for toilet construction (M = 3.81, SD = .955), water is a necessity (M = 4.05, SD = .857), water being received is not enough (M = 4.27, SD = .542), clean environment adds value to life (M = 4.37, SD = .640), and supporting solid waste

management (M = 4.02, SD = .306). However, toilet use in the Obunga informal settlements (M = 2.34, SD = 1.040) was found not to have influence on the dependent variable. The findings were confirmed by qualitative results, which indicated further than funding activities usually impact on the community livelihoods within informal urban settlements. Of the factors influencing community livelihoods, clean environment had the highest impact (M = 4.37) followed by inadequate water (M = 4.27), water is life (M = 4.05), solid waste management (M = 4.02), and funds on credit for toilet construction (M = 3.81) in that order.

6. Conclusion and Recommendations

The objective assessed the influence of funding activities on community livelihood in urban informal settlements of Obunga, Kisumu County Kenya. According to the results, there is a statistically significant positive correlation between funding activities and community livelihood since $p < 0.05$. Coefficient of determination showed that funding activities accounted for 24.1% of the changes in community livelihood. Findings from the study established that there was statistically significant correlation between funding activities as a component of sanitation financing and community livelihood. The study recommends funding activity should be sustained as an aspect of sanitation financing program for purposes of improving community livelihood in urban informal settlement of Kisumu county Kenya. The study concluded that investing in sanitation financing programme in Obunga urban informal settlement of Kisumu County, Kenya has a positive influence on community livelihood. The study calls for further research on the influence of funding activities in sanitation financing program on community livelihood using other predictors of community livelihood as well as influence of funding activities on sanitation financing program on community livelihood; a comparison between formal and informal urban settlements.

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