

## Evaluating Access and Use of Community Information Services by Informal Urban Settlers in Nairobi County: The Case of Kibera Slums

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**Abstract:** Access and use to the right kind of information and possession of correct and relevant information resolves various problems faced by individuals in the slum and also helps them in decision making. Limited access to the right information at the right time deprives the slum dwellers the right to development. The information needs of the slum dwellers are not adequately identified and therefore the limited information resources they access and use are usually based on the assumption of information provided, through the public, from among themselves, NGOs, CBOs, the churches and the private sector. Therefore the aim of the study was to evaluate access and use of community information services to Kibera slum dwellers and to suggest the ways in which these services could be enhanced. Examine Information seeking habits of the slum dwellers in Kibera

- i. Assess the existing information resources and services
- ii. Establish the extent to which information resources and services meet user needs
- iii. Identify the format in which information is repackaged
- iv. Find out Challenges faced by accessing and using of information
- v. Suggest how access of information services by slum dwellers can be enhanced

The major findings of the study were that Kibera slum dwellers faced various challenges which include high cost of information materials, Poor knowledge of existing information resources, poor marketing of information, lack of internet access, distance, language barrier, inadequate and outdated information sources that inhibited effective access and use of information. Recommendations were made based on the research findings.

**Keywords:** Community information service, Information sources, Access and seeking of information

### INTRODUCTION

Information is indispensable in any organization. Factors of production have been traditionally considered to be natural, human and capital resources. But as the world went through the four economic eras namely the agricultural economy, the industrial economy, service economy and now the information economy, information is now considered the fourth factor of production.

The information economy is present when majority of the income-earning activities in a society depend on the use of accurate, up-to-date information. Businesses (people) want instant access to accurate information and also want to transmit the information rapidly through telephone, computer etc. To be successful, an organization must have accurate and timely information about things like availability, location and quality of the factors of production it uses.

Various ICTs such as computers, satellites and other new communication devices are now widely used in business to provide more and better quality information [1].

Prasher [2] supports the above by saying that “the supply of correct and precise information in time helps the policy-makers in making maximum use of the available resources as also in avoiding duplication of work”. He goes further to say that research and development programmes can be accomplished successfully only if the required information is available as and when required.

Community Information is the information for the survival and growth of the community or it is that information which is required by a member of the community to make effective use of the available resources around them. Thus community information is

that information which helps to solve their day to day problems related to survival such as health, education, housing, legal protection, sound economic development, political rights and also to participate in social, political, cultural, legal and economic progress of the society either individually or collectively. The information service through which community information is provided to communities is called Community Information Service.

Information is so essential that it has become part of every human being. All human beings have information need, either individual or collective. And it is information transfer and information revolution through which cultural change; socioeconomic development of a nation is possible. Information is that basic need of life, which helps in the proper fulfillment of other needs such as food shelter etc. for its survival and growth. Hence it can be rightly said that without information, survival and development of any community is not possible. Therefore it is the basic responsibility of any welfare government to provide information services to communities. But in Kibera settlement scheme, this important task of providing Community Information Service is performed by many governmental, non-governmental voluntary organizations in their own way. There is no single agency to collect, reorganize and disseminate community information in a suitable form as per the requirement of different communities. In this context, Public libraries, being the library of communities can play important role in providing effective Community Information Services. These are the only institutions entrusted with the duties of providing right information to right users at right time; thereby help people to deal with daily problem solving or in improving the quality of their lives.

#### **Niedźwiedzka's Information Behavior Model [3] and Wilson information behavior model [4]**

Niedźwiedzka's Information Behavior Model [3] and Wilson information behavior model [4] Barbara Niedźwiedzka is a medical librarian in Poland and was involved in a study of the Polish health care system in 1999. The health care system was characterized by large deficiencies of data and research evidence and a lack of organized systems for information provision. The same can be said of Kibera information resource centers which do not have adequately organized systems for information provision. In the Polish health care system then, professionals who seemed to need effective information systems were mostly policy makers and health care managers. So, a study was conducted to identify the information needs and behavior of this category of users.

The study's primary goal was to obtain preliminary data about current information needs, preferences and the limitations of health care managers as information users. This is quite related to this research which also considered the information needs of Kibera slum dwellers. Niedźwiedzka's model presents a critical description of Wilson's [4] Global Model of Information behaviour and proposes major modification on the basis of research into information behavior of managers. Wilson's model suggests that information-seeking behavior arises as a consequence of a need perceived by an information user, who, in order to satisfy that need, makes demands upon formal or informal information sources or services, which result in success or failure to find relevant information. If successful, the individual then makes use of the information found and may either fully or partially satisfy the perceived need - or, indeed, fail to satisfy the need and have to reiterate the search process. The model also shows that part of the information-seeking behavior may involve other people through information exchange and that information perceived as useful may be passed to other people, as well as being used (or instead of being used) by the person himself or herself.

However, Niedźwiedzka argues that Wilson's [4] model, for example, cannot be used to describe managers' information behavior, since managers basically are not the end users of external information sources from an organization or computerized information services, and they acquire information mainly through various intermediaries. Therefore, the model cannot be considered as a general model, applicable to every category of information users. The proposed new model encompasses the main concepts of Wilson's [4] model, such as:

- person-in-context,
- three categories of intervening variables (individual, social and environmental),
- activating mechanisms,
- cyclic character of information behaviors,
- the adoption of a multidisciplinary approach to explain them.

However, Niedźwiedzka model introduces several changes including;

- identification of 'context' with the intervening variables;
- immersion of the chain of information behavior in the 'context', to indicate that the context variables influence behavior at all stages of the process (identification of needs, looking for information, processing and using it);

- stress is put on the fact that the activating mechanisms also can occur at all stages of the information acquisition process;
- introduction of two basic strategies of looking for information: personally (independent user) and/or using various intermediaries (dependent user)

A fully independent user applies their own knowledge, available sources and interacts with search systems and information services (uses databases, catalogues, archives, search-engines etc.). Such a user also selects and processes the acquired information personally. More often people also use various intermediaries and their services (information specialists, subordinates, co-workers), and utilize the effects of their information seeking and processing (we might call this person a semi-independent user). A user can also almost entirely depend upon intermediaries, and he or she acts independently only at the stage of mental processing of information. Essentially it is an intermediary who engages in systematic information activities: asking, seeking and searching, for this kind of user.

In light of Niedźwiedzka’s research, it can be said that kibera slum dwellers belong to the last category i.e. dependent users. They predominantly turn to the various intermediaries to obtain necessary information.

Niedźwiedzka argues that the closer the cooperation between a user and an information professional, the better results can be achieved in the effect of information seeking processes. Perhaps this justifies the need for a functional resource centres in Kibera informal settlement and suitably qualified information professional to provide the intermediary to improve information provision. Of course this will be enhanced by provision of appropriate ICT facilities. Such identification of the predominant behavior allows

defining the range and type of problems, which are to be taken into consideration while outlining the area of necessary research, or designing certain information services. For instance, in regard to the categories of persons who are not the end-users of information systems some investigations, such as learning about their search skills, or about specific cognitive processes taking place in their interaction with computerized systems, are not so important. Much more important would be finding out about their social interactions or communication skills.

The results of Niedźwiedzka’s research into managers' information behavior showed that Wilson's 1996 model is not suitable to describe this numerous category of information users, because it applies only to those who personally seek information, and this is not the predominant behavior of managers. Since, most probably the managers are not the only group, which uses mediation of other people to such a big extent, it can be said that the model does not reflect the important information behavior of large groups of information users as may be found in a Kibera settlement scheme.

The reason why Niedzwiedzka [3] new model was deemed suitable for the study is that the model can be used as a general model and can be applicable to all information users regardless of their professional background .It mentions the instances that give rise to information seeking behavior ,how information need arise and barriers that may exist in information seeking or in completing a search for information, therefore the model informs the study by identifying related concepts for example information needs ,information seeking ,information use which forms themes of the study under investigation and also recognizes barriers within the process of information search. Niedźwiedzka’s emphasis on the use of intermediaries to improve information provision.

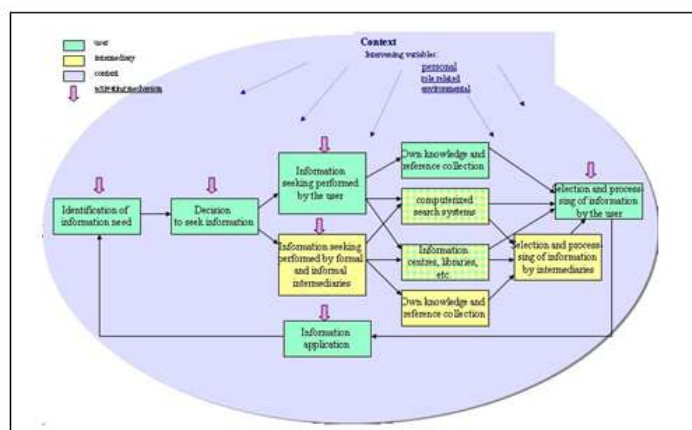


Fig-1: A Model of Information Behavior by Niedzwiedzka [3],

## METHODOLOGY

The study adopted qualitative research approach. Qualitative research approach was deemed appropriate for the study because it encouraged greater interaction between the researcher and target community members and this elicited from the community in depth holistic information, skills, attitudes, values and knowledge. This enabled the researcher to describe the current status of community information services to Kibera slum dwellers. The study adopted survey research design. Survey research design was deemed appropriate because the data being gathered possess a better description of the relative characteristics of the general population involved in the study. According to Kenya Population and Housing Census 2009, Kibera's population was at 180,000 in nine villages namely Kianda, Kisumu Ndogo, Siranga, Laini Saba, Soweto East, Soweto west, Gatuikira, Mashimoni and Makina. These villages have similar demographic and economic characteristic and therefore the researcher opted to work with five villages because they are more accessible and secure as informed by the village elder and to avoid extra budget hiring extra security. The target population therefore of the study was 71,000 from the five Kibera slum villages. The study sample size was determined using Krejcie and Morgan sampling table. Therefore for a population of 71,000 the sample size was 382. However, foreseeable constraints especially budget and to ensure practicality, the researcher was forced to use an inadequate population size of 60 being 52 respondents from the five villages. 10 respondent from each of the 5 villages of the population were used for focus group discussion. A focus group discussion composed of 6-10 individuals who share certain characteristics which are relevant to the study. The sample having been picked from all the villages was considered adequately representative. Five key informants were interviewed, as a result of their personal skills, or position within a society, they are able to provide more information and a deeper insight into what is going on around them". The main advantage of the key informant technique relates to the quality of data that can be obtained in a relatively short period of time. This technique is supported by Burgess [5] who says that "most members of any community or society do not know the full repertory of forms, meanings and functions of their culture. From a sample size of 52 respondents from the entire 5villages the researcher had to purposively sample the respondents for each of the 5villages. The researcher had to categorize the respondents into different age groups so that the researcher could obtain information on the participants belief and perspectives on access and use of community information services and the ways in which these services could be enhanced and the exercise of categorization by ages was done by the village elder. The group that was considered for this study included:

male and female youths of ages between 19-27years, women of ages between 30-45and male of ages 30-45years. The data collection methods employed were: face to face interview and Focus Group Discussion. The Interview Schedule and Focus-Group Discussion guide was used for collecting the data.

## RESULTS

### Information Needs of the Slum Dwellers

The study sought to establish the kind of information that slum dwellers require. From the findings presented in Table 4.1 6% of the interviewees said they need information about the neighborhood. This was further elaborated in the FGDs where majority said information needs in the neighborhood include problems of water supply, electricity supply, Environmental sanitation, refuse disposal, road maintenance and drought. A majority of the interviewees (18%) said that the slum dwellers needed information on health matters. From the FGDs the researcher established that health information included how individuals can prevent different diseases that affect them and awareness of available healthcare delivery and what it costs.

A 12% of the interviewees said that the slum dwellers required information on education. From the FGDs, the researcher found that education information needs included the existing public and private schools, needs of the illiterate's and semi-illiterates. They needed to have relevant information that will develop in their interest and support of teaching and learning processes. A 6% said they required information on housing. In the FGDs, the discussant said they needed information about where they can obtain loans to build houses and the type of materials to be used and where they can be easily obtained. A 10% of the interviewees said the slum dwellers required employment information. The findings from FGDs revealed that they required information on employment opportunities on taxation, investment opportunities, banking and other financial activities. 8% said slum dwellers required information on transportation. In the FGDs the discussants said they needed information on the cost of bicycles, motorcycles and tuktuks and where to obtain them. They need information about road construction and maintenance. A 6% said they required religion, recreation and culture information. Further, 6% of the interviewees said they needed welfare and family matters information. In the FGDs a majority said they required it on problems of marriage, childcare and juvenile delinquency. 4% said they the required information on legal matters. In the FGDs the discussants said information is needed on laws that affect the slum dwellers. 2% of the interviewees said they required information on crime and safety. They further said this information was required on how to prevent crimes, report crimes and

role of the law enforcement agents 8% said they needed information on policies and government. From the FGDs it was brought out that information was needed on political rights of the people and how they can exercise such right. 4% said they needed information on land information. In the FGDs they said they needed information on land tenure systems, acquisition and transfer of land (Table 1)

### **Information Sources for Slum Dwellers**

The researcher sought to find out the kind of information sources that slum dwellers had. The findings were summarized in Table 4.2. From the table, 22% of the interviewees said word of mouth, 12% said schools, 8% said Public Barazas, 12% said Social Networks, 14% said Mass Media, 6% said Information Resource Centers, 8% said Friends, 8% said Medical facilities and 6% said NGOs (Table 2).

### **If information is able to meet the user needs**

The researcher sought to establish the extent to which information resources and services meet user needs. From the findings presented a majority (71%) of the interviewees said the slum dwellers got sufficient information they required. 25% said they did not while. Respondents reported that after consulting appropriate information sources they used the information for solving problems related to their health, business and marketing needs. Information seekers with unsatisfied information needs had to restart consulting appropriate information sources. Most respondents reported that when they failed to meet their information needs, it was due to high cost of newspapers and magazines, irrelevant content available through radio and television programs, unsuitable information formats and high telephone call charges.

### **Information Seeking Habits of Kibera Slum Dwellers**

#### **Method of Information Seeking**

More than 40 (70%) of them consulted their colleagues either face to face, by telephone or through short messaging services (SMS), mass media, social networks and public Barazas. A small number that is 30 (33%) of the respondents sought for some of the information they required from information resource Centre. The key informant said they sought information mostly from the internet which was readily available in the offices and assigning junior staffs to find the information and they concurred that the slum dwellers normally consult them.

#### **Purpose of Seeking Information**

Twenty two percent of the respondents said the sole purpose of seeking information is to update their knowledge and general awareness. 30% said they seek information to solve the problems and other seek

information to prepare for research and for entertainment (Table 3).

### **Sources of Information Available in the Slum**

The study sought to find out information sources that were available for the slum dwellers. The slum dwellers' responses were limited to what information sources they made use of which included newspapers, the internet, public barazas, key informants, reports and surveys. From table 4, it can be seen that the most frequently used information sources were, key informants, public barazas, books, newspapers, the internet in that order. The least frequently used information sources were surveys and opinion polls. This could be attributed to their rarity and specialized nature.

The key informants concurred with the researcher in terms of the information sources available but went further to mention other information sources including the following:

- Information can be found in several forms which included general surveys, data, articles, books, references, search-engines and internal records of companies and organizations. Government statistics, technical manuals, directories, standards, financial documents, periodicals
- Maps, photographs, film objects and artifacts that reflect the time period in which they were created.
- Records of organizations and government agencies
- Original work of literature, art and music

As to whether the available information sources were satisfactory to the information needs of the slum dwellers, the opinion was divided. Out of the 52 respondents, 35 (70%) of the respondents said the resources were satisfactory. The remaining 17 (30%) of the respondents said the resources were not satisfactory. Those who were not satisfied with the available information sources recommended additional resources to be acquired including:

- Books
- Journals in different areas of specialization
- Subscription to commercial database

### **Use of Information**

According to Choo [6], people use information to create knowledge, "but not just in the sense of data and facts but in the form of representations that provide meaning and context for purposive action".

### **Relevance of the Information Provided in Helping Slum Dwellers Improve their Livelihood**

The researcher sought to find out the relevance of the information provided to the slum dwellers in helping them to improve their livelihoods. 21% said it will initiate financial literacy programs. From the FGDs, the discussants said that the financial literacy programs would provide education on how slum dwellers can help themselves by creating and running successful legal micro/small businesses that will increase their income thus improving livelihoods and empowering slum dwellers with micro entrepreneurial skills with a view to establishing an Income Generating Activities (IGAs) thereby, making them becomes self-reliant and community savings program where each member save at least Kshs 50 weekly to help build up loans or vocational training points.

A 26% of the interviewees said the information would initiate skills building programs. The FGDs added that skills building programs can impart skills like knitting, baking, hairdressing, briskets making, beads, mats from used straws, and earth interlocking blocks. A 24% of the interviewees said sponsoring children of slum dwellers to get education. The FGDs further added that education would leap frog the children and their families from poverty to better meaningful lives. Further, 27% of the interviewees said that the information would help in seeking volunteers that are willing to teach slum dwellers life skills they can use to live better happier lives. Promoting family values including gender empowerment through partnership with the other non-governmental organizations (Figure 2).

The key informant's information will help the slum dwellers in teaching and promoting a good work ethics in Kibera through partnership with the non-governmental organizations and raising awareness on environmental concerns. So far, community information service has helped Kibera be involved in clean up and tree-planting.

### **Information Repackaging**

Repackaging of information refers to the presentation of information in more understandable, readable, acceptable and usable forms. Customization of information taking in to account the needs and characteristics of the individual or user groups and matching them with the information to be provided so that diffusion of information occurs.

### **Formats of Information that the Slum Dwellers Receive**

37% said they were provided with information through brochures, health talks, flipcharts, fliers,

newsletters and booklets while 18% said they got it in compact disks.

### **Challenges and Suggestions**

#### **Challenges faced by Slum Dwellers when Accessing Information**

The researcher sought to establish the challenges faced by slum dwellers when accessing information. The findings were summarized in Table 5. From the table, 70% of the respondents said people were starved of information mainly because of the cost associated with information materials which was the major challenge they faced, poor marketing of information, Poor knowledge of existing information resources by the users, Information access brought by information communication technology. 15% said lack of internet access, lack of enough time to visit information centres and information centres are far located.

#### **Proposed Strategies to Improve Access of Information Services**

##### **Government should Support Slum Dwellers to Build their Information Capital**

It is equally important to empower communities and their organizations, e.g. through promoting dialogue, training of key individuals and leaders, improving literacy and communication skills, Where possible, projects should include the upgrading or establishment of community meeting places, where residents can chat and share information. These could eventually become community resource centres, libraries, training centres, telecentres,

#### **Information Communication Technology**

The respondents suggested that the computer lessons be introduced in every information centres, though Kenya national library service Kibera branch has computer lessons and internet access at a fee most people cannot afford that. They also suggested that free Internet facilities be installed and accessed at minimal or no cost. The respondents prefer to be equipped with few computers equipped with assertive technology which they can share rather than several computers not equipped with the technology.

#### **Government Needs to Rethink their Dissemination Strategies.**

The informal urban settlers should have equal access to information. Slum dwellers are an important source of indigenous knowledge, which they share through their networks and which is essential to achieve urban development but remains a source that is not optimally exploited by external agencies that are often too inclined to introduce exogenous knowledge.

### Benefits to the Slum Dwellers if Information Services is readily Accessible

Additionally, the study sought to find out the benefits the slum dwellers would have if the information services were readily accessible. From the responses, the researcher established that; It will increase profitable market access and production efficiency to the slum dwellers, Increase the political empowerment and social inclusion of the urban poor

dwellers, make the best out of their situation, Learn skills of their interest available where they are and start making a product they can sell to make money, be on the lookout and enroll for any life improvement useful programs that come by, seek employment for the purpose of saving money to start own small business, and make choice to do whatever it takes to leave slum life for a better more fulfilling life.

**Table-1: Information needs of the Slum Dwellers**

Information	Frequency	Percentage
The neighborhood information needs	3	7
Health information needs	9	20
Education information needs	6	13
Employment information	6	13
Transportation information need	4	9
Religion, Recreation and Culture information	3	7
Welfare and Family matters information is required	3	7
Legal matters information	2	4
Crime and Safety information is required	3	2
Policies and Government information is needed	8	18
<b>Total</b>	<b>45</b>	<b>100</b>

**Table-2: Source of Information for the Slum Dwellers**

Information Source	Frequency	Percentage
Word of mouth	11	21
Schools	6	12
Public Barazas	4	8
Social Networks	6	12
Mass Media	7	13
Information Resource Centre	6	12
Friends	4	8
Medical facilities	4	8
NGOs	4	8
<b>Totals</b>	<b>52</b>	<b>100</b>

**Table-3: Purpose of Seeking Information**

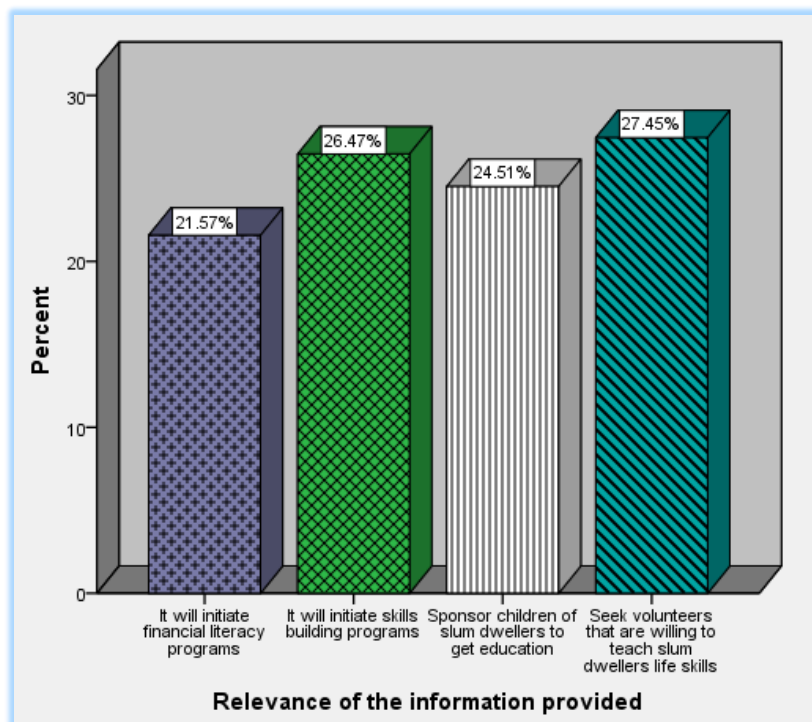
Purpose	Frequency	Percentage (%)
Updating knowledge	11	22
Solving problems	15	30
General Awareness	10	20
Preparing research	6	12
For entertainment	8	16
<b>Total</b>	<b>50</b>	<b>100</b>

**Table-4: Information Sources Available for the Slum Dwellers**

Sources of information	Frequency	Percentage (%)
Newspapers	7	13
Internet	3	8
Public Barazas	12	23
Key informant	15	29
Reports	2	4
Surveys	2	4
Opinion polls	3	6
Books	8	15
<b>Total</b>	<b>52</b>	<b>100</b>

**Table-5: Challenges Faced by Slum Dwellers when Accessing Information**

Challenges	Frequency	Percentage (%)
High cost of information materials	10	24
Poor knowledge of existing information resources	6	14
Poor marketing of information	7	17
Lack of internet access	4	10
Distance	6	14
Language barrier	3	7
Inadequate and outdated information sources	5	12
<b>Total</b>	<b>42</b>	<b>100</b>



**Fig-2: Relevance of Information Provided to the Slum Dwellers**

**DISCUSSION AND CONCLUSION**

In view of the foregoing findings, the study generally concluded that there was no optimum utilization of community information services in Kibera settlement scheme because they lack enough time to visit information centres, Information sources are so far located, others do not know how to use library catalogue. However, there was still need for innovative use of the facilities to enhance provision of information. This is supported by Kwadwo and Mekonnen [7] who say that “the advent of personal computers, the internet and mobile telephony during the last two decades has provided a much wider choice in collection, storage, processing, transmission and presentation of information in multiple formats to meet the diverse requirement and skills of people”. The information needs of the slum dwellers have not been adequately met they largely have to rely on their own social networks and key informants within their communities,

or sometimes outside, for support in developing their livelihoods and coping with. There was therefore need to devise ways of filling the information gap. Indeed this is in agreement with Odingo [8] who says that “No information service which aims to provide an effective service can afford to neglect research into the needs of its potential users. The purpose of the information needs analysis is to establish the main areas in which information will be sought and to set up an appropriate collection of resources to satisfy those needs”.

It is gratifying to note that the challenges mentioned by Kibera slum dwellers are not of the magnitude to stop accessing information but it is the role of the government and non-governmental organization to ensure access to information to all. Just like other community-based information, multimedia and learning centres, the information and technology centres that work most effectively are those where there



is a union of three things: charismatic leadership by one or more individuals, strong support from the community and adequate finance, which is usually provided from outside the community. The centres are however fragile. Few last for more than ten years. The charismatic leader often becomes worn out, the priorities of the community change or, most common, the source of external finance dries up. Nonetheless, when they are operating effectively, the centres make a valued contribution to the economic, social and cultural life of the communities that they serve. The value of that contribution will undoubtedly increase as the transition to information-based societies becomes more entrenched. The challenge for the future is to persuade local, regional and national governmental bodies to accept a responsibility to fund the services. They have to recognize that providing communities with an acceptable level of access to information and ICT is as important as providing them with access to schools, clinics, the road network and the transport system. Importantly too, they have to back that recognition with a commitment to fund the services.

#### RECOMMENDATIONS

Development agencies should undertake a number of actions that would help to make the knowledge and information they hold more accessible to the slum dwellers, and to strengthen their knowledge and information base.

The government should especially the Kenya National Library service carry out information needs assessment-re-examine the existing information sources and system and decide whether it is necessary to redesign and adjust them to correspond information needs of the slum dwellers, market the library services, improve internet connectivity and cooperate with other information centres and repack information in relation to the information needs of the slum dwellers.

The Government and NGOs could bring mobile libraries or talking books or other appropriate devices to different villages and this could be part of the library's regular outreach service. Use information related technologies e.g. the use of CD-ROM

Although this study has covered several issues, there still remains certain area which needs further investigations. This includes; Information security; the study revealed information and resource centres within Kibera did not have any policy regarding the security of information. This being the case, there is need for further studies on information security to be carried out to find out the current status of the information centres in relation to the security of information. The study was only confined to the Kibera informal settlement,

therefore, similar study be conducted in other informal settlement in Nairobi County.

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