

**" PARTICIPATION OF WOMEN IN  
INCOME-GENERATING ACTIVITIES:  
A CASE STUDY OF DANDORA, NAIROBI, KENYA "**

by

**ATIENO, A. OKUMU**

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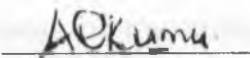
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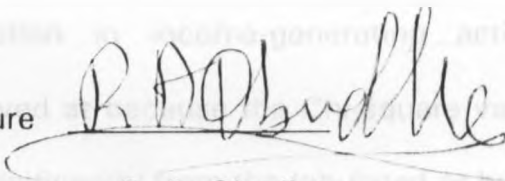
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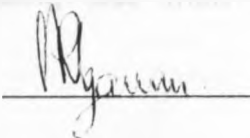
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## A B S T R A C T

The study aims at finding out factors which determine women's participation in income-generating activities, the amount of income women gain in a month and problems which face women participating in income-generating activities. From these objectives, four hypotheses have been proposed, namely; there is no significant relationship between types of income-generating activities and age; and there is no significant relationship between income generating activities and marital status and level of education, mean age of children and family size do not determine the amount of income gain in a month are tested. Two statistical analyses methods have been used to test the hypotheses of the study namely the Chi-square test and Multiple Linear Regression analysis . From the results of the Chi-square tests, it was established that whereas years of formal schooling and age determined participation in specific income generating activities to a large extent, marital status did not determine participation in income-generating activities significantly. These conclusions are arrived at because the Chi-square values in the first two tests are large and deviate significantly from the tabulated or hypothetical values. In the third instance, apart from being less than the hypothetical value the difference is insignificant.

From the result of Multiple Linear Regression Analysis it is concluded that the amount of income gained in a month by women was affected by years of formal schooling, mean age of children and family size. This conclusion is arrived at because the calculated F-value is far much greater than the critical one. It is important to stress, however, that whereas the first two variables had a positive impact on income gained the last one had a negative impact. This is because the partial correlation coefficient of this variable is negative.

It is important to note that non-statistical techniques of analysis are also used in this Thesis. These are descriptions, percentages, maps, and diagrams among others. It is from these analyses that the conclusions arrived at in this thesis have been derived. The problems facing women participating in income-generating activities are numerous. However, the one which was cited by most participants was frequent demolitions by the Nairobi City Commission (NCC) security personnel.

From the above conclusions, therefore, it was recommended that since education was a variable which determined participation in income-generating activities, amount of income gained in a month and was the root cause of most of the problems experienced by women participating in income-generating activities, the

Government of Kenya (GOK) should make the field of women's education a priority. Programmes for educating women in order to acquire knowledge and skills which are necessary for effective participation in income-generating activities should be expanded. Further, women should be encouraged to use family planning facilities in hospitals. More day care facilities for children should also be constructed within urban areas. Not to mention that women should use appropriate technology devices which ease housework and leave them with plenty of time to put in their income-generating activities. Further, the study recommends to future researchers in the field of income generating activities that they only concentrate on one type of activity for detailed analyses other than making general considerations on all of them.

## ACKNOWLEDGEMENT

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## LIST OF ACRONYMS AND ABBREVIATIONS

ANOVA	-	Analysis of Variance
CBD	-	Central Business District
CBOs	-	Community Based Organizations
CBS	-	Central Bureau of Statistics
DCDP	-	Dandora Community Development Project
GOK	-	Government of Kenya
IBRD	-	International Bank of Reconstruction and Development
ILO	-	International Labour Organization
INSTRAW	-	International Research and Training Institute for Advancement of Women
KBS	-	Kenya Bus Service
KCC	-	Kenya Co-operative Creameries
KETA	-	Kenya External Trade Authority
KMYWO	-	Kenya African National Union Maendeleo Ya Wanawake Organisation
K.P.L. Co.Ltd.	-	Kenya Power and Lighting Company Limited
LDCs	-	Less Developed Countries
MDCs	-	More Developed Countries
MLRA	-	Multiple Linear Regression Analysis
NBS	-	Nyayo Bus Service

NCC	-	Nairobi City Council or Nairobi City Commission
NGOs	-	Non Governmental Organizations
NUSG	-	Nairobi Urban Study Group
PCEA	-	Presbyterian Church of East Africa
SIDA	-	Swedish International Development Authourity.
UN	-	United Nations
WB	-	Women's Bureau
WC	-	Wet Core

## CHAPTER 1

### PURPOSE AND SCOPE OF THE STUDY

#### 1.1 Introduction

Africa, among developing regions, is one of the least urbanised yet it has the highest rate of urban growth is also true for East African region (Hance, 1970; Obudho, 1990). In Kenya, for example, by 1969, the number of urban centres with 2000 or more inhabitants had increased to 48 whereas the total population was 1,079,908 or about ten per cent of the total population of Kenya (Obudho, 1987). Only Nairobi and Mombasa, had over 100,000 inhabitants. The growth rate rose to 7.1 per cent per annum. According to the 1979 census, there were 91 urban centres with 2000 or more inhabitants with a total population of 2,315,696 representing 15 per cent of the total population of Kenya (Obudho et. al, 1988). Between 1969 and 1979 the urban inter-censal growth rate had risen to 7.9 per cent per annum. The urban population growth rates have remained considerably high according to 1989 census results as more rural trading centres were promoted to be urban centres.

The current rapid urbanization has been caused mainly by the population explosion combined with the pressure on the land and poverty in rural areas and the attraction of the urban center as a perceived haven: the push and pull factors (Wiersinga, 1983). This is what



Hance (1970) summarized as rural to urban migration problem in urban areas of Africa. Most people have moved from rural to urban areas in search of employment and other social amenities. Besides, urban natural population increase has contributed to the rapid urbanization in the country. Ominde (1968) attributed the fast increase of Nairobi's population to the high birth rates and low death rates which came about as a result of improved medical services in the city. A comparison of the age-sex pyramids (figure 1:1 and 1:2) and sex ratios show that there has been an increase of women in the city and trends towards family life for Africans. (Table 1:1). As a result, there has been an increase in the number of children born in Nairobi as observed by Ngau (1979).

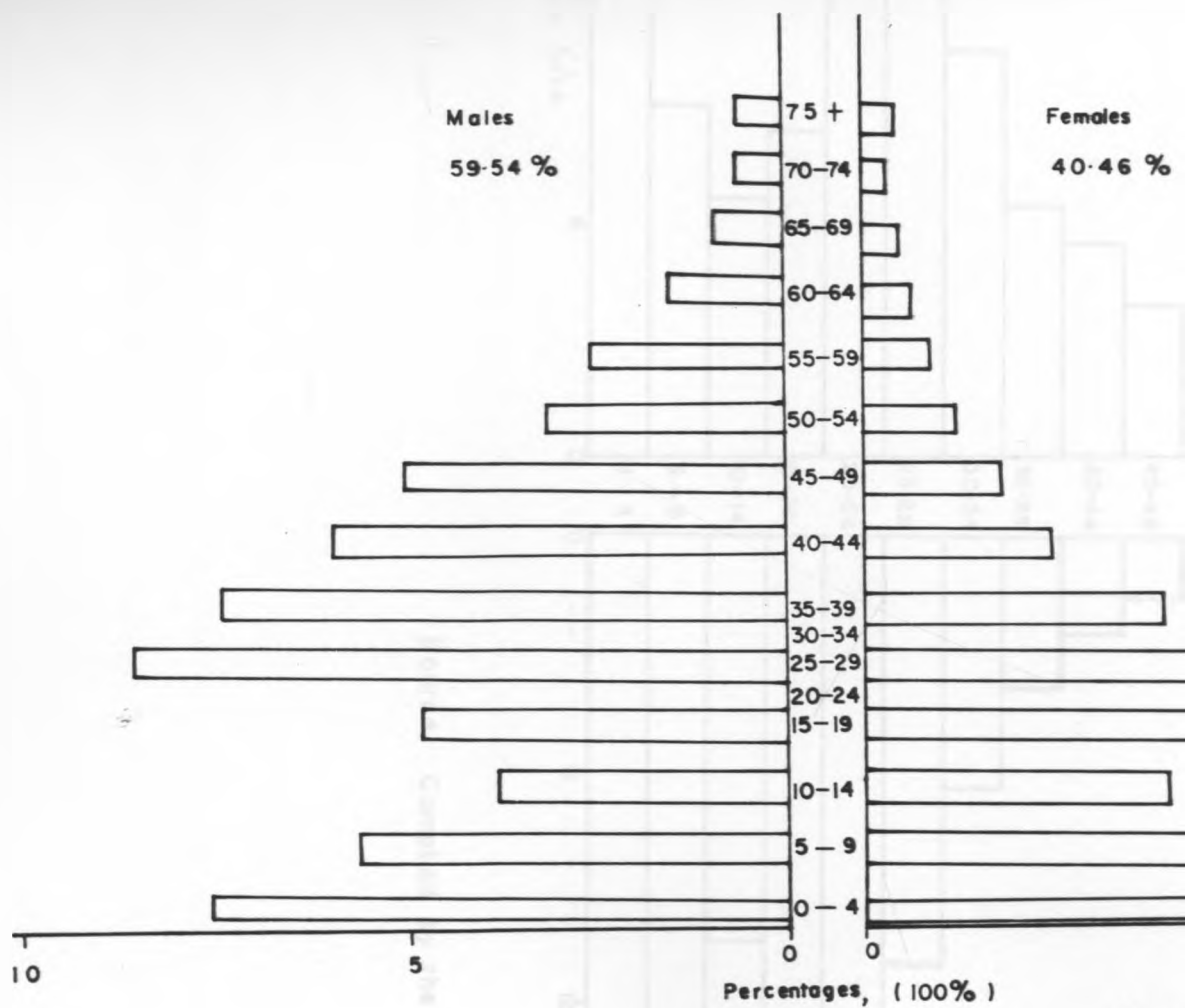
**Table 1:1      Nairobi Sex-ratio Changes 1948, 1962, 1969, 1979, and 1989**

Years	Sex-ratios
1948	386 adult males to every 100 adult women
1962	250 adult males to every 100 adult women
1962	187.3 males to every 100 females*
1969	210 adult male to every 100 adult women
1979	138 males to every 100 females*
1989	136 males to every 100 females*

\* includes children

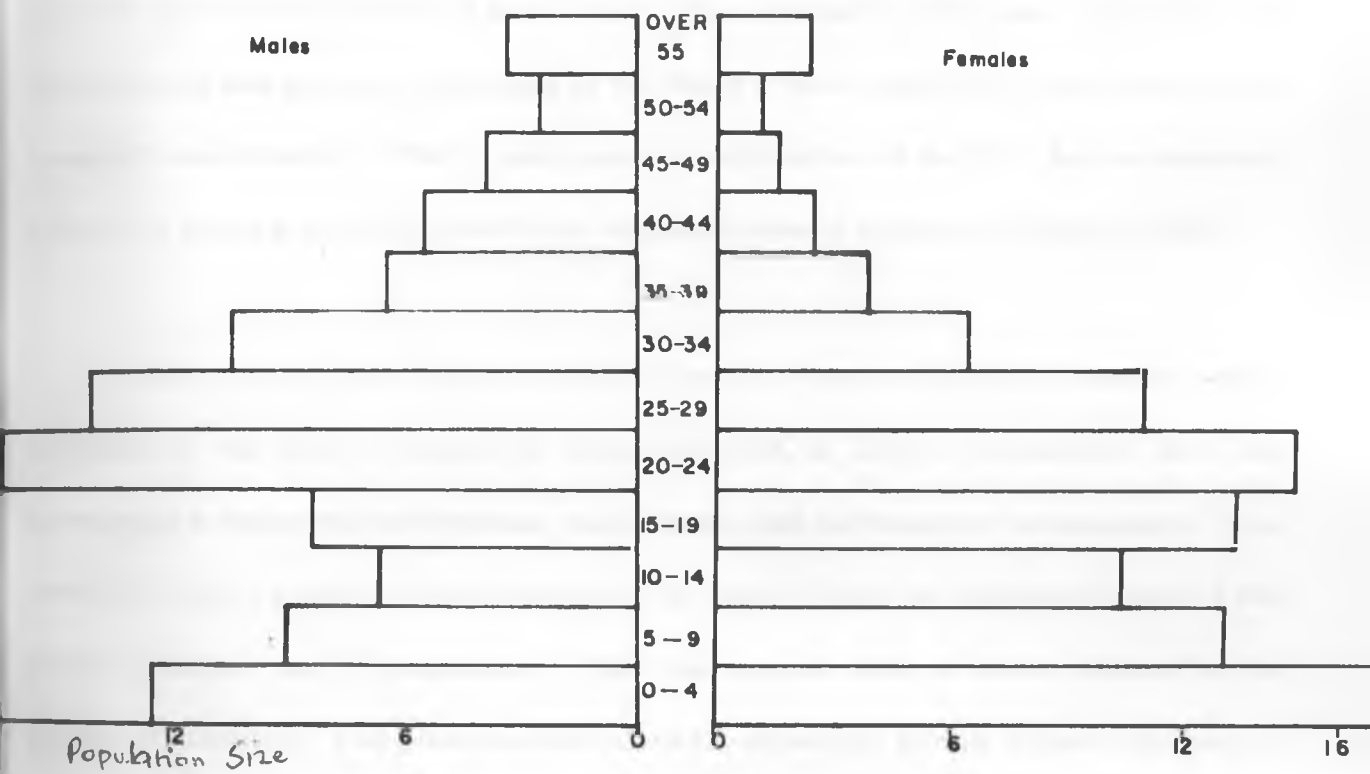
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Figure 1-1 Nairobi Age-Sex Pyramid, 1969.



Source

Figure 1.2: Nairobi Age-Sex Pyramid, 1979



Source: Compiled by the Author.

The third reason is what is often referred to as boundary expansion. Due to administrative reasons and for purposes of creating space for expansion for the ever increasing urban population, the boundary of most urban centres have often had to be changed to accommodate the development projects. In 1900, for example, the city of Nairobi was extended following the emergence of European, Asian and African settlements. In 1920, Nairobi was declared a municipality and a second boundary was established. In 1950, Nairobi was granted a city status by the Royal Charter, while the fourth and last city boundary was extended in 1963. Lastly, due to a combination of the three factors discussed above, the urban population growth rate has tremendously increased (Obudho, 1987).

Unlike in the United States of America and in Western European countries where urbanization was mainly induced by industrialisation, in Kenya, urbanization does not correspond to economic development, social change and technological advancement. As a result, the fastest growing urban centres have to contend with the shortage of most of the social amenities and infrastructure. This has caused what is often referred to as pseudo-urbanization. This pseudo-urbanization has caused the growth of slum and squatter settlements, traffic congestion, environmental degradation, social crime, unemployment, and under-employment among others.

It is important to note that urban centres in Less Developed Countries (LDC's) have been hard hit with unemployment and underemployment problems. This has been enhanced by the education system which only prepares school leavers for "White collar jobs" which are

not readily available at present. Most educated people have ended up taking employment below their capability and thus enhancing underemployment. To solve the problem of unemployment, the GOK has acknowledged the International Labour Organization (ILO) report of 1972 which stressed the need to recognize the informal sector enterprises. It is in light of this that the Nyayo engineering works at Gikomba and open air sheds at Kamukunji were established in Nairobi. To solve the unemployment problem in large urban centres, there has been decentralisation of most of the industries formerly concentrated in such centres to other small and intermediate urban centres (Wescott and Obudho, 1982 and Obudho and Aduwo, 1990).

For women who migrate from rural to urban centres the problem of unemployment is even more magnified. The transition from an agricultural or subsistence economy to a cash economy requires adaptation (Wiersinga, 1983). In the rural setting, it is women who more often grow food and collect fuel. In the urban setting, it is money which provides these two. This immediate need for money to survive requires employment or some other form of income-generating activity and has a priority even over other necessities. Yet as is noted by Kariuki (1985) those women who migrate to urban centres have no immediate prospects for employment and lack basic incomes needed to purchase essential goods. In general, job opportunities for women are fewer than those for men and lowly paid the world over. Women's level of education is lower and illiteracy among women is often higher than that of men. Further, women are limited in their choice of employment by house hold tasks and presence of children.

Due to the fact that finding work in order to earn an income for food has priority over all other necessities within the urban areas, the present study tries to find out what has hindered women's ability to earn substantial income and problems they encounter in their endeavors with an aim of providing recommendations to women and to policy makers. Specifically, the study looks at participation of women in income-generating activities. According to the Swedish International Development Agency (SIDA) plan of action (1985) income-generating activities are a means of integrating women in the informal sector of the economy. It further explains that it is also a means of repairing some of the damages that had been done on women through early development programmes. Such definitions are based on the assumption that it is both desirable and necessary for women to earn their own incomes. Previously, almost the only income-generating activity that was available to women was handicrafts as Sticher (1975) found out. Today, there are a lot of income-generating activities carried out by women. For example, Kariuki (1985) noted that activities range from selling charcoal to large enterprises such as shops, matatus (small scale transporters of commuters and goods which are owned and licensed as public service vehicles (Aduwo, 1990), and wholesale businesses.

However, it should be clarified that this term is seldom used to refer to similar economic activities carried out by men. It is no wonder then, that Kariuki (1985) found out that most self-help activities are done by low income residents in the peripheries of Nairobi. In the slum and squatter settlements which have well over half of the population as females. Due to the various problems found in such areas, there are numerous activities which reflect

self needs such as housing, small scale businesses and social welfare to mention a few.

## **1.2. Statement of the Research Problem**

Due to the high rates of female unemployment within urban centres it is important to find out how this problem can be solved. Women who migrate into urban centres do not have immediate prospects of being absorbed in the main stream of the urban economy. The socialisation processes that they have gone through, and some of the ideas that they have internalised make them not be prepared for the urban way of earning a living. It is because of these reasons that this study attempts to bring into focus some of the factors which determine women's participation in income-generating activities. In a nutshell, this study tries to find out the activities in which women participate with a view of evaluating how level of education, demographic characteristics and working place environment, to mention a few, affect their ability to generate income in a month. Further, the problems women face while carrying out these activities are brought to light.

Formerly, males migrated frequently to urban centres in search of employment while females and children remained at home to tend to family holdings. Sex differentials in the rural-urban migration pattern are reflected in the sex composition of the urban population. The 1979 census results yielded a sex ratio of approximately 115 males for every 100 females. This compares favourably with the 1969 sex ratio of 158 males for every 100

females. In recent years however, females have formed an increasing proportion of migrants from rural areas. Note that more and more families are establishing long term residence in urban centres. An analysis of recent urban population shows that there are relatively equal proportions for males and females among the young age groups of 20 to 29, and among the educated (Ngau, 1979).

Increasing female migration to urban areas, juxtaposed with limited employment opportunities and low rates of female participation in the wage sector, has caused considerable female unemployment in urban areas. In 1970 the ILO team estimated unemployment rates as ranging from 5 to 10 per cent for male household heads, 10 to 15 per cent for male non-heads, 10 to 17 per cent for household heads and 23 to 27 per cent for female non-heads in urban centres. From this survey it was concluded that the burden of unemployment fell most heavily on women, the uneducated and the young. A similar survey of Nairobi households in 1971 showed that one third and one half of the women with 11 to 12 years and 13 to 14 years of schooling, respectively, were seeking work. These figures indicated that female unemployment rates have continued to remain considerably high in urban areas. However, it should be noted that women's relative representation in the modern sector have tended to be highest in three subsectors namely (a) agriculture; (b) finance, insurance, real estate and business services; and (c) community, social and personal services.

Nevertheless, in the years since 1967, women have not accounted for more than 20



per cent of the wage employment in any of the three subsectors mentioned above. In terms of the absolute numbers of women employed in particular sub-sectors in 1975, community, and social and personal services had the largest number of wage workers - 66,884. Agriculture and forestry had 41,777 (Kenya, 1978).

The trends observed above may be due to the fact that women have few opportunities for wage employment in urban areas. The obligations of looking after the family and the problems in reconciling family commitments with fixed working hours are two major constraints. By the age of 24 most Kenyan women have borne at least one child (Kenya, 1979). The average number of children born alive per woman rises with age reaching a maximum of 6.69 in the 45 to 49 age group according to the 1969 population census results. The Demographic Baseline Survey of 1973 conducted by Central Bureau of Statistics (CBS) reported an even high average number of children - 7.6 ever born alive per woman in the 45 to 49 age group. The large size of an average Kenyan family means that most women spend much of their adult lives in continuous cycle of pregnancy, child birth and child dependency. The burden of dependency is particularly heavy on the female adult population who have to provide constant care for the very young and undertake much of the work to feed the family. Note that the sole responsibility of the child's health, food and clothing tends to rest with the mother. Fathers or male relatives may assist only with hospital and school fees to mention a few whenever the need arises.

Urbanization has led to many changes in the family structures. It has led to a

breakdown of the more traditional extended family, the emergence of nuclear families and a growing number of single parent families headed by women. These changes in the family structure have led to changes in the position of women within their families and in the urban areas. As a member of a nuclear family living in the urban area, a woman may gain a measure of freedom from traditional roles and from the strict control of her male relatives, on one hand. On the other hand, she might be more dependent on one person - her husband who may be the main provider of income. Note that in such a circumstance, she has lost her traditional economic role as food producer. However, men more often than not cannot meet the increasing demands on their income and women have to augment families earnings by going out to work.

The need for income, therefore, is a prime reason why women engage in remunerative economic activities outside the house in urban centres. The high cost of living, coupled with the fact that husbands' income are often too little to support families' well being have forced women to participate in urban economic activities. Although some women only opt to work because they need to use the education they have acquired, or notably because they get bored in the house, it is a fact that every year more and more women choose to look for gainful occupation outside the house in urban areas.

It should be equally noted that women who migrate to urban centres are often ill prepared for formal sector employment. Mbilinya (1970) stated that economic opportunities for women in urban areas are extremely limited. According to her, hardly any jobs are

available without at least primary education and post primary education. These are essential before admittance to any training programmes let alone jobs. Yet, we find that a number of surveys conducted in Kenya have shown that educational attainment of the female population tend to be lower than that of their male counterparts. The 1979 census reported sex differences for all levels of educational attainment. 21.4 per cent of females and 24.3 per cent of males had completed between 1 and 4 years of primary schooling while 14.7 per cent of females as compared to 19.7 per cent of males had completed 5 to 8 years of schooling. Girls constitute 40 per cent of total secondary school enrolment but only 34 per cent of GOK maintained schools. It is in light of this that Mbilinya (1970:29) when trying to compare the past and present trends of women's involvement in economic activities said that: "In the past women were always essential members of traditional African economies. Colonial and post colonial changes have shifted the basis of economies from subsistence to the "modern" sector. They are ill prepared for full involvement in the modern sector, lacking education, training and experience and facing negative attitudes towards this involvement"

It is my opinion that urban female population are at a disadvantage vis a vis their male counterparts in choosing types of modern employment to participate in. In seeking employment in the modern sector of the economy, women are generally less likely to get jobs than men. There is often designation of some jobs as women's work and others as men's. Often, even social and recreational activities also tend to be separated according to sex. Mbilinya (1970:11) quoted the African women Journal June 1958 "Growing up in

Nigeria" which had the following paragraph:

"While boys are busy planting, hunting, farming making bows and arrow, jumping, playing football, driving lorries and cars, girls nurse dolls, fetch firewood sell cooked food and other market goods draw water and grind pepper."

Further, training opportunities also obviate certain possibilities. Women themselves conform to what are considered to be feminine work occupations. They often choose arts rather than science subjects, which automatically block their entrance into many new scientific and technical fields as is noted by Mbilinya, (1970). Mbugua (1989) expanded on this fact by stating that educational opportunities for women, the basis for skill composition lags far behind that of men. She reckoned that gender typing of courses offered in school and sexist career counselling by school teachers direct women towards dead-end jobs.

In connection to the above point, socio-cultural factors also tend to inhibit women from full participation in economic activities in Africa urban centres. For example, people still ask questions related to whether women should or should not work. According to Lowe (1977) women might be exposed to demoralising influences in the factory surrounding and therefore, they should not work under a man outside the family. He noted that husbands disapprove of independent activity by women outside the house in urban areas, feeling that it may lead to liaisons with other men. Attitudes towards women and work may be best summed up by the following statement as is quoted by Mbilinya (1970:12)"women are intended to stay at home and look after children. If they want to work, they should take in

work to do at home". Such a statement implies that an occupation outside the house may make a woman independent. She may get in contact with men and thus become their equal, whereas men should be superior to women. Pala (1979) was of the idea that women's disadvantaged position as development proceeds is not a result of national policy. Most African governments have made full policy commitments to narrow the educational gaps between boys and girls especially at primary school level. The trend of women being left behind is in large part the consequence of beliefs and attitudes both traditional and imported from European countries, which view women's activities as primarily domestic and of secondary importance. Such attitudes are both reflected and in turn reinforced by the absence of information on women's situation in the economic activities they perform. Under conditions of economic scarcity, failure to recognize and to measure the economic significance of women's activities tend to undervalue their work and to limit their access to national resources. In light of the above, economists and planners should increase their attention to the informal and small scale business sectors, where women are the majority. Note that western presuppositions and models of development have had such diverse effect that planners have only began to recognize the key role played by women in the employment sectors where they dominate in the last few years. As such, the importance of facilitating their access to the resources they need to improve their performance, is now being emphasized.

Survey work, detailed studies of women's activities and even mere observation of everyday life has led to the general agreement about the obscurity and low value generally

attached to women's work in most societies. Moser and Peake (1987) observed that there are in fact two issues that are inter-related among these lines. They recognised that one is ideological and is associated with the tendency to regard women's work as secondary or subordinate to men's; whereas the other is monetary. An aspect of this tendency relates to the fact that an important proportion of women's work is unpaid. Both the ideological and monetary aspects are clearly symbolised by expression such as "my mother does not work" even though she might be working longer hours than any member of the household. Work in this case means participation in paid economic activities. Boserup (1970) in her analysis of women's role in the process of development put it clear when she wrote that the subsistence activities usually omitted in the statistics of production and incomes are largely women's work.

Despite the limitations discussed above, majority of women, have ventured into economic activities as a means of gaining economic autonomy in urban areas. A significant number is engaged in the informal sector where they participate in income-generating activities. Onyango (1985) stated that women in urban centres easily find employment in the informal sector. The activities they participate in include hawking, tailoring and dressmaking, knitting and hairdressing. Wiersinga (1989) described the economic activities which women mostly carry out as related to the sort of tasks they do within the home. These are cooking food to be sold in the market, washing clothes for middle class families, taking care of middle class children and working as domestic outworkers. These according to her are the more traditional types of economic activities performed by women in the

informal sector of employment. The SIDA (1985) plan of action acknowledged the fact that due to lack of education, practical experience and burden with household chores women are left with few opportunities of obtaining gainful employment. They are unable to compete with men for the new jobs available within the narrow modern sector of the economy. The report thus notes that women are engaged in income-generating activities outside the regular labour market and thus they require education, training, guidance and instruction in developing and running small businesses. These are necessary if they have to acquire substantial gains in their income-generating activities. Market analysis should also be taken from time to time. Note that limited sale opportunities and products that are poorly adapted to the market only generate disappointments and not profits.

In Nairobi's residential areas, a number of women carry large baskets strapped to their heads, and sell goods from door to door. Women in many urban centres prepare inexpensive food and sell to travellers at bus stops and people who work as casual labourers in the construction industry. They set up small stalls and sell porridge, maize and beans and fruits to workers. Income-generating activities can help women achieve greater economic independence and thus become less dependent on their husbands or other wage earning relatives. Such activities can help to improve women's status and contribute to development. Note, however, that these activities can also mean continued economic stagnation and the increase of women's workload without any noticeable economic returns.

This study, like the ILO (1972) report is of the idea that women's employment

situation can be improved by the development of the informal sector. In spite of the fact that many women are involved in informal sector activities which are difficult to cover statistically, this study tries to promote activities which are socially and ethically desirable and do not lead to collision with those in authority.

For women who participate in income-generating activities a lot of factors determine their ability to generate income. Wagithi (1987) study on mechanics in Nairobi found out that the factors that influence the informal sector earnings fall into three main categories namely (a) human capital variables for example, their level of formal education, their training experience and age; (b) demographic variable for example family size, and (c) value of tools.

Besides, the above factors, women often get low income because provision of basic infrastructure such as sewerage, running water, electricity and garbage collection are often inadequate. Due to lack of the above mentioned facilities most of the goods they sell go to waste. Furthermore, the provision of licenses by the local authorities involve a lot of discrepancies. This factor has left the petty traders at the mercy of the NCC security personnel who often demolish their kiosks and harass them. As a result, women incur a lot of loss of property and low profits.

Note that because of a variety of factors-historical cultural, structural and institutional, women in both the formal and informal employment sectors find themselves



at a disadvantage vis-avis their male counterparts. Mbugua (1989) suggested that as more and more women enter into employment and wage and non-wage employment take on large roles in the national economy, it becomes increasingly important that hindrances to women's economic self realisation be addressed. Specifically, within the urban labour force, those activities in the informal sector where women predominate should be classified in detail to continuously assess and up date the factors that affect women's participation in this sector of the economy. Studies should be undertaken on the factors that influence the roles of women in the labour force. For example the presence or absence of infants or children in the family greatly affects the distribution of women's time for work in or outside the household. Thus, the family cycle should be given due consideration. In addition, the presence or absence of men in the family units is important. Development planning should always take cognizance of the proportion, distribution, income, age and other important characteristics of female headed households. This study addresses itself to how the diverse factors such as demographic set up, level of education and age of women affect their participation in income-generating activities.

The popular view that the informal sector is a health hazard is damaging as it is used by bureaucrats to justify demolition of informal sector premises. It is important to study the economics of the informal sector as well as how informal sector operators perceive their predicaments. Municipal and central government authorities should make regular consultations with petty traders to find out their problems to ensure that the policy decisions are not detrimental to the informal sector operators-thus the need to examine some of the

problems which beset women participating in income-generating activities.

In the event of inadequate housing and overcrowding as often is the case in urban centres, there is little room for income-generating activities to be undertaken in the house. Yet, it is difficult to evolve a system of self help by which such problems can be solved. In addition, women's needs are rarely taken into account in designing and administering new low income housing projects within urban areas. For instance, no trading is allowed in the area, or the project is far from the trading areas. In other cases, women's traditional income-generating activities are sometimes unintentionally curtailed by development projects. For example, when a cattle ranching scheme or an industrial site has to be established families are moved several kilometers away from the nearest urban centre. This deprives women of market for products they make. The loss of income is a serious matter for women because the traditional gender division of labour assigns them economic responsibility. When a woman is the head of a household as increasing numbers are, an inadequate income becomes even more critical for both herself and her family.

Many observers who have examined the benefits and costs of economic development have concluded that women have often borne a disproportionate share of the costs while men have more often received the benefits of these changes. Some innovations have made life easy for all: Improved water supplies, health services and all weather roads have been of benefit to women as well as men. Despite women's key roles in food production, commerce and small business enterprises, most of the programmes designed to improve

productivity in most economic sectors have been directed towards men's activities. Only few women have felt the benefits of these programmes. It is with all these in mind that the study tries to evaluate women's achievements in a development programme and thus concentrates on economic enterprises of women.

It is in the awareness of the above discussed problems that this study sets out to look at factors which curtail women's total involvement and income realisation in the income generating activities they carry out. In order to set up a sound statistical basis for estimation and projection of female labour supply, to realistically evaluate the productive contribution of women to the economies and to more accurately assess women's economic needs, it is essential that one understands the nature and direction of their economic activities.

### **1.3 Scope And Objectives of the Study**

The discussions above, indicate that as women migrate from rural to urban centres they find difficulty in being absorbed in wage employment. This is due to the fact that most of them, are not adequately trained and educated. Further, culture, attitude towards work and gender division of labour have limited their participation in formal employment. Yet because of the high cost of living within the urban centres, they have to participate in some other sorts of economic activities. Most of them have joined the informal sector where they engage in income-generating activities.

The major reasons which have forced women into these activities are; some need to augment their husbands' income, others are heads of households and therefore, the major bread winners whereas others need economic autonomy. For women who have joined the informal sector, a number of factors determine their participation in income-generating activities. Further, a lot of factors determine the amount of income they gain in a month. Lastly, they are faced with a number of problems. It is because of these reasons that this study has the following objectives;

(1) To find out factors which determine women's participation in different types of income-generating activities. Under this objective the study will find out if there is a significant relationship between types of income-generating activities and (a) level of education (b) age and (c) marital status. Secondly, this study wants to ;

(2) Find out factors which determine the amount of income women gain in a month. It is here then, where the study will find out: If, level of education, mean age of children and family size determine the amount of income women gain in a month. The last objective is to find out problems facing women participating in income-generating activities. In light of the above stated objectives, this study has four hypotheses which are subjected to statistical analyses.

#### 1.4 Hypotheses

1.  $H_0$  : There is no significant relationship between types of income-generating activities and level of education.
2.  $H_0$  : There is no significant relationship between types of income-generating activities and age.
3.  $H_0$  : There is no significant relationship between types of income-generating activities and marital status.
4.  $H_0$  : Level of education, mean age of children, and family size do not determine the amount of income women gain in a month.

It is on the basis of conclusions made from the various statistical tests that recommendations will be made in order to improve the income-generating activities that women participate in.

#### 1.5. Justification Of The Study

The paucity of research on women's economic role in kenya has been lamented by scholars like Pala (1974). She remarked that research on African women has been dominated by people and agencies outside the African production and development process. In her opinion, such expatriate researchers take their findings back to Europe, America or

international agencies which have no means to implement the changes they recommend. Although, women constitute half of the urban population and are frequently noted to be heads of households so far insufficient research has been done to evaluate their sources of income within the urban centres. Thus this study is a move to make available the findings of local researchers to government planners who are interested in issues pertaining to women and income-generating activities.

The importance of studying women's employment lies in its contribution to the eradication of poverty and possible economic independence for women. Throughout the world, women are still disproportionately represented among the poor, the illiterate, the unemployed and underemployed. National statistics provide a practical indication of female participation in the labour force. They have to be supplemented quite considerably by field research on income-generating activities in order to show the structure and dynamics of the contribution of women to informal sector production in the urban areas. There is a basic inadequacy with regard to national statistics because they refer only to formal wage employment registered and reported by large industrial concerns which employ over fifty people. This means that all of those people who are gainfully employed in the informal sector in the urban areas especially women are excluded from enumeration. This research, for example, specifically wants to analyse statistics related to women participating in small businesses which have often drawn only meagre attention of researchers.

In African countries, women are responsible for the distribution and marketing of

basic food supplies and other household goods both wholesale and retail (Kariuki, 1985). Unless women have access to training and to modern financial tools, the small business sector cannot make its maximum contribution to development. Moreover, in as much as in African society and particularly in polygamist households, women are often both economically and personally responsible for the care and early education of their own children. Note that, despite the rapid urbanization, the practice of polygamy has not subsided in the urban centres. Failure to afford women full access to educational and economic resources will have a direct and limiting impact on the welfare and opportunities available to their children. Studies have shown that poor education of women lead to poor education of their children. Note that the educational aspiration for their children are linked to their own. For these reasons, the status of women is an important development issue.

To accurately assess the labour market conditions of a country, it is important to identify unemployment and underemployment and to take into account that not all economic activities occur in the market place. In many LDCs, a large portion of production takes place within the home or house in the urban centres. Conscious of this need, the GOK committed itself in the 1974-78 development plan to expand participation of people in the economy, by creating more employment opportunities and distributing resources and income equally to both the formal and informal employment sectors. In line with this thought, therefore, activities performed mostly by women in the urban informal sector should be separated. These activities include hairdressing, tailoring and dressmaking and handicrafts.

It is because of this reason that this study attempts to categorise the different income-generating activities partaken by women in the urban informal sector of the economy outside the market.

In a United Nations International Research and Training Institute for Advancement of Women (INSTRAW), (1989) report on classifying women's activities in Kenya, there is a suggestion that there are certain factors which affect women's participation in the labour force which should be studied. In agricultural economies, for example, these factors include seasonal variations of household labour demands, family life cycle, presence or absence of men in a family and economic status of women in rural and urban areas. Similar and other related factors may determine women's participation in income-generating activities. This is the major reason, of looking into factors which determine women's participation in different types of income-generating activities and into factors which determine the amount of income they gain in a month. For example, education influences women's economic participation, earning power, number and health of children. Education, as such, is an important factor to look at as progress here can be the harbinger of expanding opportunities in the future. Education develops the human potential. In the modern world, it is a vital tool of productivity for both women and men.

There is a sharp increase in the number of female headed households both in the rural and urban areas in LDCs as well as in More Developed Countries (MDCs). These women always comprise the poorest section within their social class or group and belong to



the most deprived groups within society. Worldwide, one third of urban households in LDCs are female headed. For these "women without men", collecting enough money for survival poses additional problems over and above those valid for both men and women. Despite the fact that women often have other needs and priorities than men's, most development policies are orientated to the needs of men. Note that most policies are planned, shaped and implemented by men. The fact that women constitute half of mankind and that one third of all urban households are female headed, makes it mandatory to take women's needs and priorities into account in planning and executing policies concerning urban development. Women and particularly women's organizations should be involved in drawing up and implementing plans. This research is meant to make the recommendations and results accessible to planners to raise the consciousness on the importance of the subject and stimulate further research on this field.

The participation of women in economic activities in urban areas has never been given much attention. The reason is that, like their involvement in family, farm production and domestic work, their participation in economic activities also remain invisible. It is pertinent that their involvement in income-generating activities be explored in detail because such investigations have importance from the practical point of view and for policy making purposes as well.

The emerging interest on women is founded on the fact that women in general spend more time at home than men and thus are directly and strongly affected by the place in

which they live, its amenities and its surrounding environment (Obudho, 1991). Women in LDCs such as Kenya are becoming increasingly mobile and assuming independent roles in the national economic infrastructure. In case of increasing urbanization and search for modern sector employment by women, the need for incorporating their needs in the national development plans cannot be over-emphasized. Thus women need new solution to basic services which they can afford. Planners should look at women's own strategies and involve them in planning and management of improved services. Authorities should also come out to seek women's opinions whichever new projects are started in urban areas.

Due to national unemployment and the increasing number of untrained school leavers, full development of human resources makes it imperative that new job openings and new types of earning opportunities be explored and increased. It has been demonstrated that such opportunities for women not only assist in support of families but also stimulate consumer demand for food, goods and services which in turn generate additional work opportunities in the whole national economy. Governments might find it necessary to assist women who have acquired skills for self employment to ensure greater self reliance, expansion of employment opportunities and the strengthening of economic development. It is because of this reason that this study concentrates on income-generating activities which the GOK might be interested in, in future.

Despite the key role that women play in the LDCs economies, they have been largely by passed in development strategies, yet there is need to recognize the link between

women's advancement and socio-economic progress (Sivard, 1985). Women if better trained and informed the evidence shows. The family's health and income benefits. Besides, when women are given training and skills, the nation's productivity gains and grows. Therefore, what is good for women is good for the society at large. This, therefore, is the solid basis of the study undertaken.

From the fore-going discussion it has been exemplified that women play a great role in the community. "This role is often though not explicit to most people. It is often assumed to be yet another women's role. It is a high time the community gets rid of the negative attitude that what women do, however, significant is what they are supposed to do" (Kariuki, 1985:100). The community should give due recognition and respect to the role played by women. There is evidence that in low-income families, children's health and nutrition benefits from women's other than from men's earnings - which are usually spent on alcohol as is noted by Mbugua (1989). Measures to improve women's productivity in self-employment benefit first and foremost children and then the nation. Studies such as this will, therefore, benefit the whole nation.

Women in the non-agricultural sector face constraints which lead to economic marginalization of majority of them. Such marginalisation is depicted by their relegation to the low paying occupations, to employment more often as casual than as permanent workers and to their higher probability of entering the informal as opposed to the formal sector where their well being is precarious. These trends have been shown to get worse as

more and more women enter the labour market in the formal and informal sectors. Urgent interventions are, therefore, needed to ensure that a significant proportion of Kenya's labour force are not economically marginalized on account of their gender. Such interventions need to be comprehensive and aimed at recognizing as well as rewarding women as equal partners in development.

The women in urban occupation though small in number deserve special attention as they are the pioneers in breaking off from the traditional bondage and setting the path of development in this country. It would, therefore, be interesting to understand the characteristics of these pioneering women on the following issues:

- (a) Are they different from those women who do not participate in economic activities outside the home?
- (b) How do they adjust to their newly acquired roles?
- (c) How does work outside home lead to role conflict particularly in the cases of married women who are to play the dual role in up-bring of children, husband wife relationship and participating in income-generating activities
- (d) What is the attitude of the society towards employed women and above all
- (e) What are the constraints of female participation in the labour force.

That urban exposure makes women more amenable to new ideas such as participation in new economic activities outside the home in comparison to her rural

counterparts is obvious. Urban centres are assumed to be the citadel of modern ideas and values, while the rural centres are considered the custodian of the traditions. More women have opted to join the urban economy. It can be said, therefore, that given her concern for economic independence, it is not surprising that the urban female is portrayed as a crucial actor in social changes within the urban setting. The urban woman is moving in the vanguard of social changes regarding sex roles. Her behaviour and attitude may serve as valuable indicators of future "position" of women on broader level. The gains she makes and decisions made concerning her position will help to shape the future context of urban life.

The choice of a site and service scheme-Dandora, a residential section of Nairobi, was due to the fact that like in a tenant purchase project, people eventually possess their houses. This is important in that the low income earners who were eligible for the plots (earning an average of 400 Shilling per month) eventually own property which can be used as security for acquiring loans to boost their small scale businesses. This is more so for women who do not have husbands or male relatives to give them money to expand their small scale enterprises. Furthermore, level of income from self employed persons and heads of household was a requirement in order to be allocated a plot. Therefore, it was easy to find people (women) involved in viable informal sector activities living in an organised residential area within Nairobi.

Further, in a site and service scheme most of the basic infrastructure such as roads,

markets, hospitals, schools to mention a few are provided for on one hand. However, there is often no consideration given to people who cannot acquire or afford market stalls which are inadequate for the whole population. For women who do not know the proper channels to follow to acquire stalls in the market or licenses, they end up building illegal structures which are seen as health hazards by public health officers. These structures are often demolished by the local authority agents. This is a fundamental problem faced by women in planned residential areas as they incur a lot of damage during the demolitions. On the other hand, the provision of these basic infrastructure is advantageous in that they lead to ease of most of the domestic work. Women are left with more time to engage in income generating activities.

To conclude, it can be said that there is need for increased awareness of the roles and responsibilities of women. This can only be done through dissemination of systematic research findings. Assembling and collecting data on the participation of women in the society is a must if the whole nations development is to be hastened. It is these data which are going to give a clear picture of women's contribution to national development and therefore bestow on her that great honour she has always deserved as is perceived by Pala (1985). Besides being a contribution to knowledge, the study serves as a basis of future reference.

## 1.6 Literature Review

In order to clearly understand the nature of economic activities that women currently participate in, in urban areas, it is essential to highlight how the situation was like in the past. Further, current trends of female employment should also be brought to light.

According to Stitcher (1977), the earliest female participation in wage earning in urban centres was through prostitution in which they sold sexual rights to a ready market among Europeans, Asians and a growing number of African urban male population. Throughout the colonial period, he said that prostitution provided an income which enabled women to live independently in urban centres, to buy clothes, lodging and to support their children either in the urban centre or in their rural homes. He elaborated on this point by stressing that only few occupations were open to women either than prostitution and beer brewing in urban centres by 1920. In spite of recognising the positions held by women as maids or children's nurses, he still said that a good source of income, however, was the renting of lodging space to men. He gave the example of Nairobi's African section of Pumwani and Pangani which had 250 and 260 houses, respectively, built of wattle and daub, and about 134 of these houses were owned by women many of whom had purchased them with funds from prostitution. These houses were used as lodgings by men. As a matter of fact, it can be implied that women engaged in these activities hardly faced any significant problems as they were few. Note that the colonial powers restricted the migration of Africans into urban centres and furthermore migration was highly selective. Women,

therefore, who migrated to urban centres readily got a source of income and faced negligible problems. Furthermore, from the way Stitcher (1977) has looked at this activity, it seems as if there were no major factors which affected the participation of women in it considerably.

However, as migration trends become similar for both men and women, the unemployment rates have remained high in the major urban centres. Note that school leavers are migrating to urban centres to look for employment. The number of women has now increased in both the informal and formal sector. Boserup (1970) put the record straight by stating that although educated women have little difficulty finding employment in the modern sector albeit rarely at the upper levels of management, most women have had relatively few opportunities for education or training. Therefore, when women who are burdened with additional work on the farm or squeezed out of the traditional occupations seek employment in the modern wage sector, their lack of education force them into the lowest paid, least skilled and least secure jobs. National statistics on formal sector employment between 1963 and 1971 indicate a very low percentage of female enrollment in formal employment. The figures indicate that 11 per cent to 15 per cent of those engaged in formal employment were women compared to 85 per cent to 87 per cent who were men. A large part of this disparity is attributable to the unequal access to educational facilities experienced by women all over the country. It is distressing to note for instance, that, as of 1969 over 90 per cent of women above 40 and over 75 per cent of those between the ages of 30 and 40 had not been to school; that less than 50 per cent of females had any



schooling and less than 25 per cent had completed more than 4 years of schooling.

While women's labour in the Kenyan economy is and has always been based on agricultural sector, the extent of their labour force participation is quickly expanding into non agricultural sector as was observed by Mbugua (1989). The trends in the proportion of women workers in each sector between 1970 and 1985 indicate that the percentage of women in the wage employment in the private and public sectors rose by 3.1 per cent and 4 per cent respectively. In contrast, the proportion of women who were self-employed or unpaid family workers for example those in the informal sector, rose from 17.7 per cent to as high as 32.1 per cent in 1982, falling slightly in 1983. Thus, although women engaged in the labour force rose from 14.5 per cent to 20 per cent in the 15 year period, women were still disproportionately absorbed in the informal sector where income generation is uncertain, and not into the mainstream of the modern sector as is shown in Table 1:2.

**Table 1:2 Female Employees by Sector, 1970-84 in Kenya**

Year	Wage Employment Formal sector		Self Employment Unpaid family worker informal	% of all persons engaged
	Private	Public		
1970	14.2	14.5	17.1	14.5
1972	15.5	13.8	18.1	15.1
1974	16.3	19.8	26.8	19.0
1976	15.1	17.8	26.4	17.8
1978	16.6	18.5	26.7	18.9
1980	17.0	18.2	29.2	19.4
1982	18.0	19.2	32.1	21.0
1984	17.3	18.5	29.4	20.0

Source: Mbugua, 1989: 97

The great expansion of the informal sector has been advantageous to women. Between 1970 and 1985, the ratio of male to female employment fell from 4.45 to 2.40 among self employed and unpaid family workers in comparison to a drop from 6.05 to 4.75 in the private sector and from 5.9 to 4.42 in the public sector as is shown in Table 1:3.

**Table 1:3 Percentage Change In Persons Engaged by Sector and Sex 1970-83**

Sector	1970-74	1975-79	1980-83
Private			
Male	21.9	12.4	5.4
Female	30.5	29.4	7.5
Total	25.0	14.9	5.8
Public			
Male	25.1	23.9	11.6
Female	82.2	24.7	13.4
Total	33.4	24.0	12.0
Self employed and unpaid family workers			
Male	144.2	33.5	8.8
Female	316.0	65.7	32.7
Total	174.7	41.0	33.8
All Sectors			
Male	31.2	19.2	11.7
Female	80.6	34.5	15.8
Total	38.4	21.8	12.5

Source: Mbugua, 1989: 100

**Table 1:4 Females as Percentage of self Employed and Unpaid Family Workers by Industry 1978-83**

Industry		1972	1975	1979	1983
1.	Agriculture and Forestry	28.4	18.3	31.3	25.7
2.	Mining and quarrying	-	-	10.1	-
3.	Manufacturing	10.4	13.3	-	18.9
4.	Electricity and water	-	-	-	-
5.	Construction	3.6	3.2	6.6	21.9
6.	Wholesale retail trade, restaurants and Hotels	18.4	33.8	36.2	37.7
7.	Transport and communication	1.4	0.9	11.6	3.6
8.	Finance, insurance real estate and business services	9.4	10.1	8.77	28.1
9.	Community social and personal services	14.1	4.0	4.1	9.8
10.	All Industries	18.1	23.2	27.2	29.4

Source: Mbugua, 1989: 102

It is evident from the above data that a large number of women have entered both the formal and informal sectors of Kenya's economy since 1970. This clarifies the fact that women now constitute a vital component of the economically active labour force in the non-agricultural sector. Yet because various sex-stereotyped relationships and attitudes have been rationalized and institutionalized in the labour market, women as workers and as a group are in danger of becoming an underprivileged class as is reckoned by Mbugua (1989:109). She presented a list of factors which show the detrimental characteristics and trends in women's employment patterns in Kenya as follows:-

- (a) Women are still less likely than men to be employed in the formal or informal sector.
- (b) If engaged in the non-agricultural sector, they are more likely to enter the informal sector which is more volatile economically.
- (c) In the informal sector, they are less likely to be managers and/or owners of enterprises.
- (d) In the formal sector, women are employed on temporary terms often than men.
- (e) Women are heavily concentrated in some industries than in others indicating that their competitive edge in employment is poor.
- (f) Women are concentrated in the low-paying occupations.

Accordingly, Mbugua (1989) felt that these factors illustrate that women in the non-agricultural labour market are economically marginalized and the extent of their marginalisation appears to increase as more of them enter the labour market. Several major constraints hinder the full potential of women's contribution to development especially in the areas of education, employment practices and the Kenyan law.

Watchel (1974) noted that the degree of women's involvement in the economies of Kenya some twenty years later is still partially and generally weak. She argued that this may be due to administrative limitation, lack of opportunities for education and training, and also the more subtle socialization process inherited from the MDCs along with modernization. Mbilinya, (1970) found out that because educational developments increasingly conformed to colonial administrative interests, boys were favoured rather than girls. As a result, far more boys schools were built and staffed. In most countries, urban women lack experience with formal education for a number of reasons, as was enumerated by Wiersinga (1983). Poor families may not have the financial means to send all their children to school and, therefore, have to choose who should go to school. The choice often falls on the boys rather than the girls who may be needed at home to do household work and to care for young children. Another reason as she noted may be that education given at school is not highly valued or not thought to be relevant for girls future. It is needless to say that despite the above disadvantages poor urban women need some form of education to be able to break out of the vicious cycle of poverty and deprivation they have often been caught up in. Due to lack of education, Kariuki (1985) pointed out that majority of the women who

migrate to urban areas are illiterate, have little or no formal skills and training. They are, therefore, not prepared for urban life. They are not able to get worthwhile employment, nutritious foods housing and other basic amenities. It, therefore, follows that majority of women in urban centres are either unemployed or are under-employed and are living under poor conditions.

Although, Mbilinya (1970) felt that there are few if any African countries where legal obstacles to employment exist or hinder women's entrance into any particular occupational sector, Mbeo(1989:110) gave the Kenyan situation where she felt that legal omissions have caused frustration to women participating in economic activities. As she put it, "by its failure to specifically address certain key issues, Kenyan law allows various discriminatory employment practices to flourish thereby aggravating the economic marginalization of women". According to her, two major legal omissions have a direct negative impact on women's employment, namely; the Kenya constitution does not specify gender as one of the attributes in its non-discriminatory clause and laws dealing with employment fail to require equal pay for work of equal worth (Mbeo, 1989:110).

Pala takes this issue further by expressing that where African women are in remunerative employment, they tend to be handicapped by unequal employment law. According to Pala (1976:14)" the basic obstacle to women's employment is the field of wages and conditions of work". She expanded on this point by stating that the regulations of wages and conditions of employment is still being used to fix lower minimum wage level for

women than men in similar job situations. She observed that the employment of women in certain industrial undertakings such as mining and quarrying except in managerial positions not involving manual labour is restricted. She further noted that women may not be employed in such undertakings between 6.30 p.m. and 6.30 a.m. except in very special cases or on written authority by labour. She felt that the grouping of women with children and young persons imputes a juvenile status on women. She argued that laws such as these give the police in the urban areas authority to question women on the street after dark. In other words, it is assumed that all women who are walking in the dark are prostitutes. Female mobility at night, therefore, is compared to colonial days when Africans had to carry an identity card which stated their names, place of employment and area of residence as Datta-Sandhu (1979) concluded.

Boserup (1970) stated that female participation in industrial sector is still very low. She reckoned that, for women, the industrial sector seem to represent the existence of a private (female) domain and a public (male domain). Female desire to work close to home, their strong farming and trading role, employer's preference for male labourers, the demoralizing influence of factories on women (Boserup, 1970 and Lowe, 1977) and other biases are some of the reasons for women's low participation in the industrial employment in Africa.

Boserup (1970) further presented another reason for the low employment of women in African industries. She quoted a report by ILO concerning the employment of women

in Africa which poses the question whether it is the need to pay for maternity leave or the very fact that women workers are often absent for child birth that make employers hesitate to recruit them. She accounted for the above situation by stating that child birth is much frequent among women workers in Africa because they marry so young that married female workers make up a large share of women. Further, pregnancy among married African women is higher in Africa than in the MDCs. Wiersinga (1983) summed this up by saying that employees find it expensive to pay for maternity benefits and absenteeism and so discriminate against married women while recruiting employees. This point can be exemplified adequately if one looks at the data on 1979 marital status. Accordingly, it indicates that marriage is considered an important institution, and consequently most Kenyans marry. Comparatively, women join the marriage institution at an early age. By the age of 29 years only 17.8 per cent of women are single. The respective figure for men is 54.4 per cent.

Datta-Sandhu (1979) stated that another impediment to female employment is the high rate of unemployment in the LDCs. She noted that female unemployment is not considered when calculating unemployment figures. Thus, she said that the usual assumption is that men are the breadwinners. She further stated that in areas with high rates of male unemployment the prevailing attitude is that females should not take away work from males. Mbilinya (1970) on this point observed that one of the biggest obstacles to the participation of women in African economies is the high rate of unemployment and underemployment. When there are not enough jobs for men, it may be difficult to convince



governments to give first priority to women.

Another obstacle to increased economic independence of women as is stated in the SIDA plan of action (1985) is that women do not always control their own income. As it is the case, frequently men take charge of their income and decide how it will be used.

Smelser (1976) felt that urbanization and modernization make African women "less subordinate" economically, politically and socially to their husbands than they were in early conditions. However, Lowe (1977) refuted this idea as he felt that women's lives became more precarious in urban areas. His argument is mainly based on the fact that female immigrants to urban areas often view migration as an end in itself. It allows them to achieve freedom which they did not have in the rural areas. However, this increased 'freedom', does not apply uniformly in all areas of urban life. The urban woman finds that her participation in economic activities outside the domestic sphere is likely to decline rather than increase. He noted that they become economically inactive in a productive sense and as such, urbanization does not mean economic progress for women in this context.

Gugler (1968) noted that migration of large number of males retard the progress of women both, in the rural areas where the male labour is no longer available to men, and in urban areas where male unemployment is utilized to justify discrimination against females in the urban employment sector. In spite of this women still continue to migrate to urban areas. He suggested that part of the reason for this mobility is that, in urban centres women

are freed from some of the traditional constraints of rural life.

Employment situation of women has changed in Kenya over the years. Pala (1976) indicated how in traditional African society work and child care were well integrated in society. Children were cared for by surrogate relatives while mothers worked in homes. Also females had work that gave them an opportunity to be involved in community life. Nonetheless, she stated that when women migrate to urban areas, they lose all the traditional elements of support. The kin system as well as the traditional community are neither available, nor can traditional skills be utilized. She noted that urban sector employs women in unskilled low paying jobs and they get little protection either from the union or the government. She observed that the remaining options for women are illicit beer brewing, prostitution and hawking.

Barret (1987: 437) saw the changing economic roles of women as due to urbanization and migration of men from village to urban places. She felt that women face serious economic challenges as they have sole responsibility for child bearing in both single parent and nuclear families. As she put it, "women work in poorly paid sectors of the economy in roles different from those played in the village. In the urban centres, the roles are new and represent a threat to men since women without land must compete in the formal labour market". What should be stressed here is the fact that traditionally an African woman is expected to discharge the domestic roles. That is, to look after children and husbands, prepare meals and perform other household activities. In regard to this, Moser and Peake

(1987), portrayed that, in urban areas, women's triple role is unrecognised. They state that in most low-income households, women's work include not only reproductive work (the child bearing and rearing responsibilities), required to guarantee the maintenance and reproduction of the labour force, but also productive work, as primary or secondary income-earners. In rural areas in agriculture, in urban areas in the informal sector enterprises located within the residential area (in sub contracting or piece-rate work or at the neighborhood). They argued that because the triple role of women is not recognized so neither is the fact that women unlike men are severely constrained by the burden of simultaneously balancing the three roles of productive, reproductive and community managing work. They further found out that only productive work because it has an exchange value is recognised as work. Reproductive and managing work because they are seen as "natural" and non-productive are not valued. This has serious consequences as such, either by men in community or by planners whose responsibility are to assess different needs within low income communities: While the tendency is to see the needs of women as similar to men's the reality of women's lives is very different.

According to Watchel (1974) the contemporary advertising and the pertration of misreading the women's traditional role has conspired to restrict the aspiration of many Kenyan women as it has with her counterparts in MDCs. She argued that though proportionately more urban educated Kenyan women may be employed to raise the families' standards of living, the kinds of jobs they hold are still those associated with women (i.e. accepted female jobs in MDCs); secretarial, teaching and lower echelon health fields. She

pointed out that modernized agriculture, industrialization and concomitant urbanization have diminished the participation of women in the sense that they are largely marginal in the modern sector. Colonial recruitment was synonymous with male employment (except for some plantation and housemaid labour). Training in new technology was the prerogative of men. However, she noticed that those women fortunate enough to be employed in even the marginal sector sort of enterprises can seldom accumulate enough capital to break into the modern sector where the real money is or at least the potential for it is necessary. She reckoned that school fees and households expenses usually absorb much of the small profits obtained. To combat this situation, she suggested that women should look at one another as a means of capitalizing on numbers if not large amount of money. This is not to suggest that no woman individually can work her way up. Move from a market seller to grocery shop owner on the main street of an urban centre. Most women, without the financial backing of a man (husband, father, or other relatives) can only improve their chances of getting ahead by co-operative group action.

An overview of the above literature shows that women engaged in any sort of economic activity are faced with a number of problems. There are a lot of uncertainties and doubts about their potentials. As such, it can be said that there is a missing link between reality and what is reported happening to women involved in the modern economic sectors. On this note then, scholars like Datta-Sandhu (1979) recognised the fact that few systematic studies on the differential impact of development on women have been conducted. She only acknowledged an exception in the field of fertility and women. She suggested that

since economic power was the criteria used for determining female status in the pre-industrial societies, women's present role in economic development should help in understanding of the female status and role in society. According to her, the fact that economic development has a differential effect on women has led the developmentalists to analyse the obstacles to women's economic participation in LDCs. In her view, much of the attention to women in economic development has only been recently initiated by international agencies. She quoted United Nations (UN) declaration designating 1975 as the international women's year which was partially responsible for examination of problems related to women and economic development in a public forum. She further indicated that in Mexico city, the International women's year conference came up with themes like equality, development and peace which had the major concern as women's employment, education and fertility. In this conference a phrase which was popularized was "integration of women into development".

As it has been established earlier, women's contribution is significant in the informal sector. Thus it is important to bring into focus the pros and cons women experience in this sector. It is only after doing this that the study will be able to appreciate some of the factors that determine the income generation of women who have endeavoured in different activities in the informal sector.

Kenya's new development strategy is based on renewed and rapid economic growth with a target average Gross Domestic Product (GDP) growth rate of 5.6 per cent annually

established for the period 1984-2000. This will come about by the creation of new jobs in the informal sector industry. The GOK in the 1984/88 development plan has recognised the informal sector as a dynamic component in the strategy for balanced rural-urban development. Wagithi (1987) was upset by the fact that the informal sector suffers from negative public image yet it possesses many positive characteristics and has a vital role to play in contributing to renewed growth of the country. Informal sector activities are primary training ground for future African entrepreneurs. In addition, these activities conserve scarce foreign exchange. Above all, the informal sector has unlimited potential as a source of new jobs for the growing labour force. Furthermore, the informal sector produces goods and services for the country's consumption allowing money to be saved especially at the household level.

In the past, the informal sector was used by the GOK as a means of solving unemployment but no efforts were made to examine it in relation to the national economy. Since the recommendations of an ILO (1972) team, the GOK has made efforts to collect data on the urban informal sector annually.

This study adopted the definition of the informal sector as given by the ILO report of (1972) in which it was defined as the portion of the urban economy which escapes enumeration in official statistics. The team further defined informal sector activities as a way of doing things characterised by ease of entry, reliance on indigenous resources, family ownership of enterprises, small scale operations, labour intensive and adaptive technology,

skills acquired outside the formal school system and unregulated and competitive market.

Many of the problems women face when trying to develop income-generating activities can be related to their lack of education (Nelson, 1983). To substantiate, he noted that, women are often illiterate and do not have enough technical skills. Yet, as Kariuki (1987) reckoned, skills are necessary before anybody partakes any activity in the informal sector. Further, Kariuki (1985) emphasized the same point by agreeing that although there is high enthusiasm by women to improve their lot, there are certain bottlenecks they encounter. She accounted for this by drawing attention to the principally lack of skills as a result of disadvantages women face in the acquisition of education. According to her, this hamper the keeping of records, planning and resource mobilization in the activities they engage in.

Pala (1975) in trying to outline the factors that inhibit women from participating in income-generating activities reported on a situation where authorities have put constraints on women's economic activities. She stated that, for small traders who are mainly women to move produce from one district to another requires permit. At present it appears that it is too expensive to purchase the permit or that women do not know how to go about obtaining permit with the result that a number of them trade without permits and suffer the consequences of sanctions applied by Police. On the issue of licenses, Mbugua (1989) felt that in areas where women trade, licenses should be accessible to them so that they are not displaced by outside traders. In addition, they should be informed about how to obtain

licenses and licensing conditions should be made easy. This, if done, then women will not face frequent and unnecessary harassment from the authorities concerned.

Note that, monopoly over retail trade by males of immigrant minorities have also hurt females trade in East Africa. This problem was recognised as early as 1963 when a meeting in Addis Ababa, sponsored by UN passed a resolution that access to the market place should be opened to the women of all African countries where certain market places are monopolised by men, mostly foreigners. Datta-Sandhu's (1979) suggestion was that governments and local authorities should not hesitate to break this defacto monopoly by means of legal and fiscal measures in favour of indigenous women.

Division of labour within the family varies with class and culture. In most countries, the man when present, is the head of the household. Women have the task of running the household and rearing the children as first priority with their role as income earners coming second. According to Wiersinga (1987), when she has to fulfil both tasks, she often carries a double work load since men, rarely help with household task and child care. Women at the head of single parent families also have this double workload which proves to be a great burden. It restricts their mobility and choice of income-generating activities to carry out. Specifically, they are isolated when they have no extended families to fall back on or no family members to help them with looking after their children while at work. In connection to the above, Nelson (1987) argued that the dominant ideology that domestic work is solely women's responsibility limits their capacity to take up economic activities when married,



especially when these activities involve travelling to distant places.

The informal sector operates in a very competitive environment which results in low profit margins (Mbilinya 1970). As such, it can be said that women operators cannot therefore, afford to expand their operations. This factor, therefore, is a drawback for women participating in income-generating activities as they cannot accumulate enough money to venture into big businesses. Though Kariuki (1985) suggested group savings within the informal sector as a means of solving the problem, it is still very difficult to implement in urban areas where operators are suspicious, envious and jealous of each other as was found out by the author. As such, women in income-generating activities have been caught up in a vicious cycle of poverty as Mbilinya (1970) described it.

Another factor which discourages women participating in income-generating activities is the language used to refer to them as was discovered by Kariuki (1985). The traders are "petty", the domestic workers are house "girls" and "servants" yet the vegetable vendors are "mama Mbogas" as was found out by the researcher. Such a language make it seem as if these activities are looked down upon. It follows systematically, therefore, that the women involved in these activities are made ashamed of their work. Therefore, they are not willing to freely talk about the activities they gain a livelihood from.

An evaluation of the literature shows that some of the economic activities, that women participated in during the colonial era were not socially acceptable and cannot be

improved on to solve female unemployment within urban centres. It is thus, the aim, of this study to find out economic activities, which the GOK can expand and encourage to promote female employment in urban centres. A keen look at the literature would indicate that the government has not done a lot to see to it that women are not only left with activities, which lead to their economic marginalisation. This study would want to open up economic, activities for women with high chances of income generation. The informal sector where majority of women have been absorbed should not just be seen as a dumping ground for women but more, policies, should be formed so that women are encouraged and not discouraged on the economic activities from which they earn a livelihood within urban centres.

From the above literature review it can be said that most of the literature are generalizations of women's economic activities without necessarily specifying whether they are undertaken in urban or rural areas. Further, few if any appraisal studies have been done in a development project to find out factors which determine women's participation in income-generating activities. More so, few studies have specifically concentrated on income generating activities.

## **1.7 Theoretical Framework**

Anker et al (1986) in their neo-classical theory explaining sex inequalities in the labour market felt that women are limited in their choice of economic activities by lack of

human capital mainly education and training. According to them, families allocate their resources (time and money) in a manner which causes women to receive less human capital when young and stay at home to take care of children when old. Mbilinya (1970) found out that women are not adequately prepared for formal employment and, therefore, take to income generating activities which do not require any formal education or is characterised by ease of entry as is noted by House et al (1977). Although, it often asserted that the informal sector is easy to enter, House et al (1977) suspected that a good deal of heterogeneity exists in the sector and that the level of an enterprise will be positively related to proxies for the difficulties of entry such as capital employed and the education and training both formal and informal of the entrepreneur. The above approach, explained low productivity of women in the labour force as due to lack of adequate education and training. In order to improve women's labour market, policies which have been recommended emphasize the need to improve women's educational levels and training - their human capital (Mbilinya, 1970). It should be clear, therefore, that low levels of education and skill can be an important handicap for women in the labour market.

The structure of the labour market also influences women's participation in the labour market (Anker 1955). From this factor, ideas of labour segmentation have been put forward. For example, Doeringer and Piore (1987) propounded the "dual market theory". These scholars distinguish between two types of jobs. These are primary and secondary sector jobs. The primary sector jobs are good in terms of pay, security and terms of advancement on one hand. On the other, secondary sector jobs are punctuated with low

pay, low security and little possibility of advancement. Primary sector jobs are those where workers skills tend to be firm specific and the resulting employers need for stability in this part of the work force leads to offer high wages and good prospects of advancement. For jobs in the primary sector, worker stability is important for employers and the perceived high turnover of women means that they are likely to be relegated to secondary jobs. Mbeo (1985) observation that women are mainly found in economic activities with income uncertainties proves this fact. The existence of two relatively separate labour market for men and women is seen by Anker et al (1986) as a determinant of low earnings of women. Women's occupational choices are restricted and there is an oversupply of candidates for women's jobs. Women can be considered as "crowded" into occupations. According to such an "overcrowding" model wages are low for occupations which are highly feminised. (Mbeo 1985, Anker 1985). Women must compete against themselves for relatively few jobs in what is artificially restricted overcrowded segment of the labour force. This situation is synonymous to the adverse competition realised in the informal sector (income-generating activities) women participate in as was recognised by Wiersinga (1987).

The ideas presented above have tended to consider women's position in the home and in society as given. This helps to explain the disadvantageous position of women in the labour market. Prejudices in social mores are responsible for direct discrimination and also for indirect discrimination which occurs in socialisation and educational processes.

The allocation of domestic work (in particular child care) to women also tends to

limit their participation in the labour market. Note that the allocation of domestic labour especially child care to women even when they work outside the home is persistent in both LDCs and MDCs (Moser and Peake 1987). In LDCs domestic work and child care are generally the responsibility of women but may be shared among a number of women in the context of an extended family structure as Mbilinya (1985) observed. With a shift towards nuclear type families, particularly in the urban areas, child care and domestic responsibilities tend to increasingly fall on one particular woman, the mother (Wiersinga, 1987). Relatively, inexpensive domestic help is becoming more difficult to obtain and child care services such as creches are not developing rapidly. Women's handicap in the labour market because of domestic responsibilities may thus not be diminishing but rather increasing in urban areas of many LDCs.

Another idea which has been raised regarding women and work is sexual harassment. Note that Anker, (1985) felt that harassment is a major factor contributing to high turnover among women workers since quitting a job is the main option available for getting out of such a situation. Kariuki (1985) decried the Nairobi City Commission (NCC) security personnel harassment of women hawkers. Job segregation by sex is to a large degree maintained by sexual harassment. Similarly, the integration of women into male dominated occupations is often threatened by sexual harassment. Sexual harassment is great in LDCs because the group of women desperately in need of income (which constitute prime victims for harassment) are many. Note that the option of quitting is often not a viable alternative as is explained by Anker et al (1987). Women occupations tend to be extensions of

domestic roles for example teaching children, nursing, cleaning and serving (Mbeo, 1985; Mbugua, 1989, Anker, 1986) and just as women's domestic work is devalued within most societies so are those occupations and skills.

The allocation of work by gender, is the idea expanded in what Anker et al (1987) call the feminist (gender) theories. Their main contribution has been to show how women's position in the labour market can be seen as part of a whole social system where women are subordinate.

The ideas presented above will be the bases of this thesis. Note that these ideas have tried to explain women's participation in economic activities. Furthermore, they outline some of the factors which determine women's earnings. The problems they are faced with are also presented. These are the objectives of this study. The study set out to look at the role the above factors play in the income-generating activities of women.

## **1.8 Conceptual Framework**

Basically, some of the factors which determine women's participation in income generating activities and influence the amount of income gained in a month are presented in a simplified manner. From the literature which have been reviewed above, these factors can be categorised as; education, demographic, socio-cultural, psychological, legal and economic. These factors are also the bases of the problems faced by women in their

income-generating endeavours.

1. **Education.** As had been noted before, women's education lag behind that of men. Women often do not have required knowledge and skills to perform effectively in their informal economic activities. This discrepancy can be seen in the way women's small scale economic activities are organised. For example, in planning, production, storage, marketing and the distribution of the final products. Invariably, participation in the urban informal sector requires a wide knowledge and the application of skills for increased production. This is lacking in most women's activities. This has led to poor management, misappropriation of funds and starting income-generating activities before proper feasibility studies are undertaken. Lack of knowledge has caused frustration, for example, in the field of loan acquisition. Most women do not know the proper channels to follow. Following, they cannot acquire loans to expand their enterprises. On another note, lack of knowledge has left women vulnerable to exploitation by middlemen. Lack of education has made women not be able to have some basic skills like bookkeeping to be able to record their daily activities, expenses and profit gains. It is because of this reason, that most women do not have bank accounts where they can save their money and later reinvest in their income-generating enterprises.

2. **Demographic.** This is mainly to do with the family size and the presence or absence of a male family head. Despite the fact that fertility rate is lower in the urban than rural areas, the rate is still high to warrant a small family size. The family size is averagely six

children per family. It can be said that women still spend a lot of time in reproduction, and bringing up children.

Women as such, are left with only a little time to participate in income-generating activities as they have to attend to the house chores. They have to choose activities which can only be done in or near the house. Presence of young children curtail movement to far off places or taking up activities which demand a lot of time. Due to this reason women are only limited to participating in small scale trading within the neighbourhood, which are not often profitable.

Inspite of the urbanization trends, the extended family ties have not been completely broken down within the urban centres. There are often many relatives living within one household. They often come to look for employment and medical attention, among others. They as such increase the number of people living within a household. Given the current high costs of living, most of the money gained is only used to buy food and, therefore, cannot be adequately used in running an urban economic activity.

Men, also control the income of women. In a household where a man is present he often has a say in the money a woman gets. He may want to be given the money for his own selfish gains. This often frustrates women as they would like to hide the income-generating activities they participate in from their husbands. In some cases, however, when a husband is present in a household, he may give his wife money to start an



income-generating activity. It can be said that he boosts his wife's morale such that she feels like taking up a more worth while income-generating activity. In a case where a husband is absent a woman is often overburdened with the family responsibilities that she only participates in a "hand to mouth" income-generating activity without any savings. Some husbands also choose for their wives the income-generating activities they should carry out.

3. Socio-cultural. Note that most African traditions are still upheld within the urban centres. For example, the division of labour between men and women is still well defined. Men's role as major bread winners is still paramount, whereas women only supplement the men's income. Women's major role is seen in reproduction and household chores. Thus, the duties of a woman are so enormous and involving that she becomes overworked both mentally and physically at the end of the day. She cannot have time to learn about viable economic activities, or other associations (groups, cooperatives) which may help her progress in her endeavors.

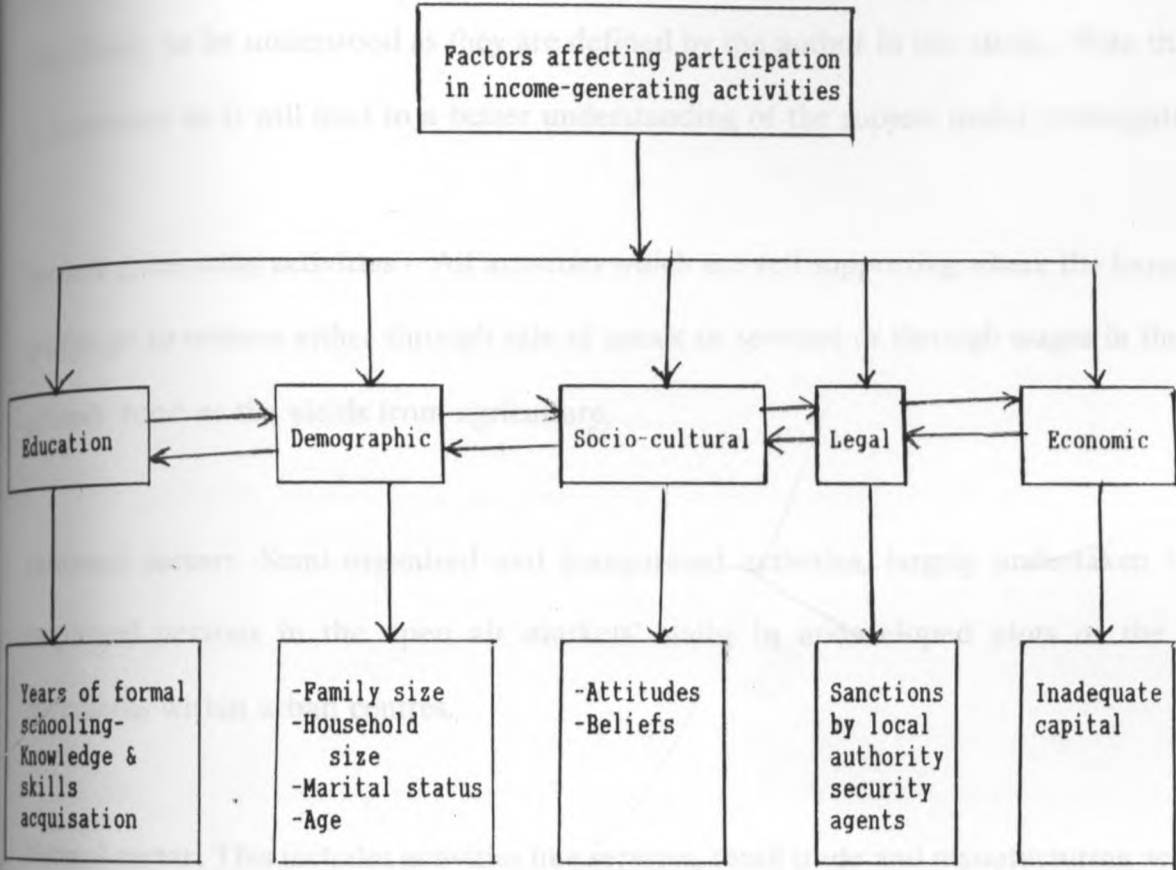
Traditional attitudes regarding what activities women should carry out also limit their participation in income-generating activities. Mostly, women are not expected to engage in activities which will take them far from home, or lead to spending nights outside their matrimonial houses, or places of residence. In connection to the above, are the psychological issues. These are attitudes that women themselves have internalised. As a matter of fact, most women believe that they should not do some activities. For example, most of them feel that transport business or bar and restaurant enterprises are purely male

domains. Very few women dare venture into such income-generating activities solely without the backings of male relatives (husband, brother, and son). As such, this limit women to only some types of income-generating activities. They themselves believe that these activities are left for women who want to compete with men. Such attitudes, are bad as they limit women's choices of income-generating activities to be carried out to only a few.

4. Legal. Most women are not conversant with local authorities by-laws on petty trading or engagement in informal(income-generating) activities. They, for example, set up "Kiosks" without acquisition of licenses or informing the local authorities. Note that most of these "kiosks" or hotels do not meet the public health standards. They have often been demolished and a lot of properties which would otherwise not have been damaged extensively gone to waste. Women, in cases of demolition incur a lot of loses. There are cases where all the products (vegetables, fruits, cereals and many others) are thrown away or even burnt. These affect women's enterprises very much as they have to look for money elsewhere to start all over again.

5. Economic - This is mainly to do with lack of money. Most women lack money to set up viable income-generating activities. They are further inhibited by the fact that most of them do not own properties within the urban centres and, therefore, lack items to use as securities in obtaining loans. The money they use to start businesses are from relatives which they are either to pay back or too little to set up viable income-generating activities.

Figure 1.3: Diagrammatic Presentation of the Conceptual Framework



Source: Compiled by the Author

## 1.9 Operational Definitions

Below are definitions of some words and phrases which are used in this study. Although they may have different meanings and implications in other texts, they are specifically to be understood as they are defined by the author in this study. Note that this is important as it will lead to a better understanding of the subject under investigation.

**Income generating activities** - All activities which are self supporting where the benefits or profits go to women either through sale of goods or services or through wages in the form of cash, food or the yields from agriculture.

**Informal sector:** -Semi organised and inaugurated activities, largely undertaken by self employed persons in the open air markets' stalls, in undeveloped plots or the street pavements within urban centres.

**Formal sector:** This includes activities like services, retail trade and manufacturing activities which are undertaken in permanent structures.

**Urbanization:** Is a process involving two phases or aspects:

1. The movement of people from rural to urban places, where they engage in primarily non rural functions or occupations, and

2. The change in their life-style from rural to urban with its associated values, attitude and behaviours. The important variables in the former are population density and economic functions. The important variables in the latter depend on psychological and behavioural factors. The two aspects are mutually supportive.

**Migration:** Movement of some distance which result in change of residence.

**Urban centre:** A place with a total population of two thousand or more who are engaged in exchange rather than primary production of goods.

**Rural areas:** Areas where people are mainly involved in agricultural activities for livelihood

**Women:** Female adults or females aged eighteen and above

**House wife:** A woman who is not involved in any sort of economic activity and stays in the house doing house chores.

**Dual role:** Two duties a person is appointed or is expected to do at the same time

**Work:** Any sort of employment.

**Group:** A collection of people organised by means of categorisation based on criteria of

~~sex~~, age, common goals and tasks, governed by rules which guide interaction in relationship.

**Household:** People living together in a house sharing the same source of income to buy the basic requirements (food, clothing and housing)

**Hawkers:** People who walk from place to place selling their merchandise.

**Sex ratio:** Percentage of males to one hundred females

**Petty traders:** People engaged in small scale exchange of goods for money

**Married women:** Women staying together with their spouses

**Single Women:** Women who have never had spouses

**Separated Women:** Women who had spouses but because of one reason or another are now living alone but can join them later

**Divorced women:** Women who are permanently separated from their husbands

**Income:** Amount of money a woman gets from her enterprise in form of profits

**Children:** A woman's offsprings

**Family size:** Total number of children a woman gives birth to

### 1.10 Outline of Chapters

This thesis is divided into six chapters. In the first chapter the problem under study is introduced. Further, the author outlines the objectives and hypotheses of the study. This is followed by literature review, conceptual framework, theoretical framework, and the operational definitions. It is also in this chapter where the reasons for looking into the field of study are given. In Chapter two, a detailed description of the study area is presented. This is necessary as it will enlighten the reader on the background of the area where the study was undertaken. Following in chapter three is the methodology of the study. Here, the methods of data collection, sampling and analysis are presented. Finally the limitations of the study are discussed. It is also in this chapter where the types of data used in the study are mentioned. In chapter four, the analysis of the data using  $\chi^2$  tests have been done. The factors determining women's participation in income-generating activities are thoroughly discussed. Further, the different types of income-generating activities are outlined and discussed. In chapter five the fourth hypothesis of the study is analysed using regression analysis. In this chapter, problems facing women participating in income-generating activities are also presented. Chapter six is the final chapter. Here a summary of the findings and conclusions of the research are briefly outlined. Finally, recommendations are made to women, future researchers and to policy makers.

## CHAPTER 2

### THE DANDORA RESIDENTIAL NEIGHBOURHOOD, NAIROBI

#### 2.1 Background of Nairobi

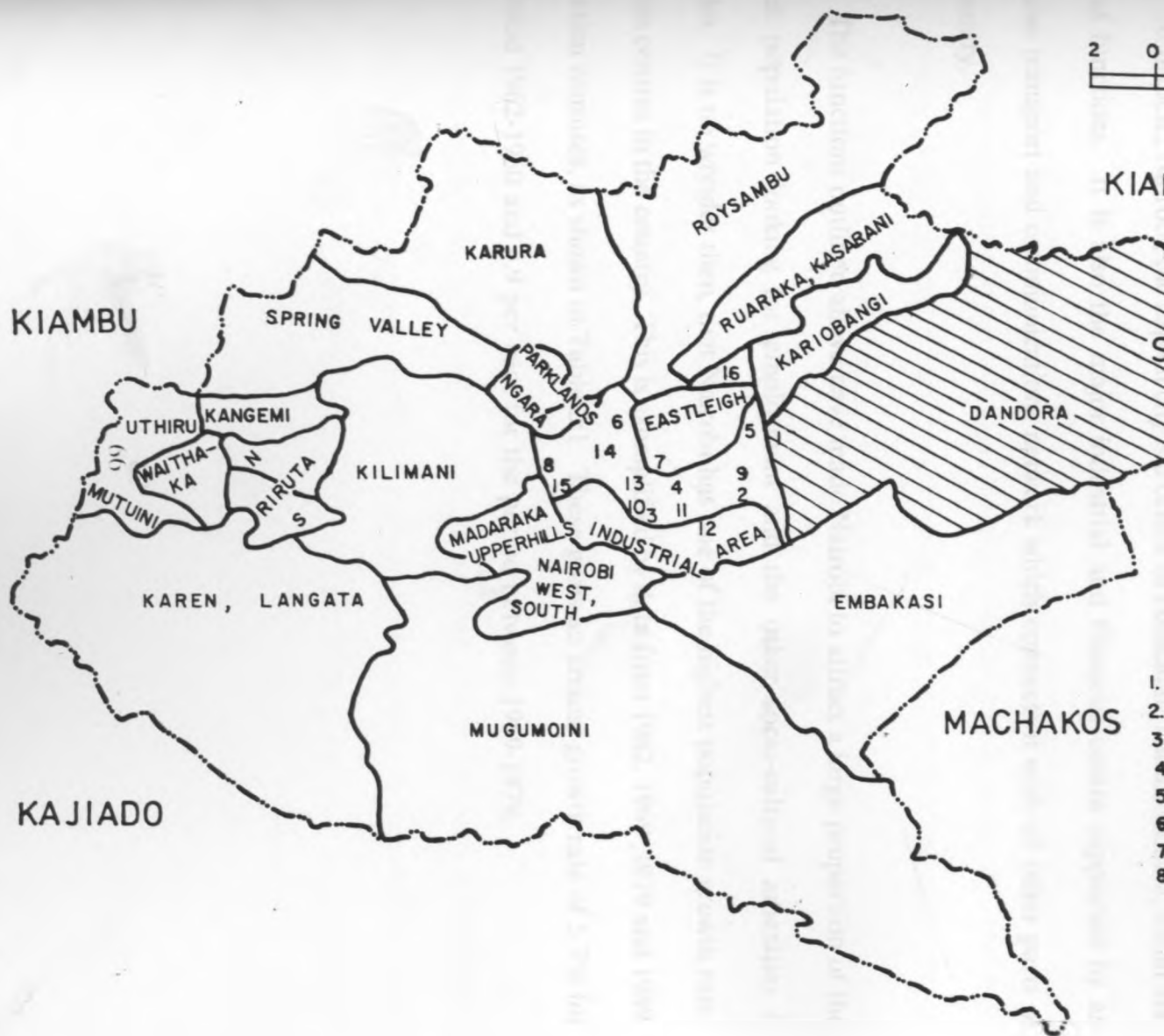
The study area is located within Nairobi, the capital city of Kenya. For clarity purposes, it is essential that a brief history of Nairobi be outlined to give an overview of where the study area is situated.

Nairobi lies approximately  $1\frac{1}{3}^{\circ}$  south of the equator at an altitude of about 1,660m above sea level. It covers a total area of 684 square kilometers. To the northwest of the city is an undulating grass land area with rich red coffee soils. To the north and northeast are the sloping land dissected by the flowing stream forming ridges and valleys. To the south and eastern areas are the arid grassland areas of black cotton soils.

Following the arrival of the railway line in Nairobi in 1899, the headquarters of the railway authorities was moved from Mombasa to Nairobi and in the same year the administrative headquarters was brought from Machakos to Nairobi. Thus, from a mere railway depot, Nairobi has emerged to be a modern urban centre (Obudho and Aduwo, 1988).



Figure 2:1 : Position of Dandora Estate in Nairobi , Kenya.



It should be noted, however, that the boundaries of Nairobi have constantly changed over the years since its formation. In 1900, the city was extended following the emergence of European, Asian and African settlements. In 1920, Nairobi was declared a municipality and a second boundary was established. In 1927, the urban centre structure was reviewed and a third boundary established. In 1950 Nairobi was granted a city status by the Royal charter. The fourth and the last city boundary was extended in 1963.

At present, Nairobi, the capital city is a centre of economic, administrative, social and cultural functions. It is also the major industrial and financial centre supported by an extensive transport and communications network which connects it with all other parts of the country.

The functions outlined above have made Nairobi to attract a large proportion of the Kenyan population looking for employment and the other socio-cultural amenities it provides. It is no wonder then, that Nairobi has one of the highest population growth rates of urban centres in the country. This is exemplified by data from 1962, 1969, 1979 and 1989, population censuses, as shown in Table 2:1. These gives an annual growth rate of 5.7% for the period 1962-1969 and 4.9 per cent for the period between 1969-1979.

Table 2.1      Nairobi Population Sizes

Year	Population size
1962	34,500
1969	509,286
1979	827,755
1989	1,429,041

Source: Compiled by the Author

This high rate of population increase in the city and the general low income levels of majority of the city population have compounded the problem of housing (Ngau, 1979). At present, the residential patterns follow distinct socio-economic patterns. The high income earners occupy the low density areas formerly occupied by the Europeans. These are areas such as Lavington, Karen, Kileleshwa, and Upper hill. The middle income earners and most Asians occupy areas around the city centre - Ngara, Parklands, Eastleigh and Nairobi West. Majority of the population, the low income earners occupy areas which were formerly for Africans. They are mainly located to the east of the city, where estates like Bahati, Mbotela, Ziwani, Kaloleni, Gorofani to mention a few are situated. The study area is also found in this part of the city.

To curb the housing problem NCC has introduced tenant purchase and site and service housing schemes which have only partially solved the problem as Ngau (1979) found out. The present study was undertaken in an area occupied by a site and service Scheme: Dandora.

## **2.2 Dandora Residential Neighbourhood**

Dandora lies to the eastern side of the city and extends to the Machakos district border. The area was famous for sisal growing and ranching. Currently, most of the sisal estates have declined in productivity and a sizeable number have been completely abandoned. This is due to the dwindling prices of sisal in the world market and the introduction of synthetic fibres in the early nineteen sixties.

The Dandora area is characterised by its general flatness except for a small portion to the east which is furrowed by steep river valleys of Nairobi and Ngong.

## **2.3 Land Use**

Dandora has been used for low cost housing development and establishment of industries. For systematic purposes, the residential and the Industrial areas are discussed separately.

### **2.3.1 Dandora Site and Service Housing Scheme (Residential Area)**

This site and services housing scheme is commonly referred to as the Dandora Community Development Project (DCDP). It was initiated by the Nairobi Urban Study

Group (NUSG) which was appointed in 1970 to prepare a comprehensive development plan that would guide the future growth of Nairobi city. Its other task was to identify development projects likely to attract international capital. One of its recommendations was the establishment of a low and middle income residential area in the eastern part of Nairobi city.

GOK through the then Nairobi City Council (NCC) and the International Bank of Reconstruction and Development (IBRD) an agency of the World Bank agreed in 1971 to set up the Dandora site and service housing scheme. DCDP is a multi-sectoral and multi-phased residential project.

The fundamental policy underlying the site and service concept is that low income earners use their own resources to develop the plots they have been allocated (Mbogua, 1974). The management of the house, planning and construction are seen as autonomous processes with the actual task and organization of construction undertaken by the occupants who mobilize their own resources responding to the economic environment in ways which best suit their own needs.

According to Njihia (1982), the DCDP is a large scale attempt by the local authorities in Nairobi to address the need for housing the low income earners and alleviate the problem associated with squatting. Pre-feasibility work of the project was completed in 1972 by the NCC following the recommendations of the NUSG who recommended locating planned

housing projects near existing residential and employment centres.

The preparation period started in January 1973 and in May 1975 the implementation of the project was undertaken. The first phase of the project which consists of 4,971 plots was completed in 1979, and the second phase is still under construction although some plots have been occupied. The project was supposed to provide houses for a total of 60,000 people with about 6,000-10,000 people residing in phase one. Note that it had an aim of specifically establishing a housing and community development scheme for households earning income between KShs 500 and <sup>KShs</sup> 1,200 per month as was discovered by Mbogua (1974). This was estimated to be the income range of about 40 percent of households in Nairobi during the 1970's.

As had been stated early, the DCDP placed emphases on the builder or leasee being involved personally in the actual construction of the houses. The NCC, on the other hand, provided services such as water, drainage, sanitation, paths, roads, electricity and telephones at a standard which is affordable to the plot occupants. Minimum dwellings consisting of a "wet core", store cooking space and two habitable rooms are to be build to the requirements of the authority within eighteen months of allocation.

### 2.3.2 Site, Location and Physical Characteristics

The project covers an area of approximately 350 hectares of which 300 hectares are owned by the local authority and the remaining 50 hectares was purchased at an approximate cost of £35,000. The area is bounded to the east by Outering road and to the north by Thika road. Almost half of the Southern side is the old Komo Rock Road. The site straddles a ridge which is bounded on the north and eastern sides by the Nairobi river, flowing in an easterly direction within a steep natural valley. Located within this valley are several quarries some of whose working have been abandoned Njihia (1982). The quarries are partially filled with surface and ground water throughout the year. The slopes adjacent to the river are very steep and reduce the potentials of construction in this area. Along the southern boundary of the site extends a seasonally dry watercourse located in a shallow wide profiled valley. This stream joins with the Nairobi River in the eastern corner of the site. The soil of the site is predominantly black cotton.

The elongated shape of the site dictates a physical plan in which the residential areas are appended to a communal and residential spine which runs from west to east through the centre of the site. The "central spine" is the organizing principle guiding the physical planning of Dandora (figure 2:2). In other words, it can be said that the layout is a modified version of the "gridiron" layout (Njihia, 1982).

### 2.3.3 Plot Allocation, Type and Development

Applicants who were considered eligible for plots were those earning an income of between KShs 280 to KShs 650 and did not have property in Nairobi. Further, they had to be heads of households and living with their families within the city. The overall project is supposed to provide about 6,000 plots when completed. They are to have individual water and sewer connections, related basic services and infrastructure including roads, security lights and refuse collection. The 6,000 plots include about 1,800 of 100 square meters, 2,100 of 120 square metres, 1,800 of 140 square metres and 300 of 160 square metres. The allottees have leasehold tenure for 50 years. Title deeds to each plot are issued after allottee have constructed a dwelling approved by the Dandora Project Department. The gross density of the project is about 32 plots per hectare, and plot occupancy rates are ten people per plot, giving a gross residential density of 320 people per hectare.

Each plot is provided with basic services consisting of water connection to "wet core", shower and gully basin. Sewerage and waste water drain in a contractor built superstructure- "wet core". In order to accommodate people of different income levels within the low income sector, three options of "wet core" and shelter are provided as outlined by Njihia (1982). Option A; (65 per cent) 3,900 plots in three different sizes, 100, 120, and 140 squares metres. Each has basic services in the 'wet core' and participants are offered a construction material loan (KShs 4,800) for developing their shelter through



self help. Total plot development costs inclusive of material loan and physical contingencies are estimated to be between KShs 10,000 and KShs. 12,000 per plot depending on the size.

Option B: (30 per cent) 1,800 plots in three different sizes, 100,120 and 140 square metres. In addition to the 'wet core' outlined in option A above, each plot has one contractor built room (kitchen) and a store. Plot owners are offered a construction material loan of (KShs 12,400) for further development of the shelter using self-help. Total development costs including the material loan are estimated to be between KShs 12,000 and KShs 13,000.

Option C: (5 per cent). 330 plots, all of 160 square metres in area. They have a contractor built dwelling consisting of two built rooms. No loans are offered for building materials to allottees of these plots. However, the development cost of these plots are estimated to be about KShs 16,500.

Participants constructed and extended their dwellings according to approved designs (figure 2:3). The DCDP through its finance section operates the material loan scheme. The rate of interest for loans (materials and plot) is 8.5 per cent. For type A plots the loan repayment period is 30 years and for type B 20 years. Repayment of the material loans commences 18 months after the date the first instalment of the plot is due. During this period the construction of the plot is to be completed. The interest accrued during the construction period on any material loan borrowed is capitalized on and the total interest is repayable by the type B plot holder over 18 1/2 years. This period coincides with the remaining plots loan grace period, after 18 months they pay interest only for 3 1/2 years and

on any material loans borrowed and on which interest is accrued. After 3 1/2 years the grace period expires and they start paying interest and principal due monthly over the next 25 year.

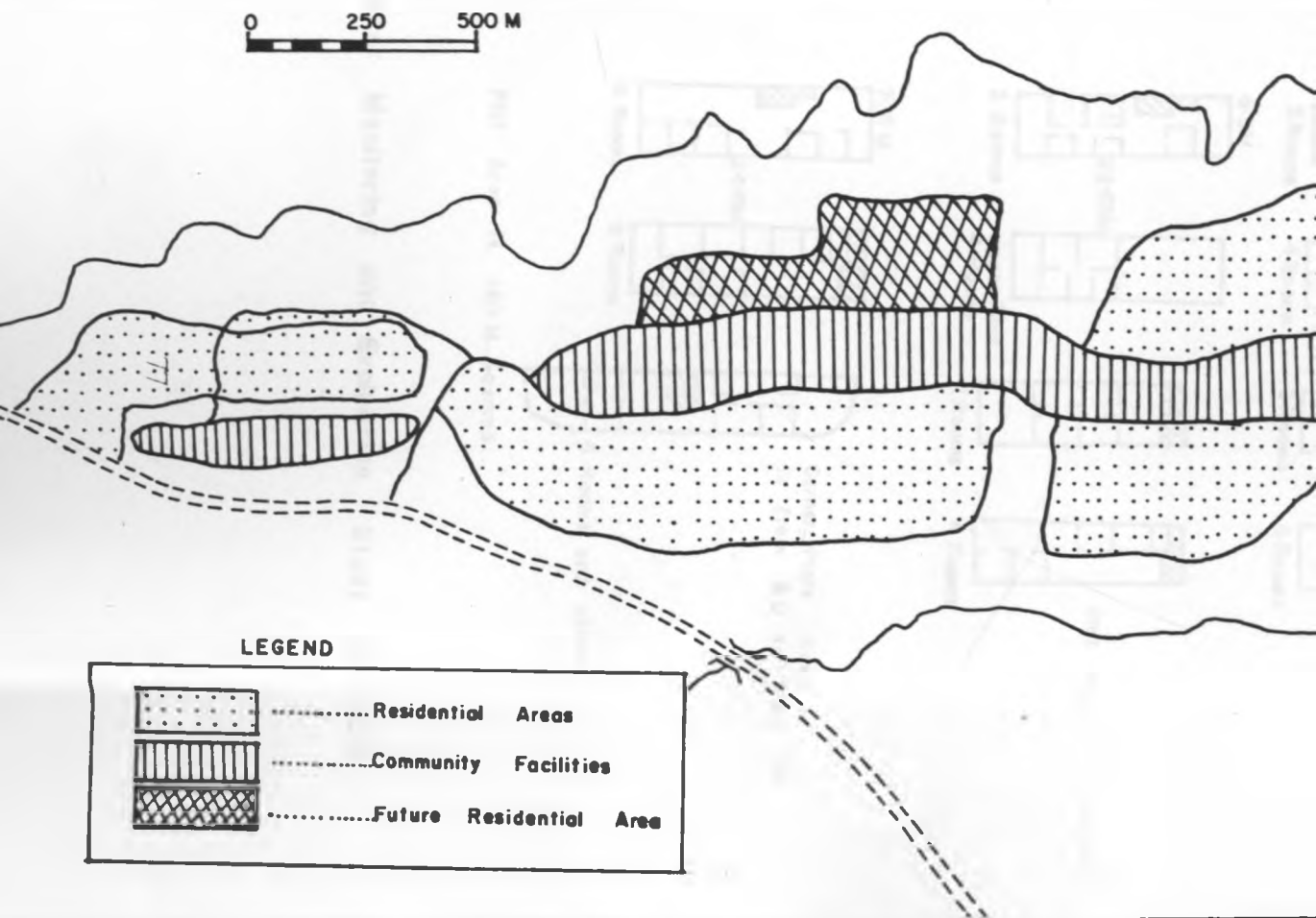
The allottee have to comply with the lease agreements, undertake construction of the dwelling according to the minimum standards laid down by the DCDP within 18 months, pay all charges promptly; sublet rooms only on conditions specified by the project administration and notify them of an intention to leave the project. They are also to conform to the project regulations regarding transfer.

For developing the plot, there are two options. The first option is applicable to type A plot holders. In this case a temporary shelter is erected since no rooms are provided. This room is used for residential, storage or combined purposes until the completion of construction of permanent rooms after which it is demolished. The second option is for type B plot holders. Here, the provided wet core can be used for many purposes until construction of permanent rooms are over. In this option, therefore, construction is began immediately after the plot is acquired. At the time of signing the lease agreement a deposit of KShs. 150 for water connection is paid. Each stage of the house construction is monitored and a progress report is maintained by a building inspector from the DCDP. The stages monitored and inspected are, setting out the rooms, foundation, trenches and walls, ground slab, external and internal walls, wall plates, roof structure, fittings and finishes. It

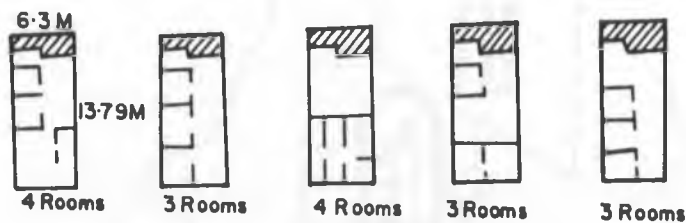
is only after the approval of each stage of construction that material loans are released by the finance section.



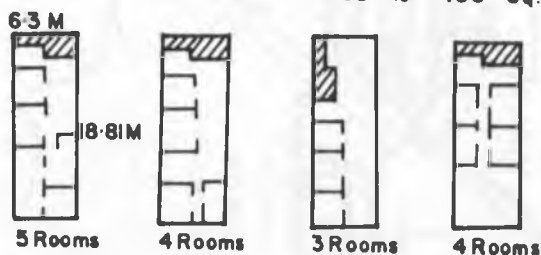
**Figure 2 : 2 : Sketch Plan of the Dandora Community Development  
( Site and Service Scheme )**



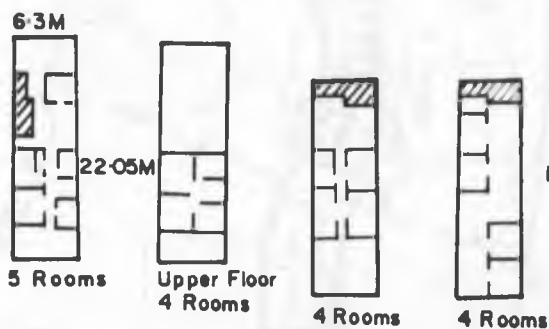
2.3 : Typical House Plans Prepared by the Technical Section of the DCDP  
 "Wet Core" completed in each case.



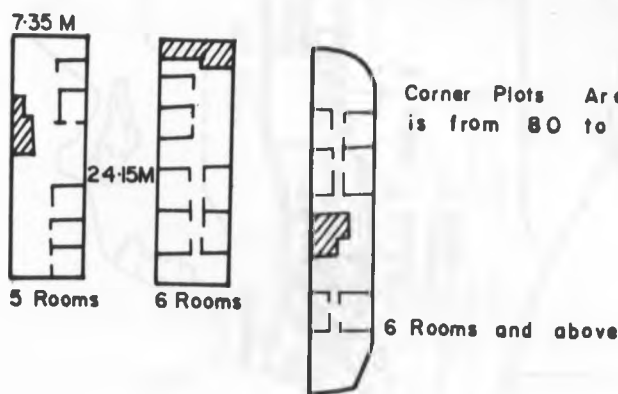
Plot Area is 100 Sq. Metres (Above).



Plot Area is 120 M<sup>2</sup>.



Plot Area is 140 M<sup>2</sup>.

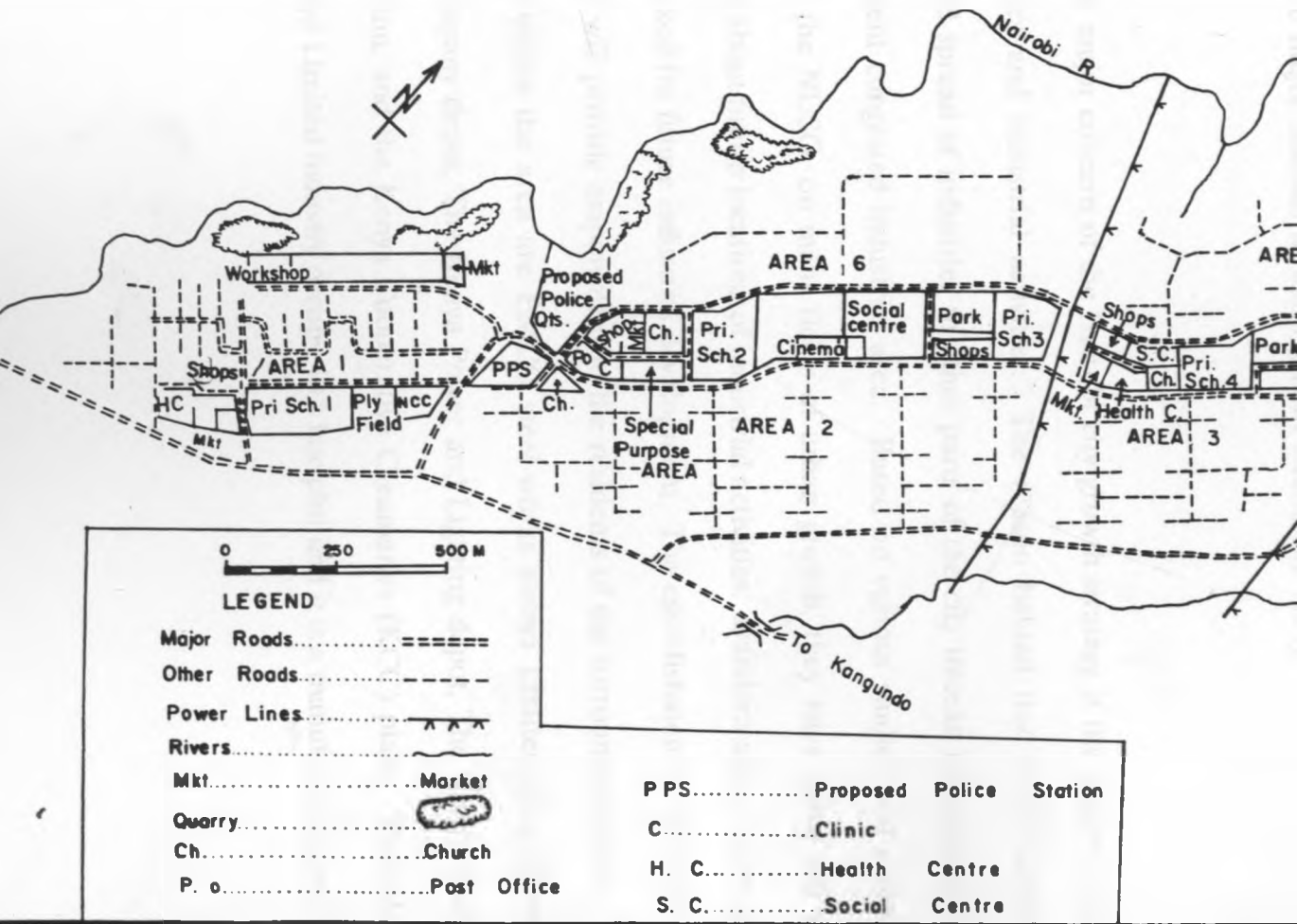


Corner Plots Area  
is from 80 to 240 M<sup>2</sup>.

Plot Area is 160 M. Squared.

Source: Monitoring and Evaluation Study of DCDP.

Figure 2.4: Proposed Distribution of Socio Economic Infrastructure in Dandora



## 2.4 Industrial Estates

The Dandora Industrial estate is located near the railway station. To the north of this estate is the Nairobi-Nanyuki railway line and to the south is the new Komo-Rock road. To the east it is bounded by a proposed link road running parallel to the Outer-Ring road to join the old and new Komo-Rock roads. The area covers approximately 395.55 hac, of which 110.94 hac (28 per cent) is already developed with industries. The major industries which are also the major sources of employment within the study area will be discussed later.

One of the major concern of the Nairobi city growth strategy is the future location of various services and industrial activities. The reason behind this is the need for diversification and spread of industries to other parts of the city instead of concentrating them in the present congested industrial area. Based on various studies and extensive investigations by the NUSG, on many fields of urban growth, they have come out with distinct proposals about future locations of industrial activities. Dandora area, for example has been ear-marked for future industrial development. The establishment of an industrial area in this place will provide employment to the residents of the surrounding areas. The major industries within the area are EMCO steel works Kenya Limited, The Mowlem Construction Company depot, The Kenya Power and Lighting depot, The Kenya Planters Co-operative Union, and the Kenya Cooperative Creameries (KCC) plant. The EMCO Steel Works Kenya Limited industry occupy 40.5 hac plot and it is a manufacturing industry

which specialises in the production of reinforced bars. It had an annual turnover of 35,000 tons in 1972. This production has increased over the two decades due to the high demand of building materials within the city. The raw materials used in this industry are either obtained locally or imported. The industry is served by both the railway line and the Komo Rock road. Power is supplied by the Kenya Power and lighting Company Limited (K.P.&L.Co. Ltd.) which has a distributive sub-section nearby. Water for use by the industry is piped from the Kariobangi Sewarage treatment works. In future, the company will produce a complete range of steel section, flats, angles, fees, channels and beams. In order to produce the above mentioned products, the company has an intention of employing 112 people.

The Mowlem Construction Company depot in Dandora is only a service industry and is used as a store for the company's vehicles, machinery and spares. Thus the depot has only engineering works for maintenance of their machines and other equipment. The depot which has garages, stores and residential quarters for staff, is situated on either sides of old Komo Rock road and occupies an approximate area of 11 hac. A large part of the depot is found to the south of the road while only top executive houses are found to the north of the road. The depot employs approximately 200 workers as supervisors, mechanics, drivers and labourers. Although land is available for expansion, the company has no future plans of doing so.

The K.P. & L. Co. Ltd. depot is a sub-station which is the local point of Kenya



electricity supply. The electrical power generated at various stations such as on Tana River, Mombasa is collected here for distribution throughout Kenya. There are future plans to extend the sub-station to the east with a new steel power line. The station employs a wide range of staff-managerial, skilled, semi-skilled and unskilled labourers. The establishment of this sub-station here is also seen as a development constraint. It is dangerous to erect buildings below the high powered mains radiating from the station. This problem is compounded further, as it is not easy to determine the total area affected by these mains which can only be approximated by the way-leaves.

The Kenya Planters Co-operative Union stores were put up in Dandora in 1972. These stores occupy an area of approximately 10 hac. The stores are used for storing coffee from the surrounding coffee growing districts. Apart from storing coffee, the union has future plans to build a coffee processing factory to the north east of the present site on another 10 hac plot. The stores have a capacity of 10,000 tons at a time with upto 35,000 tons in a year. The stores are served by both railway and road. The Nairobi-Nanyuki railway line has sidings to the stores. The union employs a number of employees on permanent terms. Majority are casual labourers, whose number decline from time to time depending on the season and the amount of work available. Other sources of employment are the KCC plant and the Kenya Railways station. The Kenya Bus Service (KBS) Company has proposed a bus depot in the area which will occupy a site north of the railway line opposite mowlem construction company premises.

**Table 2.2 Land Ownership in Dandora Industrial Area**

Area	Percent	Hectares	Acres
NCC	29.29	60.00	6.14
Lease hold	55.26	136.50	13.97
Freehold	20.24	50.00	5.11
KRC	11.15	27.54	2.81
Private	284.61	703.00	71.95
Total	395.55	977.54	99.98

Source: Amunga, 1972:11

About 72% of land in Dandora Industrial estates is privately owned. A great portion of the remaining land is publicly owned and is divided as is shown in table 2:2. GOK owned land is to the north of the railway line. The GOK also intends to acquire the Khan estate. Major developments in the area have necessitated the acquisition of more land by the GOK who thereafter lease it out to private companies or individuals for development. There is a proposal to lease public land which is still vacant to prospective developers.

## **2.5 Infrastructure**

These are mainly the community facilities which consist of schools, health centres, multi-purpose community centres incorporating:- day care facilities and sport facilities and markets. Other components are trunk infrastructure - Roads, railway, water and sewer drainage. Dandora currently has a total of five primary and two secondary schools. The

enrollment in these schools has steadily increased over the years. This increment can be accounted for by the fact that the population size is ever increasing. At present the primary school enrollment is as indicated in table 2:3.

**Table 2.3 Admissions into Dandora Primary Schools 1978-1990**

Year	Boys	Girls	Total
1990	3046	2993	6039
1989	2926	2888	5814
1988	2755	2777	5814
1978	2467	2533	5000
1986	2215	2194	4409
1985	1903	1949	3942
1984	1598	1596	3194
1983	1341	1359	2700
1982	414	397	811
1981	433	410	843
1980	325	282	607
1979	222	208	430
1978	30	23	53

Source: Compiled by the Author

It can be concluded, therefore, that most of the young population are acquiring at least primary level education. The need for secondary education for the young population is indicated by the construction of two secondary schools within the site and service scheme.

There are two markets in the DCDP with a total of 400 stalls. These stalls are inadequate for the population. Due to this reason, some residential houses are now used

shops, butcheries, laundries and saloons, among others. The need for more market stalls is clearly indicated by the construction of temporary kiosks, along the streets in the area. Further, there are a lot of illegal open air markets.

Other community facilities consist of two health centres in Dandora area one and three and two multipurpose community centres with day care facilities. There is also a sports complex, a cinema hall and a number of churches.

## **2.6 Population Distribution and Characteristics**

According to 1979 census, the population of Dandora ward stood at 22,672. The density was 162 people per square kilometre with a total of 6253 households. Although Aduwo (1990) put Dandora in the medium population category size of Nairobi, it should be noted that this population size is still less than that which was targeted for the site and service scheme alone. During the census, most of the plots had not been fully constructed and, therefore, they had not been occupied. The total male population was 12,523 whereas 10,149 were women. This gives a sex ratio of 123 men for every 100 women. This high female population can be explained by the fact that there was no discrimination in the allocation of plots in the site and service scheme. All the people who qualified for the allocation of plots were granted irrespective of their sex. (table 2:4).

Dandora has a youthful population and thus a high dependency ratio. A large

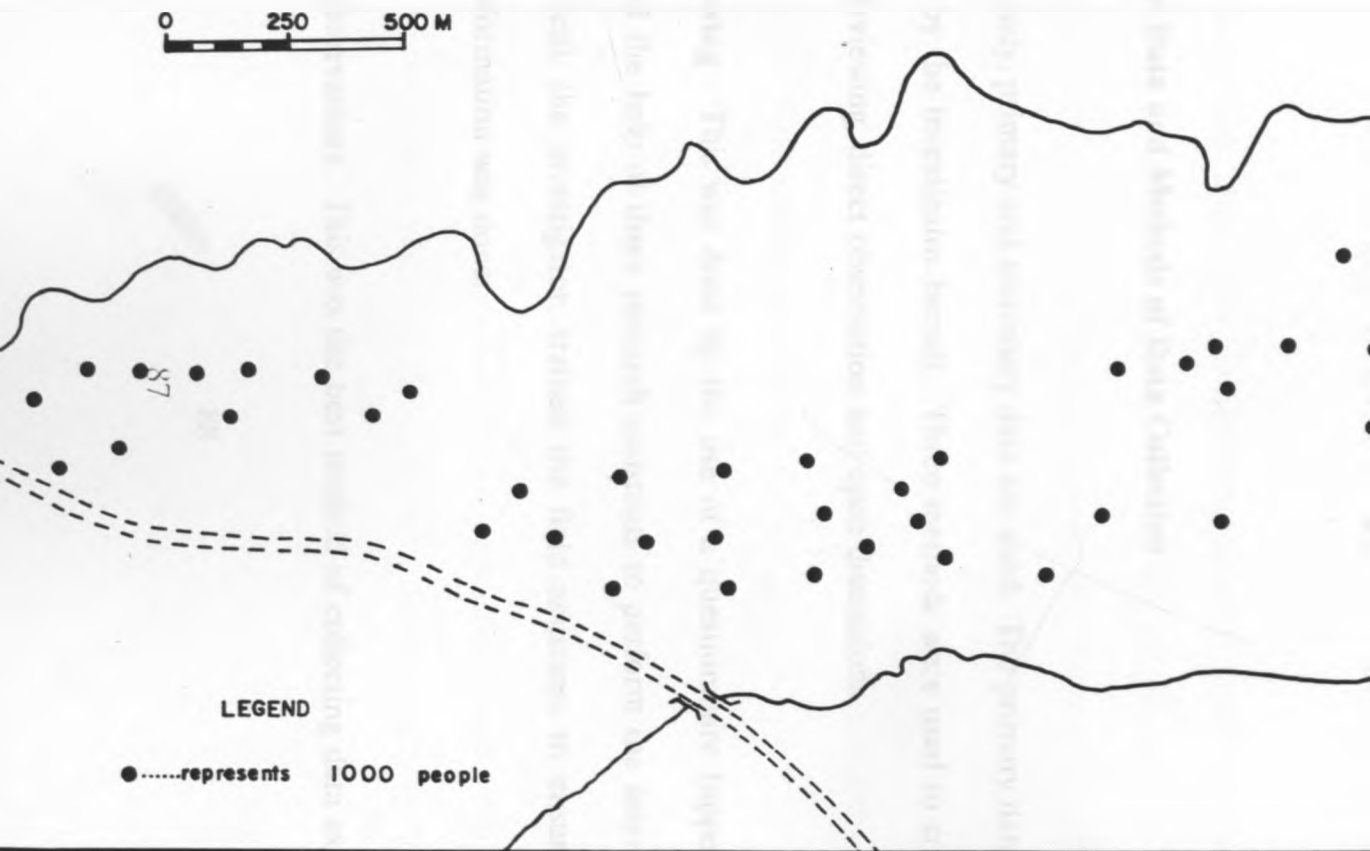
proportion of the population is below twenty years of age. They have to depend on the few adults. This leads to a great impact on the socio-economic well being of the population.

**Table 2:4 Estimated Five Year Age Group Population Size**

Age Group	Male	Females
0-4	1603	1796
5-9	1140	1340
10-14	814	1086
15-19	1052	1380
20-24	2091	1543
25-29	1803	1126
30-34	1327	659
35-39	814	396
40-44	688	264
45-49	488	162
50-54	313	122
55+	413	254
Ns	25	20
Total	12,571	10,149

Source: Compiled by the Author

**Figure 2.5 : Population Distribution in Dandora  
( Site and Service Scheme )**



## CHAPTER THREE

### METHODS OF ANALYSES

This chapter introduces the methods used to analyse the data. Statistical and non-statistical methods are used. An attempt has also been made to outline the types of data used. The methods used to collect the data are also presented. It is also here, where the sampling procedure is discussed. Lastly, the study problems and limitations are pointed out.

#### 3.1 Types of Data and Methods of Data Collection

In this study, primary and secondary data are used. The primary data was collected from the field by the investigator herself. Three methods were used to collect this data. These are; interviewing, direct observation and open discussions.

(a) **Interviewing** - This was done by the use of a questionnaire (appendix A). The researcher used the help of three research assistants to perform the interviews. Before going to the field, the investigator, trained the field assistants to ensure that correct recording of information was done.

(b) **Direct observations.** This was the best method of collecting data as it reduced the

chances of incorrect information being recorded. This method involved the researcher going to establishments or places where income-generating activities were performed and recording what was of interest and relevant to the study. For example, the investigator would go to a hairdresser or dressmaker and observe the type of customers, the equipment used, the skills involved, the time taken to carry out an activity and many others. Some of these aspects were important in the study but were not included in the questionnaire. Despite the above mentioned advantage, it was not possible to widely use this method on account of its cost. It was quite involving and needed a lot of time.

(c) **Open discussions.** These are mainly informal discussions with the respondents. They often began off as casual discussions on everyday life experiences and proved to be informative. For example, discussions on family planning would arouse issues on best family size, advantage or disadvantages of large or small family sizes. From these, the researcher could infer on whether large or small family sizes were seen as liability or not on the income-generating activities. This method was useful as it enlightened the researcher on a wide spectra of the subject under investigation.

Secondary data used in this study, were acquired from both published and unpublished records. The bulk of this data has been used in chapter one and two of this thesis. The major sources of these data were: (a) Population census 1948, 1969, 1979 and 1989 (b) Kenya development plans; (c) Kenya National Archives; (d) NCC and University of Nairobi Libraries; and (e) Kenya Bureau of statistics, among others.



### 3.2 Sampling Technique

The population under study included all women in Dandora participating in income-generating activities (informal sector). After a feasibility study was carried out, it was established that the number was too large to allow a thorough investigation of the total population. Thus, a manageable sample which would be representative of the whole population was chosen.

In order to get a sample which was not biased, simple random sampling was done. This is the simplest form of sampling. In this method, a required number of observation  $N$ , are selected from the population. A random sampling often has to satisfy two conditions: That is (a) each element must have an equal chance of inclusion in the sample throughout the sampling procedure; (b) the selection, or omission of any particular element is affected by nothing other than chance. In other words, the probability of inclusion or exclusion in the sample is equal and independent of each other. Note that, since all the elements have an equal probability of being chosen, the mathematical rules of probability can be applied to the sample.

In this study, in order to select a random sample, all the enterprises owned by women were numbered. Then these numbers were entered into a computer, which then generated a series of one hundred and seventy four random numbers. According to the researcher, this was the easiest and genuine way of getting a random sample.

### Method of Analyses

Two statistical methods are used to analyse the hypotheses of this study. These are; the Chi-square ( $\chi^2$ ) test and the Multiple Linear Regression Analysis (MLRA).

The first method is the Chi-square test. It is used as a test of goodness of fit of an observed set of frequencies produced by a sample investigation to a theoretical frequency distribution (Harper, 1988; Ebdon, 1987; and Siegal, 1956). In this study, this method is used to find out if there is a significant relationship between types of activities and level of education (years of formal schooling), age and marital status. Siegal (1956) suggested that this method is suitable for a non-parametric test if the data is measured in a nominal scale. Note that, this method is found appropriate to test the first three hypotheses of this study.

Firstly, cross tables are drawn setting different income-generating activities against the variables mentioned above. From the cross tabulations, it is easy to note the number of women participating in different income - generating activities and are of particular educational standards, ages and marital status.

From these cross tabulations the expected frequencies are calculated for each cell then the  $\chi^2$  value is calculated using the formula below:

#### Equation 1

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

O = observed frequencies

E = expected frequencies

$\sum$  = directs to sum all the cells

It is hypothesised that level of education (years of formal schooling) influences the choice of income - generating activities which women performed in the informal sector. Given the current emphasis on self-reliance after completing formal schooling, women completing or dropping out of school should have acquired certain skills which direct them to participate in particular income-generating activities. The 8:4:4 system of education which was recently implemented in Kenya, incorporates practical subjects such as dressmaking, carpentry, and masonry, among others, into its syllabus. Its major aim being to encourage self-reliance for school leavers.

This study, therefore, will establish that acquisition of knowledge and skills for a given period of time, dictates the types of income-generating activities women participate in. It is important to do this as it can help in upgrading the different types of income-generating activities that women engage in. Further, it can in help strengthening the extension services to women on how to make profit or to keep records. Note that the

extension officers can be able to advise women on the viable income-generating activities they can successfully participate in.

In order to do this test, level of education is put in four categories. These are; 0-3, 4-7, 8-11 and 12 and above years of formal schooling. These categories are then cross tabulated against the income-generating activities which are petty trade (1) dressmaking/tailoring (2) hairdressing (3) and others (4). Note that this test works best when the categories are few which is the basis of the broad categorisation presented above.

Age is the next variable hypothesised to determine the types of income-generating activities women participate in. Women's ages are divided into three broad cohorts. These are; 18-29, 30-41 and 42 and above. The conclusion derived from setting age against types of income-generating activities is important as it will show the role perception plays in the choice of income generating activity to be undertaken. Young women like to perform income generating activities which are associated with the "elite" class within the urban areas. Income-generating activities undertaken by them need not be the most profitable or the best they qualify for. Due to the affluent ideas they have internalised, they prefer income-generating activities they feel should only be done by the young generation. Old women, since they have great responsibilities tend to take to income-generating activities which are readily available without being discriminative. This study will establish that if this is the case in Dandora which was the study area and has both young and old female population engaged in income-generating activities.

Thirdly, it is hypothesised that marital status determine the types of income-generating activities women participate in. Note that by marital status, this study implies that the respondent has a spouse who she is living with or not. Such an analysis will illustrate the influence the husband has in the choice of an income-generating activity. Within the African family setting, the husband is often the decision maker. As such, he can contribute the initial capital for establishment of a particular income-generating activity. Husbands, also prefer income-generating activities which do not consume a lot of time as they expect their wives also to do the house chores. Setting income-generating activities against marital status will depict which category of women participate in which types of income-generating activities. This is important as it can help to denote which activity is viable for a woman given her marital status. In this study, marital status is divided into two categories. Married (women living together with spouses) and others (divorced, separated widowed and single).

In order to conclude whether the relationships are significant, the computer  $\chi^2$  values are compared with the critical  $\chi^2$  values at given degrees of freedom (df) and significance levels. If the former is greater than the latter, the null hypothesis ( $H_0$ ) is rejected and the alternative hypotheses ( $H_1$ ) is accepted. The opposite is the case if the former is less than the latter.

(b) The second method of analysis is MLRA. This is the method which is used to analyse the fourth hypothesis of the study. This method is important because it measures

the relationship between a dependent (response) variable (Y) and other independent (explanatory) variables (Xs). In most cases, the independent variables are easy and cheap to measure. In other words, the method measures the dependence of a dependent variable on other independent variables Blalock, (1972). Despite the fact that this method has often been used for prediction as is noted by Hammond and McCullagh (1974), it can also be used to discover which X variables are related to Y and, if possible, rate the variables in order of their importance as was presented by Snedcor et al (1987). It is for this last purpose that this method has been used in the present study.

The preference of this method over other correlation methods is due to the fact that it has been used by other scholars to determine earnings. For example, Wagithi (1987) in order to get the determinants of earnings in the urban informal sector has used the same technique. In her case, income is the dependent variable whereas level of education (years of formal schooling), experience, age, family size, training and tools are the independent variables.

Papola (1982) in Lucknow, India estimated the manner in which age, education, and length of service relate to earnings of male and female workers using the MLRA. In her case the former are the independent variables and the latter is the dependent variable.

In this study, this method is used to find out if there is a significant relationship between education, mean age of children, family size, and income of women in a month.

The following equation is adopted for the analysis,

#### Equation 2

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \epsilon$$

Where; Y = Income gained in a month

$X_1$  = Education

$X_2$  = Mean age of children

$X_3$  = Family Size

$b_0$  = Regression constant

$b_1$  = Partial regression coefficient

$\epsilon$  = Error.

The  $b_1$ 's are estimated using the multiple least squares method. Each coefficient, therefore represents the amount of change in income that can be associated with a given change in one of the X's with the remaining variables held fixed.

Before entering any of the independent variables in the equation, multicollinearity is tested for. Multicollinearity is a situation which arises if two or more of the independent variables are strongly related to one another. In order to detect this, tolerance was

computed for

### Equation 3

$$\text{Tolerance} = 1 - R_1^2$$

where;  $R_1^2$  is the squared multiple correlation when the 1th independent variable is considered the dependent variable and the regression equation between it and the other independent variable is calculated. If the tolerance is greater than 0.01 then there is no multicollinearity but if the value is less than the figure given above then the variables are multicollinear and the new variable is not entered in the equation.

$R^2$  which is the coefficient of determination will show the variation in income accounted for by the variables

It is computed as

$$R^2 = \frac{\sum (\hat{Y}_i - \bar{Y})^2}{\sum (\hat{Y}_i - \bar{Y})^2 + \sum (Y_i - \hat{Y}_i)^2}$$

or  $\frac{\text{Sum of squares due to regression (SS}_{\text{REG}})}{\text{Total sums of squares (SS}_{\text{TOT}})}$



In order to test for significance, analysis of variance is done. The F value is derived from the Analysis of Variance Table as is indicated, (Table 3:1)

**Table 3:1 Outline of ANOVA Table**

Source of Variation	degree of Freedom(df)	sum of squares	mean sums of square	F
Regression	3	$SS_{REG}$	$MS_{REG}$	$\frac{MS_{REG}}{MS_{RES}}$
Residual	n-4	$SS_{RES}$	$MS_{RES}$	
Total	174	$SS_{TOT}$		

Source: Compiled by the Author.

where n = Sample size

$SS_{REG}$  = Sum of Squares due to Regression or  

$$\sum (\hat{Y}_i - \bar{Y})^2$$

$SS_{RES}$  = Sum of Squares due to Residuals or  

$$\sum (Y_i - \hat{Y}_i)^2$$

$MS_{REG}$  = Mean Sum of Squares Due to Regression  

$$\sum (\hat{Y}_i - \bar{Y})^2 / df$$

$MS_{RES}$  = Mean Sum of Squares Due to Residual  

$$\sum (Y_i - \hat{Y}_i)^2 / (n-4)$$

$SS_{TOT}$  = Total Sum of Squares  

$$\sum (\hat{Y}_i - \bar{Y})^2 + \sum (Y_i - \hat{Y}_i)^2$$

If computed F is greater than the critical F at a given significance level and degrees of freedom, then  $H_0$  is rejected and  $H_1$  is accepted on one hand. On the other hand  $H_0$  is

accepted and  $H_1$  is rejected if the computed  $F$  is less than the critical  $F$  at that significance level and degrees of freedom.

In this study, three variables are hypothesised to influence the amount of income women gain in a month. These are education, mean age of children and family size. For systematic purposes each of these factors is discussed below.

#### **(a) Education**

Education (years of formal schooling) is a variable which is assumed to significantly influence the amount of income women gain in a month. Through formal schooling, it is assumed that women acquire knowledge and skills which are vital for success in income-generating activities. Formal schooling enhances exposure to a number of issues, for example, in accounting, management, and practical skills. If these are put into proper use then the fruit is more income gained in a month. Further with education, one becomes competent in a number of languages which is a must if one is to communicate with the multi-tribal population in an urban area. It is because of these reasons that it was hypothesised that education influences the amount of income women gain in a month. Women who are educated (with many years of formal schooling) have the capability of getting more income in a month than their counterparts with few years of formal schooling.

(b) **Mean age of Children**

According to this study mean age of children is obtained by adding the ages of a woman's offsprings and dividing by their total number. Note that this is crucial in this study as it will illustrate whether a woman has young or old children. This study has a general assumption that, the younger the children are, the less income a woman gains in a month in her income-generating activity. This is so assumed because a woman with young children has a tendency to devote most of her time to bringing up her children. Consequently, only a little time is left for her income-generating activity. This then will reduce her ability to gain income in a month. In most cases, women with young children are only part-time operators, or they have to employ maids or baby sitters to take care of the young children when they engage in their income-generating activities. House helps in urban areas charge expensively for their services. Women, therefore, cannot afford to employ them. Women with older aged children do not experience these problems. They are often full-time operators and, therefore, are capable of getting a substantial amount of income than women with young children. This then, therefore, is the basis of the assumption which states that mean of children influences the amount of income women gain in a month from their income-generating activities.

(c) **Family size**

According to this survey, this is the total number of children a woman has given birth

to who are directly under her care. That is, her income is used to provide some of the basic requirements (education, clothing and housing among others) for these children. This study, therefore, postulates a hypothesis that family size influences the amount of income women gain in a month. If an operator has many children, she is likely to gain little income in a month and vice versa, if she has few children or a small family size. Due to the high cost of living within urban areas, at least a substantial amount of money is required to feed cloth and educate children. If a woman has many children, she will have to use a lot of money to sustain their well being. Thus, the money she reinvests in her enterprise will be negligible. Consequently she cannot expect to gain a large amount of income in a month like her counterpart who does not have a lot of commitments with her income and reinvests it in her enterprise. It is in line with this thought, that this study hypothesizes that family size influences the amount of income gained in a month by an operator. The larger the family size the more mouths to feed and the less income gained and vice versa, the smaller the family size.

Other descriptive, non-statistical methods have also been used in the study to analyse the data. These include the bar graph, percentages and maps to mention a few.

### **3.4 Problems and Limitations of the Study**

This study was centered on women participating in income generating activities. In most cases, these women were too busy with their customers to avail themselves for

interviews. Appointments were made for later days or time, when they were free. This slowed the pace of the research.

The original questions were written and asked in English. There were cases, however, where the respondents could neither understand nor speak in English. The questions were translated into Kiswahili. In the process of translation some questions lost their original meanings and, therefore wrong answers were given. This forced the interviewers to explain further and this wasted the time which had been allocated for the research.

This study had an objective of finding out the amount of income women gained in a month. Like other studies which have been partaken in this field, it was difficult to get information on this subject. Women were not willing to disclose the amount of income they gained. They were often suspicious of the motives of the survey. A lot of time was, therefore, wasted trying to convince them of the purpose of the study. Note that some of them were evading taxation and did not want to declare all their sources of income. The above problem was even more complicated by the fact that most of the women do not keep records of their daily activities - the amount of input in terms of money, time, tools and output in terms of profit, they gained. As a matter of fact, the figures quoted in most cases were estimates which did not give a clear picture of the profit they acquired in a month. To solve this problem, women's expenditure in a month on families' basic requirements were noted. These amounts were more indicative of the income they gained in a month.

## CHAPTER FOUR

### FACTORS DETERMINING PARTICIPATION IN INCOME-GENERATING ACTIVITIES

This chapter is divided into two sections. The first section discusses types of income-generating activities and the second presents analyses of factors which determine women's participation in them.

#### 4.1 Types of Income-Generating Activities

According to this study women's income-generating activities are divided into four categories, namely, petty trade (1) dressmaking and tailoring (2) hairdressing (3) and others (market gardening, brick making, handicraft to mention a few). For simplicity purposes, these activities are referred to by the numbers indicated after them in this thesis.

**Table 4.1: Number and Percentage of Women Participating in Different Types of Income-generating Activities.**

	ACTIVITIES	NUMBER	PERCENTAGE
1.	Petty trade	67	38.5
2.	Tailoring/dress-making	47	27.0
3.	Hairdressing	21	12.1
4.	Others	39	22.4
Total		174	100

Source: Compiled by the Author

The income-generating activity which had most participants was petty trade. This was followed by tailoring and dressmaking, others (brick making, handicraft, and market gardening among others) and hairdressing (Table 4:1 and Figure 4:1).

#### 4.1.1. Petty Trade

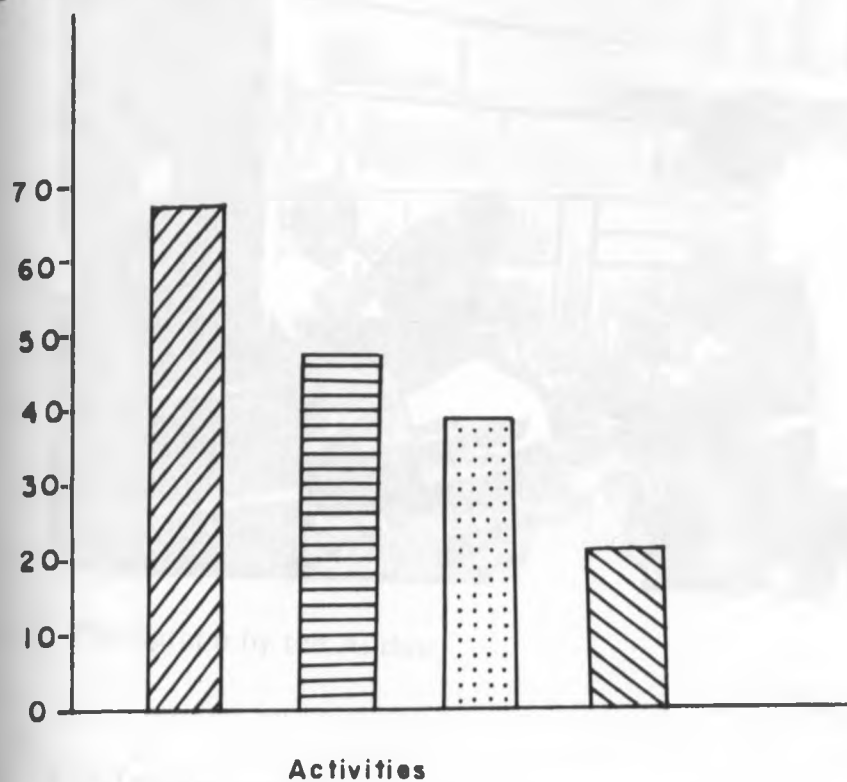
This activity involves small-scale exchange of goods for money. The commodities sold are; household utensils, second hand clothes, foodstuffs (vegetables, fruits and fish among others) and kerosene, to mention a few, (plates 4:1 and 4:2). In the whole sample, a total of 67 women were participating in this activity forming 38.5 per cent of the total sample under survey.

##### 4:1 Petty Traders In an Open Air Market



Source: Photograph by the Author

4.1 : Frequency Distribution of Women engaged in different generating activities.



KEY

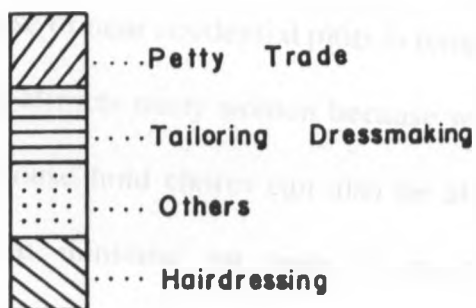




plate 4.2. Selling Kerosene Near a Residential Plot.



Source: Photograph by the Author

This income-generating activity had most participants probably because it does not need a lot of initial capital to establish. Secondly, it is often done in the open air markets, hawked from house to house or near residential plots in temporarily built structures - kiosks. (Plate 4:3). This activity attracts many women because when it is carried out near their residential houses other house hold chores can also be attended to. In most cases, the participants would like to minimise on costs so as to achieve maximum profits. Consequently, most of the commodities sold are bought from Soko Mjinga in Kariobangi Gikomba or Marikiti (wholesale market along Haile Selassie Avenue) in the central business District (CBD). Note, however, that particular items are bought from specific

places where their prices are favourable. For example, second hand clothes are bought from Gikomba whereas vegetables are bought from Soko Mjinga. Kerosene is bought from the Outering filling station. Despite the fact that vegetables and fruits can be bought cheaply from Marikiti, the cost of transporting them to Dandora is expensive and only participants with large establishments can afford to do it . This problem is made worse by the fact that the Kenya Bus Service (KBS) and Nyayo Bus Service (NBS) do not carry heavy loads especially during rush hours and yet matatus charge exorbitantly for transportation of these items. (Aduwo, 1990). Due to the above reason, women have formed groups in which they can hire pickups, or lorries or wagons which transport their goods. They, therefore, contribute money equally to meet the transportation costs. Due to this transportation hardship, most of the petty traders have resorted to buying their commodities from Soko Mjinga where they go on foot early in the morning. They are as such limited to buying only a few commodities which they display on basins placed on top of stools outside their houses of residence.

plate 4:3 Temporarily Built Structure (Kiosk) For Selling Foodstuffs.



Source: Photograph by the Author.



### Little girl learns mother's business

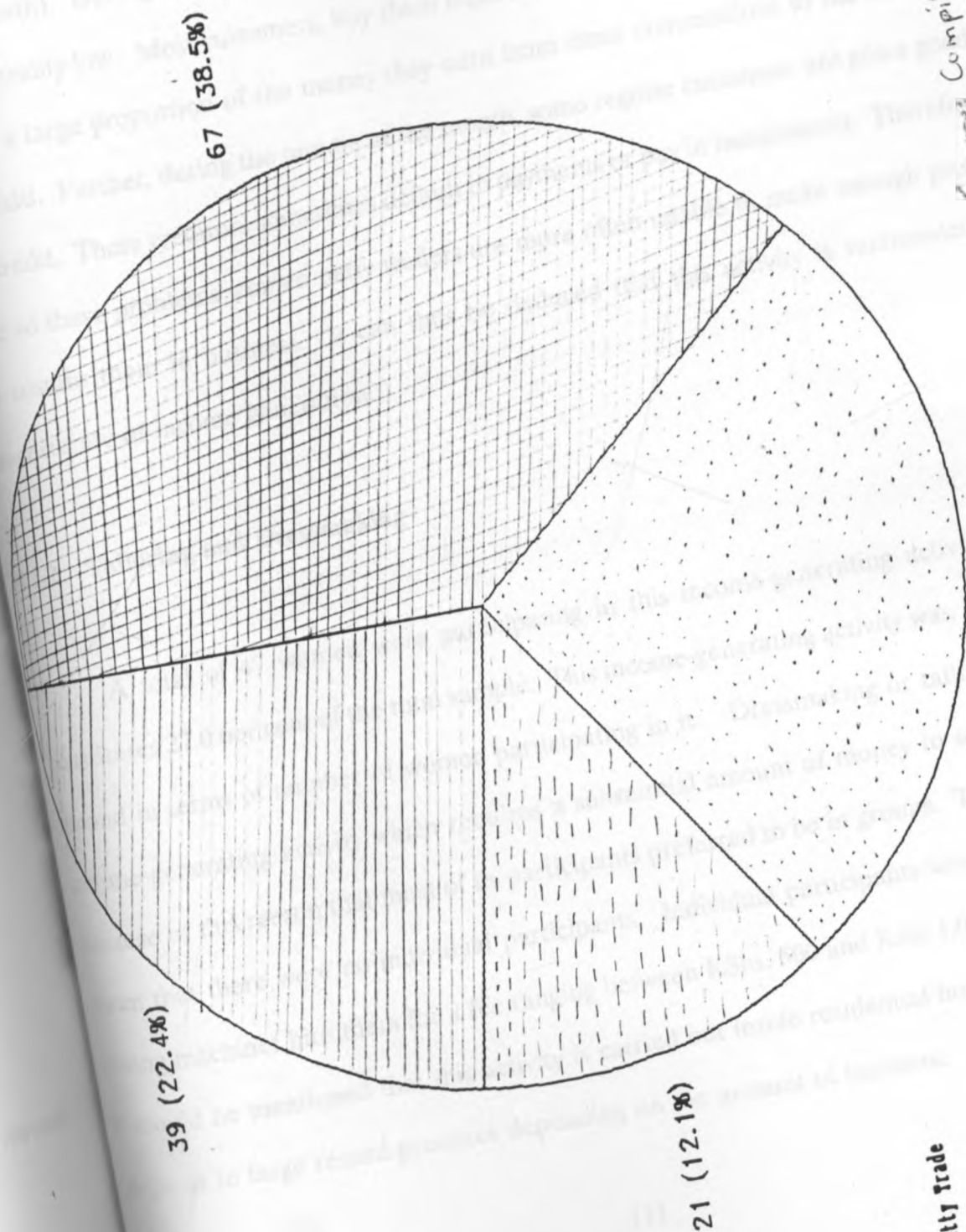
This little girl learns the trade early in her life as she re-arranges bananas for sale to customers.

The bananas, a jerrican of paraffin under the stool and the bottles were left her care by her mother who had rushed home to attend to in urgent duty.

The *Nation* photographer was in Dandora to report on an incident where a woman was burnt to death in a house fire

Picture By JOSEPH ODIYO).

Source: Daily Nation newspaper 1.2.90



KEY  
 --- Petty Trade

Source: Compiled by the Author

According to women petty traders, the profit they make depend on the seasons of the year (harvesting, weeding, ploughing) and on the time of the month (month end or mid-month). During harvesting seasons for vegetables or fruits their prices at Marikiti are considerably low. Most customers, buy them from there. Women petty traders, therefore, loose a large proportion of the money they earn from these commodities to the sellers at Marikiti. Further, during the middle of the month, some regular customers are given goods on credit. These creditors sometimes default in payments or pay in installments. Therefore, due to these problems women petty traders are more often unable to make enough profits to sustain them in business. It can thus be deduced that this activity is surrounded by uncertainty of income generation.

#### **4.1.2 Tailoring and Dressmaking**

A total of 47 women were participating in this income-generating activity. This constitutes 27.0 per cent of the total sample. This income-generating activity was, therefore, second in terms of number of women participating in it. Dressmaking or tailoring, is an income-generating activity which requires a substantial amount of money to set up. It is because of this reason that most of its participants preferred to be in groups. This does not mean that there were no individual participants. Individual participants who do not own sewing machines hire them for a fee ranging between KShs. 500 and Kshs.1,000 per month. It should be mentioned that this activity is carried out inside residential houses or outside shops or in large rented premises depending on the amount of business.

The activities carried out by participants depend on the amount of money they have. Whereas some do only repairing (patching and sewing open seams) some have tenders for making uniforms for institutions (hotels, schools, churches). However, women who have established themselves in this business for a long period of time, offer dressmaking and tailoring courses to apprentices who pay a fee of between KShs. 400 and KShs. 600 in a month depending on the total number of hours they are taught. These courses are gaining popularity as most women cannot afford to pay the fees required by formal dressmaking or tailoring schools like Singer.

The cost of making a dress depends on the style or type of material chosen by a customer. Customers with materials are charged between KShs. 150 and KShs. 300 and those who do not have and therefore buy it from the tailor are charged between KShs. 600 and KShs.1,000. Dressmaking and tailoring have noted a boom over the past years. This is because women's fashions are changing fast and yet ready made clothes are sold expensively in boutiques.

This income-generating activity has been carried out in large scale. Women groups make many dresses which they sell upcountry to vendors in bulk. It was observed from the survey that a lot of women are likely to join this income-generating activity in future. Unlike their counterparts in petty trade whose futures look bleak, there seems to be a bright future for women tailors and dressmakers whose chances of high income earning is improving tremendously.

**plate 4:5 Dressmaking Done Inside a House of Residence**



Source: Photograph by Author



#### 4.1.3 Hairdressing

Hairdressing had the least number of participants. 21 women constituting 12.1 per cent of the sample under survey were participating in it. The small number of participants can be accounted for by the fact that tools required for effective participation in this activity are expensive and difficult to maintain. Further, hairdressing requires a lot of skills which was often lacking amongst the female population in the study area.

The activities performed range from plaiting to modern hair styles like perming, curly knitting and weaving. These activities are done in open air saloons or residential houses or in market stalls. It is often difficult to find a woman who is well conversant with all the hair styles. Women, therefore, do these activities in groups. Within these groups, women with different skills put their resources together. This also helps in meeting the demands of many clients at the same time. Note, however, that women who do these activities individually often have to hire services of other hairdressers who are paid on commission. These hired hairdressers are paid between KShs. 100 and KShs. 300 in a day.

Hairdressing charges are dictated by the styles on fashion. For example, during the period of this research, the style on fashion was called artificial hair. This style was, therefore, the most expensive. Approximately KShs. 350 was charged if a client did not have the synthetic hair called artificial hair. If a client brought it with her to the saloon, then she was charged KShs. 150. For the other styles, the charges depend on the time taken to do

it or the chemicals or braids used, to mention a few.

Plaiting is often the cheapest. Children are charged KShs.20 and adults KShs.40. The most expensive is weaving which costs from KShs. 500 to over KShs. 1,000. This style is not popular with clients in Dandora as was noted by the hairdressers. However, it was noted that hairdressing charges in Dandora are slightly lower than in hair saloons within the CBD or even in other residential estates like in Kenyatta market in Ngummo area where the socio-economic status of the residents is high compared to those of Dandora. Other factors like differential in rent charges may also contribute to the variance in hairdressing costs. Charges also depend on seasons. During festivity seasons like Christmas, Easter and Idd when there are many clients the charges rise considerably.

Most hairdressers in the sample were using second hand equipment (driers, rollers and styling combs) bought from repairing workshops from local or open air artisans. Apart from the fact that they buy them cheaply at these stores, they are also able to pay for these equipment in installments. In cases where hairdressers cannot afford these equipment, they resorted to using kerosene stoves and hot combs. This then limits the activities they perform to only plaiting and hot combing. It should be equally emphasised that plaiting and hot combing are loosing popularity as other new hair styles preferred by the urban population are coming in. As a result, women without modern hairdressing equipment earn only a little income in a day.

#### 4.1.4 Other Income-generating Activities

These include all other income-generating activities carried out by women but do not fall in the three categories discussed before. These income generating activities incorporate activities such as handicraft, poultry keeping and market gardening, to mention a few. Most of these income-generating activities are performed in groups whose members not only come from Dandora, but also other residential estates within Nairobi.

An activity such as handicraft involves pottery, knitting, crocheting, basket weaving and tie and dye, among others. It should be noted that some of the above mentioned activities have often been carried out as hobbies. These activities have potential to generate income and hence are now carried out by women in large-scale as income-generating activities. For example, an activity such as crocheting is done for women without time to crochet table cloths for themselves. Approximately KShs. 10 is charged for each ball of thread made. This business is becoming lucrative as more women would like to decorate their houses within the urban areas yet they are tied down with a lot of work. This income generating activity is advantageous to women because it does not require any space and it can be carried out simultaneously with other household chores. Groups have been formed specifically for learning handicraft skills. In these groups women meet in the afternoons on specified days to exchange crocheting, knitting, or basket weaving skills. The items they later make are sold to tourist hotels, or boutiques or during agricultural societies' shows in the country.

Another activity which was noted in this category is market gardening. Women have turned undeveloped parcels of land within the study area into small farms where they grow vegetables, potatoes, and arrow roots, among others. These agricultural produce are sold to vegetable vendors within Dandora. Women earn a substantial amount of income from these produce especially during dry seasons when they are sold expensively at Marikiti, Gikomba and Soko Mjinga. Water from Nairobi river which flows through the study area is used to irrigate the small farms by diverting narrow trenches into them despite high pollutant content (Obudho et al. 1991).

Apart from the above mentioned activities there is also poultry keeping, livestock selling, brick making, matatu operation and ownership of residential houses. Some of these activities need large spaces and have been transferred to places like Kayole. For instance brick making is now done there. Bricks made are sold to construction companies in Nairobi and its outskirts. The nature of the activities performed dictate that large spaces be acquired so as to find enough space to spread brick or even stores to keep the machines. Temporary structures have been built for poultry keeping. The poultry products are sold to shops, hotels and restaurants, whereas others are consumed by members of the groups thus saving money they could have used to buy food for their families. A number of women also own residential plots and matatus. In the transport business, they hire touts and drivers who are paid at the end of the day. Most women in the transport business lamented the loss of money they incur as employees do not remit all the money got from a day's business. 39 women were recorded participating in these activities. This was 22.4 per cent of the total sample under study.

plate 4:6 Hairdressing In a Market Stall



Source: Photograph by Author

## Factors Determining Women's Participation in Various Types of Income-generating Activities

The first three hypotheses of the study are tested here using the chi-square ( $\chi^2$ ) tests. In other words, tests have been performed to determine if level of education, age and marital status influence women's participation in income generating activities

### 4.2.1 Levels of Education

H<sub>1</sub>: There is no significant relationship between types of income-generating activities and levels of education of women

H<sub>2</sub>: There is a significant relationship between types of income generating activities and levels of education of women.

Table 4:2 Observed and Expected Frequencies of Participants of Income-generating Against Levels of Education.

Levels of Education	Types of Income-generating Activities								Total
	1		2		3		4		
	O	E	O	E	O	E	O	E	
	7	4.2	1	3.0	0	1.3	3	2.5	11
	36	23.5	11	16.5	6	7.4	8	13.7	61
	21	31.6	30	22.1	10	9.9	21	18.4	82
& above	3	7.7	5	5.4	5	2.4	7	4.5	20
Total	67		47		21		39		174

Source: Compiled by the Author

At 9 degrees of freedom and 0.05 significance level, the critical chi-square value is 16.92. The calculated  $\chi^2$  value of 29.43 is greater than the critical value.  $H_0$  is, therefore, rejected and  $H_1$  accepted. In this case, the conclusion arrived at is: There is a significant relationship between types of income generating activities and levels of education.

In other words, it can be said that level of education of a woman determines the type of income-generating activity she participates in. This is important as it spells out which category of women in terms of years of formal schooling participate in which types of income-generating activities. It is apparent that some income-generating activities require a lot of years of formal schooling than others. An activity such as dressmaking or tailoring requires participants who can write, read and understand English or Kiswahili. Years of formal schooling is of fundamental importance because participants of this income-generating activity have to attend courses which enable them to acquire knowledge in clothing and textile. This field of study is crucial if a participant has to be competent in dressmaking and tailoring skills. These skills can be used as tools in the market to attract customers. Note that this income-generating activity is characterised by a lot of competition for customers. The more competent a participant is, the more chances she has of attracting more customers and, therefore, earning a substantial amount of income than the participant without skills. Most of the customers are selective. An almost similar situation is experienced by the hairdressers. Most clients would like hairdressers who are well informed about the modern hair styles. This is to ensure that they are not hurt by chemicals or equipment used for hairdressing. The need for formal schooling is noted here as

participants have to undergo training in hairdressing. For the other income-generating activities categorised as 4, formal schooling is essential. It should be noted that, some of these activities are carried out in large scale. Thus knowledge of loan acquisition from financial institutions, accounting and management are inevitable for assured success in undertakings. Sound educational background is, therefore, a key requirement for the participants. Unlike in petty trading, where only a little knowledge of addition and subtraction is required, formal schooling is of utmost importance for thorough participation in the other income-generating activities.

From the findings of this survey 74%, 71% and 72% of participants in tailoring/dressmaking, hairdressing and others, respectively, had from eight and above years of formal schooling. This compares somewhat unfavourably with only 36% in petty trade who had from eight and above years of formal schooling. This indicates that majority of participants of petty trade have seven and below years of formal schooling. For the other three categories of income-generating activities only a few of their participants had seven and below years of formal schooling.

It can, therefore, be concluded that level of formal schooling influences the choice of income-generating activities carried out by women. After acquiring knowledge upto a given level, a woman feels competent to do a particular income-generating activity. For example, a woman who has finished form four and is unable to get formal employment often decides to join hairdressing or tailoring schools. Level of education is thus used as a yard



stick to determine the income-generating activity to be carried out. It is of paramount importance to stress that these two income-generating activities (hairdressing and tailoring/dressmaking) are seen as substitutes for formal employment or interestingly white collar jobs for women residing in urban areas.

The idea presented above is important as it shows how women perceive different income-generating activities. women often feel that petty trade is specifically for those women with few years of formal schooling. Apparently, most women have not ventured into petty trades even when there are opportunities of gaining a lot of income. Not to mention that petty trading is seen as a dumping ground for women with few years of formal schooling who have to beat all odds and ends to acquire income in urban areas.

#### **4.2.2 Ages of Women**

$H_0$ : There is no significant relationship between types of income generating activities and ages of women.

$H_1$ : There is a significant relationship between types of income generating activities and ages of women.

**Table 4.3: Observed and Expected Frequencies of Participants of Income-generating Activities Against Specified Age Cohorts.**

Age cohorts	Types of Income-generating Activities								Total
	1		2		3		4		
	O	E	O	E	O	E	O	E	
18-29	23	32.3	27	22.7	14	10.1	20	18.8	84
30-41	40	28.5	17	20.0	5	8.9	12	16.5	74
42 & above	4	6.2	3	4.3	2	1.9	7	3.6	16
Total	67		47		21		39		174

Source: Compiled by Author

At 6 degrees of freedom and 0.05 significance level the critical chi-square value is 12.59. The calculated  $\chi^2$  of 17.57 is greater than the critical value,  $H_0$  is therefore, rejected and  $H_1$  is accepted. In this case therefore there is a significant relationship between types of income-generating activities that women participate in and their ages.

It can be concluded that age is another variable which influences choice of income-generating activities women participate in. This can further be illustrated by the percentage distribution as discussed. Out of the 67 women who were petty traders, 34% were aged between 18 and 29. 60% were aged between 30 and 41. 6% were aged 42 and above. For tailors and dressmakers, 57% were aged between 18 and 29, 36% between 30 and 41 and 6% were aged 42 and above. Further, for hairdressers 67% were aged between 18 and 29, 24% were aged between 30 and 41 and 10% were aged 42 and above. Lastly

women who do the other income-generating activity denoted as 4 had 51%, 31% and 18%, respectively, aged between 18 and 29, 30 and 41 and 42 and above, respectively.

The percentages above illustrate that majority of petty traders fall within 30 to 41 age cohort. Participants of the other three income-generating activities were of 18 to 29 age cohort. What should be noted, however, is the over-presentation of women hairdressers within this age cohort.

It is exemplified above that there is a tendency of women aged between 18 and 29 to participate in specific income generating activities. Whereas most women in this age group participated in activities like hairdressing, tailoring/dressmaking, and others, most women aged between 30 to 41 were petty traders. The major factor which has contributed to this preference of some activities by women of specific age groups is urbanisation. Most women who migrate from rural to urban areas aged between 18 and 29 come to look for employment. In the event of them not getting formal employment, they look for income-generating activities associated with the "elite" class. Change in life style is reflected here as they are attracted to income-generating activities not done by their counterparts in the rural areas (agriculture, small-scale trades, and pottery), on one hand. On the other hand, women of the other age groups mostly come accompanying their spouses. Note that their major reason of participating in income-generating activities is often to supplement their husbands earnings which are often too little to cater for their families needs. Thus they resort to any income-generating activities.

Secondly, the trend observed above is due to the fact that women aged between 18 and 29 do not like income generating activities which require a lot of physical strength. Income-generating activities such as petty trade, market gardening, poultry keeping, livestock selling and many others involve movements of long distances in addition to manual work. Women aged between 18 and 29 who reside in urban areas would like to look young and attractive as their counterparts in formal employment. It is because of this reason that women of 18 to 29 cohort would like income-generating activities which are not strenuous and do not involve contact with dirty soiling wares. There is a definite preference for employment almost similar to the more admired white collar as opposed to those which are blue collar in nature amongst women of 18 to 29 age group.

#### **4.2.3 Marital Status**

**H<sub>0</sub>:** There is no significant relationship between types of income-generating activities and marital status of women.

**H<sub>1</sub>:** There is a significant relationship between types of income generating activities and marital status of women.

**Table 4:4      Observed and Expected Frequencies of Participants of Income-generating Activities Against Specified Marital Status.**

Status	Types of Income-generating Activities								Total
	1		2		3		4		
	O	E	O	E	O	E	O	E	
Married	38	39.7	34	27.8	11	12.4	20	23.1	103
Others	29	27.3	13	19.2	10	8.6	19	15.9	71
Total	67		47		21		39		174

Source: Compiled by the Author

At 3 degrees of freedom and 0.05 significance level, the critical chi-square value is 7.82. The calculated  $\chi^2$  value of 4.95 is less than the critical value.  $H_0$  is therefore accepted and  $H_1$  is rejected. The conclusion arrived at is that there is no significant relationship between types of income-generating activities and marital status of women.

From the conclusion above, it can be stated that the presence or absence of a husband in a household does not influence the choice of type of income-generating activity a woman engages in. Most households in urban areas are in dire need of money. Women, therefore have to participate in income-generating activities irrespective of the fact that they have husbands or not. Thus, provided that a particular type of income-generating activity is economically viable, a woman will apparently be attracted to it.

Note that there is no big difference in percentage of women engaged in income-generating activities 1, 3 and 4 who have husbands and those who do not have. Whereas, 57%, 52% and 51% have husbands and are engaged in activities 1, 3 and 4, respectively, 43%, 48% and 49% do not have husbands but carry out similar activities. Note that a big difference is noted in activity 2 where 72% of participants have husbands and 28% do not have. Observe that as had been discussed earlier, activity 2 needs a lot of initial capital to establish. This may be the reason why most of its participants have husbands. Apart from the fact that their husbands pay the school fees when they attend tailoring schools, they also contribute money to buy for them sewing machines. This can also explain why the majority of women with husbands are engaged in hairdressing. In addition, note that petty traders are in a position to easily balance their time between participating in this income-generating activity and household chores. Thus majority of women with husbands are attracted to it. This is mainly to fulfil the familial responsibilities expected of them. Due to the above discussed reasons, it can be said that to some extent, marital status of women determine the types of income-generating activities they participate in. Note that even the computed  $\chi^2$  value does not deviate significantly from the critical value. Husbands for example, may offer management or even accounting clues to their illiterate wives. They at times, therefore, decide for them which activities they should engage in. For activity 4, where the activities performed are numerous, women usually settle to participate in suitable activities depending on their personal choices. It is because of this reason that the number who had husbands was almost similar to those who did not have.

## CHAPTER 5

### DETERMINANTS OF MONTHLY INCOME

In this chapter, analysis and discussions of factors determining income of women in a month are presented. In other words, the fourth hypothesis of this study has been analysed here. It states that,  $H_0$ : Level of education, mean age of children and family size do not determine income of women in a month and that  $H_1$ : Level of education, mean age of children and family size determine income of women in a month. Secondly, problems women face in their income-generating activities are pointed out.

#### 5.1. Analysis of Factors Determining Income in a Month

In order to test if there is a significant relationship between education, mean age of children, family size and income, analysis of variance test is performed.

**Table 5:1 Analysis of Variance (ANOVA)**

Source of Variation	DF	Sum of Squares	Mean sum of squares	F
Regression	3	20555468	6851822	
Residual	170	25196601	148215	46.229

Source: Compiled by Author

The calculated F value of 46.229 is far much greater than the tabulated one of 2.60 at  $(3, \infty)$  degrees of freedom, and 0.05 significance level.  $H_0$  is, therefore, rejected and  $H_1$  is accepted. The conclusion arrived at is; level of education, mean age of children and family size determine income of women in a month.

MLRA equation arrived at is as shown,

$$Y = -179 + 0.66156X_1 + 0.1597X_2 - 0.12715X_3$$

It should be noted however that, whereas level of education and mean age of children affect income positively, family size affects income negatively. This is illustrated by partial correlation coefficient values respectively in the MLRA equation. These values are, 0.66156, 0.1591 and -0.12715. These imply that for a 5% increase in level of education and mean age of children income rises by 66% and 16%, respectively. However, income decreases by 13% if family size increases by 5%. The partial correlation coefficient values denotes what Wagithi (1987) terms as elasticity of earnings.

In other words, it can be said that if a participant has several years of formal schooling she gains more income than her counterpart with few years of formal schooling. In another instance, a woman with old children gains more income in a month than her counterpart with young children. Further, a woman who has a large family size earns less income in a month than the one who has a small family size.



The co-efficient of determination ( $R^2$ ) is approximately 45%. This implies that approximately 45% of the variation in income of women in a month can be accounted for by, level of education, mean age of children and family size.

Level of education determines income in a month because of several reasons. Firstly, education equips a participant with the skills which are necessary for effective participation in the particular income-generating activity she is carrying out. Secondly, a woman with several years of formal schooling has been exposed to a wide range of ideas which if properly utilized leads to success in the income-generating activity she is participating in. Further, she is able to communicate in at least English or Kiswahili. This is vital if one has to earn a substantial amount of income in an urban centre where the population is multi-tribal. Note that eloquence in either English or Kiswahili are of utmost importance for marketing, banking or administration purposes, to mention a few. These factors are the pivots of success in income-generating activities. As a matter of fact, therefore, women with many years of formal schooling have an advantage over those with few years of formal schooling. It is no wonder then that the former gains more income in a month than the latter.

Similarly, it is equally important to stress that family size also may determine the amount of income gained by women in a month. Large family sizes imply that participants of income-generating activities have to spend a lot of money in buying the basic necessities for the family members such as food, clothing, and housing, to mention a few. If the

husband is employed, she still has to contribute a substantial amount of her income to maintain the family's well being given the high cost of living within the urban areas. Consequently, the money she reinvests in her income-generating activity is little with the result that she gains only a little amount of income in a month from her enterprise. For women with small family sizes, they do not experience the same difficulty of only reinvesting a small amount of money in their income-generating activities. It is because of this reason that they may gain more income in a month than their counterparts.

It is also apparent that women with old children have the capability and potential to gain more income in a month than those with young children. Women with old children have a lot of time to put in their income-generating activities. This is more so if their children are all grown ups and do not need a lot of attention. Consequently, they need not hire maids or share their time between taking care of the children and participation in income-generating activities. Women with young children only manage to put a little time in their income generating activities. Taking care of young children for example taking them to the hospital and preparing meals, consume a lot of time which would otherwise be put in an income--generating activity. It was observed that women with old children participated in more viable and relatively large income-generating activities than those who had young children. The latter group participated in small scale income-generating activities which were mostly done near residential houses. It is because of the above reason that this study has concluded that mean age of children of a woman determines the amount of income she gains in a month.

However, it should be noted that since  $R^2$  is only 45%, there are some other factors which determine the amount of income women gain in a month. These can be for example, initial amount of capital invested, season of the month or year, experience and many others which were out of the scope of the present study. Note that from the computation of tolerance the values got were 0.97, 0.910 and 0.924. this indicates that the three variables were not correlated.

## **5.2 Problems Facing Women Participating in Income-generating Activities**

According to this survey, women participating in income-generating activities are faced with a number of problems. These problems have frustrated women's efforts and sometimes have even forced them to abandon their enterprises. The major problem which was cited by more than 50% of women participating in income-generating activities was frequent demolitions of the structures they had built by the NCC. Note that the NCC's by laws on petty trading require that no structures are built on private land before acquisition of genuine licenses from the local authority. Yet, the procedure of acquiring these licenses from the NCC is often tasking for the more often illiterate women who inspite of being in need of licenses cannot afford to pay the money and spend a lot of time. It is because of these reasons that most of them build illegal temporary structures within the study area. These structures are built of mud, wood, and polythene papers. Apart from the fact that ventilation in these structures is often poor, sanitation facilities are mostly not provided for. Waste materials are disposed carelessly within the residential area in heaps of garbage.

These are breeding grounds for flies, fleas, mosquitoes and rats which are carriers of diseases such as plague, cholera and malaria, to mention a few. The NCC's public health department view these structures as health hazards. In light of the above reasons, the NCC security officers often demolish these structures in what the women termed as raids. The demolitions are at times done at such a large scale that even women with legally acquired licenses end up with their structures destroyed. In such cases, when their merchandise are burnt and they are unable to salvage anything they incur a lot of losses. As a result they borrow from friends or relatives and start from a "scratch". This has frustrated women participating in income-generating activities. They indulge in what they called "hide and seek" game with the security personnel. They only display their goods when there are no security personnel around and remove them when a lorry belonging to them is seen within the area.

Another problem was lack of money. Most of the income generating activities carried out by women were small scale enterprises yet most of the them would have desired to expand them. They often had a problem of acquiring initial or starting capital. It is important to note that most of them borrow their starting capital from relatives, husbands or from their merry-go-round groups. The money they acquire through these sources is often too inadequate to establish large income-generating activities which can yield high economic returns. Most of the participants suggested that they could partially solve this problem if they were able to borrow loans from recognised financial institutions. Apparently, most of the financial institutions have not be able to give them loans as they

do not own properties in Nairobi. Further, the laid down procedures to be followed in acquiring loans are often too complicated for the more often illiterate women to comprehend. It is because of these and other similar reasons that only twenty women out of the total number of women interviewed had acquired loans from established financial institutions. However, this is less than a quarter of the sample under survey. Nevertheless, it should be clarified that majority of the women who had acquired loans were using expensive equipment such as sewing machines, hair driers, posho-mills and lorries, to mention a few which could be used by financial institutions as securities. It follows, therefore, that women who had acquired loans were participating in activities such as tailoring/dressmaking, hairdressing and the other more viable activities. Note that fifteen women who had acquired loans were tailors/dressmaker. Some of them used the loans to extend their premises to offer tailoring/dressmaking courses. They, therefore, bought more sewing machines, clothes, drawing papers and many others. In most cases, the loans were acquired through the Singer Company which provided surity. Further, three hairdressers had also acquired loans and two others in transport business.

Women who had young children felt that they had a problem of balancing house work, children up bringing and income generating activities. Most of them had to distribute their time in such a manner that only a little time was left for their income-generating activities. For example, they stayed in the house throughout the morning when old children were in school and only went to their respective income-generating activities in the afternoons when the old children returned from school. This was enhanced by the fact that

most of them were not earning enough money to allow them to hire maids or children's nurses. According to them, servants, and maids were expensive and some of them charged as high an amount as six hundred shillings for their services. However, women participants in income-generating activities argued that they could not afford to pay for these services as they were earning less than the amount required by the house maids in a month. Alternatively, some women had resorted to carrying their young children on their backs as they carried out their income-generating activities. Peculiarly, some women even spread for their children in the premises where they carried out their income-generating activities. Not to mention that these children are exposed to a lot of dangers.

Lastly, women who were engaged in handicraft had a problem of marketing the items they had made. They often fell prey to the middlemen who bought their items such as baskets, carvings, and table clothes, among others at very cheap prices and then sold them expensively to tourist boutiques in the CBD or abroad. This problem is worsened by the fact that women do not know the right channels to follow in order to export their items. It can be said that, before these problems are eradicated, women participating in income-generating activities are likely to engage in meager income-generating activities which do not generate substantial amount of income.

## CHAPTER 6

### CONCLUSION AND RECOMMENDATIONS

#### 6.1. Conclusion

This study set out to find out factors which determine women's participation in income-generating activities. It also had an objective of finding out the determinants of women's income in a month. Lastly, it wanted to find out problems that face women participating in income-generating activities. From the conclusions, it was established that out of the three variables only two determined women's participation in income-generating activities. These are, education and age.

Education and age had a great impact on the decision of women to take up particular income-generating activities. This is illustrated by the computed  $\chi^2$  values which are greater than the critical  $\chi^2$  values. Marital status does not determine women's participation in particular income-generating activities. This conclusion is arrived at because the  $\chi^2$  value (computed) is less than the critical one. Note that, since the difference between the two  $\chi^2$  values is not very big, it might be said that to some extent, marital status may determine women's participation in income-generating activities.

The regression result show that all the three variables education, mean age of

children and family size determine income of women in a month. What should be clarified is, whereas the two first variables influence income positively the last one had a negative influence.

According to this survey, it was established, therefore, that the more years of formal schooling a participant had the more income she gained in a month. This may be due to the fact that years of formal schooling influence a lot more other aspects of a woman's life than meets the eye. For example, the number of children she gives birth to and the type of activity she participates in. This is often reflected in her family size, health of her children, or even types of goods made or sold by her. A woman with few years of formal schooling has a large family size consisting of young children. She is, therefore, unable to take a full-time income-generating activity as she has to take care of her young children.

The problems which women encounter in their enterprises are varied. They range from economical, social cultural, to even psychological. The major problem cited by most women, however, was the frequent demolitions by the local authorities of the illegal structures they had built. Most women felt that they incurred a lot of losses during such demolitions. Due to the fact that acquiring licenses from NCC was difficult, they said that they were left with no other option but to build illegal structures (kiosks). These kiosks are health hazards according to the standards of the NCC's Public Health Department. Other problems were lack of facilities of storage, markets for goods, and child care facilities. It was thus concluded that due to all these problems women are not able to gain enough



income to support their families. Women participating in income-generating activities are still less likely to acquire any substantial gains in their income-generating enterprises.

## **6.2 Recommendations**

Education has been noted to be a variable which determines women's participation in income-generating activities, determines their income in a month and is the root cause of most of the problems they experience in their endeavours. With this in mind, women's education and training should be strengthened and expanded. The GOK, local authorities, Non-Governmental Organizations (NGOs), private institutions, UN organizations, cooperative institutions and the educated women co-operators should give this field a priority over all the others. Note that, if all women were well educated and trained, they would use this effective tool in all aspects of their lives. The acquisition of education and training would, therefore, make women literate. Further, they will be able to have the ability to identify projects, plan and implement using the tested and evaluated approaches, not to mention the ability to understand and employ modern managerial methods and skills that have proved successful in other business undertakings. With education, women will be equipped with knowledge, skills and changed attitudes for their own development. As such, women will have information to enable them know and understand their rights and responsibilities in society. Note that the knowledge acquired increases the degree of exposure to a number of issues and ease of communication with every section of the society. This is vital if one is to achieve any gains in her income-generating enterprises.

It is as such important to stress that women should learn more practical subjects when they are still in school. This will enable them to have skills to set up income-generating activities when they leave school. The 8:4:4 system of education which has a bias towards practical subjects and has been implemented by the GOK, is a move towards this direction. It will help to alleviate the problems of unemployment for school leavers who are unable to get "white collar" jobs. On the same point, it is important to stress that teachers should give proper career counselling for school girls. If this is done, girls will be properly equipped when they leave school to venture into viable income-generating activities.

Extension services should also be expanded. The GOK should take it as its responsibility to recruit qualified personnel to counsel women in their income-generating activities. Currently, the responsibility is left for the county council authorities who more than often recruit unqualified personnel who do not have a wide knowledge of managing businesses. Further, the personnel from the Ministry of Culture and Social Services are often only social workers. There is need, therefore, to train more extension officers who have a wide knowledge on management, accounting and marketing. These extension officers must, therefore, be trained in business administration. The GOK has tried to implement this by establishing organizations like Women's Bureau (WB) and the Kenya African National Union - Maendeleo Ya Wanawake Organization (KANU - MYWO), to mention only two. The WB has for example tried to identify training needs for women with a view to formulating and implementing appropriate training programmes.

KANU-KMYWO has trained a number of women in dressmaking, tailoring and home economics. These have helped them to establish viable income-generating activities. These organizations have also done feasibility studies for women's income-generating activities before they are started. This is quite encouraging as most of the income-generating activities which have ceased functioning prematurely are those started without thorough feasibility studies. Women should be encouraged to attend workshops and seminars through which awareness can be aroused among them on the existing facilities to exploit. Through mass media and local churches women can easily get important information. These agents should be adequately used to disperse information to women who are totally unable to attend seminars, or workshops.

Functional literacy programmes with strong training component of technical, management, and leadership skills among others should be encouraged for women by both the GOK and relevant NGO's and Community Based Organizations (CBOs). Emphasis should be put on training institutions such as those set up by the Salvation Army and the Presbyterian Church of East Africa (PCEA) Churches to cater for the future economic needs of young women. Illiterate women, should be encouraged to attend adult literacy classes. The adult literacy programme started by the GOK for its resolution of literacy for all is geared to solve illiteracy problem mostly prevalent amongst the adult female population in Kenya.

Most attention should be given to family planning and birth control. If women are

able to control their bodies and, therefore, space their child births in a deliberate way, they would be able to participate effectively in income generating activities. The nation would benefit from improved maternal and child health care. Traditional spacing of children measures were practised in Africa but use of modern techniques is only slowly but being accepted by the female urban population. Family planning should be an integral part of national planning, whereby techniques would be controlled for safety, price distribution and eventually produced locally.

Attitudes towards masculine and feminine work, division of labour in the house and society at large must be changed. Men should begin to share household responsibilities traditionally considered to be women's work as well as in the upbringing of children. Otherwise, women will continue to be overworked and have less time to put in their income-generating activities. Alternatively, women should try to use devices which make their house work easy. For example, women should try using modern kitchen cookers locally made by the informal sector enterpreneurs. Apart from creating markets for these items, women will save costs and time of preparing meals for their families. These appropriate technologies would provide appliances that simplify kitchen work and children's upbringing. On another note, urban families should try using packed food. This will lessen time used for preparing meals not to mention that it will help create more manufacturing industries in the country and thereby partially solving unemployment problem. More day child care centres, for example, should be established. This will help women who do not have maids, servants or surrogate relatives take care of their children.

Basic infrastructure such as sewerage, running water, electricity and garbage collection trucks should be provided for women's income-generating enterprises. Note that women's income-generating activities are labour intensive and use local materials. Positive policies towards them will help solve unemployment for female urban residents and further reduce the strain on scarce foreign exchange.

Lack of money was a problem which faced women participating in income-generating activities. Most of the women were lacking stable sources of acquiring capital. This was enhanced by the fact that most of them were not well acquainted with procedures to be followed in acquiring loans. Consequently it followed that most of the women had not acquired any substantial loans from recognised financial institutions. To avert this problem, women should be encouraged to buy properties in their own names especially in urban areas. Alternatively, they can buy properties jointly with their husbands. In which case they can be able to obtain powers of attorney on title deeds. Coupled with the above, if women are able to open saving accounts and become co-operative societies members, they will be able to obtain insurance policies. All these can act as security when borrowing loans from established financial institutions.

Women should form marketing groups or co-operative societies. Through these, they can market their products directly instead of doing this through middlemen who exploit them. The Kenya External Trade Authority (KETA) should assist women in identifying export market. KETA should also enlighten women on the skills required so that they can

produce better quality products which are adequately suited for the world markets.

Through co-operative societies women can be able to alleviate their financial problems. These societies can bargain on behalf of the women so as to be given loans or grants from financial institutions or NGO's and CBOs. Note that in line with the Harambee spirit used in Kenya to facilitate socio-economic capability, women in cooperative societies can adopt the same spirit and use it in turn to help each other. The formation of income-generating groups have also proved helpful as it is easier to deal with groups participating in large projects rather than with individuals whose activities are small-scale. If women were to acquire substantial financial assistance they would venture into large viable income-generating activities. For financial institutions which are more often disgusted by women's irregular loan repayment procedures, they should try to content with such irregularities so long as the loans are repaid within the specified period of time. In accordance with the above, women's groups should be registered following the laid down legal procedures so as to constitute legal entities which are recognisable by financial institutions for purposes of providing credit facilities.

Frequent demolitions of business structure by the local authorities can only be curtailed if women followed the laid down channels of acquiring licenses. At present, it seems that most of the channels are too tight to allow women to easily acquire the licenses. There is need, therefore, to make the rules of acquiring licenses a bit flexible especially for women who do not have the money. Further, the local authority should expand their market

stalls capacity as the ones which are in existence are few and inadequate for the population like in the site and service scheme where this research was carried out. Alternatively, the NCC should allocate more women plots in open air markets where they should build for them sheds to protect their goods from unnecessary hazards.

### **6.3 Recommendations To Future Researchers**

It would be more enlightening if future researchers made comparison between factors which determine women's participation in the informal sector activities and those which determine men's participation in the same sector. Such studies would be helpful in future urban planning for the informal sector entrepreneurs, and for sound policy measures for participants of the sector.

For detailed analysis, future researchers should concentrate on a specific type of women's income-generating activity. This would clearly indicate how women are engaged in a particular income-generating activity and the problems which are only peculiar to that income-generating activity. Such detailed data can help in upraising an income-generating activity and provide knowledge on women's types of self employment within urban areas. Note that if only one income-generating activity was looked at, other numerous minor variables which determine their income in a month like seasonality, man hours spend, and acquisition of practical skills, to mention only a few, would be analysed.

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## APPENDIX A: QUESTIONNAIRE

### A. General Information

Date \_\_\_\_\_ Time \_\_\_\_\_

Area \_\_\_\_\_ No. of residential plot \_\_\_\_\_

House No. \_\_\_\_\_

### B. Basic Household Background

1. Respondent No. \_\_\_\_\_ Age \_\_\_\_\_

2. Place of birth \_\_\_\_\_ Km from Nairobi \_\_\_\_\_

3. Years of residence in Nairobi \_\_\_\_\_

4. Reason for coming to Nairobi \_\_\_\_\_

5. How many people are in your household \_\_\_\_\_

6. a) Can you provide household background information?

1. Yes

2. No

b) If yes, specify in the table below

	Age	Sex/M.F	E	O	M	P
1.						
2.						
3.						
4.						
5.						

- R = Relationship
- E = Education
- O = Occupation
- M = Marital Status
- P = Place of residence

c) Literacy: can you:

	Kiswahili	English	Vernacular (specify)
Read	_____	_____	_____
Write	_____	_____	_____

**C. Marital Status**

1. Are you:

- |            |             |              |
|------------|-------------|--------------|
| 1. Single  | 3. Widowed  | 5. Separated |
| 2. Married | 4. Divorced |              |

If you are married when did you get married

Year\_\_\_\_\_

2. How old were you when you got married?\_\_\_\_\_



3. Do you have children

Yes

No

4. Do you want to get more children

Yes

No

5. If yes, how many \_\_\_\_\_

6. What is your reason for wanting or not wanting more children

1. Security

2. Burden

3. Prestige

4. Source of income

5. Any other (specify)

D. Amenities

How far are the following amenities from your house

Give detail below.

Amenities Km	Time	Means of transport	Frequency of Visit	
			Weekly	Monthly

What is the major problem you experience in this residential area.

Type of problem	Frequency of occurrence
Water shortage	
Drainage outburst	
Any others (specify)	

What do you think is the major cause(s) of the problem(s) above

- 1. Poor planning
- 2. Overpopulation
- 3. Lack of maintenance
- 4. Any other (specify)

**E. Husband's income**

1. Is your husband employed?

1. Yes

2. No

If yes give the following details

2. Husband's level of education \_\_\_\_\_

Occupation \_\_\_\_\_

Income KShs/month \_\_\_\_\_

Place of work \_\_\_\_\_

Distance (Km) \_\_\_\_\_

3. Do you think the amount he earns is enough to support your family?

1. Yes

2. No

Do you stay together with your husband?

1. Yes

2. No

b) If no, where does he stay? specify \_\_\_\_\_

4. What is the reason for him staying there
1. Divorce/separation
  2. Polygamist
  3. Work
  4. Any other (specify) \_\_\_\_\_
5. Do you think his staying away affects your expenditure and way of life?
1. Yes
  2. No
- If yes explain briefly how \_\_\_\_\_

**F. Women's Income Generating Activities**

1. Type of income-generating activity
  1. Petty trade
  2. Tailoring/Dressmaking
  3. Hairdressing
  4. Others - Specify \_\_\_\_\_
2. When did you start participating in this income generating activity?  
Year \_\_\_\_\_ Month \_\_\_\_\_

3. Have you for one reason or another stopped doing it

1. Yes

2. No

If yes for how long? From\_\_\_\_\_ To \_\_\_\_\_

b) Do you do this activity individually or in a group?

4. Specify in the table below the following information

Level of Education yr of formal schooling	Income per month	Place of work (specify)	Distance from House to workplace	Means of transport

5. What was your major reason (s) of participating in an income generating activity

1. Principal bread earner

2. Supplement husband's income

3. Use spare time
4. Use education
5. Attain independence
6. Others (specify)

6. Why did you choose this particular income-generating activity

1. Interest
2. Availability
3. Lack of money
4. Any other (specify)

7. Who takes care of your children or does your housework when you are away from home?

1. Maid-Servants/Ayahs
2. Baby care centre/Nurseries
3. Relatives
4. Other specify

8. Do you think that participating in this income-generating activity has affected any aspect of your life?

1. Yes
2. No

Rank them beginning from the one which has been affected most

1. Relationship with husband
2. Relationship with other members of husband's family
2. Personal health
4. Upbringing of own children
5. Family reputation
6. Any other (specify)

9. Are you happy with your present working conditions

1. Yes
2. No

If no, why?

1. Harassment
2. Lack of profit making opportunities
3. Any other (specify)

10. Where do you buy most of the commodities you use or sell

Place (specify)	Distance	Time taken	Means of transport

b. How and where do you market your commodities

1. Retail
3. Middlemen

2. Wholesale                      4. Any other (specify)

12. List down some of the equipment you use in carrying out this particular income-generating activities, where and when you bought them and the costs

Type of equipment	Yr. bought	Place bought	Price

13. Where did you get the initial capital to start off

1. Borrowing from friends/relatives
2. Bank loan
3. Saved capital
4. Any other (specify)

14. What are some of the problem you face in carrying out this particular income-generating activity

1. Frequent demolitions
2. Lack of capital
3. Lack of house helps
4. Marketing problem
5. Licensing
6. Any other (specify)



G. Loan Acquisition

Have you acquired loan from any financial institution/or any other?

1. Yes

2. No

If yes give the following details

Financial institution others	Amount acquired	Period of paying back

2. If no why?

1. No interest

3. Lack of surity

2. Lack of security

4. Any other (specify)

3. Do you own any property in Nairobi

1. Yes

2. No

If Yes - which ones?

1. Residential houses

2. Market stalls

3. Matatus

4. Any other (specify)

4. Do you have any hopes of acquiring any loan in the near future?

**H. Extension Services**

1. Have you attended any course regarding your income-generating activity?

1. Yes

2. No

b If yes specify details in table below

Type of course	Period taken	Distance from house

2. Has any extension worker visited your premises

1. Yes

2. No

If yes, then give details

How many times. \_\_\_\_\_ From where \_\_\_\_\_

Topic discussed \_\_\_\_\_

3. Do you think the extension services were helpful or necessary and would you like more visits?

4. To what extent did you gain from the extension worker

Explain briefly

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1. Others

1. Approximately how much money do you contribute to your family's expenditure in a month Ksh. \_\_\_\_\_

2. Give a detailed breakdown of your expenditure of the following items every month.

Item	Amount spent
Fare	
Clothing	
Rent	
Health	
Education	
Any other (specify)	

3. Specify in the table below approximately how much time you take for the following activities in a week

Activities	Hours/Week
Children care	
Income generating activities	
Husband	
Friends and relatives	
Housework	

APPENDIX B :RAW DATA

QNO.	AGE	NOHH	EDLEVEL	MEAN AGE	INCOME	ACTS	MARITAL
1	27	2	13	4.0	2400	3	1
2	31	4	11	4.0	700	1	1
3	35	7	11	10.0	1200	3	1
4	25	4	2	4.0	800	4	1
5	32	6	9	3.0	400	3	2
6	31	6	11	19.0	1000	1	1
7	25	3	11	3.0	800	2	1
8	26	6	11	4.0	600	2	1
9	34	5	7	7.0	600	1	1
10	35	6	9	12.0	1000	1	1
11	32	5	11	12.0	1200	4	1
12	32	6	7	8.0	700	1	1
13	26	4	7	6.0	1400	1	1
14	24	2	6	0.0	1600	1	1
15	30	5	2	5.0	300	4	1
16	23	2	11	1.0	800	1	2
17	40	4	7	4.0	600	3	1
18	32	5	8	2.0	1000	1	2
19	32	3	5	1.0	400	1	2
20	41	5	8	16.0	1400	1	2
21	26	5	10	1.0	400	1	2
22	20	6	9	6.0	600	2	1
23	30	2	9	0.0	1200	2	1
24	32	5	5	7.0	500	1	1
25	29	5	5	2.0	500	1	1
26	31	4	11	2.0	350	4	1
27	31	5	9	9.0	600	4	1
28	51	8	1	20.0	800	1	2
29	46	4	4	19.0	1000	3	2
30	39	2	11	0.0	1000	1	2
31	40	3	6	0.2	400	1	2
32	27	5	6	4.0	600	2	2
33	19	3	9	1.0	900	3	2
34	48	7	5	15.0	1500	4	2
35	28	4	11	5.0	1050	4	2
36	30	10	9	9.0	900	2	1
37	38	2	3	2.0	300	1	2
38	50	4	2	7.0	600	1	2
39	28	3	11	4.0	1200	2	1
40	25	5	11	4.0	1100	4	2
41	38	5	7	2.0	700	3	1
42	26	5	11	4.0	1000	3	2
43	35	7	9	11.0	900	4	1
44	27	3	10	6.0	1000	2	1
45	33	7	9	7.0	800	1	1

QNO.	AGE	NOHH	EDLEVEL	MEAN AGE	INCOME	ACTS	MARITAL
46	32	4	4	9.0	400	1	2
47	38	6	8	13.0	800	4	1
48	45	6	11	5.0	1200	4	2
49	27	7	7	5.0	700	4	1
50	42	2	4	14.0	800	2	2
51	22	3	6	1.0	600	2	2
52	55	3	0	21.0	400	1	2
53	22	2	9	0.0	900	2	1
54	25	4	11	5.0	1100	4	1
55	26	12	11	3.0	900	4	2
56	22	4	7	8.0	700	4	1
57	26	5	11	13.0	1200	4	1
58	42	6	1	5.0	300	2	2
59	18	2	8	0.0	800	2	2
60	45	1	2	8.0	300	1	1
61	34	6	7	2.0	600	1	1
62	32	3	7	3.0	700	2	2
63	34	4	7	3.0	500	2	1
64	47	5	6	22.0	800	3	2
65	36	6	4	2.0	400	1	2
66	30	5	8	2.0	600	2	2
67	26	5	11	5.0	1200	4	1
68	26	1	7	0.0	700	4	1
69	31	4	11	9.0	1300	1	1
70	31	3	5	2.0	550	1	1
71	25	4	4	2.0	350	1	1
72	25	3	9	3.0	900	1	1
73	38	5	11	10.0	1400	4	1
74	29	5	8	7.0	700	1	2
75	30	2	7	7.0	500	1	2
76	35	8	9	9.0	700	1	2
77	32	4	6	4.0	700	1	2
78	45	3	1	18.0	600	4	1
79	31	3	6	1.0	600	1	1
80	26	3	8	2.5	800	4	1
81	30	8	9	4.0	900	2	1
82	26	4	6	4.0	600	1	1
83	22	3	8	2.0	700	4	1
84	30	4	9	3.0	800	1	2

QNO.	AGE	NOHH	EDLEVEL	MEAN AGE	INCOME	ACTS	MARITAL
94	36	10	9	7.0	900	1	1
95	35	8	8	6.0	800	1	1
96	37	7	8	3.0	800	1	1
97	28	5	6	2.0	400	1	2
98	40	3	7	20.0	700	2	1
99	28	4	11	3.0	1200	4	1
100	41	13	7	8.0	800	1	2
101	41	7	6	7.0	800	1	1
102	21	6	2	3.0	2000	1	2
103	29	6	8	7.0	800	1	2
104	25	5	11	3.0	1500	3	2
105	25	4	9	2.0	900	4	2
106	44	10	7	12.0	1700	2	1
107	28	5	8	0.0	900	1	1
108	20	2	8	1.0	750	1	1
109	30	4	4	5.0	600	4	1
110	27	5	11	2.0	1100	2	1
111	26	7	7	4.0	500	3	1
112	24	3	8	1.5	800	4	2
113	37	4	11	3.0	1200	2	1
114	28	6	7	3.5	650	1	1
115	48	12	0	7.3	300	4	1
116	21	4	8	1.5	800	2	2
117	29	7	7	4.3	600	1	1
118	31	7	11	16.3	950	2	1
119	27	3	8	4.0	800	2	2
120	26	7	9	3.6	1000	2	1
121	22	6	6	2.5	450	2	2
122	24	3	8	2.0	700	2	2
123	26	6	6	2.6	550	1	2
124	28	3	8	3.0	800	2	1
125	26	3	11	0.0	1300	2	1
126	39	11	5	3.0	450	1	1
127	21	6	8	1.5	700	2	1
128	30	4	10	4.0	900	2	2
129	28	7	11	8.0	1400	4	2
130	24	3	12	0.5	600	1	1
131	26	4	12	3.0	2400	2	2
132	25	2	9	0.0	900	1	1
133	31	6	7	2.5	650	2	1
134	40	2	8	0.0	900	2	1
135	23	4	5	1.0	400	1	1
136	24	3	6	1.0	600	4	2
137	28	5	7	2.5	750	1	1
138	29	4	10	2.5	1000	2	1
139	28	4	11	2.0	1300	2	1
140	30	8	7	3.0	400	1	1
141	34	6	6	4.0	500	1	2

QNO.	AGE	NOHH	EDLEVEL	MEAN AGE	INCOME	ACTS	MARITAL
142	25	3	7	5.0	700	4	2
143	25	3	4	4.0	400	2	2
144	26	1	12	0.0	2800	3	2
145	25	3	12	6.0	1200	1	2
146	24	2	11	0.0	1400	2	1
147	30	9	7	8.1	800	1	1
148	31	3	12	8.0	2600	2	1
149	24	2	9	5.0	1200	2	2
150	30	4	12	9.5	1600	4	2
151	32	5	11	7.6	1100	2	1
152	26	4	12	4.0	1300	3	2
153	23	3	7	4.0	800	1	2
154	28	5	12	4.0	2200	3	1
155	46	6	12	14.0	2000	4	2
156	26	3	6	3.0	600	1	1
157	24	3	12	4.0	2400	2	1
158	34	3	4	2.0	600	1	2
159	56	7	12	4.3	1700	4	2
160	25	5	11	3.0	1400	2	1
161	34	2	12	0.0	2500	2	1
162	37	6	12	3.5	1600	3	1
163	35	5	7	2.2	650	1	2
164	20	4	9	1.0	900	3	1
165	25	6	12	4.5	800	1	2
166	34	9	6	6.0	600	2	1
167	31	2	12	1.0	2000	4	2
168	42	2	12	0.0	2400	4	2
179	23	9	11	1.6	1100	3	1
170	35	12	12	6.0	1200	4	1
171	31	5	7	5.0	600	1	1
172	32	6	12	2.6	2100	4	1
173	34	7	6	4.0	650	1	2
174	40	8	4	4.0	750	1	2

#### Variable Information

QNO	Questionnaire number
AGE	Age of respondent
NOHH	Family size of respondent
EDLEVEL	Level of education of respondent
MEANAGE	Mean age of children of respondent
INCOME	Amount of income earned in KShs.
ACTS	Types of income generating activities
MARITAL	Marital status