

**THE ROLE OF THE INFORMAL SECTOR IN EMPLOYMENT  
GENERATION:  
A CASE STUDY OF NAIROBI.**

**BY**

**MWANGI ISABELLA WANGARI.**

**UNIVERSITY OF NAIROBI  
EAST AFRICANA COLLECTION**

**A RESEARCH PAPER SUBMITTED TO THE DEPARTMENT OF  
ECONOMICS, UNIVERSITY OF NAIROBI, IN PARTIAL  
FULFILMENT OF THE DEGREE OF MASTER OF ARTS IN  
ECONOMICS.**

**AUGUST 2001**

University of NAIROBI Library



0443206 8

**JOMO KENYATTA MEMORIAL  
LIBRARY**

**DECLARATION.**

**THIS RESEARCH PAPER IS MY ORIGINAL WORK AND HAS NOT BEEN PRESENTED FOR A DEGREE IN ANOTHER UNIVERSITY.**

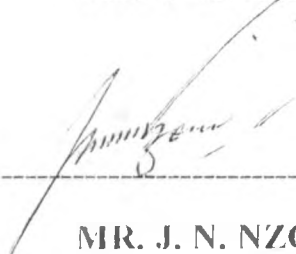


**Mwangi Isabella Wangari**

**This Research paper has been submitted for examination with our approval as university supervisors.**



**MR. J. A. OKELO.**



**MR. J. N. NZOMOI**

4/9/2001

**DEDICATION.**

I dedicate this work to my parents Herman Mwangi and Cornelia Njeri.

## ACKNOWLEDGEMENTS.

I wish to thank those who have contributed to this research paper in one way or the other.

To my two supervisors Mr. J.A. Okelo and Mr. J. N. Nzomoi who have helped me shape this work with valuable criticisms and input. Their generous assistance and guidance is gratefully acknowledged.

I am also highly indebted to AERC for supporting me financially during my studies. I also wish to thank staff members and students of the department of economics for their support and co-operation.

My most sincere thanks go to my parents, my sisters and brothers and all my friends for their continuous encouragement throughout my study period.

However none of the above institutions or individuals is responsible for errors and shortcomings of this paper.

## ABSTRACT.

This study set out to examine the role of the informal sector in job creation with a view to increasing employment generated by this sector.

The study used descriptive and analytical techniques on data from 482 entrepreneurs in Nairobi. The data was obtained from a survey done by the French institute for research in Africa.

The main findings of this study are that the informal sector has an important role to play in the Kenyan economy through job creation since the formal sector alone has failed to create enough jobs for the continuously growing labor force. The study has also found out that one of the major limitations that this sector is facing is capital for starting up business and also for further expansion of the firms. This paper has therefore recommended more support for this sector.

## TABLE OF CONTENTS.

Declaration.....	I
Dedication.....	II
Acknowledgement.....	III
Abstract.....	IV
List of tables.....	VII
CHAPTER 1.....	1
1.0 INTRODUCTION.....	1
1.1 Background.....	1
1.2 Problem statement.....	6
1.3 Objectives of the study.....	8
1.4 Significance of the study.....	8
CHAPTER 2.....	9
2.0 Literature review.....	9
2.1 Theoretical literature review.....	9
2.2 Empirical literature review.....	10
2.3 Overview of the literature review.....	17
CHAPTER 3.....	18
3.0 Methodology.....	18
3.1 Hypothesis.....	19
3.2 Estimation technique.....	21
3.3 Data source and type.....	22
CHAPTER 4.....	23
4.0 Findings.....	23
4.1 Limitations of the study.....	38
CHAPTER 5.....	40
Summary of findings and policy implications.....	40

Appendices.....	43
Bibliography.....	45

## LIST OF TABLES.

Table 1. Persons engaged in the informal sector (Urban and Rural areas)...	5
Table 2. Persons engaged in the informal sector by province.....	6
Table 3. Number of employees.....	23
Table 4. Source of initial capital.....	24
Table 5. Age of the entrepreneurs.....	25
Table 6. Marital status of the entrepreneurs.....	26
Table 7. Family size of the entrepreneurs.....	27
Table 8. Gender of the entrepreneurs.....	28
Table 9. Years of formal schooling.....	29
Table 10. Method of record keeping.....	30
Table 11. Company registration.....	31
Table 12. Business age.....	32



## CHAPTER I

### 1. INTRODUCTION.

#### 1.1 Background

It has become increasingly apparent in recent years that like many other developing nations, Kenya is beset with an urban unemployment problem as a result of a flow of rural-to-urban migrants at a rate consistently higher than the rate of new job openings in the urban area. This shift in the location of Kenya's population has created a variety of economic, social and political costs. On the economic side, substantial costs are incurred in the provision of housing, sewer and water facilities, schools and other amenities in the urban areas for the incoming migrants. Furthermore, the Kenyan economy incurs a very real cost if the migrants are employed in a less productive manner after they have migrated than had been the case prior to their migration. The increase in crime, marriage breakdown etc. believed to be associated with rapid urbanization and widespread unemployment is an example of social costs involved. Politically a potential explosive situation exists in that a large number of unemployed people are continuously present in the midst of the signs of rapid development so evident in urban areas, yet these are not being permitted to share in the advantages of economic progress.

Employment promotion plays a central role in promoting a country's development goals. It links economic growth and distribution of income with alleviation of poverty. In an effort to solve the unemployment problem, many developing countries have often found themselves in a dilemma. In particular, Kenya has been unable to solve this problem since independence. The continuous rural to urban migration has made this

## CHAPTER I

### 1. INTRODUCTION.

#### 1.1 Background

It has become increasingly apparent in recent years that like many other developing nations, Kenya is beset with an urban unemployment problem as a result of a flow of rural-to-urban migrants at a rate consistently higher than the rate of new job openings in the urban area. This shift in the location of Kenya's population has created a variety of economic, social and political costs. On the economic side, substantial costs are incurred in the provision of housing, sewer and water facilities, schools and other amenities in the urban areas for the incoming migrants. Furthermore, the Kenyan economy incurs a very real cost if the migrants are employed in a less productive manner after they have migrated than had been the case prior to their migration. The increase in crime, marriage breakdown etc. believed to be associated with rapid urbanization and widespread unemployment is an example of social costs involved. Politically a potential explosive situation exists in that a large number of unemployed people are continuously present in the midst of the signs of rapid development so evident in urban areas, yet these are not being permitted to share in the advantages of economic progress.

Employment promotion plays a central role in promoting a country's development goals. It links economic growth and distribution of income with alleviation of poverty. In an effort to solve the unemployment problem, many developing countries have often found themselves in a dilemma. In particular, Kenya has been unable to solve this problem since independence. The continuous rural to urban migration has made this

## CHAPTER I

### 1. INTRODUCTION.

#### 1.1 Background

It has become increasingly apparent in recent years that like many other developing nations, Kenya is beset with an urban unemployment problem as a result of a flow of rural-to-urban migrants at a rate consistently higher than the rate of new job openings in the urban area. This shift in the location of Kenya's population has created a variety of economic, social and political costs. On the economic side, substantial costs are incurred in the provision of housing, sewer and water facilities, schools and other amenities in the urban areas for the incoming migrants. Furthermore, the Kenyan economy incurs a very real cost if the migrants are employed in a less productive manner after they have migrated than had been the case prior to their migration. The increase in crime, marriage breakdown etc. believed to be associated with rapid urbanization and widespread unemployment is an example of social costs involved. Politically a potential explosive situation exists in that a large number of unemployed people are continuously present in the midst of the signs of rapid development so evident in urban areas, yet these are not being permitted to share in the advantages of economic progress.

Employment promotion plays a central role in promoting a country's development goals. It links economic growth and distribution of income with alleviation of poverty. In an effort to solve the unemployment problem, many developing countries have often found themselves in a dilemma. In particular, Kenya has been unable to solve this problem since independence. The continuous rural to urban migration has made this

impossible, especially in urban city of Nairobi. The modern sector alone is not capable of absorbing all the migrants. Most of them end up in the informal sector, either for the purpose of seeking training (apprenticeship) or due to lack of employment opportunities elsewhere.

The burden of employment promotion in the urban economy is therefore gradually shifting to the urban informal sector activities. The International Labour Organization (ILO) (1972), in its report on employment, incomes and equality, highlights the importance of the informal sector. It states that "informal activities are not confined to employment on the periphery of the main towns, to particular occupations, or even to economic activities, rather, informal activities are the way of doing things, characterized by, ease of entry, reliance on indigenous resources, family ownership of enterprise, small scale of operation, labour intensive and adapted technologies, skills acquired outside the formal school system and unregulated and competitive markets.

Nairobi's informal sector has been shaped by a variety of historical and social forces. The colonial labour migration pattern and the close ties between the city and countryside, gave rise to the close rural -urban linkages on today's urban businesses. The racial stratification of the colonial and post-colonial politics have all contributed to the formation of social classes and also directly or indirectly to the development of flexibility strategies for coping with the uncertainties of the present political economy.

Labour migration and the close ties between rural and urban areas; allow families to increase their cash incomes. They may be responses to a situation in which the basic income source is insufficient or simply an effort to improve the family's financial position. To replace or

supplement income, people either leave the rural areas or combine two or more productive activities.

The 1972 ILO Report on Kenya initiated a great deal of worldwide interest in the potential of the informal sector for promoting the growth of incomes and employment in the rapidly expanding cities of the less developed world. The initial response of the government of Kenya was to accept in principal the proposal to encourage the expansion of the sector and further commitment was made in the 1974-78 Development plan to increase employment opportunities in the sector by 7.5 per cent per year.

Informal sector industry, largely ignored in the earliest discussions on economic development, later became the focus of a major debate. Early in the evolution of development studies, scholars and practitioners advocated large capital-intensive industry as a root to development. It was the shift in the emphasis of development economics from per capita to distribution and its associated concern with employment that set the stage for serious interest in the informal sector.

The international labour office, as part of its world employment program, attempted to identify the causes of unemployment in a number of countries. The Kenyan mission was the first to focus clearly on the problems of the "working poor," many of who found worth in the informal sector.

In the Kenyan economic survey (1997), it was noted that employment in the informal sector rose by 18.0 per cent in 1996, while employment in the modern sector expanded by 3.2 per cent. Available information on employment reveals that a large proportion of the surplus labour in the economy is continuously joining the expanding informal sector. The high

employment generation potential principally results from the multiplicity of the informal sector activities; the use of simple and inexpensive technologies, which do not require specialized skills, its high labour intensity and ease of entry for it requires little capital investment. Similar arguments concerning the continuing increase in employment by the informal sector are expressed in Economic surveys, 1995, 1998 and 2000. The following table confirms the above picture.

**Table 1.****INFORMAL SECTOR.****PERSONS ENGAGED 1990-1999. (URBAN AND RURAL AREAS)**

'000'S

Modern Establishment	1991	1992	1993	1994	1995	1996	1997	1998	1999
Wage employees	1441.7	1461.9	1475.5	1505.5	1557.0	1618.8	1647.4	1664.9	1673.6
Self employed and unpaid family Workers	52.2	53.8	56.2	58.3	61.1	64.1	64.1	64.8	65.1
Informal sector	1063.2	1237.5	1466.5	1792.4	2240.5	2986.9	2986.9	3353.5	3738.8
Total	2557.1	2753.2	2998.2	3356.2	3858.6	4698.4	4698.4	5083.2	5477.5

Source: Economic surveys, various issues

The informal sector has therefore emerged as a major source of employment in the Kenyan labour market as the domestic economy continues to experience declining capacity in the agricultural sector and a slow down in modern sector activities. The sustained expansion of the informal sector is largely attributed to the shift of surplus labour from formal sector to informal sector as opportunities for securing wage employment in the modern sector have become increasingly scarce.

As shown in the following table urban areas continue to dominate informal sector activities. Among the urban areas Nairobi City absorbs the highest proportion among the eight provinces.

**Table 2.****INFORMAL SECTOR, 1990-1998****NUMBER OF PERSONS ENGAGED BY PROVINCE**

Province	1991	1992	1993	1994	1995	1996	1997	1998
Nairobi	251068	298890	366332	433014	538432	623900	716400	801400
Central	173455	196886	226305	281643	356669	417700	470400	530800
Nyanza	126975	149418	177921	231642	268356	319900	359400	402700
Western	73428	84400	98254	131472	156493	487700	210500	239300
Rift-valley	198912	234020	279260	332256	420960	502300	563000	635900
Eastern	107626	121065	138852	164340	217204	253800	284000	316300
Coast	127727	148342	174582	229905	274291	325200	368300	410600
North-eastern	4027	4459	50006	6101	8061	131300	14900	16500
Total	1063218	1237480	146612	1792373	2240466	2643800	2986900	3353500
Of which								
Urban	709034	817106	960801	1165041	1470255	1692000	1939700	2173700
Rural	354184	420374	505711	627332	770211	951800	1047200	1179800

Source: Economics survey, various issues.

**1.2 PROBLEM STATEMENT.**

Like many other developing countries of the world Kenya, is facing a crisis of unemployment. The incidence of open unemployment tends to be higher in urban than in rural areas.

The employment problem implies that a portion of the population does not fully participate in the economic growth process. Fuller utilization of human resources would induce higher growth in output due to their direct production and also due to investments that would be induced by the



expanded markets made possible by the accompanying increase in purchasing power.

The rate of growth of population should set the minimum rate at which employment has to expand. If the active population is growing at a high rate, employment should expand at the same rate.

For Kenya, this has not been the case. The creation of employment rate by the formal sector has been declining all along, while the informal sector has emerged as a major source of employment in Kenyan labour market as noted in the Economic survey (2000), Republic of Kenya.

Though the Kenya government speaks strongly in support of the informal sector activities, practical support has been limited and uneven. Kenya's Development Plans and sessional papers have asserted the importance of the informal sector in employment generation. Yet, as is often the case, programme development and implementation have frequently lagged behind and occasionally contradicts stated policies (William H, Ikiara G. and McCormic, 1993). The contribution of the informal sector in job creation has therefore not been fully exploited. The informal sector in Kenya remains largely unexplored source of income earning opportunities. There is therefore a dire need to carry out an empirical investigation on the contribution of this sector in solving the unemployment problem.

### **1.3 OBJECTIVES OF THE STUDY.**

The broad objective of the study is to estimate the employment potential of the informal sector in Nairobi. This will be achieved through the

1. To specify and estimate an employment model of the informal sector.
2. To analyse the role of the informal sector in creation of jobs in Nairobi.
3. Based on research findings, to draw policy implications.

### **1.4 SIGNIFICANCE OF THE STUDY.**

The pressing problem of unemployment in Kenya and particularly in Nairobi makes informal sector assessment an important issue. Indeed, while the search for more labour absorbing policies should continue unabated, this does not preclude the necessity to gather information about the role of the informal sector in the urban economy, to assess its potential for employment generation and to identify the constraints on the sector, and how it can best be helped as part of the Kenya government's overall goals of growth and equity.

A proper understanding of the determinants of employment by the informal sector is expected to give a clear picture of the vital role that the informal sector plays in the amelioration of Kenya's pressing problem of unemployment. This is expected to enhance the capacity of economic agents who may wish to venture into this sector, and policy makers to design appropriate policies to develop the sector and enhance employment.

## CHAPTER 2

### 2 LITERATURE REVIEW.

#### 2.1 THEORETICAL LITERATURE REVIEW.

Labour markets like most other markets are invariably fragmented in a variety of ways i.e. different categories of people enjoy differential access to earning opportunities. Labour market segmentation is claimed to be the major contributor to poverty and inequality. It shows that the workers with identical human capital characteristics such as education and experience are rewarded differently depending on the segment of the labour market in which they happen to be located. The segmentation is along the line of sex and endogenous variables are the public and private employment and the firm.

Evidence from Cyprus labour market segmentation creates barriers, which restrict access of workers to move up. The barriers created explain the rationale for informal employment that those in the lower segment try to supplement their incomes with some earnings from the informal sector activities and also those who cannot enter into any segment try to earn their living in the informal sector activities.

In the view of many, employment in the urban informal sector is explained by dualism found in the developing countries such as rural-urban dichotomy. Dualistic models have attempted to explain rapid urbanization, which is attributable to high rate of rural to urban migration. This is viewed as rational individual response to hypothesized urban-rural real income differential that is established by the institutional wage

setting in the formal sector and which fails to contract despite rising open unemployment and underemployment in the informal sector.

## 2.2 EMPIRICAL LITERATURE REVIEW

The 1972 International Labour Organization (ILO) report on Kenya initiated a great deal of world wide interest in the potential of the informal sector for promoting the growth of incomes and employment in the rapidly expanding cities of the less developed world. Since then, various studies have been carried out to confirm or dispute the sector's long term potential as a source of income earnings and employment creation. The following is a critical evaluation of some of the studies.

As early as 1955, Sir Arthur Lewis stated that small enterprise, "In any country account for more than half of industrial commercial and agricultural employment." In the context of Kenya there are no reliable data on this, since most of the small businesses are missed in the annual enumeration of employees. However, according to a World Bank estimate, in 1972 "the small- scale sector probably accounted for between one quarter and one third of all employment opportunities in the urban areas. If the rural enterprises are included, small-scale African business sector is estimated to account for rather more than half of all African employment provided by private commerce and industry in Kenya.

Child (1973), in his empirical study of small-scale rural industry in Kenya concluded that, "both the capital- output and the capital-labour ratios in the intermediate sector are low. Capital invested in the intermediate sector makes a larger contribution to national product and creates more employment than does an equivalent amount of capital formation in the modern sector. Furthermore the wages earned by workers compare

tolerably well with working class incomes of the modern sector, and exceeds wages in the commercial agriculture.” Child however made this conclusion based on his research of very small-scale rural enterprise and he did not provide much guidance toward identification of entrepreneurial talent, a source that by common consensus is in scarce supply in Kenya.

Child (1976), “Small-scale Rural industry in Kenya offers a favourable return on scarce capital, generates productive jobs at low investment per job, utilizes savings not otherwise available and develops new skills at low cost to society. The most general conclusion of this report is that, within limits, a shift of social priorities from development of modern, progressive, relatively capital intensive, urban enterprise to simpler, more labour intensive, small scale rural enterprise would accelerate Kenya’s overall rate of economic growth and employment. This study, however, was based on sample of firms drawn from the rural areas only.

Rempel (1974) hypothesizes that the informal sector incorporates two very different groups of people both in terms of attitude and motivation. “The community of the poor” consists of those engaged in formal sector job search who view their current situation as temporary as well as those who fail at the formal sector job lottery and continue to eke out a subsistence with a growing sense of despair and hopelessness. The second group he identifies in the informal sector is made up of small-scale entrepreneurs who made a conscious decision to invest in their business and have rejected wage labour in the formal sector. Collectively this group has been termed, as the “intermediate sector” by Child and it is this sub-sector that has the greatest development potential. Also the rate of return on invested capital output and capital labour ratios are low and capital invested in the sector creates more employment that does an

equivalent amount of capital in the formal sector. In addition, wages in this sector exceed wages in commercial agriculture. This group considers their current situation as permanent and therefore consciously strives to build for the future. It is this group seen by Remple as having potential to develop. Remple conclude that it is the “intermediate sector” of the informal sector and not the “community of the poor” that plays a vital role in the economy because it has development potential.

The basic distinction between the formal and the informal sector has been made by Mazumdar (1976), who suggests that “employment in the formal sector is in some sense or senses protected, so that the wage level and working conditions in the sector are not available in general to the job seekers, in the market unless they manage to cross the barrier of entry somehow. On the other hand, he identifies the informal sector as the “unprotected sector”, particularly with respect to its labour force which is not protected by minimum wage laws, contractual obligations etc. In his model, he hypothesized that the major determinants of the rate of growth of the informal sector employment are marginal propensities of the informal sector and formal sector to consume informal sector goods, the relative level of income the two sectors, and the rate of growth of employment and productivity in the formal sector. Marginal propensities to consume are not easy to measure and will therefore not be included in the employment function.

Morawetz (1974) and Steel (1977), indicate that small-scale establishments, using intermediate technology can utilize both labour and capital productively often generating more output as well as more employment for a given investment than the modern sector, and that such

firms employ an important share of workers in manufacturing and other sectors.

Increased investment in the modern sector is shown to aggravate the unemployment problem, as in the Harris- Todaro model (1970), but investment in the intermediate sector is presented as a potential resolution to the choice perceived by policy makers in many less developed countries between policies that maximize output growth and those that maximize employment.

Steel (1979), in his study on "The intermediate sector, unemployment and the employment-output conflict", defines the modern sector as large-scale capital-intensive. Firms employing waged workers and using advanced technology, and the intermediate sector as small-scale enterprises engaging labour at a positive marginal product and using an intermediate technology with moderate amounts of capital per worker. The workers may include purely self-employed owners, family members or apprentice. Sector expansion is a particularly promising short-run strategy for employment and growth because it need not involve a substantial commitment of capital.

Mureithi L.P (1983) studied labour utilization and the employment problem in Africa and concluded that the informal sector is another sectoral choice open to African countries. Hawkers, Kiosk, etc constitute a category of self-employed people who occasionally hire casual labour. This sector, he notes, provides jobs to a large majority of small-scale businessmen and women, and to migrants who cannot find modern sectors jobs. Government assistance to this sector would boost its dynamism and increase its labour absorption capacity.

Ng'ethe and Ndua (1984), in their study of the role of the informal sector in the development of small and intermediate –sized cities, noted that the role of the informal sector in most urban centers is of doubtless contribution as far as employment and income generation are concerned, because formal wage employment has not provided adequate earning opportunities for the existing adult population. They also noted that the number of people engaged in the formal sector due to lack of jobs in the formal sector are influenced by age of the respondent, experience, number of years of formal, education, informal sector training and investment. They found that both experience and investment are statistically significant in explaining changes in employment while education has a negative impact because those with high education standards are already in the formal sector. They estimated a model on employment as a function of level of experience among other variables as follows:

$$X_1 = \beta_0 + \beta_1 X_2 + \beta_2 X_3 + \beta_3 X_4 + \beta_4 X_5$$

Where;

$X_1$  = Employment in numbers at time of the survey,

$X_2$  = Age of the respondent,

$X_3$  = Experience in the business in years,

$X_4$  = Number of years of formal education,

$X_5$  = Dummy variable for informal sector training.

They concluded that the urban informal sector does not have the potential for employment generation since it is a one-person job.

Ng'ethe and Wahome (1987), in their paper on the rural informal sector in Kenya argues that the informal sector activities are a consequence of the inability of the formal sector to provide gainful and productive



employment opportunities for the urban labour force, a labour force that is swelling almost daily due to the influx of rural migrants. They concluded that, the growth of the informal sector is a horizontal proliferation of one-man enterprises rather than the vertical growth of the firms, implying that the role of the informal sector in job creation is low.

In the sessional paper number one (1986), the Kenyan government emphasized the important role played by the informal sector by noting that, "The informal sector activities conserve scarce foreign exchange, require very little capital to create jobs, rely primarily on family savings, often provide their own skill training at no cost to the government and are a prime training ground for future African entrepreneurs, above all the informal sector offers an unmatched potential as a source of new jobs for the expanding labour force.

The first National Baseline Survey of micro and small enterprises in Kenya (1983) underscored the important role this sector play in Kenya's development process in generating employment. However, the 1999 National Baseline Survey was conducted with a view that this sector provides the greatest opportunity for the absorption of the increasing labour force.

McCormic and Pederson (1996), in their book on small enterprise have noted that many third world countries have focused on developing an entrepreneurial capacity because of poor economic performance. They also noted that, the importance of the informal sector has potential for employment generation in Kenya and much of the developing world. However, the dominance of the large firms in Kenya's economy and the weaknesses of the small firms themselves may hinder this.

Muller and Bokea (1999), argue that, for rapid economic growth and development, a country requires a strategic approach to developing its entrepreneurs and enterprises. An entrepreneurship approach can be used to harness the tremendous amount of human resources capabilities that exist in Kenya for faster economic growth. Strategic entrepreneurship development and promotion of an enterprise culture can produce a mass of creative and innovative Kenyans capable of developing into high profile entrepreneurs and industrialists, especially among women and youth, who constitute the majority of the population. Such a strategy can create many business and employment opportunities including a self-employment leading to improve standards of living, poverty alleviation and sustainable livelihoods.

Ng'ethe and Ndua (1984), in their study on the role of the informal sector in the development of small and intermediate-sized cities noted that, the behavior of the informal sector both in terms of employment creation is influenced by a number of factors both economic and social. From their study, a change in employment level is a function of changes in investment, number of years of formal education, levels of experience, age of the respondent and level of informal education among other factors.

Merrick (1977) in his study on employment and earnings in the informal sector in Brazil considers age, sex, formal education, experience, family size, nutrition status, health status, migratory status and ethnic differentials as important factors in determining the level of employment and earnings.

### **2.3 OVERVIEW OF THE LITERATURE REVIEW**

Most of the studies in the literature review have looked at the informal sector in general and have failed to look at specific issues like employment. Policies suggested have also therefore been general. The studies have tended to focus on the enterprise and the entrepreneur. Even if they count workers, most of the studies provide little information concerning the informal sector worker.

Other studies have focused on one sub-sector in the formal sector. This implies that the results they get may be generalizable to the whole informal sector.

## CHAPTER 3

### 3.0 METHODOLOGY

In this study, the methodology will be both descriptive and analytical based on the observed relationships of the various agents in the informal sector

In our analysis, factors in the literature review, which are relevant to Nairobi's informal sector, will be used in the model. These factors are; experience in the informal sector in years, number of years of formal education, informal sector training, business management practices, income, sex and family size.

$$L = F (EX, ED, ITR, BMP, Y, S, FS)$$

Where;

L = Employment by the informal sector. (0 for self-employment otherwise 1),

EX = Relevant experience (number of years),

ED = Education (number of years in formal school of the proprietors),

ITR = Informal sector training, (1 has had training otherwise zero)

BMP = Business management practices, (Method of record keeping)

Y = Level of income,

S = Sex,

FS = Family size,

Our model was therefore formulated as follows,

$$L = B_0 + B_1 EX + B_2 ED + B_3 ITR + B_4 BMP + B_5 Y + B_6 S + B_7 FS + u$$

U is then random error term with usual least square properties.

## CHAPTER 3

### 3.0 METHODOLOGY

In this study, the methodology will be both descriptive and analytical based on the observed relationships of the various agents in the informal sector

In our analysis, factors in the literature review, which are relevant to Nairobi's informal sector, will be used in the model. These factors are; experience in the informal sector in years, number of years of formal education, informal sector training, business management practices, income, sex and family size.

$$L = F (EX, ED, ITR, BMP, Y, S, FS)$$

Where;

L = Employment by the informal sector. (0 for self-employment otherwise 1),

EX = Relevant experience (number of years),

ED = Education (number of years in formal school of the proprietors),

ITR = Informal sector training, (1 has had training otherwise zero)

BMP = Business management practices, (Method of record keeping)

Y = Level of income,

S = Sex,

FS = Family size,

Our model was therefore formulated as follows,

$$L = B_0 + B_1 EX + B_2 ED + B_3 ITR + B_4 BMP + B_5 Y + B_6 S + B_7 FS + u$$

U is then random error term with usual least square properties.

### **3.1 HYPOTHESIS.**

#### **EMPLOYMENT.**

In any economy, people are the most critical resource in the development process. They are the principle agents of change and central pillar of the economy. While people are the ultimate beneficiaries of economic and social development, they are also the most vital input in the productive, distributive and exchange processes of the economy. They provide market for goods and services, which generate the motive power for progress. All these are possible when the able people in the country are engaged in the productive processes whereby they contribute significantly to the nation and also earn enough income to make them meet their basic needs like food, shelter, and clothing and bringing up healthy population.

#### **EDUCATION.**

In general those with higher education level get access to formal sector jobs, whereas those with low education levels are trained in the informal sector. However it is also possible that the higher the level of one's formal education the higher the probability that one has been exposed to relevant managerial skills, which are essential for the successful management of the enterprise. Well-managed enterprises have more customers that call for the need for more employees.

It is therefore hypothesized that employment is positively related to educational level of proprietors.

#### **EXPERIENCE.**

Experience refers to the length of time an operator has been doing a particular activity. Doing a particular activity repeatedly makes one become more skillful. This is especially so in handling customers. Related

to this is the fact that if one has been in particular place for quite a number of years doing the same job, he establishes his own clients because of his good will. This influences employment because of the work available in the establishment.

It is therefore hypothesized that employment is positively related to experience. Experience is measured in number of years one has been in the occupation.

#### **FAMILY SIZE.**

Employment in the informal sector falls with increase in family size. This is because the larger the family, the higher the consumption expenditure and therefore the less the re-investible funds for the business. Family size is measured by considering the number of the dependants that an entrepreneur has. It is also possible that, the bigger the family size the more hard the entrepreneur will have to work to sustain his family and therefore the higher the probability of him employing people to assist him.

We therefore hypothesize that employment is positively related to the family size.

#### **TRAINING.**

It is hypothesized that employment is positively related to training. An entrepreneur who is trained will give better service to his customers, cultivate goodwill and these will lead to increased earnings, which will in turn lead to increased employment. Training is measured by considering the number of years that an entrepreneur has taken to train either as an apprentice or in any training institution other than formal schooling.

## **INCOME.**

Income is the net revenue earned by the proprietor. It is considered as the returns from the capital including human capital. The more income earned, the more is the motivation to increase the workforce, since the entrepreneur will have more to plough back to the firm in form of more investment. We therefore hypothesize that employment is positively related to income.

## **SEX.**

An informal establishment could be owned either by a male or a female. We are however uncertain of the nature of the relationship between employment and sex. We cannot therefore determine apriori the sign that this variable would take

## **BUSINESS MANAGEMENT PRACTICES.**

Well-managed firms perform better than poorly managed firms, in terms of earnings. A firm with higher earning levels is able to expand and therefore demand more workers. We therefore hypothesize that employment is positively related to good business management practices.

## **3.2 ESTIMATION TECHNIQUES**

### **Maximum-likelihood probit estimation.**

The above equation was estimated in a probate model form. This model assumes that predictions will lie in the (0,1) interval for all  $L$ . This translates the values of the attribute  $L$ , which may range in value over the entire real line, to a probability, which ranges in value from 0 to 1. In this model, increases in  $L$  are associated with increases (or decreases) in the



dependent variable for all values of  $L$ . This requirement suggests the use of the cumulative probability function,  $F$ . The resulting probability distribution might be represented as,

$$P_i = F(\alpha + \beta X_i) = F(Z_i)$$

The constrained version of the linear probability model can be written as

$$P_i = \alpha + \beta X_i$$

The probit probability model is associated with the cumulative normal probability function. It assumes that there exists a theoretical continuous index  $Z_i$  that is determined by an explanatory variable  $X$ .

$$Z_i = \alpha + \beta X_i$$

Observations on  $Z_i$  are not available, instead we have data that distinguish only whether individual observations are in one category or a second category. Probit analysis solves the problem of how to obtain estimates for the parameters  $\alpha$  and  $\beta$  while at the same time obtaining information about the underlying index  $Z$ .

### **3.3 DATA SOURCE AND TYPE.**

Data used in this research mainly came from a wider survey carried out by French Institute for Research in Africa together with University of Nairobi

Republic of Kenya Economic Surveys, Statistical Abstracts and other government publications were used to complement this.

## CHAPTER 4.

### FINDINGS

This chapter discusses the empirical results of the study. The chapter is divided into two sections. The first section discusses the descriptive part of the study and the second section is analytical based on the observed relationships in the factors that influence the level of employment in the informal sector.

From the database containing information on the activities of the respondents, 482 individuals belonged to the informal sector. The respondents were asked whether they had employees or otherwise and the response was as presented below

Table 3. Number of employees.

No. of employees/apprentices	No. of entrepreneurs Frequency	Percent
0 (self-employed)	210	43.57%
1-2 persons	63	13.07%
3-5 persons	30	6.22%
6-10 persons	6	1.24%
More than 10	3	0.62%
No response	170	35.28%
Total	482	100.00

Source: IFRA Survey

This indicated that the highest percentage of enterprises are one man business and 13.07% employ 1-2 persons 6.22% employ 3-5 persons 1.24% employ 6-10 persons 0.62% employ more than 10 people 35% of the respondents did not respond to this question.

## Sources of initial capital

Studies have shown that the informal sectors usually have small starting and working capital as compared to the medium and large-scale formal sector enterprises (Ondiege, 1992; Ngethe and Wahome, 1989).

In this study the respondents were asked the main source of finance resorted to start the business and the response was as follows.

Table 4. Source of initial capital

Source of finance	No. of entrepreneurs	Percent
Own savings	140	29.05
Inheritance	5	1.04
Family assistance	52	10.75
Spousal support	81	16.80
Merry go around	5	1.04
Association	4	0.83
Credit from suppliers	1	0.21
Bank loan	3	0.62
Co-operative loan	3	0.62
Personal loan	4	0.83
Other	184	38.17
Total	482	100

Source: IFRA survey

Personal savings and family contribution are the main sources of initial capital in this sector. 184 respondents were not willing to disclose their initial source of capital and were therefore classified as others as shown above. The above table indicates that credit assistance to the informal sector at the initial stage is usually very minimal. This may affect acquisition of technological capability and raw materials right from the start of their operations. While this initial self-financing is probably the

most cost effective means of financing start-ups, further expansion is severely hampered by the inability of these small entrepreneurs to acquire additional capital for investment and growth.

## ENTREPRENEUR CHARACTERISTICS

### Entrepreneur's age.

Age of entrepreneurs could have some influence on the design of assistance programmes to the sector and also the performance and management of individual enterprises.

In this research the respondents were asked to state their date of birth.

The table below shows the age distribution for entrepreneurs in this sector.

Table 5. Age

Age	No. of entrepreneurs
24-28	75
29-33	80
34-38	89
39-43	70
44-48	86
49-53	62
54-59	20
Total	482

Source: IFRA survey

It is observed that most of the entrepreneurs are in the age bracket 24-53. Notably the formal sector-retiring group (56 years and above) do not seem to have made a major impact on this sector.

The policy implications of the age of entrepreneurs have not received as much attention in the literature as other attributes. However, the age of

the entrepreneurs could have a bearing on the dynamism of the enterprise, as age has a bearing on experience, health and drive of the entrepreneur.

### **Marital status**

Marital status could have repercussions on the way enterprise revenues are allocated and utilized by owners. When asked about their marital status, the entrepreneurs gave the following results.

Table 6. Marital status.

Marital status	Entrepreneur	Percent
Single	168	34.85
Monogamous	258	53.53
Polygamous	11	2.28
Separated	24	4.98
Widow	21	4.36
Total	482	100.00

Source: IFRA survey

The highest number of entrepreneurs are in monogamous families. About 35% of the entrepreneurs are single while polygamous, separated and widows are a small percentage.

### **Family size**

The family size of each respondent was asked. The aim of getting the family size is to check whether the respondents' earnings were enough to sustain his family since a large family can put pressure on him either to work harder or use up his reinvestible surplus.

The following table shows the family size of the entrepreneurs.

Table 7. Family size.

Family size	No. of entrepreneurs	Percent
1	81	16.81
2	58	12.03
3	34	7.05
4	87	18.05
5	58	12.03
6	56	11.62
7	25	5.19
8	21	4.36
9	15	3.11
10	7	1.45
11	10	2.07
12+	30	6.23
Total	482	100.00

Source: IFRA survey

The table shows that majority of the entrepreneurs have 4 dependants 16.81% of the entrepreneurs have a family size of one. This implies that they have little pressure on their income, which they can reinvest back in to the business, or they do not have a lot of pressure which would make them work harder and expand their small business.

## Gender

Out of the total 482 entrepreneurs who were interviewed 42.32 percent were males and 57.68 percent were females. Unlike in many other previous studies the situation seems to have changed, with more women joining the informal sector.

Table 8. Gender

Gender	Frequency	Percent
Male	204	42.32
Female	278	57.68
Total	482	100.00

Source: IFRA survey

Thus by gender the entrepreneurs are not very different.

## Years of formal education of entrepreneurs

The levels of formal education together with post school training may affect the overall performance of the sector especially in terms of management, productivity and sustainable development of the enterprises, which in turn affects the employment potential of the sector. The table in the next page shows the number of years of schooling of the respondents.

Table 9. Education.

Years of formal education	Entrepreneur	Percent
0-1	23	4.77
2-3	5	1.04
4-5	20	4.15
6-7	51	10.58
8-9	77	15.98
10-11	99	20.54
12-13	124	25.73
14-15	56	11.62
16-17	18	3.73
18-19	8	1.66
21	1	0.20
Total	482	100.0

Source: IFRA survey.

About 25.73% of the entrepreneurs had 12-13 years of formal education, which is equivalent to secondary school level. Most of the respondents had less than 12 years of education. This observation would partly explain poor or lower income levels earned in the sector. Generally, entrepreneurs in these section fall within the upper primary and secondary educational levels, which account for about 64% of all entrepreneurs' educational attainment.

Most of the earlier studies for example Obilo A. (1989) observed that the high percentage of entrepreneurs have primary education. This research shows that the informal entrepreneur is today more literate and educated. This could be attributed to the rising levels of unemployment among



secondary schools and university graduates who eventually end up in the sector as an action of last resort.

### **Business management practices**

Entrepreneurs surveyed were asked how they keep their accounts records and the response was as presented below

Table 10. Method of record keeping.

Method of record keeping	No. of entrepreneurs	Percent
Personal book	212	43.98
Formal accountancy	18	3.74
No written accounts	87	18.05
No response	165	34.23
Total	482	100.00

Source: IFRA survey

This table shows that majority of the entrepreneurs kept business records in form of personal books and few in form of formal accountancy 34.23% did not respond to the question.

Lack of proper record keeping is a major problem, which confronts these enterprises when they seek credit facilities from banks and other institutions.

Thus there is still need to sensitise and train entrepreneurs on methods of bookkeeping. This will show potential financiers their credit worthiness and ability to manage finances

## Business registration and licensing

Only 17.22% of the businesses were registered and 46.47% were operating without a license. This is a well-known characteristic of micro enterprises and is the sources of many problems for them, especially from local authorities. Licensing modalities, which do not pose bureaucratic or major financial burden on this sector, should be worked out. Licensing should be aimed at the orderly and safe conduct of business as well as environmentally acceptable practices. Beyond that, free operations and competitions should be left to prosper without hindrance (Ondiege P.O 1995)

Table 11. Company registration.

Was your company registered?	No. Of entrepreneurs	Percent
No	224	46.47
Yes	83	17.22
No response	175	36.31
Total	482	100.00

Source: IIRA survey

## Business Age

Business age provides clues regarding their stability as well as the ratio of entry of new establishments into the informal sector thus creating employment in the sector. Experience gained over the years could influence the entrepreneurs operations and thus reflect their technical skills.

Table 12. Business Age.

Business Age	Entrepreneurs	Percent
0-5	170	35.28
6-10	193	40.04
11-15	71	14.73
16+	44	9.13
No response	4	0.83
Total	482	100.00

Source: II-RA survey.

### **Regression results of the factors that determine employment in the informal sector.**

This section discusses the regression results of the factors that influence employment in the informal sector as hypothesized in chapter three.

Detailed regression results are presented in the appendix.

The results in this section were obtained with the maximum likelihood estimation technique.

The dependent variable was first regressed on each of the explanatory variable using probit, to find out the relationship between each variable and employment. Then finally the dependent variable was regressed on all the explanatory variables together. Correlation between the explanatory variables was established using the correlation matrix.

All tests of significance were two tailed and they were at 5 percent levels of significance. Z- values were used to indicate whether the results are statistically significant or not.

## Regression Results

The estimated model was

$$L = \beta_0 + \beta_1 ED + \beta_2 EX + \beta_3 FS + \beta_4 ITR + \beta_5 Y + \beta_6 S + \beta_7 BMP + \mu$$

Where

L = Employment by the informal sector

ED = Years of formal education

EX = Experience in the informal sector in years

FS = Family size of the entrepreneurs

ITR = Informal sector training

Y = Income level of the entrepreneurs

S = Sex

BMP = Business Management practices

$\mu$  = a random error term

Regression of L on years of formal education gave the following equation

$$L = -1.13 + 0.07 ED$$

(4.00)

Z-statistics are on the parenthesis.

The regression coefficient of the education variable is statistically significant at the 5 percent level

According to these results, level of education is positively related to the employment in the informal sector. The higher the level of education of the entrepreneur, the higher the probability that he will employ people in his firm.

Regressing experience against the level of employment gave the following equation.

$$L = -.066 + 0.04EX$$

(2.92)

A positive regression coefficient of the experience variable shows that experience and employment level is positively related. The higher the level of experience in years the higher the probability of a firm having employees. Experience was also found to be statistically significant at 5% level of confidence. This supports the hypothesis in chapter 3.

Regression results gave a positive coefficient for the family size variable. This implies that, the larger the family size, the harder the entrepreneur will have to work or the higher the probability that he will employ more people to enable him earn more to sustain his family.

The following equation was obtained for the entrepreneurs

$$L = -0.51 + 0.03FS$$

(1.61)

However, family size was not statistically significant at the 5% level of significance. This implies that family size alone does not significantly influence employment in the informal sector.

Employment was also regressed on informal sector training variable and the following equation obtained

$$L = -0.42 + 0.37ITR$$

(1.96)

Informal sector training is positively related to employment implying that trained entrepreneurs have higher probability of creating jobs than the untrained. Informal sector training was found to be statistically significant at the 5% level.

Income level is shown as having a positive influence on the employment of the informal sector. The following equation was obtained after this regression.

$$L = -1.14 + 0.44Y$$

(5.10)

This is in line with the hypothesized relationship that the higher the income levels the higher the probability of entrepreneurs creating jobs in this sector.

The income coefficient is found to be statistically significant at 5% confidence level.

Regressing employment on sex gave a negative coefficient. The relevant equation for this regression is:

$$L = 0.33 - 0.44S$$

(3.16)

Female entrepreneurs have a higher probability of employing people than their male counterparts according to these results

This may be explained by the fact that women have more responsibilities at the home front and must therefore as a matter of necessity get assistance in their businesses.

Good business management practices is shown as having a positive influence on employment. The following equation was obtained after regressing employment on business management.

$$L = 0.76 + 0.59BMP$$

(3.85)

The variable is found to be statistically significant at 5% level. This is in line with the hypothesized relationship that good business management practices exert a positive influence on job creation by the informal sector.

JOMO KENYATTA MEMORIAL  
LIBRARY

The following equation was found after regressing employment on all the variables together.

$$\begin{aligned}
 L_i = & -1.9 + 0.07ED + 0.04EX + 0.06FS + 0.5 ITR + 0.45Y - 0.59S + \\
 & (3.22) \quad (2.43) \quad (2.36) \quad (2.10) \quad (4.59) \quad (3.51) \\
 & 0.39BMP \\
 & (2.01)
 \end{aligned}$$

Table 1 in the appendix gives detailed results on the above regression equation. All the variables in this equation were found to be statistically significant at 5% level. All the variables took a positive sign with the exception of sex, which took a negative sign. This implies that the higher the level of education the higher the probability that the entrepreneur will have employees, this also applies to experience, family size, and income level. For the informal sector training, those who are trained have a higher probability of employing people than those who are not trained. Those who have good business management practices have also a higher probability of employing than those with poor business management practices. Women have also a higher probability of employing than men

After the probit estimation of the model mfx estimation was done, this reports the change in the probability of the dependent variable changing for an infinitesimal change in each independent variable.

The following marginal effects after probit were obtained

Marginal effects after probit

$Y = \text{Pr}(L) (\text{Predict})$

$= 0.32$

Variable	dy/dx	Std error	Z
ED	.03	.01	3.23
EX	.01	.01	2.43
FS	.02	.01	2.36
IIR	.18	.09	2.11
Y	.16	.04	4.62
S	-.21	.06	-3.53
BMP	.14	.07	2.02

$R^2 = 20\%$

Source: Regression results.

From these results a 1 percent change in education level will result in a 3 percent change in employment. A 1 percent change in level of experience will result in a 1 percent change in employment and so on.

There are other variables that were not included in the model, which can explain the variations in employment level. These other factors could be the level of investment, technology, City Council laws, demand for the informal sector products, labour turnover business stability and so on.



## Correlation between explanatory variables

This section discusses the correlation between the explanatory variables.

The following correlation matrix was obtained.

	L	EX	ED	ITR	BMP	S	FS	Y
L	1.00							
EX	0.139	1.00						
ED	0.199	-0.163	1.00					
ITR	0.103	0.002	0.007	1.00				
BMP	0.199	0.009	0.247	0.23	1.00			
S	-0.199	-0.051	-0.122	-0.011	-0.089	1.00		
FS	0.104	0.121	-0.213	-0.063	0.005	-0.049	1.00	
Y	0.276	0.04	0.044	0.111	0.188	0.129	-0.025	1.00

It is generally accepted that a correlation coefficient above 0.5 indicates multi-collinearity. In this study, a correlation coefficient of  $\pm 0.500$  was taken to indicate serious multi-collinearity problem. From the above table, no serious multi-collinearity problem was observed and therefore no changes were made on the model specification

### LIMITATIONS OF THE STUDY.

The fact that the data were been collected without giving cognizance to specific objectives of this study apriori was a major limitation of this study

The study covered the entire informal sector in Nairobi did and therefore it did not allow an in-depth study of some major sub-sectors. In addition, some variables such as political and administrative attitudes are

impossible to quantify though they might explain a great deal of what is taking place in the informal sector.

## CHAPTER 5.

### SUMMARY OF FINDINGS AND POLICY IMPLICATIONS.

This chapter summarizes the observations and conclusions that have been drawn from this study.

Using both descriptive and analytical techniques this study has estimated an employment model of the informal sector. Formal education, experience, family size, informal sector training, income, sex and business management practices were found to be statistically significant. However when employment was regressed on family size alone this variable was not statistically significant at 5% level.

This study has also found out that the entrepreneurs have limited access to credit from formal institutions. This may be a hindrance to their expansion and profitability.

The education level of the informal sector respondents was found to be much higher as compared to earlier research findings, this could be attributed to the rising unemployment levels in the country.

By gender entrepreneurs in this sector were found not to be very different. There are almost as many men as women in this sector. Employment creation and the participation of women in this sector is therefore of major importance.

This study has also observed that the entrepreneurs in this sector have poor business management practices. The entrepreneurs are therefore not able to improve the profitability of the business or seek new opportunities through which the enterprise can be expanded.

### **Policy implications.**

A rate of increase of employment in the informal sector seems to be beyond the bounds of possibility for the foreseeable future. Informal sector is therefore not only a source of growth and vitality, but also a source of a new strategy of development for Kenya. An enabling environment for the growth of this sector should therefore be enhanced.

The price of capital in Kenya is one of the factors that make the informal sector entrepreneurs shy away from borrowing in the formal financial markets.

High interest rates create increased debt repayment burdens that make the survival of small enterprises difficult.

Financial institutions set up to assist the upcoming entrepreneurs should therefore ensure that the cost of capital is within the reach of this group of investor (entrepreneurs). For a long time license requirement have generally been working against small-scale enterprises because of the bureaucratic processes involved. There are too many licensing and registration procedures. There is a need to re-examine these procedures with a view to amending them in order to reflect the needs of the informal sector

The Government of Kenya reports on "A strategy for small enterprise in Kenya (1989), noted that women are excellent entrepreneurs if they get enough chances and space to start-up and operate a small enterprise. Historical imbalances between men and women should therefore be re-addressed to ensure more constructive engagement of women entrepreneurs in small enterprise programmes.

Managerial skills to control financial, material and human resources are very important in any business. Lack of managerial competence has contributed to the failure of most small firms. Training and other

promotional programmes should therefore be encouraged so as to equip entrepreneurs with the business skills needed to initiate and successfully manage their enterprise.

The stability of informal sector businesses in Nairobi has been threatened increasingly by the Nairobi City Council through continuous demolition of informal sector kiosks and harassment of hawkers, which have negatively affected the development of this sector. Apart from being law-abiding citizens, urban informal sector entrepreneurs are important contributors to the national economy and should therefore be protected.

## APPENDIX I

Probit estimates

Number of obs = 301

L.R chi2 (7) = 70.26

Prob > chi2 = 0.0000

Log likelihood = -160.7518

Pseudo R2 = 0.2

---

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
BMP	.3875176	.1925291	2.01	0.044	.0101674	.7648678
S	-.5885276	.1677918	-3.51	0.000	-.9173936	-.2596617
FS	.0587674	.0249	2.36	0.018	.0099643	.1075704
EX	.0397259	.016345	2.43	0.015	.0076903	.0717615
ED	.0712782	.0221162	3.22	0.001	.0279312	.1146251
Y	.4539258	.0988348	4.59	0.000	.2602133	.6476384
ITR	.5137275	.2447628	2.10	0.036	.0340012	.9934539
_Cons	-1.896442	.4547357	-4.17	0.000	-2.787708	-1.005176

---

## Appendix 2

Marginal effects after probit

$y = \text{Pr}(L)$  (predict)

= .32320166

---

variable	dy/dx	Std. Err.	z	P> z	[	95% C.I.	]	X
BMG	.1391553	.06893	2.02	0.043	.004062	.274248	.647841	
S	-.2113368	.0598	-3.53	0.000	-.328552	-.094121	1.58140	
FS	.021103	.00895	2.36	0.018	.003566	.03864	4.39203	
EX	.0142653	.00587	2.43	0.015	.00277	.025761	7.62458	
ED	.0255956	.00793	3.23	0.001	.010054	.041137	10.3275	
Y	.1630021	.03529	4.62	0.000	.093838	.232166	1.66777	
ITR	.1844765	.08757	2.11	0.035	.012833	.35612	.122924	

---

## BIBLIOGRAPHY.

**Abboagye. A.A.** (1986) "Informal sector Employment in Kenya," Jobs and skills for Africa, Addis Ababa.

**Allen. H.** (1977) "The informal urban industrial sector growth: Some thoughts on modern methodology" I.D. S., University of Nairobi Working paper.

**Alila.O.et al** (2000): "Policies, Regulations and Organization capacity of women street vendors in Kenya". Institute of Development Studies. University of Nairobi.

**Alila O.P** (1992), " Informal and formal credit in Rural Kenya."

A case of western Kenya grassroots borrowing and lending in an institutional Development perspective. Occasional paper IDS Nairobi (Kenya).

**CBS, ICEG, and K-REP** (1999): National micro and small enterprise Baseline Survey, 1999.

**Child. C. F** (1973): "An empirical study of small scale rural industry in Kenya ". Institute of Development studies working paper. University of Nairobi.

**Child. C. F** (1973): "Employment, Technology and growth," Role of the intermediate sector. Occasional paper No.6 I. D. S.

**Child. C. F** (1977): "Small scale rural industry in Kenya. Occasional paper number 17. African studies centre, University of California, Los Angeles.

**Gichiri Ndua and Njuguna Ng'ethe** (1984): " Education, Training and welfare in the informal sector ". I.D.S. working paper. University of Nairobi.



**Gichiri Ndua and Njuguna Ng'ethe (1984):** "The role of the informal sector in development of small scale and intermediate -sized cities". Institute of Development studies working paper. University of Nairobi.

**Gichiri Ndua and Njuguna Ng'ethe (1987):** "The rural informal sector in Kenya". Institute of Development studies working paper. University of Nairobi.

**House W. J. et al (1977)** " The potential for income and Employment Generation in Kenya's urban informal sector." I. D.S. Working paper No. 310. University of Nairobi Kenya.

**House W.J (1984):** "Labour market segmentation" World Development. Vol. 12 No.4

**House W.J. et al (1984):** "Nairobi informal sector: Dynamic entrepreneurs in surplus labour." Economic development and cultural change. Vol.21 No. 2 January 1984.

**International Labour Organization. (1972):** Employment, income and equality, Geneva, Switzerland.

**International Labour Organization. (1999):** Kenya meeting the employment challenge of the 21<sup>st</sup> Century. East Africa Multidisciplinary Advisory team, Addis Ababa 1990.

**Kiriti, T. W. (1987)** "Determinants of earnings in the urban informal sector; A case study of mechanics in Nairobi," M.A Research paper, Department of Economics, University of Nairobi.

**Koutsoyiannis A. (1997):** The theory of Econometrics: An introductory exposition of econometric methods, 1977.

**McCormic and Pedersen (1996):** Small enterprises, flexibility and networking in an African context. Longhorn Kenya.

**Merrick, T. W.** (1977) " Employment and earnings in the informal sector in Brazil, " A case study of Belo Horizonte, *Journal of Developing Areas*, Vol.10 No.3.

**Mullei .A and Bokea. C** (1999), " Micro and small enterprises in Kenya" International Center for economic growth. Nairobi (Kenya).

**Ngethe, N** (1986), "The informal manufacturing subsector,"A paper presented at the workshop of informal manufacturing sub sector, Nairobi, May.

**Noormohamed, S. O.** (1985) " Development strategy for the informal sector: The Kenyan Experience," in P. Ndegwa.

**Ondiege, P.O.** (1992), " Local coping strategies in Machakos District, Kenya" in D.R.F. Taylor and F.Mackenzie (ed). *Development from within Rural Africa*, Routledge Beckenham, Kent. U K.

**Ondiego, P.O** (1995), " Informal sector Development models and assistance programmes in Kenya." University of Nairobi Housing and Building Research institute in Kenya.

**Rempel, H** (1981): *Rural-Urban Labour migration and urban unemployment in Kenya*. University of Manitoba, Canada.

**Remple, H. and W. J. House,** (1977). *The Kenya Employment problem: An analysis of the modern labour market*. Oxford University press, Nairobi, Kenya.

**Remple and Todaro** (1969): "Rural to Urban labour migration in Kenya; Some preliminary findings of a large scale survey". Nairobi, Kenya.

**Republic of Kenya** (1997): *National Development Plan. 1997-2001*. Government Printer, 1997

**Republic of Kenya** (1996): *Sessional paper No. 1 1996 on industrial Transformation to the year 2020*, Government Printer, 1996.

**Republic of Kenya** (1986): Sessional paper No. 1 of 1986 on Economic Management for renewed growth, Government printer 1986.

**Republic of Kenya** ((1964): Development plan 1964-1970. Government printer 1964.

**Republic of Kenya** ((1974): Development plan 1974-1978. Government printer 1974.

**Republic of Kenya** ((1989): Development plan 1989-1993. Government printer 1989.

**Republic of Kenya** ((1992): Sessional paper No. 2 of 1992 on Small enterprises and Jua -kali Development in Kenya.

**Republic of Kenya** (1989), " A strategy for small enterprise Development in Kenya". Nairobi Kenya.

**Republic of Kenya** (1999), "National micro and small enterprise Baseline survey. Nairobi Kenya.

**Todaro, M.P.** (1969) "A model of labour migration and unemployment in less Developed countries," American Economic Review. March 1969

**Wanjigi, M.** (1983) Report of the Presidential Committee on Unemployment 1982/83. Government printer Nairobi, Kenya.

**William F Steel** (1979): "The Intermediate Sector, Unemployment, and the Employment Output Conflict." IDS University of Nairobi.

**EAST AFRICANA COLLECTION**

**UNIVERSITY OF NAIROBI  
EAST AFRICANA COLLECTION**

**JOMO KENYATTA MEMORIAL  
LIBRARY**