

**Mekelle University**  
**Department of Management**  
**College of Business and Economics**



**The Role of Informal Sector on Household Livelihood**  
**(Survey of Street Vendors in Mekelle City)**

**By**

**Fillmon Terefe Kebede**

**ID. No CBE/PR098/02**

**A Thesis**

**Submitted in Partial Fulfillment of the Requirements for the**

**Master of Arts**

**In**

**Development Studies**

**Principal Advisor**

**Abebe Ejigu (PhD Candidate)**

**Co-advisor**

**Gebreyohannes Gebreslassie (MPP)**

**May, 2011**

**Mekelle, Ethiopia**

# **DECLARATION**

I, **FILLMON TEREFE**, hereby declare that the thesis entitled “**The Role of Informal Sector on Household Livelihood**”: **A Survey of Street Vendors in Mekelle City**, Tigray Region, Ethiopia, submitted by me for the award of the degree of Master of Arts in Development Studies, Mekelle University at Mekelle, is original work and it hasn't been presented for the award of any other Degree, Diploma, Fellowship or other similar titles of any other university or institution.

**Place: Mekelle**

**Signature:**

**Date: May, 2011**

**Name: Fillmon Terefe**

# **CERTIFICATION**

I certify that the thesis entitled “**The Role of Informal Sector on Household Livelihood**”: **A Survey of Street Vendors in Mekelle City**, Tigray Region, Ethiopia, is a bona-fide work of **Mr. FILLMON TEREFE KEBEDE** who carried out the research under my guidance. Certified further, that to the best of my knowledge the work reported herein doesn’t form part of any other project report or dissertation on the bases of which a degree or award was conferred on an earlier occasion on this or any other candidate.

**Place: Mekelle**

**Date: May, 2011**

**Signature:**

**Signature:**

**Abebe Ejigu, PhD Candidate**  
**Department of Management**  
**College of Business & Economics**  
**Mekelle University**

**Gebreyohannes Gebreslassie (MPP)**  
**Department of Management**  
**College of Business & Economics**  
**Mekelle University**

# ACKNOWLEDGEMENT

Wow! It gives me mammoth pleasure to acknowledge for those who have contributed in successful completion of the thesis. I am forever indebted to all those who gave me valuable suggestions, enthusiasms, stimulating ideas, constructive comments and encouragements throughout the thesis.

First and foremost I would like to praise almighty and ultimate God, for every blessing and entire gift that he enriches me with in my entire life.

Just as much, I would like to forward my deepest and sincere gratitude to my principal advisor Abebe Ejigu (PhD Candidate) and co-advisor Gebreyohannes Gebreslassie (MPP) for their invaluable advice, constructive suggestions and unreserved assistance which made me vigorous and successful person in completing the thesis. This thesis work would not have been possible without their splendid support, guidance, and encouragement. “*Thank you*” is not enough to my esteemed principal advisor and honoured co-advisor but it is better means of appreciation; had it been more than “*thank you*” both my principal and co-advisor would be the only to have it. All errors are, however, mine.

Equally important, my gratitude goes to all respondents of my research questionnaire and interview. Without their information and cooperation this thesis would not have been completed. Besides, I am also thankful to my beloved friends Mehari Hiluf and Shewit Kinfu for their time and valuable comments.

This two years study at Mekelle University made a batch with different backgrounds which gave me an unforgettable memory in my life. I wish I would never forget the batch which I had with my fellow students at the university. I always miss everything that we used to do in class and out of class. Besides, I would like to appreciate my lovely friends who have munificently shared their ideas with me, more encouragement and support they have given to me. You are so special I love you guys!

Last but not least, my heartfelt gratitude goes to my family and relatives without their support, encouragement and advice I would not be the person who I am now. Thank you all!

Fillmon Terefe  
May, 2011  
Mekelle, Ethiopia

# ABSTRACT

*Informalization of work arrangement is powerful global economic force that affects billions of people, especially in poor countries which its presence is overwhelmingly obvious in many cities of Africa or South Asia where millions of people, caught in vicious circles of poverty and powerlessness, struggle to survive, hawking single cigarettes, cheap watches or small food items etc. therefore, the study entitled “the role of informal sector on household livelihood :survey of street vendors in Mekelle city” circulates around the key issue of informal sector and livelihood. To scrutinize the role of the sector in the city, the study used 150 randomly selected sample street vendors from three market centers. In order together the necessary data from the sample street vendors, questionnaire and interview were used as research instrument tools. In light of this, descriptive statistics was employed to analyze the data obtained through questionnaire. The study finding indicates that street vending is crucial armed force in fighting and reducing the extent and intensity of poverty in general. Besides, the vendors’ livelihood assets were improved significantly. More specifically, the income welfare and saving of those who joined street vending has increased by 166% and 202% from their prior income and saving respectively. Moreover, the paper suggests further research area in the topic by believing that the study is not alpha and omega in the area.*

*Keywords: Informal Sector, Role, Street Vending, Livelihood, Livelihood Assets, Mekelle City*

# TABLE OF CONTENTS

<b>Contents</b>	<b>Page</b>
Declaration	
Certification	
Acknowledgment.....	iii
Abstract.....	iv
Table of Contents.....	v
List of Tables .....	ix
List of Figures .....	x
Abbreviations.....	xi
<b>CHAPTER ONE</b> .....	1
<b>INTRODUCTION</b> .....	1
1.1. Background of the Study.....	1
1.1.1 Historical Development of Informal Economy .....	1
1.2 Statement of the Problem.....	5
1.4 Objectives of the Study .....	8
1.4.1 General Objective.....	8
1.4.2 Specific Objectives.....	8
1.5 Significance of the Study .....	8
1.6 Scope of the Study .....	9
1.7 Limitation of the Study .....	9
1. 8 Organization of the Paper.....	10

<b>CHAPTER TWO</b> .....	11
<b>REVIEW OF RELATED LITERATURE</b> .....	11
2.1 Urban Informal Economy Nature and Definition.....	11
i) Underground production .....	12
ii) Illegal production .....	12
2.2 Synopsis of Conceptual Review .....	14
2.3 Theories of Informal Sector in Less Developed Countries .....	16
i) Structural Underemployment .....	16
ii) Inadequate Institutional Framework .....	17
iii) Micro-enterprise .....	17
2.4 Role of The Informal Sector.....	19
2.5 Theories on Petty Trading and Economic Dualism.....	21
2.6 Self-Employment and Street Vending .....	23
2.6.1 Types of Self-employment.....	23
2.7 Review of Literature on Street Vendors .....	24
2.7.1 Types of Street Vending .....	25
2.8 How Does Informality Affect Economic Growth?.....	26
2.9 Livelihood .....	30
2.9.1 Capital Assets .....	32
i) Human capital.....	32
ii) Social capital .....	32
iii) Natural capital .....	32
iv) Physical capital .....	32
v) Financial capital .....	32
2.9.1 Vulnerability Context .....	33
2.9.3 Policies and Institutions.....	33
2.9.4 Livelihood Strategies and Outcomes.....	34
2.10 Synopsis of Previous Empirical Studies .....	35

<b>CHAPTER THREE</b> .....	39
<b>DATA SOURCE AND METHODOLOGY</b> .....	39
3.1 Study Area and Population.....	39
3.1.1 Description of the Study Site .....	39
3.1.2 Introduction to Mekelle City.....	40
i. Naming of the city.....	40
ii. Establishment .....	40
iii. Demographics .....	40
3.2 Data Sources.....	41
3.2.1 Primary Sources of Data.....	41
3.2.2 Secondary Sources of Data.....	42
3.3 Methods of Data Collection .....	42
3.4 Sampling Technique and Sample Size Determination .....	43
3.4.1 Sampling Technique.....	43
3.4.2 Sample Size.....	44
3.5. Method of Data Analysis .....	46
<b>CHAPTER FOUR</b> .....	47
<b>RESULTS AND DISCUSSIONS</b> .....	47
4.1 Demographic Characteristics of the Street Vendors.....	48
4.1.1 Business Type and Sex.....	48
4.1.2 Business Type and Age .....	49
4.1.3 Business Type and Education .....	50
4.1.4 Business Type and Family Size .....	52
4.1.5 Business Type and Marital Status .....	53
4.2 Business Start up and Street Vending.....	54
4.2.1 Reasons for Business Start Up.....	54
4.2.2 Start up Capital.....	55
4.2.3 Source of Capital in Street Vending.....	56
4.2.4 Source of Income .....	57
4.3 Livelihood Before and After Joining Street Vending .....	57



4.3.1 Economic Status of the Vendors .....	58
4.3.2 Meals Served Per Day .....	59
4.3.3 Livelihood and Physical Capital Before and After Street Vending .....	60
4.3.3.1 Physical Capital - Household Commodities .....	60
4.3.3.2 Physical Capital- Utilities .....	66
4.6.3 Livelihood and Financial Capital before Street Vending .....	68
4.6.4 Livelihood and Human Capital before Street Vending .....	71
4.6.5 Livelihood and Social Capital before Street Vending.....	73
4.8 Change in Livelihood.....	75
4.9 Expectation of the Vendors on Street Vending .....	77
4.10 Attitude towards Others about Street Vending.....	78
4.11 Problems of Street Vending .....	81
4.12 Overall Evaluation by Vendors to Street Vending .....	83
<b>CHAPTER FIVE.....</b>	<b>85</b>
<b>CONCLUSION AND RECOMMENDATION .....</b>	<b>85</b>
5.1 Conclusions .....	85
5.2 Recommendations.....	88
5.3 Policy Implication.....	89
5.4 Further Research Area .....	89
<b>BIBLIOGRAPHY .....</b>	<b>90</b>
<b>ANNEXES .....</b>	<b>98</b>
ANNEX A.....	99
QUESTIONNAIRE PREPARED FOR STREET VENDORS.....	99
ANNEX B .....	109
AVERAGE MONTHLY EXPENDITURE ON WATER, TELEPHONE, ELECTRICITY AND TRANSPORTATION .....	109
ANNEX C .....	111
RESULTS OF T-TEST .....	111

## LIST OF TABLES

Table 4.1 Sex composition of the street vendors.....	49
Table 4.2 Education level of the vendors.....	51
Table 4.3 Average family size.....	53
Table 4.4 Marital statuses of the street vendors.....	54
Table 4.5: Reasons for start up.....	55
Table 4.6 Other source of income.....	58
Table 4.7 Economic statuses of the vendors before and after the business.....	59
Table 4.8 Meals served per day before and after the business.....	60
Table 4.9 Physical capital- household commodities before and after the business.....	61
Table 4.10 Physical capital-household commodities before and after the business.....	63
Table 4.11 Physical capital-utilities prior to the business.....	66
Table4.12 Average monthly income and saving before joining the business.....	67
Table 4.13 Average monthly expenditure on food, health and education.....	70
Table 4.15 Social capital-Equib, Edir and relationship with neighbourhood.....	72
Table 4.16 Change in livelihood.....	74
Table 4.17 Expectation of the vendors on street vending.....	76
Table 4.18 Attitude of the vendors towards others.....	77
Table 4.19 Problems of street vending.....	80
Table 4.20 Overall evaluations of the vendors.....	82

# LIST OF FIGURES

Figure 2.1: The Sustainable livelihoods framework.....	32
Figure 3.1 Conceptual framework.....	39
Figure 4.1 Age of the street vendors.....	50
Figure 4.2: Percentage of street vendor’s literacy level.....	52
Figure 4.3: Family size of the street vendors.....	53
Figure 4.4 Start up capital of the vendors.....	56
Figure 4.5 Source of capital.....	57
Figure 4.6: Average monthly income before and after the business.....	69
Figure 4.7: Average monthly saving before and after the business.....	69
Figure 4.8: Average monthly expenditure on food, health and education before and after the business.....	71
Figure 4.9: Relationship with neighbourhood, participation in Equib and Edir before and after the business.....	74

# AbbreviAtions

<b>BoFED</b>	Bureau of Finance and Economic Development
<b>CSA</b>	Central Statistical Authority
<b>ETB</b>	Ethiopian Birr
<b>HLCLEP</b>	High Level Commission on the Legal Empowerment of the Poor
<b>IDB</b>	Inter-American Development Bank
<b>ILO</b>	International Labour Office
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>SSA</b>	Sub Saharan Countries
<b>USD</b>	United States Dollar
<b>WB</b>	World Bank

# CHAPTER ONE

## INTRODUCTION

---

*In this first chapter of the paper, the bird's eye view of the overall study is provided. It starts with presentation of brief historical development of the sector followed by background of the study, statement of the problem, general and specific objectives of the study. Moreover, there is a section that discusses the significance of the study and a section that sets out the scope of the study with the range of limitations faced while conducting the study. Finally, organization of the paper is outlined, which enables readers to have general picture and structural organization of the whole paper.*

---

### **1.1. Background of the Study**

#### **1.1.1 Historical Development of Informal Economy**

The historical development of informal economic activities dates back to the existence of formal economic activities in the early ages of human civilization. Evidences from Anthropology and Archaeology sturdily advocate that people of all societies regularly adjust their activities within economic framework in an attempt to escape from regulations. Therefore, it was at least at the age of summer (inhabitants of southern Mesopotamia) when governments started formalization (regulation) of their economy so as to exploit the surplus wealth that existed in the economy.

Although the informal economic activities are as old as the formal economic activities, the term informal sector (economy) is much more recent phenomenon. Nowadays, the informal dimension of the formal economic activity under the term informal economy (sector) is defined *as a way of doing things characterized by unregulated activities*. Hence, archaeologists and anthropologists sturdily argue that informal economic activities are as old as their formal counterparts because of the unregulated and regulated dichotomy.

It was Anthropologists and Archaeologists that considered first the existence of such activities. However, it was in 1950s and 1960s the informal dimensions of economic activities became widely recognized and were accepted by economists as important thematic area of research (Gouldner, 1954; Blau and Scott, 1963; Gerxhani, 2003).

It was 1971 when Keith Hart wrote “*small scale entrepreneurs in Ghana and development planning*” introduced the notion of informal sector to describe a part of urban labour force which works outside the formal labour market (Gerxhani, 2003). Despite the fact that, the early study by hart, the pioneering research on the informal sector is widely considered to be a report of International Labour Organization office (Gerxhani, 2003).

Informal sector which is defined as “*a way of doing things*” characterised by various factors such as “*small scale, low resource base and entry barriers, family ownership, labour intensive methods of production and adapted technology, skills acquired outside the formal sector and unregulated and competitive markets*” (ILO, 1972). Different studies conducted on informal sector by different scholars show that Informal sector is a significant contributor to production, consumption, employment, and income generation of many people in developing countries (OECD, 2002; Pant D. *et al.*, 2009; Joshi *et al.*, 2009; CUTS International, 2009).

Informal sector is the most important survival strategy for the urban poor, unskilled, and socially marginalized people. Moreover, it is an important means of survival for majority of people who lack proper social safety nets and unemployment insurance especially those who are discriminated from formal sector jobs as a result of lack of skill and capabilities. In addition to the major source of employment, the sector is significant contributor to the production of most developing countries.

According to Becker (2004),” *informal sector in different regions of the world shows that the non-agricultural employment share of the informal workforce is 78% in Africa, 57% in Latin America and the Caribbean, and 45–85% in Asia. In all developing countries, self-employment comprises a greater share of informal employment than wage employment. Specifically, self-employment represents 70% of informal employment in Sub-Saharan Africa (if South Africa is excluded, the share is 81%), 62% in North Africa, 60% in Latin America and 59% in Asia. Consequently, informal wage employment in the developing world constitutes 30 to 40% of the informal employment outside of agriculture”.*

The role of informal sector is not limited to developing countries only, but also contributes even to the most developed countries’ economies. Estimates about the sector in most developed countries show that, it contributes 5-10 percent of the national economies of United Kingdom and United States, 30 percent in Italy and 50 percent in Russia (Gottdiener and Budd, 2005; Prasda, 2007). The share and contribution of the sector to formal economy is noteworthy having a lion share of total trade employment 96% in India, 93% in Indonesia, and 73% in Philippines (Bhowmik, 2005; Prasda, 2007).

According to High Level Commission on the Legal Empowerment of the Poor, the history of informal sector in Ethiopia dates back to 1970s when the socialist regime which followed a centrally planned economic system introduced excessive government interventions and controls such as Cumbersome rules and regulations, bureaucratic red-tape, costly administrative and legal requirements to obtain trading license etc. that discouraged the participation of law abiding citizens in the formal sector and contributed to the expansion of the informal sector.

To overcome the economic crisis in urban areas, some residents created various self-support schemes to survive, the major ones being trade in the informal sector. As the absorption capacity of the formal sector in Ethiopia is limited, the urban informal sector would assume even greater importance. Considering the high living costs in major urban areas, most urban residents resort to informal sources to acquire additional income.

The informal sector, therefore, has been an important source of supplemental income not only for the unemployed and destitute but also for the urban wage earners who found their salaries depressed as a result of the fall in real incomes (HLCLEP, 2006).

As the socialist Derg regime implemented extensive nationalization of private property, the previously existing private sector almost came to a complete halt. This led to a boom of informal sector activities. The informal market was marginalized and even brutally discouraged. After the change of government in Ethiopia in 1991, several policies were formulated and regulations promulgated relating to diverse social, economic and political issue. Policies and institutional developments that aim at providing minimum biases against the informal sector and also at stimulating various initiatives to support the promotion of the sector were adopted (Ibid).

In today's context of economic scenario [as associated to privatization and liberalization] informal sector has taken a new role of employment generation and crucial source of alternative income for large number of households, as a result of substantial decline in formal employment. Aside from its significance as income and employment provider for millions of households, the sector is also a breeding ground of entrepreneurs too, which could flourish if not encountered with a multitude of troubles and uncertainties.

In Mekelle city, a large number of street vendors about 7000 people are earning their livelihoods on the street. Most of the people that are vending in the streets of the city are characterised by low skill, low investment capital and lack of formal employment opportunity. Those people tend to work in the sector particularly in street vending because there are no options available for them than vending on the street and getting survival of their livelihood. Thus, for those people, both men and women, street vending is the best survival strategy for their livelihood.



## 1.2 Statement of the Problem

Nowadays, because of factors like privatization, liberalization and decline in absorption of formal sectoral jobs, Ethiopia like many other sub-Saharan countries has a very dynamic growing of informal sector. Like in many other developing countries, the scope of poverty in Ethiopia is direct consequence of restricted employment and income opportunities. Hence, the population opts to informal means of work arrangement so as to boost and solve employment and income problems within their respective household. It is thus not miracle and surprising that in Ethiopia, 50.6% of urban employed are in the informal sector (CSA 2003).

In times when there are no sufficient job opportunities, informal sector is the only most survival strategy for majority of urban poor. It is the most and significant contributor to national economies of different countries. Therefore, this sector is crucial element of national economies for numerous reasons. It provides cheap goods and services to customers; it plays the role of a reservoir of the individual reserve army that holds down ways for the formal sector of the urban economy (Gottdiener and Budd, 2005; Prasad, 2007) and finally, it provides opportunities for earning income to the indigenous city residents and poor migrants (Prasda, 2007).

Street vending is crucial source of income and employment for urban poor and plays significant role in reducing the extent and intensity of poverty. As Nirathron stated;

“A cursory view of cities with brisk street vending activities shows that this economic activity is a veritable sponge that can absorb a large number of surplus labour, besides the Increasing recognition of the role of the informal economy in developing countries has brought an acknowledgement of the role of street vending in terms of creating employment, and a critical subsistence income for the urban poor” (Nirathron, 2006; p. 3).

Different research conducted on street vending informal business activities in different countries like Botswana, Mexico, Cambodia, Mongolia, Bangkok, Thailand, Vietnam, Lesotho etc. Show that street vending plays significant role in changing the livelihood of people and alleviating poverty by creating employment and income generating activities.

*Informalization of work arrangements is a powerful global economic force that affects billions of people, especially in poor countries which its presence is overwhelmingly obvious in the many cities of Africa or South Asia where millions of people, caught in vicious circles of poverty and powerlessness, struggle to survive, hawking single cigarettes, cheap watches or small food items (Edgcomb, and Thetford; 2004; p.12).*

In Tigray region the growth of informal sector particularly in the current regime is dynamic. When we look at the growth of the sector from the year 2008-2010; there were only 74,000 people engaged in the sector in the year 2008. In the year 2009 the number of people engaged in the sector was increased to 84,416 of this number 45,571 were female and the remaining 38,845 were male. It was in the year 2010 that the sector showed substantial increment from the previous increment. According to the city's report regarding the sector in the year 2010 there were 109, 712 which showed an increment of 23,296 people engaged in the sector (Bureau of Urban Development and Industry, 2010).

Informal sector is a source of livelihood and employment for a large number of people in Mekelle city. According to the city's informal sector report there were only 2,981 people engaged in the sector before 1998. The number of people engaged in the sector was increased by 1,291 in the year 1998-2003. In the year 2004-2009 the number of people engaged in the sector was increased by four times from the year 1998-2003. According to the report from the micro and small enterprises bureau in the year 2009 there were 16,898 people who were engaged in the sector to earn income to fulfill their day to day needs.

The fact that Informal Sector offers a cushion to employees throughout economic crisis, the advantages of informal employment might not be sufficient to realize an appropriate customary of living, as informal employment rarely comes with social protection, smart operating conditions and adequate wages. *It is necessary that efforts to alleviate poverty must be focused to the contributions, needs and constraints faced by the working poor in the informal economy generally and street vending particularly.*

It is obvious that in today's context of economic scenario where formal employment has declined and also the Informal Sector has taken on an alternate role of employment generation and important supply of other income for several households. As part of the informal sector street vending is providing job opportunity for about 7000 people in the city. The number of people participating in street vending is increasing because of, lack of formal wage employment, rapid urbanization, lack of capital to enter formal sectors, rural-urban migration etc.

Cognizant of the factors and the increment of street vendors from time to time in the city, to the best of the researcher's knowledge no research has been conducted in the city regarding the street vendors. Therefore, exploring the role of the sector particularly street vending activities on the livelihood of the people is quite fundamental. Therefore, this paper examines the role of informal sector particularly street vending business activities on household livelihood in Mekelle, by addressing the following points.

### **1.3 Research Questions**

1. What are the determinant factors to participate in the informal sector/street vending?
2. What change does informal sector/street vending bring to people's livelihood?
3. What are the factors that affect the informal sector/street vending activities?
4. What are the expectations of the street vendors on street vending?

## **1.4 Objective of the Study**

### **1.4.1 General Objective**

The general objective of the study was to examine the role of informal sector particularly street vending business activities in income generation and sustainable household livelihood.

### **1.4.2 Specific Objectives**

The Specific objectives of the study were;

1. To identify the reasons why people join (participate) informal sector/street vending
2. To examine the contribution of the informal sector/street vending to people's livelihood
3. To identify factors that affect the vendors in the vending environment
4. To identify expectation of the vendors on street vending

## **1.5 Significance of the Study**

The study has significant use for the researcher and the city under study. For me the researcher, it serves as an avenue for relating my academic knowledge with what is really going on in the real world by supporting the theoretical knowledge via actual practices of the people in the city.

Thirdly, the study has a noteworthy use for clarifying about views of the sector. Generally, the views regarding the sector can be categorized into two. The dark view interprets the sector as unproductive and illegal where as the other view which is the bright view associates the sector as productive and veritable sponge that can absorb a large number of surplus labours. Thus; the study will provide better information for federal and regional decision makers about some of the suppressed aspects of the sector particularly street vending.

Furthermore, the research findings and recommendations provided can serve as an indicator of major gaps and with this the concerned bodies can take remedial action (solutions) towards better achievement of the economic growth. Hence, street vending will contribute its share to development of the country so that synergetic effect of different sectors will help realise growth and transformation plan.

## **1.6 Scope of the Study**

This paper encompasses the broadest and most interesting aspect of economic activity which is known as informal sector (informal economy). From this broadest economic activity the study selected one aspect of informal sector i.e. street vending and devoted to scrutinize the role of informal sector on household livelihood: by giving emphasis on street vendors in Mekelle city.

The study also limited its geographic boundary to Federal Democratic Republic of Ethiopia, Tigray Regional State, and Mekelle city by taking three market centers i.e. *Kebelle 11 market, Kebelle 17 market and Sunday market* in which street vending activities are highly entertained.

Furthermore, to identify and investigate all aspects of street vending and livelihoods it would demand extensive research, much more time, finance, energy, resource and sufficient information. But this study is confined to the role of street vending on household livelihood by assessing their livelihood assets which encompassed four livelihood assets; physical capital (Household commodities and utilities), financial capital (income and saving), human capital (expenditures on food, health and education) and social capital (participation in Equib, Edir and relationship with their neighbourhood).

## **1.7 Limitation of the Study**

It is obvious that informal sector by its nature is broad that encompasses a number of unregistered and unlicensed activities. Besides, its broadest nature, it demands much more time, resource and energy to scrutinize the role of the sector. Though the researcher exerted at most effort to scrutinize role of the sector, however, the research was not free from limitations and hence, some of the limitations of the study were;

1. Informal sector in this study is limited to street vending only, therefore, it doesn't show other activities in the informal sector.
2. The sample was confined to 150 respondents with very limited street vending activities
3. The data was cross sectional data therefore, it doesn't show the trend of street vending but gives snap shoot of street vending
4. The data analysis method is confined to descriptive statistics.

Besides, Livelihood situations of the street vendors were addressed using **capital assets** (human, physical, financial and social capital), **livelihood strategies** (street vending) and **livelihood outcomes** (Income level stability, meals served per day, economic status and well-being). Therefore, the study doesn't show natural capital asset, agricultural livelihood strategies. Besides, **vulnerability context** and **policies and institutions structures** of sustainable livelihood framework elements were not addressed.

However, despite the above shortcomings the study that the researcher hopes came up with some important findings and possible suggestions that give better information for concerned bodies and clarifies the buried aspects of the sector particularly street vending.

## **1. 8 Organization of the Paper**

The paper is organized in five chapters. The first chapter elucidates background of the study, statement of the problem, objective of the study, significance of the study, scope and limitation of the study which are the introduction part of the paper. In which the remaining parts of the research report are structured in four chapters. The second chapter provides the synopsis of related theoretical and empirical literature while the third chapter provides the methodology pursued in answering the research questions. The fourth chapter on the other hand presents the empirical data collected and briefs out its results, analysis and discussions. The final chapter concludes the results and forwards recommendations based on the findings of the study.

# CHAPTER TWO

## REVIEW OF RELATED LITERATURE

---

*The current chapter, chapter two, entitled “Review of Related Literatures” is designed in a way that could introduce, summarize and lay down the bases for the theoretical and empirical literatures on informal sector, street vending and livelihood. The first sub-section of the chapter elucidates urban informal sector nature and definition, synopsis of conceptual review, role of informal sector; followed by a section that briefs out theories on petty trading and economic dualism, Self-employment and street vending and types of street vending and about how does informal sector affect informal growth. The chapter also encloses a section that details about livelihood and livelihood assets. Furthermore, it sheds light on previous empirical studies pertinent to the topic.*

---

### **2.1 Urban Informal Economy Nature and Definition**

Generally the views regarding the sector can be categorized into two. The dark view interprets the sector as unproductive and illegal where as the other view which is the bright view which associates the sector as productive and veritable sponge that can absorb a large number of surplus labours. Sometimes informal economy by economists, government agents, researchers etc. to some extent is associated with dark view, since the sector is dominated by low skilled, poor and vulnerable people, low investment capital and unregulated business activities. Hence, it is referred to as the non-observed economy. However, it is better to note that informal economy is only a component of non-observed economy.

According to CUTS center for international trade economics and environment (2009) informal economy is distinguished from underground and illegal production activities.

- i) **Underground production:** activities are legally not forbidden but are intentionally hidden from public authorities with the objective of evading tax and social security payments as well as to avoid bureaucratic procedures and regulatory compliance (CUTS 2009, p. 2).
- ii) **Illegal production:** activities are those that are ‘forbidden by law’ or become illegal when undertaken by unauthorised individuals. Underground production is illegal as it involves non-compliance with administrative rules, while ‘illegal production’ is associated with criminal behaviour (CUTS, 2009, p. 2). For example, drugs and narcotic production and trafficking, production of certain explosives, production and distribution of counterfeit goods, and services such as unlicensed medical practice.

In addition to the above definition of informal sector different scholars defined differently based on different criteria. In comparison with formal sector, Reddy et al (2002) defines informal sector interns of technology capital, employment etc as:

“In contrast to the formal sector, the informal sector is generally characterised by low entry barriers and ease of entry, reliance on indigenous/local resources, family ownership of the enterprises, simple organisational and production structures, small scale of the operations, labour intensive and adapted low technology, low level of education and skills, skills acquired outside the formal system of education and training, unregulated and competitive markets, little capital investment, self employment with little or no wage labour or family labour, family based management system, traditional pre-modern method of production, lack of institutional support, personal sources of funds for investment , irregular working hours, and small inventories (Reddy et al., 2005, p. 133) ”.



According to International Labour Office (2000) adopted by the 15th International Conference of Labour Statisticians (ICLS) defined informal sector in very detail manner but in this Part some aspects of the definition are excluded.

Definition of the Informal Sector based on 15 <sup>th</sup> ICLS
<p><b>Concept:</b>            “Units engaged in the production of goods and services with the primary objective of generating employment and incomes to the persons involved”.</p> <p><i>Characteristics of production units:</i> “typically operate at a low level of organisation; with little or no division between labour and capital as factors of production and on a small scale; labour relations – when they exist – are based mostly on casual employment, kinship or personal/social relations rather than contractual arrangements with formal guarantees”.</p> <p><b>Criteria for Identification:</b></p> <p>(i) Subset of the Household sector</p> <ul style="list-style-type: none"> <li>✓ Absence of legal organisation (unincorporated enterprises)</li> <li>✓ Absence of separate complete accounts</li> </ul> <p>(ii) Household unincorporated enterprises by two types of employment:</p> <ul style="list-style-type: none"> <li>✓ <i>Informal own-account enterprises:</i> enterprises run by own account owners, family workers which do not employ on a continuous basis</li> <li>✓ <i>Enterprises of Informal employers:</i> enterprises where at least one employee is employed on a continuous basis; these enterprises are further classified on the basis of:               <ul style="list-style-type: none"> <li>➤ Size of unit below a certain threshold level of employment</li> <li>➤ Non-registration of enterprise and/or</li> <li>➤ Non-registration of employees in an enterprise</li> </ul> </li> </ul> <p>(iii) Market Production: At least some production is destined for sale or barter</p> <p>(iv) Economic Activity: Non-agricultural activity including units in the secondary agricultural sector</p> <p><b>Excluded from the Informal Sector:</b> Household enterprises that</p> <ul style="list-style-type: none"> <li>(i) Produce goods for own final use (non-market production)</li> <li>(ii) Produce services employing paid domestic workers</li> <li>(iii) Engage exclusively in agricultural activities</li> </ul>
<p>Note: Various aspects are also included            Source: International labour office (2000)</p>

## 2.2 Synopsis of Conceptual Review

Scholars on urban economy of developing countries have divided the urban sector into two parallel sectors which are known as informal sector/economy which includes the subsistence or non wage sector and formal sector which includes modern or industrial wage sector (Reddy et al. 2002).

The distinguishing feature to say modern and traditional sector used by different scholars was the degree of factor substitutability. Since, modern sector are constrained by modern technology and reveals that lack of factor substitutability while the traditional sector constrained by low level of technology was characterised by perfect factor substitutability (Higgins, 1968). On Higgins foundation of modern and traditional sector, Clifford Geertz, postulated the dualistic structure comprises a “firm sector” as well as “bazaar sector”, each of which are characterized and presented distinct mode of production. Nowadays, the traditional sector as Higgins and “bazaar” economy as Geertz is popularly known as informal sector (economy).

In view of the fact that, the introduction of the term informal sector by International Labour Office in 1972, the sector has been receiving much more attention from economists, policy makers, practitioners, social scientists etc. as separate economic activity and distinct socio-economic unit. *However, the debate over what comprises the formal and what the informal sector (economy) is still far from resolved.* Nevertheless generally, it is known and defined that the formal sector includes enterprises or firms (government and private) that are registered, nurtured, regulated by the state and have official recognition from concerned bodies (government).

Contrary, to the definition given by scholars to formal sector, informal sector is defined and comprises operations outside the regulations of governments. Furthermore, it is far more from access to credit, state subsidies, or other forms of state and institutional support or control. Besides, the sector has superior capacity and is considered as a veritable sponge that can absorb a significant proportion of labour force and provides a means for income generating activities.

The increasing contribution of informal sector to economic development by fulfilling certain tasks, there exist the linkages between formal and informal sectors (Weeks, 1975). One common example that explains the relationship between the two sectors is the dependency of sub-contractors on informal sector to carry out their production deals. However, researchers like Fidler and Webster (1996) found that informal sector in the context of Latin America, incorporated illegal production activities by individuals for the purpose of evading regulatory burdens and taxation.

So hugely it is found that the sector (informal sector) consists of households of destitute urban inhabitants, in most cases in developing countries (third world countries). Substantial section of the sector has got common root and characteristics of abject poverty, poor education, insecurity of land tenure, lack of social security and institutional support, weak and less coordinated organizations. It emerges from the inability of modern sector (formal sector) to absorb the available work force and thereby, increases the availability of unemployed productive labour force.

*Indeed, the dualistic theorists had argued that if the traditional sector was rising, it would lead to shared poverty, meaning that an increasing number of workers would be absorbed in the relatively inefficient traditional sector, thereby reducing the average and marginal products of labour in this sector. On average, then, a progressively increasing number of people would tend to share a less rapidly rising output (Ready et al., 2002, p.132).*

## 2.3 Theories of Informal Sector in Less Developed Countries

According to Beatriz (2001), literature regarding informal sector can be classified in to two categories

1. **Traditional literature:** are those literatures on informal sector (probably literatures on the sector pre 1990's) which are in line with a "dark view" and associate the informal sector with poor, unproductive, and marginalized workers.
2. **Modern literature:** are those literatures on the informal sector particularly (informal sector literature of the 1990's) show and associate the sector a "brighter" side, which is the business initiative and income generating capabilities of informal microenterprises.

Hence, the nature and behavioural differences of segments with in informal sector results in different views about informal sector. In fact, the value of the dichotomy formal informal is currently questioned.

According to Maldonado (1995) the main theories of informal sector that elucidate the development of informal sector in less developed countries are classified:

- Structural Underemployment
- Inadequate Institutional Framework
- Micro-enterprise

i) **Structural Underemployment:** this theory on informal sector argued that Informalization of work arrangements expand due to continuous decline in natural resources prices (in response to contractions of aggregate demand) or a as a result of stagnant aggregate demand while there is persistent increase of labour supply. According to this theoretical view, the informal sector has low productivity because is basically disguised unemployment. Furthermore, get rid of labour regulations would not necessarily increase formal employment or obedience by microenterprises. On the contrary, the reduction of informality can be achieved through policies that stimulate domestic aggregate demand and the reduction of natural resource dependency (Beatriz, 2001).

- ii) **Inadequate Institutional Framework:** in some countries business registration procedures are costly and cumbersome, taxation system is heavy and labour regulation is unreachable. Small entrepreneurs' initiatives due to the above factors will be limited. Moreover, According to this theoretical view, to improve conditions in the labour market it is necessary to eliminate some of the entry barriers to the formal sector of economy (Beatriz, 2001).
  
- iii) **Micro-enterprise:** This view supposes a change in the unit of scrutiny. Instead of using the informal worker, it uses the informal firm (even if it is a one-person firm). Formality levels vary significantly among small firms. Generally, micro-enterprises make cost and benefits analysis of becoming part of the formal sector. The costs that micro enterprises evaluate before engaging in the informal sector are: labour costs, duty payments (taxes), registration and license payments, errand waiting time etc. in line with the costs they also evaluate the benefits like, smart working environment, more access to credit, more access to infrastructural (public and private) services etc. associated with the business. On the other hand, the most crucial gain being in the informal sector is to avoid non-compliance punishment.

Organizations like OECD (Organization for Economic Cooperation and Development) and other multilateral organizations such as the World Bank (WB) and the Inter-American Development Bank (IDB) have supported and adopted micro-economic with the view point of micro-enterprises can increase notably their productivity with better access to technology, capital, and training and formalization hence, can be a poverty reduction tool.

Empirically, in addition to the fourth theoretical view which sees informal as a social exclusion problem. The above three theoretical views on informal sector complement each other. The underemployment view underlines that there is direct relationship between informalization of work arrangement and poverty. The other theory on informal sector is Inadequate Institutional Framework argues that when informal sector absorbs excess supply at relatively lower wages and could earn more if regulation were not in place than the formal sector which does not directly imply that informal workers are poor. The third theoretical view is Micro-enterprise which underlines optimistically given the heterogeneous nature of the activities in the informal sector, it considers informal activities as a potential development cells than necessarily cause of poverty (ibid).

The above views discussed also differ in their responses to the fundamental question:

1. Do workers actually opt to be in the informal sector because it is the best option or they lack formal wage employment opportunity? Only Micro-enterprise which views informal sector as a group of micro-entities argued that informal sector is the right and rational choice.
  2. The aim and scope of the public policy implications of the above discussed theoretical views also differ from one another as they have different views about the sector.
- ✗ **Structural underemployment** theory of informal sector argues that it is necessary to increase the size of the formal sector by all means, even through public sector employment.
  - ✗ According to the **inadequate regulation framework** tax and labour legislation costs should be reduced as well as the legal procedures for starting a firm.
  - ✗ Finally, the **micro-enterprise** view suggests that informal productivity can be encouraged through micro-lending, training, cooperative organization, and technological transfers.

## 2.4 Role of The Informal Sector

Informal sector has significant role to the economies of developing countries in terms of income generation and employment opportunity for the poor. Some of the roles of the sector particularly to poor include;

- It provides employment opportunity to the poor and socially marginalized people absorbing some of the labour force that cannot find wage employment in the formal sector. Furthermore it plays a crucial role as supplementary role in employment and income generation as well as a complementary role in the provision of goods and services (Reddy et al, 2002).

According to Fidler and Webster (1996), the urban informal sector is a major provider of employment and income to three categories of socio-economic groups in urban areas:

1. **Survivalists**- very poor people who work part-time in income generating activities,
2. **Self-employed**-who produce goods for sale, purchase goods for resale or offer services,
3. **Very small businesses**- micro-enterprises that usually operate from a fixed location with more or less regular hours.

From these role classifications in Mekelle city the role of the sector is predominantly characterized by self- employed and small business but survivalist type of group in the city are insignificant in number almost none.

*“The Save the Children's Fund and a few other NGOs argue that the informal sector can build markets, expand trade, manage natural resources, fight poverty, generate employment, strengthen communities, support families and feed most of the world's children. The sector also utilises waste materials such as old tyres, metal, disposed equipment, etc. to produce goods some of which otherwise would have been imported, and to provide services which could be too expensive for low income earners”.*

On the other hand, the expectation of migrants on urban areas and the actual opportunity may negatively relate. As a result of this, the role of informal sector particularly urban informal sector can negatively affect the urban dwellers by engaging the migrants in crime and other unlawful activities. Furthermore, due to the raising urban population resulting from these expectations may lead to urban environmental problems because sudden influx of the rising population which could be beyond the capacity to handle by the urban system (Reddy et al, 2002).

The proportion of urban employment accounted for by the informal sector in developing countries varies widely. Studies reveal that the share of the urban labour force engaged in informal sector activities ranges from 20 to 70 percent, the average being around 50 percent (Todaro, 1994: 253). The proportion of informal sector employment to the total urban employment is highest in Africa followed by Asia, Latin America and the Caribbean (ILO, 1999). Estimates in some South East Asian and South Asian cities put the share of informal employment to the total workforce at around 50 to 60 percent (Ibid).



## 2.5 Theories on Petty Trading and Economic Dualism

Self-employment as a concept can be traced back from Karl Marx's discussion of "*petty commodity*" production. According to Marx, this type of production (petty commodity production), which is pre-capitalist, has low division of labour and little specialization. Petty commodity production was prevalent in the transition period from feudalism to capitalism (Scott, 1979). Since this mode of production utilizes family and relative labours force it is mere survivalist mode of production. Furthermore, capital accumulation is unthinkable since it is intended for social reproduction. Since the labour force utilization is limited to family and relatives, there could no surplus value extracted from wage labour.

Different studies on the economies of developing countries particularly post-war studies found that in most cities of developing countries, there were two systems of production: according to Geertz, (1963) the production systems are the "*bazaar economy*" and the "firm-centered economy". Generally, this dualistic model sheds light on the distinction between self employment and wage labour.

Since bazaar economy comprised larger proportion of low income people in cities of developing countries it was considered as disadvantaged sector. More importantly, the dualistic model also served as the foundation for the informal-formal sector of economic dualism by Keith Hart (Nirathron, 2006). Hart first coined the term "informal sector" in 1971 when he wrote "*small scale entrepreneurs in Ghana and development planning*" introduced the notion of informal sector before it was popularized by the International Labour Office Report on Kenya in 1972 (Harper, 1996, Nirathron, 2006). The proliferation of informal sector activities in developing countries in the 1960s was attributed to the employment crisis emerging from rapid population growth and limited employment opportunities (ibid).

Right from its existence of informal sector activities were regarded as trivial and insignificant. From that time onwards, different scholars and organizations defined informal sector. According to ILO (1991) informal sector was characterized by ease of entry, reliance on indigenous resources, family ownership, small scale production, use of labour-intensive technology, and facing competitive markets. During the transitional period of economy activities generally were characterized by low level of productivity, low sophistication of technology, and highly labour demanding production methods. Therefore, informal sector serves as a veritable sponge that absorbs surplus labour in the economies of developing countries.

In Africa Informal sector were recognized when huge labour force displacement was occurred as a result of high competition in international trade and structural adjustment programmes, leading to the proliferation of the sector (Meagher and Yunusa, 1996; Mishra, 1999). Global competition as a result Globalization made economies vulnerable; diversity in income generating activities became the most crucial survival strategy for household (Smith and Wallerstein, 1992).

Nowadays, informal sector activities are becoming as valuable economic endeavours not only because of their role in employment and income creation opportunities in the face of uncertainties but also because of their role in promoting entrepreneurship (McGee, 1996). It became apparent that economic dualism is no longer sufficient in explaining small self-employed activities. As economic arrangements become more flexible with globalization, linkages also increase between small economic activities and larger enterprises (Nirathron, 2006).

## 2.6 Self-Employment and Street Vending

### 2.6.1 Types of Self-employment

In comparison with wage employment, self-employment is characterized by one's ownership of the means of production. Self-employed persons are those who run their own businesses, alone, or in association with other owners (Nirathron, 2006). Self-employed workers most of the time appropriate the profits from the businesses and do not regularly employ paid (remunerated) workers (Scott, 1979).

According to Bromley and Gerry's (1979) classification of self-employment in third world cities can be conceived as a continuum across three categories:

**Disguised wage work.** This is a type of self-employment where the vendor works as a commissioned seller selling products of one firm or a few related firms. In many cases, vendors are supplied with equipment, credit, and raw materials.

**Dependent work** The vendor is dependent on one or more larger enterprises for credit, the rental of premises or equipment, a monopolistic or oligopolistic supply of materials or merchandise.

**True self-employment** The vendor works autonomously with considerable choice of suppliers and outlets. This classification draws out the diversity in street food vending and linkages between small vending activities and larger establishments.

Based on the above classifications of self-employment in Mekelle city almost all the vendors are characterised by true self employment.

## 2.7 Review of Literature on Street Vendors

Though different researchers have written on street vending that can address different aspects of street vending in different contexts and time, Kusakabe (2006), however, classified and grouped literatures on street vending into four.

*The first set* of literature highlights the economy of street vending, investigating how street vending is an crucial means of income for urban poor inhabitants (McGee, 1977; Iyenda, 2005); how it is a means of efficient services and provides better and cheap services for the poor urban dwellers (Yasmin, 1996; Tinker, 1997; Suriansyah, 2005); and how the income they get from street vending contributes to strengthen and enhance women's economic autonomy (Salway, et al. 2005; Mitra, 2005).

*The second set* of literature follows and expands the political economy perspective via an investigation on the meaning of street vending through an examination of the meaning of street vending, and an investigation of vending as an expression of motherhood (Babb, 1989; Seligman, 2001; Horn, 1994). This brings in the different ways in which women operate their businesses (Mintz, 1971; Tinker, 1997); as Tinker says, they grow like amoebas. Brenner (1998) described how women vendors are seen as a threat to men and are socially punished for going out of their homes where they traditionally belong.

*The third set* of literature highlights the street vendors are important members of Self Employed Women's Association (Bhowmik, 2005).

*The fourth set* of literature offers a different perspective and is seen more in the context of developed countries. It seeks to examine the relationship between street vending and the use of urban space, and looks at how street vending can revitalise urban spaces and bring life to human activities (Deguchi et al., 2005). When this perspective is applied in the context of a developed country, it often translates into beautification of the city using vendors as tourist attractions.

### 2.7.1 Types of Street Vending

Street vending is a kind of vending strategy where by people sale goods or provides services from public space. Generally street vending can be classified in two according to Kusakabe (2006) the vending units are:

1. **Mobile vending unit:** in this vending unit the vendor does not have fixed or static vending unit but sells by moving from place to place or one location to another location. Furthermore, it incorporates the so-called semi-static vending unit in which the selling unit is removed after a relatively long period of selling.
2. **Static or fixed vending unit:** is a vending unit where by the vendor has fixed or static selling premises and sells its goods or services from permanently located premises.

One major advantage of being mobile vendor is accessibility to the buyer. Because of this mobile vendors are not dependent on location. On the other hand, mobile vendors face a problem on the amount of food that they carry from location to location due to the weight of goods. Whereas fixed or static vending units tend to be more stable and are free from the problem of quantity of food to carry since they have static location. In general, fixed vending units are found in public markets or in a building where conditions are different from those selling on the streets. In many cases, a fixed vending unit extend from a house or is part of a shop house (Kusakabe, 2006).

According to McGee (1973) street vendors are classified according to their locations. McGee classified the vendors in to three main types of locations:

1. Vendors who sell in places where people assemble, such as markets and bus terminals.
2. Vendors who sell on the street. This type of vendor poses problems of congestion and obstruction.
3. Vendors who sell in a bazaar. A bazaar is equivalent to the seasonal or periodic market where vendors sell on a piece of public or private land. According to McGee, a bazaar is a place for entertainment as well as a place for selling. It is the “department store” of a dual economy’s traditional sector.

## 2.8 How Does Informality Affect Economic Growth?

Informal sector is significant contributor to the economies of developing countries. Although, Variations can exist in the contribution of the sector from countries to countries; the contribution of the sector to GDP in general is ample. According to CUTs (2009), the share of the sector or informal enterprises to the non-agricultural GDP, ranges from 13 percent for Mexico to 58 percent for Ghana as a result of different factors. Moreover, Charms (1998), the Region-wise estimates show that the informal sector contribution to non-agricultural GDP was 27 and 41 percent for Northern and sub-Saharan Africa (SSA) respectively while Latin America and Asia accounted for 29 and 31 percent.

Street vending units usually referred to as ‘informal traders’ make up a large proportion of informal sector enterprises. The contribution of informal traders (street vendors) to the total GDP from trade (total trade value added) ranges 50 to 90 percent for select Asian and African countries. For instance, the sector’s share to the total trade related value added (GDP from trade) of the Indian economy was 90 percent (ILO, 2002).

In spite of the sector’s significant contribution to the GDPs of many developing countries, there is inadequate evidence of informal sector enterprises contributing to economic growth. On the contrary, as a result of the growing informal sector in economies of most developing countries are supposed to be hampered economic growth (CUTS, 2009).

Loayza (1997) shows that in countries with weak government institutions and tax rates exceeding the optimal level, there exists a negative correlation between informal sector size and the rate of economic growth. This theoretical prediction is supplemented by empirical evidence from Latin American countries. The size of the informal sector has a negative impact on economic growth because it not only contributes to a rise in inefficient use of public services but also diminishes the availability of such services to the remaining agents in the economy. A large informal sector limits fiscal revenue, which can impact government spending on infrastructure and social services and thereby hamper economic growth.

Productivity growth of enterprises is cited to be an important component of a country's overall economic growth and development. A recent study (Shleifer 2008,) lays out three viewpoints in regard to the contribution of informal firms (i.e. those not registered with the government) to productivity growth and economic development. Using three sets of official and unofficial firm level surveys, the authors investigate whether these viewpoints stand the data test. The three viewpoints can be classified as follows:

**1. Romantic View** – A crucial assumption of this view is that there is no fundamental difference between formal and informal firms in terms of their characteristics. Which was drawn from the pioneering work of Hernando De Soto (1989), which indicates that unregistered and unofficial firms (enterprises) are constrained by various fiscal and regulatory requirements, hence, impeding their formalization. Appropriate fiscal and regulatory reforms and reduction of entry barriers to formal sectors supplemented by necessary credit facilities, would help to formalize the informal sectors (formalization), thereby, contribute their share to the economic growth.

However, this view receives inadequate support not only because there is substantial productivity difference between registered and unregistered firms, but also due to differences in other aspects such as use of technology, capital intensity, scale and human capital. As a result, formalisation of these firms may not lead to any considerable productivity growth (CUTs, 2009; p.5).

**2. Informal Firms as Parasites** – Based on the extensive work of the McKinsey Global Institute (MGI, 2006), unofficial firms are viewed as a 'threat' to official firms and as an obstacle to economic growth. Impediments as a result of informal sector to growth arise from two ways;

- First, not only does the small scale of informal firms lead to inefficient production, but they also have an incentive to remain small in order to avoid detection from public authorities. As a result, absence of surpluses for technological change confines informal firms to a 'low productivity trap' which adversely impacts the overall productivity growth of a country.

The same study finds that informal firms operate about 50 percent below the average productivity level of formal firms within the same sector.

- Second, the cost advantage enjoyed by informal firms due to tax evasion and regulatory non-compliance gives them an edge over formal firms, thereby allowing them to impinge on the formal sector's market share. Formal firms are subjected to unfair competition which reduces their incentive to invest, expand and improve productivity. In addition, low tax revenue as a result of the large informal sector may induce more stringent taxation of the formal sector, which may then further fuel informality. Proponents of this view call for stronger fiscal and regulatory enforcement as well as reforms to curb informality.

Firm level surveys do not find enough evidence to support this view either. Practices by informal firms are not viewed as a substantial obstacle to business operation by formal firms. However, aggregate results mask variations across countries and firms. A different study (Lamanna, 2007), based on enterprise surveys in select Latin American countries shows that small formal sector firms operating in industries with low barriers to entry view informal firms with similar characteristics as a threat. However, these results depend on the institutional and regulatory enforcement quality of the studied countries.

**3. Dual View** – This is attributed to the dual economy theory, where informal firms are perceived to be considerably different from their formal sector counterparts due to the former being inefficient and operating in traditional sectors with low capital and obsolete technology. Both formal and informal firms co-exist and operate in segmented markets catering to different consumer bases. Hence, not only are informal firms not viewed as a 'threat' to the formal sector, but they also do not contribute to economic growth. As the informal sector provides subsistence to millions of poor people, any fiscal and regulatory policy amendments that are potentially costly to informal firms are discouraged. Proponents of this view support policies that create new formal firms rather than formalise existing informal ones. They are of the belief that informality diminishes with economic growth and development.



Survey data yields results that are consistent with this view because informal firms not only differ considerably from formal firms; but also there is insufficient evidence that informal firms are a ‘threat’ to formal firms. Unregistered firms are smaller, less productive, pay lower wages and operate with lower human capital compared to their registered counterparts. Hence, the informal sector is crucial for developing countries as it contributes to a substantial share of employment and output as well as provides livelihood to millions, but there is no concrete evidence that this sector enhances economic growth. On the contrary, it may obstruct and slow down growth.

As mentioned before, firm level surveys only capture a subset of the vast informal sector. For this reason, there may still be some empirical justifiability of all three viewpoints as well as some growth benefits emanating from the informal sector. The provision of certain goods and services (e.g. transport) by the informal sector at prices below formal rates can be seen as enhancing household savings and therefore physical and human capital accumulation. Positive implications for growth may follow. Hence, a fourth viewpoint is presented.

**4. CUTS View** – Informal sector operations provide a way out of the draconian reigns confronting the formal sector. Low entry barriers and low operation costs in certain sectors (e.g. food, repair, trade and transport) imply dominance of informal firms. The large number of small producers and sellers producing almost identical products, for example in the fruit and vegetable markets, also facilitates a high degree of competition. As a result, consumers, mostly from the low and middle income brackets, can avail of relatively low prices. This leads to a rise in household savings, which can potentially translate into economic growth.

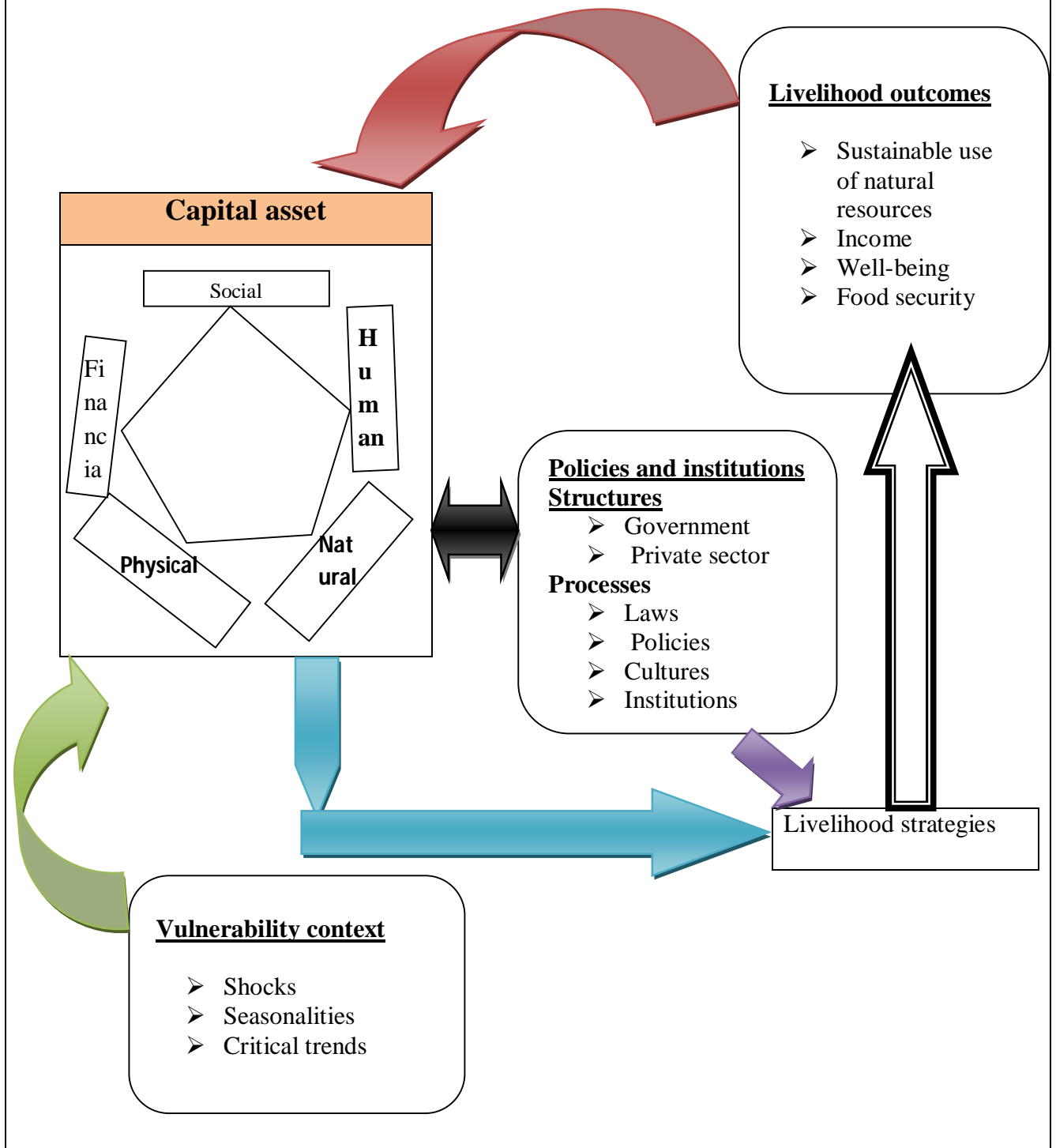
## 2.9 Livelihood

A livelihood comprises the capabilities, assets, and activities required for a means of living. It is deemed sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities, assets, and activities both now and in the future, while not undermining the natural resource base (Serrat, 2008;p.1) .

*A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks (Conway, 1991).*

The term 'sustainable livelihood' came to prominence as a development concept in the early 1990s, drawing on advances in understanding of famine and food insecurity during the 1980s. Nowadays, thinking about poverty and sustainable development converge around and linked themes of vulnerability, social protection and livelihood and has been accompanied by the development of a variety of approaches to analyse situations (Ibid).

**Figure 2.1: The Sustainable Livelihoods Framework**



Source: Department for International Development of the United Kingdom

According to Serrat (2008), the elements of strategic livelihoods framework are discussed below

### 2.9.1 Capital Assets

Sustainable livelihoods framework helps to systematize the factors that are constrain (threat) and in favour of (opportunity) livelihood opportunities and shows how they relate to one another. A central notion is that different households have different access livelihood assets, which the sustainable livelihood approach aims to expand. The livelihood assets, which the poor must often make trade-offs and choices about, comprise:

- i) **Human capital:** is one of the capital assets which include health, nutrition, education, knowledge and skills, capacity to work, capacity to adapt.
- ii) **Social capital:** is other crucial capital asset which focuses on social interaction of households with in a given community. Which includes networks and connections (patronage, neighbourhoods, and kinship), relations of trust and mutual understanding and support, formal and informal groups, shared values and behaviours, common rules and sanctions, collective representation, mechanisms for participation in decision-making, leadership etc?
- iii) **Natural capital:** comprises land and produce, water and aquatic resources, trees and forest products, wildlife, wild foods and fibers, biodiversity, environmental services
- iv) **Physical capital:** includes infrastructure (transport, roads, vehicles, secure shelter and buildings, water supply and sanitation, energy, communications), tools and technology (tools and equipment for production, seed, fertilizer, pesticides, traditional technology)
- v) **Financial capital:** includes savings, credit and debt (formal, informal), remittances, pensions, wages.

### 2.9.1 Vulnerability Context

Vulnerability is characterized as insecurity in the well-being of individuals, households, and communities in the face of changes in their external environment. People move in and out of poverty and the concept of vulnerability captures the processes of change better than poverty line measurements. Vulnerability has two elements:

1. **External side of shocks**, seasonality, and critical trends; and
2. **Internal side** of defencelessness caused by lack of ability and means to cope with these.

The vulnerability context includes

- **Shocks** includes conflict, illnesses, floods, storms, droughts, pests, diseases
- **Seasonality** includes prices, and employment opportunities
- **Critical Trends** includes demographic, environmental, economic, governance, and technological trends.

### 2.9.3 Policies and Institutions

Livelihood strategies and outcomes are not just dependent on access to capital assets or constrained by the vulnerability context; they are also transformed by the environment of structures and processes. Structures are the public and private sector organizations that set and implement policy and legislation; deliver services; and purchase, trade, and perform all manner of other functions that affect livelihoods. Processes embrace the laws, regulations, policies, operational arrangements, agreements, societal norms, and practices that, in turn, determine the way in which structures operate.

Policy-determining structures cannot be effective in the absence of appropriate institutions and processes through which policies can be implemented. Processes are important to every aspect of livelihoods. They provide incentives that stimulate people to make better choices. They grant or deny access to assets. They enable people to transform one type of asset into another through markets. They have a strong influence on interpersonal relations. One of the main problems the poor and vulnerable face is that the processes which frame their livelihoods may systematically restrict them unless the government adopts pro-poor policies that, in turn, filter down to legislation and even less formal processes.

## **2.9.4 Livelihood Strategies and Outcomes**

Livelihood strategies aim to achieve livelihood outcomes. Decisions on livelihood strategies may invoke natural-resource based activities, non-natural resource based and off-farm activities, migration and remittances, pensions and grants, intensification versus diversification, and short-term versus long-term outcomes, some of which may compete. Potential livelihood outcomes can include more income, increased well-being, reduced vulnerability, improved food security, more sustainable use of the natural resource base, and recovered human dignity, between which there may again also be conflict.

## 2.10 Synopsis of Previous Empirical Studies

In this section of the paper synopsis of previous studies on informal sector /street vending are presented in the context of different developing countries since studies regarding street vending are scarce in our country in general.

A study *On the Borders of Legality: A Review of Studies on Street Vending* in Phnom Penh, Cambodia by Kyoko Kusakabe (2006) revealed that street vending is crucial livelihood option for the urban poor, even in times when other employment options are increasing. Furthermore, it underlined that most of the street vendors are major breadwinners in poor households.

Another study on *Hawkers and the Urban Informal Sector: A Study of Street Vending in Seven Cities* by Sharit K. Bhowmik pointed out that in all the seven cities, despite the fact that street vendors provide various types of services like cheaper goods and services to the poor and getting better income and job for themselves; they are victimized by the municipal authorities and the police. The survival of most street vendors on their trade lies on Bribery. The working environment of the vendors is very unsafe and poor that leads most of the vendors in to hardship. Furthermore, the increase role of the urban informal sector coupled with shrinking role of the formal sector has added to the number of hawkers in mainly two ways:

- Street vending is a means of earning livelihoods particularly for those destitute and low skilled migrants seeking employment in urban centers.
- As a result of the increase the number of poor in urban centers

A study on *The Informal Sector in Venezuela: Catalyst or Hindrance for Poverty Reduction* by Maria Beatriz Orlando (2001) concluded that a strategy directed towards the reduction of poverty should have two parallel goals:

- ⊗ First, increase formal employment by designing policies and strategies heading towards more flexible labour regulation and economic growth.
- ⊗ The second goal should be to increase wage and level of productivity in the informal sector (economy).

A study on *The Role of Informal Sector and Self-Employment in Poverty Alleviation in Botswana*, by Dr S.M. Kapunda and Ms B.D. Mmolawa, underlined that informal sector via self employment is crucial element in poverty alleviation particularly among women and youngsters who tend to dominated self employment activities. Furthermore, on average after joining the sector the welfare measured by income has significantly improved and most of the people's attitude towards the sector was positive and expressed as they would remain in the informal means of employment. However, the people have faced bottlenecks like capital, income, skill and other factors that affect expansion of self employment activities.

A study on *The Urban Informal Sector in Fiji: Results from a Survey*; by Mahendra Reddy, Vijay Naidu, and Manoranjan Mohanty(2002) indicated that the rise in the urban informal economy plays an important role in employment creation and labour absorption in the urban areas.

A study on *Rural Urban Migration and Livelihood in the Informal Sector A Study of Street Vendors of Kathmandu Metropolitan City, Nepal* by Krishna Prasad Timalsina (2007) shows that as a result of rural to urban migration the informal sector, including street vending activities are increasing from time to time. This study also shows that street vending is an opportunity to rural poor for making a living in the urban areas. In comparison with their prior occupations, the livelihoods of migrant vendors have increased after getting involved in the street vending.

A study on *Fighting Poverty from Street: a Survey of Street Food Vendors in Bangkok* by, Narumol Nirathron (2006) indicated that this economic activity is a veritable sponge that can absorb large numbers of surplus labour, especially women and marginalized people. Their market base consists of a mass of consumers who welcome their accessibility and inexpensive goods and services.

A study on *The Informal sector in Kenya*, by Gibson Nabuteya Amenity(2007) underlined that in relation with destitute urban dwellers, having unemployed member in the household and engaging in the informal economic activities are negatively related with poverty. Since poverty is



measured not only in terms of low income, but also in terms of lack of basic facilities such as neat and piped water, basic education levels, access to electric power, transportation, sanitation facilities, duration of settlement and ownership of a family circle outside Nairobi. Furthermore, it concludes that households lead by people with poor education level tends to be poor and destitute since the individual/s has/have few chances of getting formal and well paying job opportunities.

A study on *Social Capital in the Urban Informal Sector in Developing Countries – Micro Evidence from Small Textile Producers in Bolivia* by Kurt Annen (2004) underlined that substantial sales increment in the informal sector results from family and trust relationships. Moreover, without social capital the earnings of informal activities are substantially less than the formal sector.

A study on *Informal sector support and Poverty Reduction* by Niklaus Eggenberger-Argote revealed that High business costs and the informal economy are mainly caused by:

- ✎ Ill-designed and unstable rules and regulations (particularly tax and tax related aspects, labour policy and strategies and business registration )
- ✎ Lack of well structured and defined intellectual rights (property rights); poor quality or no availability of social, public and infrastructural services.
- ✎ undersupplied government capacity and resources to enforce laws and regulations for instance lack of transparency, accountability and autonomy of governmental institutions
- ✎ High level of unemployment, corruption and instability in macro-economic policies.

It could have been so magnificent had this part of the paper reviewed empirical studies conducted on informal sector particularly the role of street vending on livelihood prevailing Mekelle city and Ethiopia in general. However, apart from personal views and journalists survey, to best the researcher's knowledge no formal studies regarding the topic have been conducted. Hence, this study was undertaken to fill the gap by studying formally the *Role of Informal Sector on Household Livelihood: A survey of street vendors on Mekelle city*.

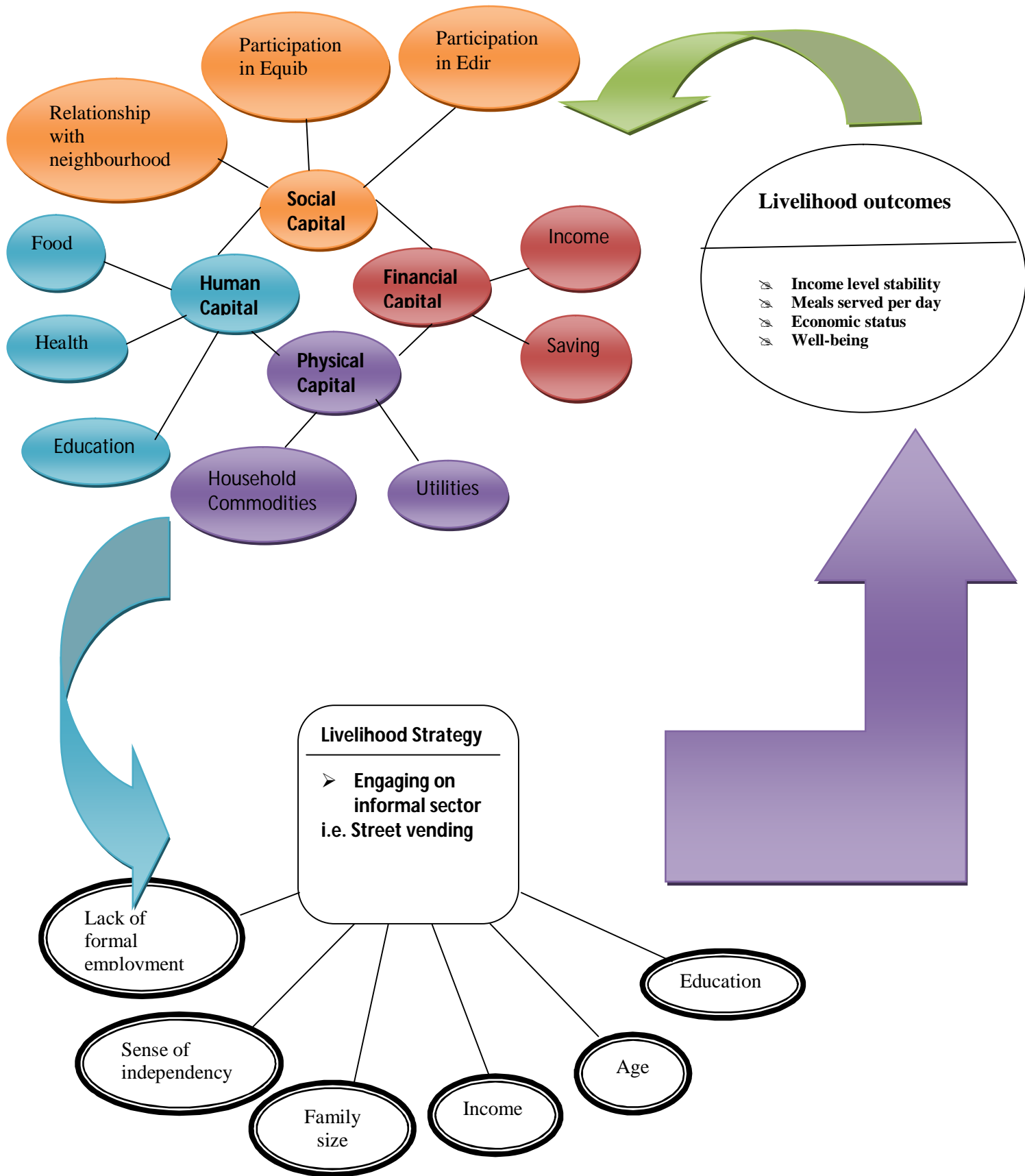


Figure 2.2 Conceptual Framework

# CHAPTER THREE

## DATA SOURCE AND METHODOLOGY

---

*Aiming to put the users of this study ease to understand the overall nature of the research methodology related with the research's issue, this chapter gives brief and precise explanation about the methodological tools that the researcher used to accomplish the study thereby achieving the objectives. Henceforth, it comprises study area and population, data sources and data collection methods, sampling technique and sample size and data analysis technique.*

---

### 3.1 Study Area and Population

#### 3.1.1 Description of the Study Site

Tigray is located in the northern part of Ethiopia. It covers an area of approximately 54,572 square kilometres. The agro-ecology of the region is broadly categorized in to lowland (kola-less than 1500 meters above sea level), midland (Weina Dega-1500-2300 meters above sea level), and highland (Dega above 2300 meters above sea level). About 53 percent of the region is lowland, 39 percent medium highland, and 8 percent upper highland (BoFED, 2008).

Based on the 2007 Census conducted by central statistical authority (CSA), the Tigray Region has an estimated total population of 4,316,988. From this 2,126,465 are men and 2,190,523 women with almost equal male to female proportion 49.25% to 50.75%; urban inhabitants account 844,080 or 19.53% of the population.

### **3.1.2 Introduction to Mekelle city**

#### **i. Naming of the city**

Legends had it, that the then neighbourhoods of Mekelle were not able to feed the church students which is tradition in the Ethiopian church school; realizing this problem the then monastery leaders divide the village and assigned his students to collect their food accordingly. It was from this phenomenon that the Tigrigna word *Mekelle* which literally mean “divide” developed (Mekelle City Administration, 2009).

#### **ii. Establishment**

Mekelle is a city in northern Ethiopia and the capital city of Tigray region located around 770 kilometres north of the capital, Addis Ababa with latitudes and longitudes of 13°29'N 39°28'E 13.483°N 39.467°E and an elevation of 2084 meters above sea level. According to local historians Mekelle was established in the 14<sup>th</sup> century and was flourished in to modern city in 1864 by emperor Yohannes IV as center of his administration. Although Mekelle was founded in 13<sup>th</sup> century, its heyday came soon after emperor Yohannes IV was crowned as king of kings of Ethiopia (1871-1889) chose Mekelle as the seat of his realm and built his graceful palace (Mekelle City Administration, 2009).

#### **iii. Demographics**

Based on figures from the Central Statistical Agency in 2007, Mekelle has an estimated total population of 215,914, of whom 104,925 are men and 110,989 are women with 48.6 to 51.4 male to female ratio. The woreda has an estimated area of 24.44 square kilometres, which gives Mekele a density of 6,923.40 people per square kilometre. Administratively, Mekelle is considered a Special Zone, which is divided into two woredas known as Dehub and Semien wereda is the largest city in northern Ethiopia and sixth largest in Ethiopia (Mekelle City Administration, 2009).

The study area that the research had been conducted is Mekelle city. Within the city three Kebeles which are market centers were selected and studied. The main reason that the three market centers were selected from the entire city is they are well known in entertaining large number of street vendors in their day to day business transactions.

1. Adihaki Market
2. Kebelle17 Market
3. Sunday Market

## **3.2 Data Sources**

To obtain fruitful information that plays a key role in conducting and achieving the research objectives, the researcher used both primary and secondary sources. Besides, to collect information about the determinant factors to join the business, the contribution of the business to their livelihoods, the vendors' problems in vending environment, their expectation on street vending etc. both primary and secondary sources were used. In a nut shell, to gather qualitative and quantitative information that contributed in achieving the objectives of the study the researcher used both primary and secondary source which are discussed below.

### **3.2.1 Primary Sources of Data**

The researcher used street vendors from three market areas as a primary source.

**Street vendors-** the researcher contacted street vendors so as to gather data and understand about the vendors' socio economic characteristics and their livelihood situations which include information about their;

- ✓ Income
- ✓ Status(progress in the business)
- ✓ Expectations on street vending etc
- ✓ Livelihood assets like financial, human, physical and social etc.

### 3.2.2 Secondary Sources of Data

In addition to the primary sources of data the researcher also used secondary sources of data which include;

- ✎ Research conducted in the area(informal activity)
- ✎ Journals, published and unpublished materials
- ✎ Manuals
- ✎ Reports of the city regarding the sector
- ✎ Different written materials from internet and other sources

### 3.3 Methods of Data Collection

In order to collect the required information and scrutinize the sectors contribution on households' livelihood the researcher utilized predominantly survey information. Besides, Questionnaire was designed based on the objectives of the study and in sequential manner that helps the respondents to respond easily. In order not block the view of the respondents the questionnaire contains both open and close ended questions. The sequence of the questions also helps in facilitating and minimizing unnecessary efforts that would be faced in the analysis and discussion part of the paper. Furthermore, to gather qualitative information from the street vendors the researcher employed interview and physical observation primary methods of data collection.

**Interview:** in addition to the questionnaire and physical observation methods of data collection semi-structured in-depth interview with some responsible bodies and street vendors were used. This method of data collection is important because questionnaires in general are designed to get structured responses and fail to solicit and understand the feelings and emotions of respondents. Moreover, interview helps the research to gather data in more detail than questionnaire does.

**Physical observation:** observing the street vendors activities is important so as to get some hidden information that the respondents may not disclose using questionnaire and interview methods. To do this observation is quite helpful. Hence, in line with the questionnaire and observation methods, interview method of data collection was also employed.

## 3.4 Sampling Technique and Sample Size Determination

### 3.4.1 Sampling Technique

In order to achieve the objective of the research determination of the right sample unit and sample size is quite crucial. Since the nature of the population in the sector particularly in street vending is heterogeneous in terms of work characteristics; therefore, to insure representativeness and homogeneity of the population the researcher used both random sampling and non random sampling. From the different methods of random sampling a combination of methods (stratified and simple random sampling) and purposive (judgemental) from the non random sampling were used.

First information about vendors was gathered from the city's trade and industry bureau about the location of the vendors and the type of items they sale. In addition to the bureau's information the researcher personally observed the centers for street vendors in the city. Based on these facts the researcher purposefully selected three market centers in the city for the study sake. Moreover, to select sample respondents for interview purposive non random sampling was used.

The other sampling technique utilized in the study was stratified random sampling. This sampling technique was used to classify the street vendors based on their work characteristics and to form homogenous group (strata). The homogenous groups that were formed based on similar characteristics comprise *fruit and vegetable vendors*, *Sunday market vendors* and *"other" vendors*. After classifying the vendors based on their work characteristics and forming strata sample respondents were selected on random basis.

### 3.4.2 Sample Size

Determination of sample size for a study is a crucial element of a study design. The goal is to include sufficient numbers of subjects so that statistically significant results can be detected. To do this 150 sample respondents were used to scrutinize the role of sector give better conclusions about the sector. The 150 respondents were selected from three market centers in the city using disproportional quota sampling. Since the classification of the vendors is based on the items they sale, it helps to form homogenous group. Therefore, employing disproportional quota sampling is fundamental to sufficiently include small groups. From the total of 6901 vendors (theoretical population) 1246 vendors (accessible population which includes Sunday market vendors, fruit and vegetable and other vendors) were used for the study. From the total accessible population, 40 from Sunday market vendors, 60 from the fruit and vegetable vendors and the remaining 50 from different item (other) street vendors were selected. Traditionally vending of different item on public space (street) is known as “Gulet”<sup>1</sup>.

The total sample drawn from the population (accessible) was based on Cochran’s (1977) sample size determination formula which is stated below.

$$n_0 = \frac{(t)^2 * (p) (q)}{d^2}$$

If the  $n_0$  is greater than 5% of the population the minimum required return sample size will be calculated using this formula

$$n_1 = \frac{n_0}{(1+n_0/N)}$$

Where  $n_0$  = required return sample size

$n_1$  = required return sample size if  $n_0$  is greater than 5% of the total population

N = total population

---

<sup>1</sup> “Gulet”- is one of the petty trading activities which encompasses merchandising of different goods like salt, “Shiro”, “Berbere” and other goods in public spaces (streets).



Where  $t$  = Value for selected alpha level

Where  $(p)$   $(q)$  = Estimate of variance

Where  $d$  = acceptable margin of error for Proportion (error the researcher is willing to except)

Accordingly the sample size for the study was determined using the following assumptions

**t**- Value for 95% is 1.96

**p**- Value= 0.9 (putting prior information from the city administration and personal observation about the availability of the vendors in to consideration, the probability of getting a street vendor in the selected area is assumed to be 90 percent) therefore,

**q** -Value=  $(1-p) = 1-0.9=0.1$

**d**= 5%

$$n = \frac{(1.96)^2 * (.9) (.1)}{(.05)^2} = \frac{3.8416 * .09}{0.0025} = \frac{.345744}{0.0025} = 138.2976 \sim 138$$

In addition to the determined required return sample size the anticipated return rate was assumed at 90 percent. Based on Cochran's formula and the return rate assumed the total sample size for the study was determined:

**n**= Required sample size

Return rate

$$n = 138 / .80$$

$$n = \underline{153}$$

### **3.5. Method of Data Analysis**

The data that that was gathered through open and close ended questionnaires, interview and physical observation are quantitative and qualitative in nature. Given the quantitative and qualitative data in nature, this study employed descriptive method of data analysis. Besides, this method of analysis describes textually by using mean value, range, standard deviation, percent and frequency of the items.

As widely accepted, the descriptive method of research is a fact-finding study that involves adequate and accurate interpretation of findings. Descriptive research describes a certain present condition. Relatively, the method is appropriate to this study since it aims to describe the street vendors' livelihood situations as it takes place during the time of the study and to explore the cause or causes of a particular condition.

The study opted to use this kind of method by considering the desire to acquire first hand data from the respondents so as to formulate rational and sound conclusions and recommendations for the study. Furthermore, to see significance of the relationship before and after street vending t-test statistical tool was employed. Finally, in order to facilitate and have smooth analysis, discussion and interpretation of the data STATA 10 was used.

# CHAPTER FOUR

## RESULTS AND DISCUSSIONS

---

*To scrutinize the role of informal sector on household livelihood one hundred and fifty (150) street vendors were surveyed. From the 150 distributed questionnaires 150 of them were collected, since enumerators have handled the data collection with fabulous supervision of the researcher.*

*Based on the responses and reactions of the above sample street vendors and other concerned bodies the sections below present the findings of demographic characteristics of the vendors, business start up related points, livelihood situations before and after joining the business by addressing physical capital (Household commodities and utilities), financial capital (income and saving), human capital (expenditures on food, health and education) and social capital (participation in Equib and Edir and relationship with their neighbourhood) of the vendors. Besides, it preaches about the vendors' problems, their expectations on the business and overall evaluation to the business.*

---

The hub of the study was to explore the contribution of informal sector, particularly street vending on household livelihood. For the sake of the study the sample street vendors were categorized under the following three categories;

1. **Sunday market vendors:** are those street vendors who sale their goods on street only in specified place by the municipality currently Kebele 12 on Sunday. The type of goods they sale include, different types of clothes both first hand and second hand (used) clothes, socks, shoes, electronic devices, cosmetics, eye glass, etc.
2. **Fruit and vegetable vendors:** are those street vendors who sale their products on streets of different areas of the city. The type of products they sale include different fruits like Mango, Orange, Banana, Lemon, Guava and vegetables like Cabbage, Salad, Lettuce, Tomato, Onion, etc.

**3. Others:** are those street vendors who sale products like “Besso”(typical food powder made up of roasted Barley) “kollo”, local sandwiches, special grasses for ceremonies etc. on streets of different areas of the city.

**N.B.** The above classification of the street vendors is not based on the place where they sale but based on the products they sale in different streets of the city.

## 4.1 Demographic Characteristics of the Street Vendors

Demographic and socio-economic characteristics were addressed with questionnaire survey. Using survey method one hundred and fifty (150) street vendors were studied about their personal characteristics which are expected to have relationship with the objective of the research. Therefore, this section of the paper discourses demographic characteristics of the street vendors’ sex composition, literacy level, age, marital status and family size in which the researcher organized in a way convenient for the forthcoming description of the variables.

### 4.1.1 Business Type and Sex

In this part of the paper sex composition of the vendors has been discussed.

**Table 4.1 Sex composition of the street vendors**

Business type	Sex				Total	
	Female		Male			
	Observation	Percent	Observation	Percent	Obs.	Per.
Sunday market vendors	3	7.5	37	92.5	40	100
Fruit and vegetable	58	96.7	2	3.3	60	100
Other	32	64	18	36	50	100
<b>Total</b>	<b>93</b>	<b>62</b>	<b>57</b>	<b>38</b>	<b>150</b>	<b>100</b>

**Source: Survey data, 2011**

Being clearly depicted in the above table 4.1, from the surveyed sample Sunday market street vendors, 92.5% were male headed vendors. Regarding the sex composition of fruit and vegetable vendors 96.7% were female headed vendors. In the “*other*” type of street vending 64% were female headed vendors. This indicates that the sex composition of Sunday market vendors, fruit

and vegetable and other was dominated by male, female, and female respectively. Similar results by Banwell (2001), Agnello and Moller (2004), and Kusakabe (2006) were found which shows fruit and vegetable vending were dominated by women.

The reason for male/female dominated business operations lays down on the exposure and role differences of the vendors. In the case of our country women have the role to take care of family by preparing food and food related activities at home, as a result of this women tend to sale on street food and food related products (vegetable, fruit and selling different food items like “Besso”, “Kollo” etc.). On the other hand, the role of men is to provide income for the family by working in different income generation activities out of home. To earn income for the family, one of the means of income for the men is to sale products like clothe, shoe, electronic device, cosmetics, etc. on street. In a nut shell, people opt to sale on street in activities in which they were exposed prior to the business.

### 4.1.2 Business Type and Age

In this section of the paper age classification of the vendors categorized based on working age is presented and discussed below.

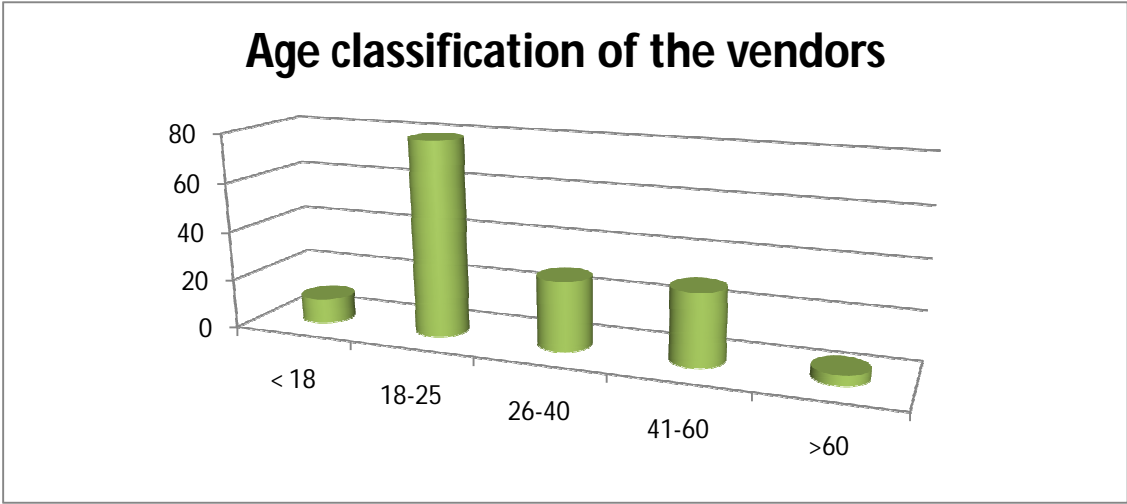


Figure 4.1 Age of the street vendors

With reference to the figure 4.1 above, majority of the vendors were in the working age of 18-25 (52%), where as the remaining 19.3%, 18.7%, 6.7%, and 2.7% were in the working age of 41-60, 26-40, below 18 and above 60 respectively. This indicates that street vending is helping to significant number of youngsters and adult working people through employment opportunity so that they can generate income for their livelihoods. Unlike the finding by Kusakabe (2006), which indicated that street vending is dominated by working age of 30-50, in Mekelle city street vending is dominated by youngster with working age of 18-25. The reason for this age category dominance in the city could be because of large numbers of youngsters (Sunday market vendors) are selling on street to fight poverty and ensure independency. Another factor could be the nature of population in the city which is dominated by youth.

### 1.7.1 Business Type and Education

The educational attainment of the vendors in relation with their corresponding business type is depicted and discussed in the following table.

**Table 4.2 Education level of the vendors**

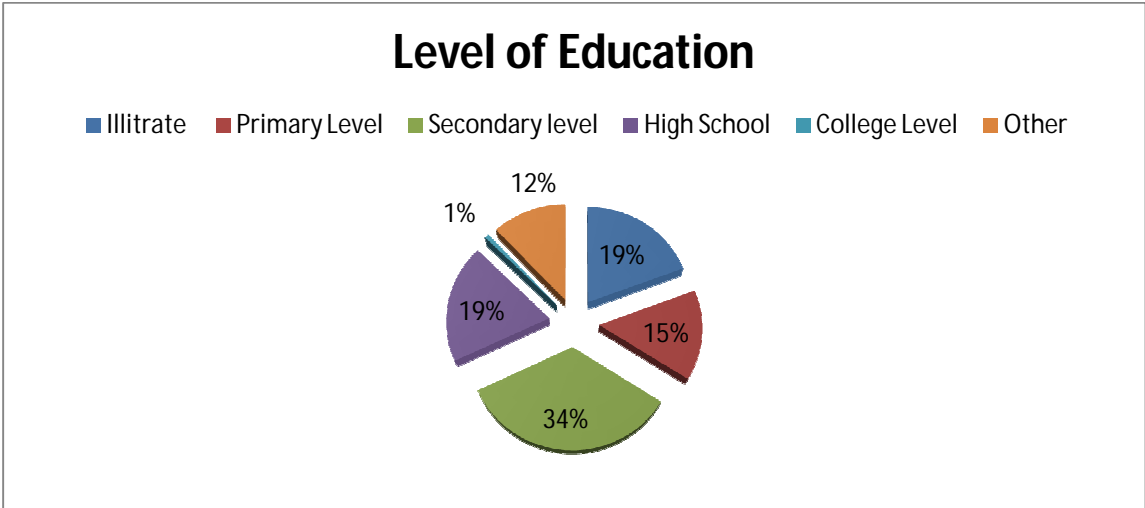
Business type	Level of education						Total
	Illiterate	1-4	5-8	9-12	Diploma	Can Read and Write	
<b>Sunday market vendor</b>	3	2	17	17	1	0	40
<b>Fruit and vegetable</b>	14	9	16	9	0	12	60
<b>Other</b>	12	11	18	3	0	6	50
<b>Total</b>	29	22	51	29	1	18	150

Source: Survey data, 2011

Regarding the educational attainment of the street vendors 34%, 19%, 15% and 1% have completed their secondary, high school, elementary and diploma level of education respectively. While the remaining 20% cannot read and write (illiterate) and 12% of the street vendors can read and write without getting formal education.

When we look at the educational attainment of each stratum the upper hands of educational attainment of the Sunday market vendors were secondary and high school levels (85%) where as 2.5%, 5% and 7.5% of the Sunday market vendors were characterised by diploma, high school and illiterate levels of literacy respectively.

The other street vending stratum is fruit and vegetable. The upper hands of educational attainment of the fruit and vegetable vendors were illiterate (cannot read and write) and can read and write without getting formal education (43.3%) where as 26.7%, 15%, 15% of the fruit and vegetable vendors were characterised by secondary, high, and elementary school level of literacy respectively.

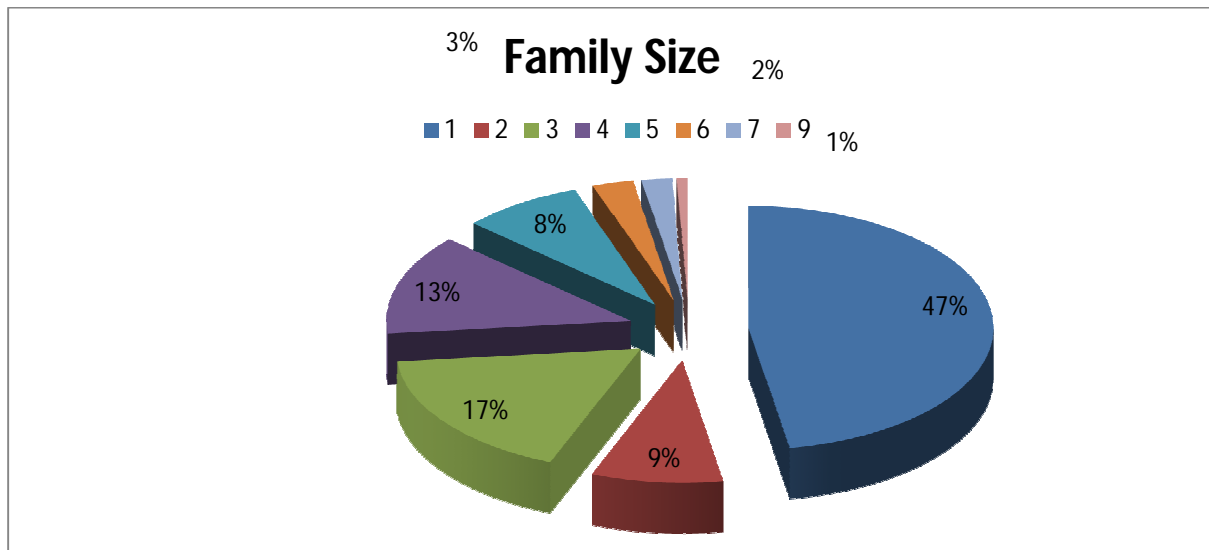


**Figure 4.2: Percentage of street vendor’s literacy level**

The third vending stratum is “*other*” street vending. In this vending stratum the street vendors were characterized by can read and write without getting formal education (other) and cannot read and write (36%), have completed secondary level (36%), while the remaining 22% and 6% have completed elementary and high school level of literacy.

Though definitive statements on level of education and the business cannot be made on the basis of the survey, putting the upper educational level of the vendors in the city in to consideration however, may possibly reveal that the sector does not demand high level of education.

#### 4.1.4 Business Type and Family Size



**Figure 4.3: Family sizes of the street vendors**

With reference to figure 4.3 above, 47% of the street vendors were characterized by single family size where as the remaining 53% of the vendors has more than one family size. This shows that more than half of the street vendors have responsibility for at least one person to take care of in addition to him/her self. Regarding the average family size of the street vendors in the city was rounded to 3 with standard deviation of 1.7.

**Table 4.3 Average family size**

S.No	Variable	Observation	Mean	Standard Deviation	Min	Max
1.	Family size	150	2.5	1.7	1	9

Source: Survey data, 2011



#### 4.1.5 Business Type and Marital Status

The relationship of business type and the vendors' social bond (marital status) are depicted in this section of the paper.

**Table 4.4 Marital statuses of the street vendors**

Business type	Marital status					
	Married	Unmarried	Divorced	Separated	Widowed	Total
Sunday market vendors	5	33	0	0	2	40
Fruit and vegetable	15	26	6	1	12	60
Other	10	31	4	1	4	50
Total	30	90	10	2	18	150

**Source: Survey data, 2011**

As it is depicted in the above table 4.2, 82.5% and 17.5% of the Sunday market vendors were unmarried and married respectively. Regarding the marital status of fruit and vegetable street vendors 25% of the sample respondents were married 43% of the sample respondents were unmarried, where as the remaining 10%, 2% and 20% of the sample respondents were divorced, separated and widowed respectively. Concerning the Marital status of “**other**” street vendors 20%, 62%, 8%, 2%, of the sample respondents were married unmarried divorced, separated and widowed respectively. Therefore, “**other**” and Sunday market vendors were dominated by single (unmarried) marital status where as fruit and vegetable vendors were dominated by married marital status. Therefore, based on the above facts it is difficult to give definitive statements about the relationship between marital status and business type.

## 4.2 Business Start up and Street Vending

This section of the paper explains about the reasons why people join the sector; start up capital, source of capital and other source of income of the vendors

### 4.2.1 Reasons for Business Start Up

**Table 4.5: Reasons for start up**

S.No.	Description	Respondents	
		Frequency	Percent
	Lack of formal employment	121	80.67
	I am too old	13	8.67
	It gives me better income	20	13.42
	To supplement the income that I earn else where	1	0.67
	Sense of independency	131	87.33
	No options are available than selling on street	122	81.33
	It is the profession that I know	19	12.67
	Other	29	19.33

**Source: Survey data, 2011**

It is clearly observed from the above table 4.3, the reasons that people tend to work in street vending were sense of independency (87.33%), no options are available than selling on street (81.33%), lack of formal employment (80.67%), other (19.33%), it gives me better income (13.42%), I am too old (8.67%). According to the summary table of reasons for start up of the business the main reasons that people sell on streets of the city were:

1. Sense of independency (87.33%) – according to the survey result the main and primary reason that people sale on streets is because of their keen interest to be independent and their own bosses.

2. No options are available than selling on street (81.33%) and lack of formal employment (80.67%)- as a result of different factors the capacity of formal employment to absorb the available work force is becoming less and less from time to time. Furthermore, due to different reasons the only option that they can work in, other than the formal option for the urban poor is street vending. In addition to the above reasons the other main reason that pushed them to sale on streets is *small start up capital* which is the amount needed to start the business is very small. According to Agnello and Moller (2004), they reported that “41 percent of the respondents chose the occupation because they did not have enough capital to start any other business and 26 percent said they did not have other choices”. But in Mekelle the main reasons to work in the sector were sense of independency, lack of formal employment and small start up capital.

#### 4.2.2 Start up Capital

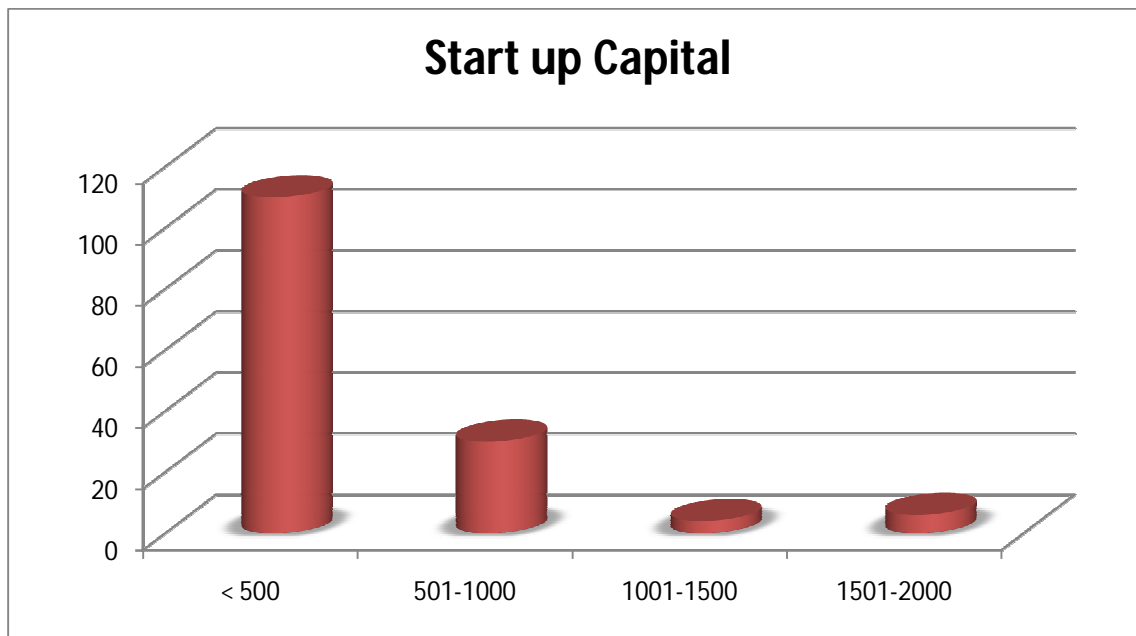
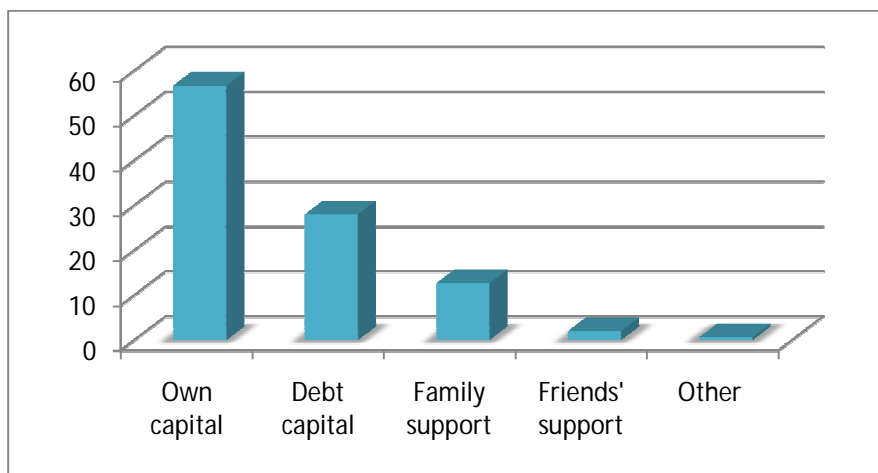


Figure 4.4 Start up capital of the vendors

The average start up capital of the street vendors was 536.3 ETB with 50 ETB minimum and 2000 maximum capital and standard deviation of 358.5 ETB. This underlines almost the entire street vendors started their business with very small amount of capital as depicted in the figure above. Since the people who join the sector are poorest of the urban poor the start up capital to run the business is likely to be low.

### 4.2.3 Source of Capital in Street Vending



**Figure 4.5 Source of capital**

With reference to the above figure 4.3, it is evident that the sources of capital to start the business were dominated by own capital (56.67%) and debt capital (28%). Moreover, for some of the street vendors; family support (12.67%) and friends' support (2%) were their source of capital. This indicates that majority of the street vendors started the business using their own capital since the capital required to start the business is very small. Moreover, some vendors work in different income generating activities prior to the business. On the other hand some vendors started their business by taking loan from others since the people who join the sector are characterized by low level of income or no income at all in the very beginning.

#### 4.2.4 Source of Income

This section of the paper elucidates about the vendors' source of income in addition to the income that they get from the business.

**Table 4.6 Other source of income**

Do you have other source of income	Respondents	
	Frequency	Percent
Yes	6	4
No	144	96
<b>Total</b>	150	100

**Source: Survey data, 2011**

During the survey the sample street vendors were requested to indicate their source of income in addition to the income they get from the business. Accordingly, 96% of them had no other source of income where as the remaining 4% had other source of income in addition to the income that they earn from the business. It is interesting that for majority of the street vendors (96%) the fate of their survival lays on the income that they get from the business.

#### 4.3 Livelihood Before and After Joining Street Vending

This section of the paper presents the vendors' livelihood situations before and after street vending which includes economic status, physical capital (household commodities and utilities), financial capital (average monthly income and saving), human (average monthly expenditure on food, health and education) and social capital (participation in social groups Equib<sup>2</sup> and Edir<sup>3</sup> and relationship with neighbourhoods) of the vendors.

---

<sup>2</sup> **Equib** - is a traditional way of saving money where by members contribute some and equal amount of money and take the amount on lottery method.

<sup>3</sup> **Edir** - is a traditional community organization whose members assist each other during the mourning process.

### 4.3.1 Economic Status of the Vendors

**Table 4.7 Economic statuses of the vendors before and after the business**

S.N o	Description	Before joining the business		After joining the business	
		Freq.	Per.	Freq.	Per.
1.	Economic status of the vendors				
1.1	Poor/low income	<b>107</b>	<b>71.4</b>	<b>70</b>	<b>46.7</b>
1.2	Non-poor/middle income	<b>9</b>	<b>6</b>	<b>32</b>	<b>21.3</b>
1.3	Rich/high income	<b>2</b>	<b>1.3</b>	<b>-</b>	<b>-</b>
1.4	Other	<b>32</b>	<b>21.3</b>	<b>48</b>	<b>32</b>
	Total	<b>150</b>	<b>100</b>	<b>150</b>	<b>100</b>

**Source: Survey data, 2011**

During the survey the sample street vendors were requested to indicate their economic status prior to the business. As a result, 71.33%, 21.33%, 6%, and 1.33% indicated their economic statuses in the community, poor/low income, neither poor nor middle income/the better off poor, non poor/middle income and rich/high income respectively.

In addition to their economic status prior to the business the vendors also indicated their economic status after the business. Accordingly, 46.67%, 32% and 21.33%, indicated their economic statuses in the community as poor/low income, neither poor nor middle income/the better off poor and non poor/middle income respectively.

The result of the survey reveals that majority of the sample respondents in the city join the sector because of their low economic statuses. Therefore, street vending is a source of livelihood to a majority of the poor, unskilled, socially marginalised people. Furthermore, it is an important means of survival for people in countries lacking skills for formal sector jobs. In a nut shell, there is some change in the economic status of the street vendors comparing with their former economic status. Using t-test the change on economic status after joining the business found to be statistically significant at 1% with p value of  $p < 0.0013$  (See Appendix C- i).

### 4.3.2 Meals Served Per Day

**Table 4.8 Meals served per day before and after the business**

S.No	Description		Before joining the business		After joining the business	
			Frequency	Percent	Frequency	Percent
<b>1.</b>	Meals served per day					
	1.1	Twice	<b>33</b>	<b>22</b>	<b>8</b>	<b>5.3</b>
	1.2	Three times	<b>110</b>	<b>73.3</b>	<b>128</b>	<b>85.4</b>
	1.3	Four times	<b>7</b>	<b>4.7</b>	<b>14</b>	<b>9.3</b>
	Total		<b>150</b>	<b>100</b>	<b>150</b>	<b>100</b>
<b>2.</b>	Average meals served		<b>2.8</b>		<b>3.04</b>	

**Source: Survey data, 2011**

In addition to their economic status, the street vendors were also asked to indicate their number of meals served per day. In view of that 72.33% of the street vendors were able to take food three times per day prior to the business, whereas the remaining 22% and 4.67% of the street vendors were able to take food twice and four times prior to the business respectively. Generally speaking, the average meals served per day of the street vendors prior to the business were 2.8.

In view of the street vendors' number of meals served per day after joining the business, majority of the vendors (85.33%) were taking foods three times. Whereas the remaining 9.33% and 5.33% of the street vendors were able to take food four times and two times after joining the business respectively. Generally, the average frequency of meal served per day of the street vendors after the business was 3.04. According to the interview made to support the questionnaire with some street vendors almost all of the street vendors replied:

*“we used to take food three, four or more than four times per day prior to the business and now we are taking food three, four or more than four times per day but what matters is the quality and quantity of food that we used to take and we are taking now”.*

The above response of the vendors' reveals that there is improvement in quality and quantity of meal served after joining the business. Statistically the result found to be highly significant at 1% with p value of  $p < 0.0000$  (See Appendix C- ii).

### 4.3.3 Livelihood and Physical Capital Before and After Street Vending

In this section of the paper comparisons of physical capital (television, radio/tape, satellite dish, sofa set, refrigerator, closet (wardrobe), commodity set, bed and rent/residential house) before and after joining the business are presented and discussed using the following tables.

#### 4.3.3.1 Physical Capital - Household Commodities

**Table 4.9: Physical capital- household commodities before and after the business**

S.No	Description	Before joining the business		After joining the business	
		Percent	Average Cost	Percent	Average Cost
1.	Did you have the following household commodities?				
1.1	<b>Television</b>				
	Yes	6	154.7	32	438.1
	No	94		68	
	<b>Total</b>	100		100	
1.2	<b>Radio/tape</b>				
	Yes	18	44.1	81.6	200.3
	No	82		18.4	
	<b>Total</b>	100		100	
1.3	<b>Satellite-dish</b>				
	Yes	0	0	6.7	55.3
	No	100		93.3	
	<b>Total</b>	100		100	
1.4	<b>Sofa set</b>				
	Yes	4	27	9.3	58
	No	96		90.7	
	<b>Total</b>	100		100	

Source: Survey data, 2011



In addition to their economic status the street vendors were also requested to indicate their physical capital by classifying in to two categories;

- ✓ Physical capital –household commodities
- ✓ Physical capital- utilities

As clearly depicted in the table 4.9 above, the street vendors were requested to recall and indicate their household commodities prior to the business. Accordingly, 6%, 18%, 0%, and 9.33%, of the street vendors replied that they did possess Television, Tape/radio, Satellite-dish and Sofa-set before joining the business respectively. While majority of the street vendors 94%, 92%, 100%, and 90.67% replied that they did not possess Television, Tape/radio, Satellite dish, and Sofa-set before the joining the business respectively.

When we look at the average costs of the household commodity, it was found that the average costs of Television, Tape/radio, and sofa set before joining the business were 154.7, 44.1 and 27 ETB respectively. Regarding satellite dish since none of them owned before and after joining the business, the average cost was 0. Putting the average cost of television (154.7 ETB) and the minimum cost of television (1350ETB) before joining the business into consideration; 1 television (14 inch) gives service to around 9 street vendors. By the same token, a single sofa set worth of (400 ETB) gives service to around 14 street vendors. On the other hand, a street vendor had a radio worth of 44.1ETB before joining the business.

Furthermore, the survey was designed to investigate the vendors' livelihood situations after the business has launched. With reference to table 4.10 above, the street vendors also indicated their household commodities after joining the business. Accordingly, 32%, 81.56%, 6.67%, and 9.33%, of the street vendors replied that they have Television, Tape/radio, Satellite-dish and Sofa-set after joining the business respectively. While majority of the street vendors 68%, 93.33% and 90.67% replied that they do not have Television Satellite dish and Sofa-set after joining the business respectively. Furthermore, some 18.44% of the respondents do not have radio/tape after joining the business.

When we look at the average cost of each household commodity, the average costs of Television, Tape/radio, satellite dish and sofa set after joining the business were 438.1, 200.3, 55.3 and is 58 ETB respectively. Putting the average cost of television (438.1ETB) and the minimum cost of television (1350ETB) after joining the business into consideration; 1 television (14 inch) gives service to around 3 street vendors. By the same logic, a single sofa set worth of (400 ETB) gives service to around 7 street vendors. Moreover, given the average cost satellite dish (55.3 ETB) and the minimum cost of satellite dish (750 ETB); 1 satellite dish gives service to 13 street vendors. On the other hand, a street vendor has a radio/tape worth of 200.3ETB after joining the business.

Statistically the change on Television, radio and satellite-dish found to be highly significant at 1% with P values of  $P < 0.0000$  (See Appendix C-iii, iv) and  $P < 0.0006$  (See Appendix C-v) respectively. Furthermore, sofa set found to be significant at 5% with p value of  $P < 0.0497$  (See Appendix C-vi).

**Table 4.10: Physical capital-household commodities and Rent/Residential House before and after the business**

S.No	Description	Before joining the business		After joining the business	
		Percent	Average Cost	Percent	Average Cost
1.	Did/do you have the following household commodities?				
1.5	<b>Refrigerator</b>				
	Yes	0		0	
	No	100		100	
	<b>Total</b>	100		100	
1.6	<b>Closet (wardrobe)</b>				
	Yes	4.7	13.7	23.33	73.4
	No	95.3		76.67	
	<b>Total</b>	100		100	
1.7	<b>Commodity set</b>				
	Yes	11.33	30.7	36.67	101.9
	No	88.67		63.33	
	<b>Total</b>	100		100	
1.8	<b>Bed</b>				
	Yes	55.03	153.6	100	340.2
	No	44.97		0	
	<b>Total</b>	100		100	
1.9	<b>Rent/Residential house</b>				
	Yes	41.33	27.4	100	132.8
	No	58.67		0	
	<b>Total</b>	100		100	

Source: Survey data, 2011

Moreover, the street vendors indicated their prior status to Refrigerator, Closet (wardrobe), Commodity-set, Bed and Rent/Residential House. Consequently, 0%, 4.7%, 11.33%, 41.33%, and 55.03%, possessed Refrigerator, Closet (wardrobe), Commodity- set, Bed and Rent/Residential House respectively. Whereas, 100%, 95.3%, 88.67%, 44.97% did not possess Refrigerator, Closet (wardrobe), Commodity-set, Bed and Rent/Residential House correspondingly. The average costs of the household commodities have also been calculated. Accordingly, the average costs of closet, and commodity set, before joining the business were 13.7 and 30.7 ETB respectively.

The average cost of Bed before joining the business was 153.6ETB with 50 ETB minimum and 700 ETB maximum values. Different interpretations were given to what bed is by the respondents. Some of them said bed for me is something that helps me to sleep on and get rest, for some other well designed and something made up of wood or metal is bed. For some of them some soft material made up of straw is bed for some respondents. That is why the minimum cost for bed lays on 50 ETB.

Concerning Rent/Residential house the average cost of rent was 27.4 ETB. Since some of the respondents possess residential house and some of the respondents' prior occupation was student or helping family the minimum cost for Rent/ Residential house lays on 0 ETB. On the other hand, none of the street vendors had owned Refrigerator therefore; the average cost for it was 0.

Therefore, figures in the above table 4.9 and 4.10 indicate none of the vendors had Satellite-dish and Refrigerator; as per the vendors' response the reasons for not possessing Satellite-dish and refrigerator (all street vendors) and the other household commodities (majority of the street vendors) before the business were

- ⊗ Before some years Satellite-dish and Refrigerator were considered as luxury commodities.
- ⊗ Ethiopian Television program was more than enough recreational program since the only option was Ethiopian television with limited hours of coverage.
- ⊗ There were other needs that demands priority (priority for other needs were given than Satellite-dish and Refrigerator).

- ✎ Some of them were dependent on others like students, working with family so that they were not able to buy the commodities.
- ✎ Above all, there was no enough amount of money to be spent to all the needs that they had;

However, very few vendors (less than 10%) had Television Sofa set, and closet; whereas some vendors possessed Tape/radio and commodity-set (18% and 11.5%) respectively before joining the business. On the other hand significant number of street vendors had Bed (55%), Rent/Residential house (41.3%) before joining the business.

In addition to the above discussed commodities the street vendors indicated their physical assets ownership on Refrigerator, Closet (wardrobe), Commodity-set, Bed and Rent/Residential House after joining the business. Consequently, 0%, 23.33%, 36.67%, 100% and 100% possessed Refrigerator, Closet (wardrobe), Commodity- set, Bed and Rent/Residential House respectively. Whereas, 100%, 76.67%, 63.33%, 0% and 0% do not possess Refrigerator, Closet (wardrobe), Commodity-set, Bed and Rent/Residential House correspondingly. When we look at the average cost of the commodities, the average costs of closet, commodity set, and Bed after joining the business were 73.4, 101.9 and 340.2 ETB respectively. Different interpretations were given to what bed is as mentioned above by the respondents.

Concerning Rent/Residential house the average cost of rent after joining the business is 132.8ETB. Since very few respondents possess residential house and some of the respondents' prior occupation was student or helping family the minimum cost for Rent/ Residential house lays on 0 ETB. On the other hand none of the street vendors possesses Refrigerator even after joining the business.

The above figures in table 4.9 and 4.10 indicate that after joining the business there is some change in possession of the household commodities except for Refrigerator. According to the interview made with the respondents the reason for not having refrigerator is because of lack of money. To express their shortage of money before and after joining the business most of the vendors replied:

*“Had we had enough money, we would have bought all household commodities”.*

On the other hand the reason for the change in possession of other household commodities is significant numbers of respondents 76% were dependent on others (students, helping families, dependent unemployed and house Mrs.) prior to the business. But now they are fighting poverty and dependency from the street. Statistically the change on Closet (wardrobe), commodity-set Bed and Rent/Residential house found to be highly significant at 1% with p value of  $P < 0.0000$  (See Appendix C-vii, viii, ix, x) for each commodity.

#### 4.3.3.2 Physical Capital- Utilities

This part of the paper elucidates about expenditure of the vendors on physical utilities (water, telephone, electricity and transport) before and after joining the business.

**Table 4.11: Physical capital-utilities prior to the business**

S.No	Description		Before joining the business		After joining the business	
			Percent	Mean	Percent	Mean
<b>1.</b>	<b>Average monthly expenditure on:</b>					
	1.1	Water	8.7	.67	22.7	3.2
	1.2	Telephone	0	0	40	11.8
	1.3	Electricity	0	0	4.7	.89
	1.4	Transport	0	0	53.3	20.7

**Source: Survey data, 2011**

As clearly depicted in the above table 4.11 the street vendors' former utilization of the utilities (physical capital) were addressed in the survey. Consequently, only few of the street vendors (8.7%) were able to use water utility with an average cost of .67 ETB. All in all the street vendors had no costs for telephone, electricity and transportation.

The reason for not paying to electricity utility was those who have their own residential house they used to have electric power from neighbours and the cost was covered by the rent, for those who were in rent it was included with the rent cost (they used to pay electric cost with rent). The figures in the above table imply that all of the street vendors did not have phone either mobile or fixed in their home. Even they did not pay for transport in their day to day activities (life) except in rare occasions.

Being clearly depicted in the same table the street vendors' current utilization of the utilities (physical capital) has also been addressed in the survey. Consequently, 22.67%, 40%, 4.67% and 53.33% of the vendors were able to pay for water, telephone, electricity and transport respectively. The average costs that a vendor pays for water, telephone, electricity and transport were 3.2 ETB 311.8 ETB, .89 ETB and 20.7 ETB respectively. Comparing with their former usage of physical utilities there is slight change in their utilization after joining the business. Using t- test the result found to be highly significant at 1% for water, telephone and transportation with the p value of  $P < 0.0000$  (See Appendix C-xi, xii, xiii) where as electricity found to be significant at 1% with P value  $P < 0.01$  (See Appendix C-xiv).

### 4.6.3 Livelihood and Financial Capital before Street Vending

Average monthly income and saving of the street vendors (financial capital) are presented and discussed in the following table.

**Table4.12 Average monthly income and saving before joining the business**

S.No	Description	Before joining the business		After joining the business		Difference in percent $\frac{Ma^4 - Mb^5}{Mb}$
		Percent	Mean	Percent	Mean	
1.	Average monthly income before joining the business	71.333	213.1	100	568.4	166***
2.	Average monthly saving before joining the business	97.33	36.2	82.67	109.3	202***

**Source: Survey data, 2011** \*\*\* Significant at 1%

From the 150 sample respondents 97.33% of the street vendors recognized and indicated their average monthly saving prior to the business. But only 71.33% of the sample respondents indicated their average monthly income prior to the business. According to the figure in the table above the average monthly income and saving before joining the business were 213.1 and 36.2 ETB respectively. It is really interesting and amazing from the average income of 213.1 ETB on average they were able to save 36.2 ETB.

With reference to table 4.12, all the (100%) of the street vendors recognized and indicated their average monthly income after joining the business. But 82.67% of the sample respondents indicated their average monthly saving after the business. According to the figure in the above table 4.12 the average monthly income after joining the business was 568.4 ETB.

<sup>4</sup> Mb-Mean before

<sup>5</sup> Ma-Mean after



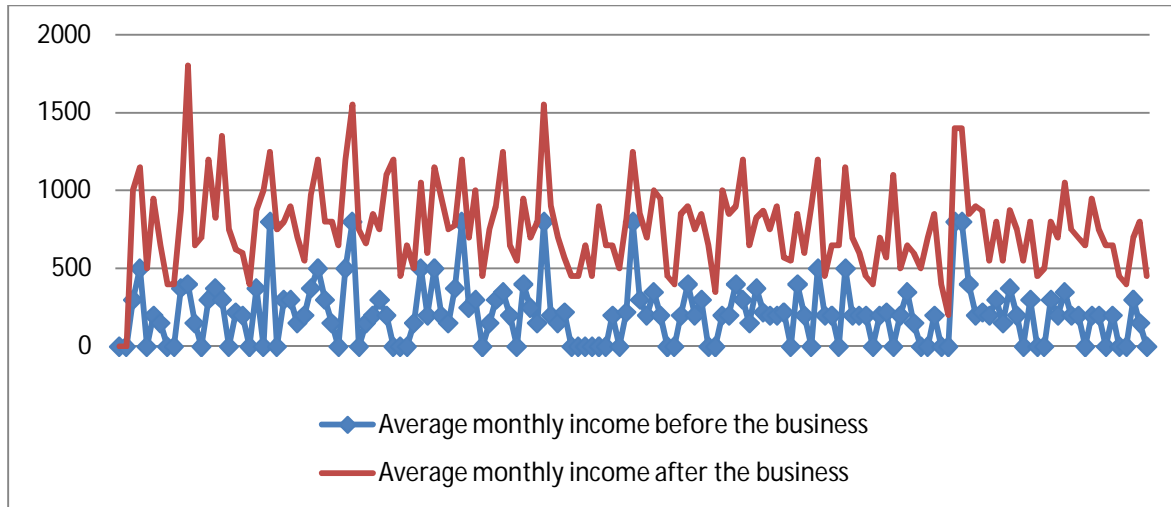
Concerning the average monthly saving of the street vendors after joining the business, they were able to save 109.3 ETB on an average from their monthly income. From the average income of 568.4 ETB on average they were able to save 109.3 ETB after joining the business. When the income of the vendors before and after the business is compared on average the income of a street vendor is increased by 166% after joining the business. Statistically the change found to be significant at 1% with P value of  $P < 0.000$  (See Appendix C-xv). Regarding the change in saving of the vendors after joining the business their saving has increased by 202% before joining the business. This underlines that the vendors sacrificed their prior consumption for the better future. Statistically the change in saving found to be significant at 1% with p value of  $P < 0.0000$  (See Appendix C-xvi).

As indicated above the average net income of the street vendors is around 1.1(568.4/16.7)) US dollar per day (568 Ethiopian birr). Assuming the international poverty line to be 1USD<sup>6</sup> per day, if a street vendor is a sole income earner supporting three people in the family (average family size), with an average of 568.4 ETB per day, street vendors will fall below the poverty line. Past researches by (Agnello and Moller 2004), Banwell (2001) and Kusakabe (2006) underlined that street vendors live below 1 USD a day, and with most of the street vendors being the major earner in the family, street vendors and their families can be categorized as the poorest of the urban poor.

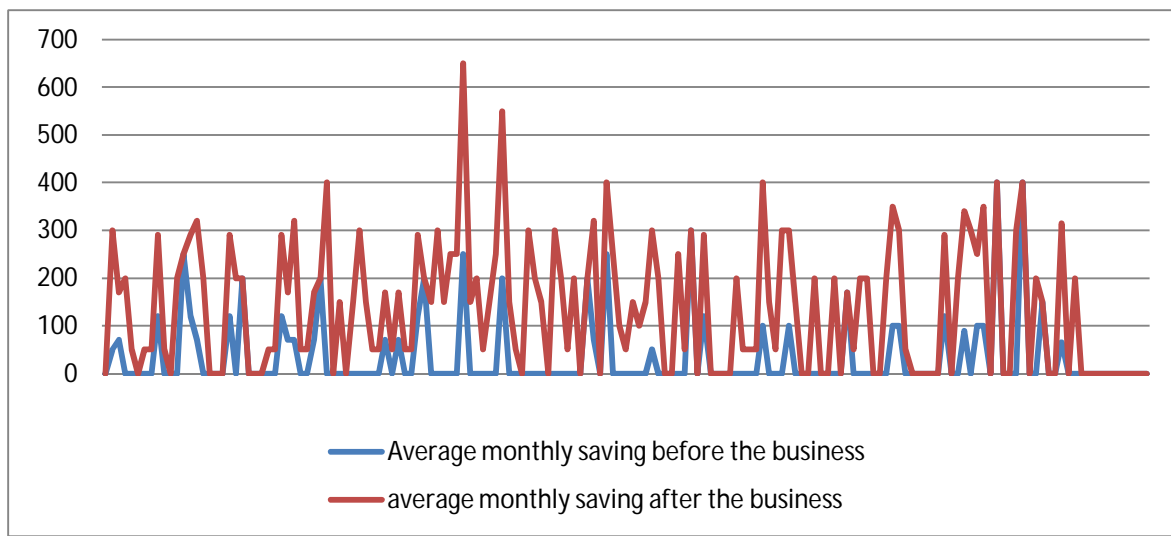
In addition to the above general discussions about average monthly income and saving, the following two figures are prepared; the first figure 4.6 describes about the average monthly income distributions and variations among the street vendors. The second, figure 4.7 depicts saving variation among the street vendors.

---

<sup>6</sup> 1USD=16.8... ETB as of May 8, 2011



**Figure 4.6: Average monthly income before and after the business**



**Figure 4.7: Average monthly saving before and after the business**

#### 4.6.4 Livelihood and Human Capital before Street Vending

Human capital of the vendors particularly their investment on food, health and education are presented and discussed in the table below.

**Table 4.13 Average monthly expenditure on food, health and education**

S.No	Description		Before joining the business		After joining the business		Difference In percent <u>Ma-Mb</u> Mb
			Percent	Mean	Percent	Mean	
3.	Average monthly expenditure on:						
	1.1	Food	67.3	167.7	98.7	414	147***
	1.2	Heath	66	0	41.3	2.2	220***
	1.3	Education	54	6	59.3	17.9	198***

**Source: Survey data, 2011**

\*\*\* Significant at 1%

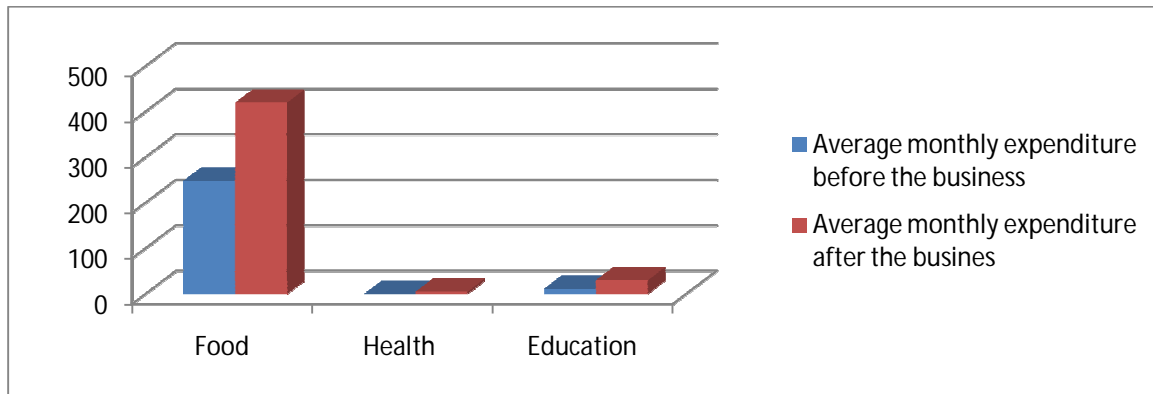
The other point of investigation that the survey addressed was livelihood and human capital prior to the business. Hence, the street vendors were asked about their human capital by dealing with their average expenditure on food, health and education before joining the business. Accordingly, the average monthly expenditure on food and education were 167.7 and 6 ETB respectively.

On the other hand the average monthly expenditure on health was found difficult to calculate because almost all of the respondents replied that they did not get any diagnosis and treatment from any of the formal health centers like private and public clinics, hospitals because of the nature the diseases that they had and cost associated with formal treatments. Furthermore, according to the interview for the question have you ever incurred cost to health/ have you saved

some amount of your money for health expense? Some respondents replied about the health expense as follows:

*“It is not something you calculate in advance or you incur it day to day like food since sickness is spontaneous not expected”.*

Because of these reasons it was difficult to calculate health expenditure. In addition to their prior human capital status the venders were also requested about their human capital with reference to their average expenditure on food, health and education after joining the business. Accordingly, the average monthly expenditure on food, health and education after joining the business were 414 ETB, 2.2 ETB and 17.9 ETB respectively. When we look at the change in the human capital, there is significant change in the human capital after joining the business. Hence, the average expenditure on food, health and education is increased by 147%, 220% and 198% respectively. Statistically the results found to be highly significant at 1% with p value  $P < 0.0000$  (See Appendix C-xvii, xviii. xix).



**Figure 4.8: Average monthly expenditure on food, health and education before and after the business**

#### 4.6.5 Livelihood and Social Capital before Street Vending

The following table deals about the vendors' social capital (relationship with their neighbourhoods, participation in Equib and Edir) before and after the business.

**Table 4.15 Social capital-Equib, Edir and relationship with neighbourhood**

S.No	Description	Before joining the business		After joining the business	
		Frequency	Percent	Frequency	Percent
1.	Have you had relationship with your neighbourhoods before joining the business?				
	Yes	150	100	150	100
	No	0	0	0	0
	<b>Total</b>	150	100	150	100
2.	Participation in informal group before the business				
	2.1 Equib				
	Yes	1	0.67	68	45.3
	No	149	99.33	82	54.7
	<b>Total</b>	150	100	150	
2.2	Edir				
	Yes	12	8	12	8
	No	138	92	138	92
<b>Total</b>		150	100	150	150

**Source: Survey data, 2011**

Concerning livelihood and social capital, the street vendors were requested to indicate the relationship they had with their neighbourhood and their former participation in informal (social) groups prior to the business. With reference to the above table 4.15 all of the respondents responded they had relationship with their neighbourhoods. Since this is the social value that is handed down from generation to generation.

The other point that was addressed is their participation in Equib and Edir prior to the business. Accordingly, almost all (99.3%) and 92% of the street vendors did not participate in Equib and Edir respectively.

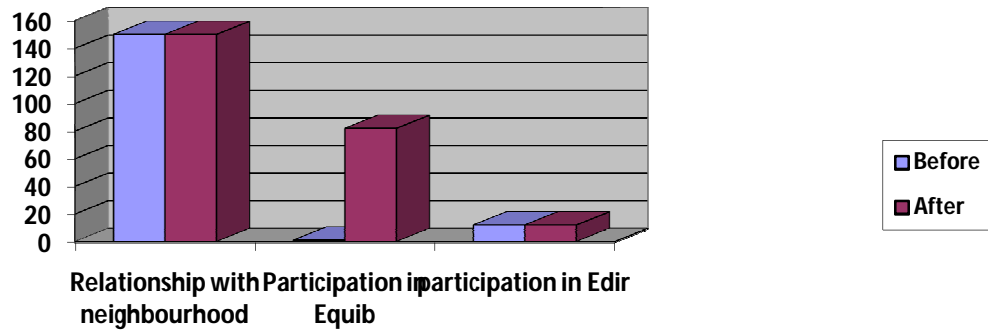
The street vendors were also requested to indicate the relationship they have with their neighbourhood and their participation in informal (social) groups after the business. With reference to the above table 4.15 all of the respondents responded they have relationship with their neighbourhoods after joining the business. The difference between before and after relationship with neighbours is the degree of relationship; i.e. relationship is more improved with better interaction than before. The other point that was addressed is their participation in Equib and Edir after the business. Accordingly, 8% and 45.3% of the street vendors did participate in Equib and Edir respectively after joining the business.

Some of the reasons that they raised for their inability to participate in the social groups were

1. The amount of money that they got was not enough to fulfill all their basic needs and to save the remaining amount in the social saving institution known as Equib for future use.
2. To be member of Edir there are a number of criteria that one person should fulfill like duration of stay in one place, age and understanding of social values i.e. understanding the benefit of participating in Edir. According to the interview made with the vendors the reasons for not participating in Edir were: 41% and significant number of the sample respondents were students and migrants.

From the above discussion the most important social capital for the street vendors was Equib. Since the vendors are doing business on streets Equib help them to run their business for the following reasons.

1. It is a means of saving for future use, like consumptions and expansions
2. It is a source of financing for the vendors. In times when the vendors need money they purchase the amount with interest from others who are not in need of money for that period.



**Figure 4.9: Relationship with neighbourhood, participation in Equib and Edir before and after the business**

## 4.8 Change in Livelihood

**Table 4.16 Change in livelihood**

S.No	Description	Respondents	
		Frequency	Percent
1.	Do you think that there is a change in your livelihood after joining the business?		
	Yes	120	80
	No	30	20
	Total	150	100
2.	What do you think are the changes?		
2.1	Self sufficiency and leading independent life	112	93.33
2.2	Being able to support family	56	46.67
2.3	Able to generate income	89	74.79
2.4	Having savings but not considering expansion	89	74.79
2.5	Having saving and considering expansion	5	4.20
2.6	Having more children to school (afford school fee)	19	15.83
2.7	Other	11	9.17

Source: Survey data, 2011

According to the result from the survey, majority (80%) of the vendors have achieved some change as a result of the street vending. Whereas, the remaining 20% believe as they have not achieved any change. Some of the changes that the vendors have got from the business were self sufficiency and leading independent life (93.33%), able to generate income (74.79%), Having savings but not considering expansion (74.79%), being able to support family (46.67%) and having more children to school (15.83%). Moreover, there were also other changes like rest and freedom that the benefits they derived from the business. Above all of the changes mentioned, autonomy is the most important change that they have got from the business. The economic independency and being able to generate income for their day to day life contribute for their positive feeling on the business. The expression of autonomy is impressive by the vendors as one street vendor who was daily labourer said;

*“Here in this business there are two workers the first one is the boss and the other one is the operating worker. I am the operating worker as well as the boss at the same time; no one will let me do the job but myself and my objective. Now, I have everything I earn money for food, rent, clothe and other expenses; not only this if I want to rest I do but when I was daily labourer I used to get less money by exerting much more energy and effort. Generally speaking, working here on street is saving energy, getting money and leading independent life with full of autonomy. ”*

Another vegetable vendor also expressed the change that she got from the business as follows;

*“Forget about money the most important thing is rest; I used to wash the whole day from morning to evening and I used to get less money (20birr) with much more energy but now I exert less energy but getting more money, knowing more people, visualizing something better than before.”*

Therefore, from the above discussion it is reasonable to say that majority of the vendors are getting financial and non financial benefits from street vending in better way than their former jobs.



## 4.9 Expectation of the Vendors on Street Vending

Expectations of the vendors towards the business particularly to stay or not to stay in the business and the reasons for the corresponding expectations are discussed below.

**Table 4.17 Expectation of the vendors on street vending**

S.No	Description		Respondents	
			Frequency	Percent
1.	Do you want to be street vender all of your life?			
		Yes	21	14
		No	129	86
		Total	150	100
2.	<b>Reasons to stay in the business</b>			
	2.1	I want to save money	1	4.76
	2.2	Autonomy	18	85.71
	2.3	Too old have no other choice	1	4.76
	2.4	Off season occupation	1	4.76
	2.5	Waiting for students to finish school	1	4.76
	2.6	Other	11	52.38
3.	<b>Reasons not to stay</b>			
	I want to go home		19	14.73
	Too old I want to rest		1	.7
	I want to do something else/change the business		80	62.01
	Other		44	34.1

**Source: Survey data, 2011**

As clearly seen from the above table 4.17, the vendors were asked to indicate their expectation on the business. Accordingly, very few vendors (14%) want to work on street because of autonomy, age and other reasons. On the other hand, majority of the vendors (86%) do not want to work in the business for all of their life time. The reasons not to stay in the business were; because majority of the vendors want to change the business to do something else than selling on street (62%), 14.73% of the vendors want to go home and 34% of the vendors had another reasons not to stay in business.

## 4.10 Attitude towards Others about Street Vending

In this section of the paper attitudes of the vendors towards their friends, children and other people other than their friends and children are presented.

**Table 4.26: Attitude of the vendors towards others**

S.No	Description	Respondents	
		Frequency	Percent
1.	Do you encourage your friends to sell on street?		
	Yes	99	66
	No	51	34
	Total	150	100
2.	Do you encourage your children to sell on street?		
	Yes	0	0
	No	150	100
	Total	150	100
3.	Do you encourage anyone other than your friends and children to sell on street?		
	Yes	88	59.06
	No	61	40.94
	Total	150	100

**Source: Survey data, 2011**

In addition to their expectation to stay in the business the survey also addressed about their attitude towards other people to work on street vending. Accordingly, 66%, 0% and 66% of the respondents want their friends, children and other people to be street vendors. While the remaining 34%, 100% and 34% of the respondents don't want their friends, children and other people to be street vendors. The reasons for working and not working on streets are discussed below.

## **Reasons to work on street for their friends and other people**

According to the vendors the main reasons why they encourage their friends and other people to work on street were; because some respondents believe in change via work and they said “to be changed via work”. For some other vendors the main reason that they encourage others to sell on street was because “If there is no option available for them for sure this is the best option for them”. Other vendors replied that the main reason that they encourage others to sale on street was “Because if you work hard the income is better than from being employee in organizations”. Some vendors replied that “Because to lead independent life”. Significant numbers of the vendors believe that working here on street could be valuable for their friends and other people “Because the profit that they get from the business is crucial to fulfill their daily needs and lead independent life”.

## **Reasons not to work on street for their friends and other people**

On the other hand significant numbers of vendors don't encourage others to sale on street. Some of reasons raised by the vendors were” Because of municipality workers, because it is difficult to get premises, no security at all”. For some other vendors the reasons that they don't encourage others to sale on street were “Because they dislike the work, they are not satisfied by the business, the income is not sufficient to satisfy all their needs, the time is not convenient”. But as repeatedly mentioned by the vendors, they don't encourage others to sale on streets of the city because of municipality workers and police men. As one vender said:

*“It is difficult selling on street because there is no legal protection at all in the business. Even the municipality workers and police men are against us which make this business unsecured and our life questionable”.*

## Reasons not to work on street for their children and other people

During the survey the vendors also requested to indicate their attitude towards their children on street vending. Surprisingly, all the vendors replied that they don't encourage their children to sell on street. Some of the reasons that they don't encourage their children to sell on street are: "to get my children educated, I don't encourage my children to sell on street but I want them grow properly and work on offices or something better than this business". Some of the vendors said "I want my children to be better than me in all aspects like economic, education, living condition etc."

The positive attitude towards their children particularly in education and working in offices is really magnificent. The summary of their reasons is presented below;

*"How could I wish my children to work here on street, because this is the job that you get in, it is not as a matter of choice but because of lack of choice. Furthermore, I wish and need my children to reach high levels of education like professor, doctor etc and better jobs. The reason why I am working here on street is in order for my children not work here.*

## 4.11 Problems of Street Vending

Using Likert Scale which is a rating scale designed to measure user attitudes or reactions by quantifying subjective information. Respondents indicate where along a continuum their attitude or reaction resides. In order to know the extent and severity of the problems the survey was designed in five scale responses ranging from 1=very serious to 5=not serious. Accordingly, the vendors indicated their attitudes and reactions to the problems and are presented in the table below.

**Table 4.27: Problems of street vending**

S.No	Item	Observation		Mean	Standard deviation
		Freq.	Per.		
<b>1.</b>	<b>Description of the problem</b>				
	1.1 Lack of space - adapted premises	150	100	1.3	.45
	1.2 Financial difficulties – lack of access to capital and credit	150	100	1.5	.64
	1.3 Sale of product - lack of customer	150	100	1.6	.87
	1.4 Lack of equipments	150	100	1.8	.92
	1.5 Other (municipality related problems)	150	100	2.3	1.8
	1.6 Sale of product- too much competition	150	100	3.5	1.2
	1.7 Lack of Supply of raw materials (quantity)	150	100	3.7	1.2
	1.8 Lack of managerial skill	150	100	3.8	1.2
	1.9 Lack of promotional support	102	68	4.1	1.1
	1.10 Lack of Supply of quality raw materials	150	100	4.12	.89
	1.11 Lack of supply of finished products	150	100	4.2	.79
	1.12 Lack of formal linkage with other sellers	150	100	4.3	.87
	1.13 Lack of Informal linkage with other sellers	150	100	4.31	.75.

Source: Survey data, 2011

Concerning the problems of the vendors the most serious problems that the vendors faced in the street vending environment according to their importance and severity are ranked as follows:

1. Lack of space - adapted premises
2. Financial difficulties – lack of access to capital and credit
3. Sale of product - lack of customer
4. Lack of equipments

According to the response of the vendors the mean results of the problems have been calculated. In view of that, the most serious problems rated by the street vendors were lack of space (adapted premises) with mean result of 1.3 and financial difficulties (lack of access to capital and credit) with mean result of 1.5. Hence, the mean results show that lack of space (adapted premises) and financial difficulties (lack of access to capital and credit) were very serious problems. Sale of product (lack of customer) and lack of equipments were rated as serious problems with mean results of 1.6 and 1.8 respectively.

Furthermore, municipality related problems were the other serious problems rated by the vendors. Particularly the problem of municipality workers is well expressed by one vendor as follows;

*“.....municipality workers, it is better if not spoken, they are creating problems over problems” “adding fuel to fire”*

***“BEENKIRET LAY JORO DEGIF”***

In addition to the above problems sale of product- as a result of too much competition was rated as average problem for the vendors. On the other extreme, lack of Informal linkage with other sellers, lack of formal linkage with other sellers, lack of supply of finished products, lack of supply of quality raw materials, lack of promotional support, lack of supply of raw materials (quantity) and lack of managerial skill were not serious problems for the vendors.

## 4.12 Overall Evaluation by Vendors to Street Vending

**Table 4.20: Overall evaluations of the vendors**

S.No	Description	Respondents	
		Frequency	Percent
1.	Do you think that you are successful in the business?		
	Yes	113	75.3
	No	37	24.7
	Total	<b>150</b>	<b>100</b>

**Source: Survey data, 2011**

With reference to the above table 4.28, 75% of the vendors were successful in the business though the degree and interpretation of success differ from vendor to vendor. The varying interpretation of success by the vendors were, for some vendors success is defined as getting enough income for their current and future consumption, for some vendors they would feel successful if they accumulate saving, for some vendors changing and expanding their business is success. According to their definition the reasons for their success were: hard working (100%), Self confidence (99.1%), Knowledge of cheap sources of raw materials/products (80.9%), knowledge of financial planning (65%), Good relationship with vendors (61.4%), and good relationship with buyers (83.3%) and location advantage (86%). Different researchers have identified the success factors for street vendors.

According to International Labour Organization's view on self employment, the success factors for street vendors are:

- Personal characteristics,
- Knowledge,
- Resource and
- Supportive environment.

From the ILO's propositions on self employment Neufeldt and Albright (1998) identified and incorporated self-confidence, risk-taking, and energy into the personal characteristics; literacy, knowledge of production, and knowledge in management into knowledge foundation; resources foundation involves capital; and environment foundation entails support or enabling measures from government (Neufeldt and Albright, 1998,).

In addition to the above factors Teilhet-Waldorf 1978; Moser, 1980; Loprayoon, 1991; Norapallop, 1993; Sirisamphand, 1994; Nirathron 1996; Nophirun, 1997; have pointed out the factors that contribute to economic performance of the street vendors. The factors are;

1. Knowledge of market- knowledge on products in demand, price fluctuation, production process
2. Good relationship with other people- other vendors and state officials
3. Availability of social capital
4. Own capital
5. Family support

On the other hand, 24.7% of the vendors were not successful in their business. The failure factors for the vendors were lack of financial planning (cost-profit calculation) (95.7%), over spending (61.7%), bad pricing (50%), Punishment by municipality (48.94%), and high interest rates to pay (30.4%). In the case of unsuccessful vendors, some research studies indicated contributing factors such as lack of family support, lack of capital, and having dependent children (Loprayoon, 1991; and Nirathron, 1996). Being unsuccessful meant that the vendors were not able to earn enough income and had to give up their businesses (Nirathron, 2006).



# CHAPTER FIVE

## CONCLUSION AND RECOMMENDATION

---

*The chapters presented so far introduced the subject matter, brief out the theoretical and empirical literature, outline the methodology followed in search for answers to the basic research questions and portrayed the results and discussions. The current chapter deals with the presentation of the conclusions drawn based on the results and discussions obtained. Finally, the chapter ends after providing a number of recommendations and policy implications to different stakeholders based on the output of the research.*

---

### 5.1 Conclusions

The general objective of the study was to examine the role of informal sector particularly street vending on household livelihood in Mekelle city. Informal sector like any other sectors contribute for development endeavour of our country. More specifically the sector benefits our country via creation of employment opportunity and income generation activities for the poor, socially marginalized, those who lack skill for formal jobs. Therefore, the sector in general and street vending particularly is significant contributor in poverty alleviation.

Majority of the productive poor people in the city are forced to join and fight poverty from streets due to lack of formal jobs, sense of independency and lack of other options as a means of income generating activities. Majority of the people in the city who joined the street vending are characterized by low level of education with illiterate lower hand and 12<sup>th</sup> grade upper hand of literacy. Moreover, the average working age category of the street vendors was 30 years with average family size of three.

The sex composition of fruit and vegetable and “other” is dominated by female. On the other hand, Sunday market vendors are dominated by male. This male/female dominated business operation on street arises from the role difference between male and female. Generally, people opt to sale on street in activities in which they were exposed prior to the business, because of the knowhow and information that they have to operate the business successfully. In a nutshell, street vending provides employment opportunity and means of income generating activity for male, female, old, young, illiterate and educated poor people of the city. Furthermore, it is crucial armed force in fighting and reducing the extent and intensity of poverty in general.

On average the study has shown that the income welfare and saving of those who joined street vending has increased by 166% and 202% from their prior income and saving respectively. This underlines that their wellbeing has also improved and changed to some extent. Although, income is not the only indicator of quality of life or wellbeing, it indicates the opportunities that could be available to a person or household (Girod, 1986). As a result of the improved income, some changes in their possession of physical capital both household assets and utilities have been achieved. However, the change that they have achieved is not yet satisfactory.

The study underlines that street vending contributed a lot for the street vendors’ social capital particularly their participation in Equib. Since the business demands more interaction, exchanging of transactions via buying, selling, borrowing, lending etc as a result of this the vendors’ relationship with their neighbourhoods has also improved than before. However, the contribution of the business towards enhancing participation in Edir has been found less.

The contribution of the sector is also significant in changing the economic status of the vendors, utilization of human capital, and meals served per day. The result showed that the number of poor is reduced by 34% (improved from poor to the better off poor). Regarding the meals served per day although the average of meal served before and after is almost the same, the quality and quantity of meal served is improved after joining the business. Furthermore, the investment of the vendors on human capital has increased after joining the business. More specifically the expenditure on food and education has increased by 147% and 198% respectively.

In comparison with their former jobs significant numbers of vendors have achieved financial and non financial changes as a result of the business. Some of the changes that they have derived from the business are; self sufficiency and leading independent life, able to generate income, having savings but not considering expansion and being able to support family. Above all the most important non-financial changes that they got from the business are rest and autonomy.

Regarding the expectation of the vendors on the business, majority of them don't want to stay in the business. The reason that they mentioned was they want to do something better than the business /change the business because of lack of security in the business. Furthermore, most of the vendors encourage other people to sale on street since the income from the business is sufficient to lead independent life. However, most surprisingly all of the vendors (100%) don't want their children to work on street.

Although street vending is contributing a lot for livelihoods of the poor people in the city, the street vendors are facing numerous obstacles. Among other things due to lack of space - adapted premises, financial difficulties – lack of access to capital and credit, Sale of product - lack of customer, lack of equipments and municipality related problems the role of the sector that could have been achieved in the absence of the problems is diminished.

However, with all these and other problem the street vendors have achieved some success in the business. Factors like the vendors' personal characteristics (hard working and self confidence), knowledge (knowledge of cheap sources of raw materials/products, knowledge of financial planning,) and supportive environment (Good relationship with vendors and buyers) were some of the success factors in the business.

## 5.2 Recommendations

Based on the findings of the study and conclusions made the following recommendations and policy implications are forwarded to different level of decision makers and potential researchers in the area.

Street vending is important income generating activity and armed force to combat and reduce poverty. However, the income levels in the business are low since the street vendors start the business with very small start up capital and the return is small too. As a result of this, the incidence of poverty is high. Therefore, it is recommended that micro-credit should be available to the vendors so that they can engage in micro-enterprises with high level of capital than they have. [To be changed from nano enterprises to micro enterprises].

The most serious problem raised by the vendors was lack of selling premises. Therefore, the municipality should work on how to appropriate selling premises for the vendors. Moreover, another serious problem raised by the vendors was municipality related problem. Municipality workers are against the vendors affecting their day to day business transaction. Evidently, the responsibility to keep the city attractive and beautiful lies on the municipality. But, some vendors may work their activities on streets which affect beauty of the city. As a result of this, putting an extra pressure (punishment) on the street vendors may lead development to unwanted direction. Therefore, street vendors and municipality should work together so as to create a point where mutual benefit can be maximized.

The city administration should work on capacity building by providing versatile training schemes, education and other supports to the vendors. Hence, efficiency and quality of goods and service provision of the vendors will be improved. Furthermore, it can serve as a means of raising enterprise and vendors' income and make development sustainable in the long run.

The informal sector in general and street vending in particular is a breeding ground for entrepreneurs and has a lot of potential capabilities, good ideas, entrepreneurial skills, and education, which need to be exploited for the development endeavours. Therefore, regional government (city administration) should reward to those who perform well in the business as what is rewarding to development actors. Furthermore, non-governmental organisations should provide financial support for the street vendors.

### **5.3 Policy Implication**

One of the goals of growth and transformation plan is to decrease the number of people living below poverty line. To do this government should deal and work with the vendors since they are the poorest of the urban poor. Therefore, government should design macroeconomic policies that promote pro-poor growth and working side by side on formalization of the street vending so that the sector will contribute its share to reduce the level and intensity of poverty. Above all, it will help the government to achieve couple objectives at a time reducing the number of poor and generating income from the poor as a result of formalization.

### **5.4 Further Research Area**

Finally, this study did not pay attention to all aspects of informal sector. It focused only on the role of informal sector on household livelihood with very limited scope. Therefore, the study suggests that in order to fully exploit the contribution of the sector and see synergetic effect of the two sectors how to formalize informal sector will be left to other interested researchers for further study to obtain relatively full conclusive results.

# Bibliography

- Agnello, Francesca and Joanne Moller (2004). *Vendors, purses: Women micro entrepreneurs and their business needs*, Phnom Penh, Cambodia, Urban Sector Group, Phnom Penh, March.
- Babb, Florence E. (1989). *Between field and cooking pot: The political economy of market women in Peru*. University of Texas Press, Austin.
- Becker, Flodman K. (2004). *The informal economy: Fact Finding Study*
- Banwell, Suzanna Stout (2001). *Vendors' voices: The story of women micro-vendors in Phnom Penh Markets and an innovative programme designed to enhance their lives and livelihoods*, The Asia Foundation, Phnom Penh, Cambodia
- BoFED, (2008). *Evaluation of Strategic plan of the regional state of Tigray: implementation modalities and impact of development intervention Tigray Ethiopia*
- Brenner, Suzanne April (1998). *The domestication of desire: Women, wealth, and modernity in Java*. Princeton University Press, Princeton.
- Bromley, Ray and Gerry, Chris (1979). *Who are the Casual Poor?: in Casual Work and Poverty in Third World Cities*. Edited by Ray Bromley and Chris Gerry. New York: John Wiley and Sons
- Bhowmik, Sharit K. (2005). *Street vendors in Asia: A review*. Economic and Political Weekly
- Blau, P.M. and Scott W.R. (1963). *Formal Organizations: A Comparative Approach*. London, Routledge and Kegan Paul.

- Bureau of Urban Development and Industry, (2010). Report on micro and small enterprises.
- Central Statistical Authority of Ethiopia (2003). *Results of the Survey on Informal Sector: Conducted in Ethiopia*
- Central Statistical Authority of Ethiopia (2007). *Population and Housing Census of Ethiopia: Statistical Report for Tigray Region*
- Cochran, W. G. (1977). *Sampling techniques* (3<sup>rd</sup> ed.).New York: John Wiley & Sons.
- Conway R. and Chamber R. (1991). *Sustainable rural livelihoods: practical concept for 21<sup>st</sup> century* IDS discussion paper
- CUTS center For International Trade, Economic and Environment (2009). *Informal Sector Definition and Its Implication on Growth: Briefing Paper*
- Deguchi, Atsushi, Kensaku Takaki, Kaori Miura, and Hiroaki Kitamura (2005). *The lively space and function of 'Yatai' in Fukuoka City*. Journal of Asian Urban Studies Vol. 6, No. 2
- Department for International Development (2002). Improving Livelihoods for the Poor: the Role of Literacy. Background Briefing (March).
- De Soto, H (1989).*The Other Path: The Invisible Revolution in the Third Worlds*. New York: Harper and Row Publishers
- DFID.2001.*Meeting the Challenge of Poverty in Urban Areas*, Final Draft UK
- Edgcomb, Elaine L. And Thetford Tamara (2004).*The Informal Economy: making it in rural America*; Aspen Institute, United States of America
- Economic and Social Commission for Asia and the Pacific (1996). *An Overview of the informal service sector in urban poverty alleviation: in selected Asian countries*
- Fidler, P. and L. Webster (eds.) (1996). *The informal Sectors of West Africa*. In P. Fidler and L. Webster (eds) *The Informal Sector and Microfinance in West Africa*. Washington D.C: The World Bank.

Ferej, A. K. (2000). *The Integration of Youth into the Informal Sector: The Kenyan Experience*.

Geertz, Clifford (1978). *The Bazaar Economy: Information and Search in Peasant Marketing*.  
*American Economic Review*

Geertz, Clifford (1963). *Peddlers and Princes: Social Development and Economic Change in Two Indonesian Towns*. Chicago: University of Chicago Press.

Gërkhani, Klarita (2003). *The Informal Sector in Developed and Less Developed Countries: A Literature Survey*; Tinbergen Institute Discussion Paper, Amsterdam Institute for Advanced Labor Studies (AIAS), University of Amsterdam.

Gonzalez, A. S and F Lamanna (2007). *Who Fears Competition from Informal Firms? Evidence from Latin America* Policy Research Working Paper 4316, World Bank

La Porta, R and A Shleifer (2008). *The Unofficial Economy and Economic Development*; NBER Working Paper 14520

Loayza, N A. (1997). *The Economics of the Informal Sector-A Simple Model and Some Empirical Evidence from Latin America*; Policy Research Working Paper 1727, World Bank

Gottdiener, M. and Budd, L. (2005). *Key Concepts in Urban Studies*, Sage Publication, Thousand Oaks and India.

Gouldner, A.W. (1954). *Patterns of Industrial Bureaucracy*. New York:

Harper, Malcolm (1996). *Urban Planning and the Informal Sector*. Regional Development Dialogue

Heintz, James and Vanek, Joann (2007). *Employment, the Informal Sector, and Poverty: Data and Analytical Challenges*; Cambridge



- Higgins, B. (1968). *Economic Development*. New York: W. W. Norton and Company.
- High Level Commission on the Legal Empowerment of the Poor, (2006). *Background issue paper on Legal Empowerment of the Poor*; Addis Ababa, November
- Horn, Nancy (1994). *Cultivating customers: Market women in Harare, Zimbabwe*. Lynne Rienner Publishers, London.
- International Labour Office (1972). *Employment, Incomes and Equality: a strategy for increasing productive employment in Kenya*; Geneva
- International Labour Office (1991). *The Dilemma of the Informal Sector*. Geneva
- International Labour Organisation (1999). *Report of International Symposium on Trade Unions and the Informal Sector*. Organized by the Bureau for Workers' Activity of the ILO, October 18 to 22, Geneva: Global Labour Institute.
- International Labour Office (2000). *Resolution concerning statistics of employment in the informal sector*, adopted by the 15th International Conference of Labour Statisticians
- Iyenda, Guillaume (2005). Street enterprises, urban livelihoods and poverty in Kinshasa. *Environment and Urbanization* Vol. 17, No. 2, October
- Joshi G. (1997). *Urban Informal Sector in Metro Manila: A Problem or Solution?* ILO's South-East Asia and the Pacific Multidisciplinary Advisory Team (ILO/SEAPAT), Manila
- Kapunda S.M. and Mmolawa B.D. (2006). *The Role of Informal Sector and Self-Employment in Poverty Alleviation in Botswana*
- Kusakabe, Kyoko,(2006). *Informal Economy, Poverty and Employment: On the Borders of Legality: A Review of Studies on Street Vending in Phnom Penh, Cambodia*; Cambodia series International Labour Organization(ILO).
- Kusakabe, Kyoko (2006).*Informal Economy, Poverty and Employment: Policy Issues on Street Vending: An Overview of Studies in Thailand, Cambodia and Mongolia* International labour Organization (ILO).

- Kusakabe, Kyoko, Chan Monnyrath, Chea Sopheap, Theng Chan Chham (2001). *Social capital of women micro-vendors in Phnom Penh (Cambodia) Markets: A Study of Vendors' Association*, UMP-Asia Occasional Paper No.53, United Nations Urban Management Programme, Thailand.
- Loprayoon, Chomlada (1991). *Vending Activity in Bangkok*; Master's Thesis, Faculty of Economics, Thammasat University.
- La Porta, R and A Shleifer (2008). *The Unofficial Economy and Economic Development* NBER Working Paper 14520
- MacEwen Scott, Alison (1995). *Informal Sector or Female Sector? Gender Bias in Urban Labour Market Models*. In *Male Bias in Development Process*. Edited by Diane Elson. New York: Manchester University Press
- Maldonado, C. *The Informal Sector: Legalization or Laissez-Faire?* International Labour Review. 1995. Vol . 134 (6).
- Malik, M. H. (1996). *Urban Poverty Alleviation through Development of the Informal Sector*. Asia-Pacific Development Journal
- Maria Beatriz Orlando (2001). *The Informal Sector in Venezuela: Catalyst or Hindrance for Poverty Reduction*
- McGee, T.G. (1996). *On the Utility of Dualism: The Informal Sector and Mega-Urbanization in Developing Countries*. Regional Development Dialogue
- Meagher, Kate and Yunusa, Mohammed-Bello (1996). *Passing the Buck: Structural Adjustment and the Nigerian Urban Informal Sector*. Discussion Paper No. 75. Geneva: United Nations Research Institute for Social Development.
- Mekelle city micro and small enterprises report  
Mekelle city administration (2009).magazine

- MGI, (2006). *Driving Growth: Breaking Down Barriers to Global Prosperity*; Harvard Business School Press
- Mintz, Sidney W. (1971). *Men, women and trade. Comparative Studies in Society and History* Vol. 13, No. 3
- Mishra, Ramesh (1999). *Globalization and the Welfare State*. Cheltenham: Edward Elgar.
- Mitra, Arup (2005). Women in the urban informal sector: Perpetuation of meagre earnings. *Development and Change* Vol. 36, No. 2
- MoFED, (2010). *Growth and Transformation Plan 2010/11-2014/15*; Vol.1 Main Text
- Nirathron, Narumol (2006). *Fighting Poverty from the Street: A Survey of Street Food Vendors in Bangkok*; International Labour Organization (ILO) Series
- Nabuteya Gibson Amenity (2007). *The informal sector in Kenya*; University of Nairobi
- Neufeldt, Aldred and Albright, Alison (1998). *Disability and Self-Directed Employment Business Development Models*. Ottawa: Cactus Press.
- Nirathron, Narumol (1996). *Home workers in Two Urban Poor Communities of Thailand*. In Practical Actions for the Social Protection of Home workers in Thailand. Bangkok: International Labour Office,
- Niklaus Eggenberger-Argote (2005). *Informal sector support and Poverty Reduction*; gerester consulting Swiss State Secretariat for Economic Affairs (Seco)
- Prasad Timalina, Krishna (2007). *Rural Urban Migration and Livelihood in the Informal Sector* Trondheim, Norway
- Protecting Marginalized Groups During Economic Downturns: Lessons from the Asian Experience: Annex 1 the role of informal sector*

- Reddy Mahendra, Vijay Naidu and Manoranjan Mohant (2005). *The Urban Informal Sector in Fiji: Results from a Survey*
- Salway, Sarah, Sonia Jesmin and Shahana Rahman (2005). Women's employment in urban Bangladesh: A challenge to gender identity?" *Development and Change*, Vol. 36, No. 2
- Scott, MacEwen Alison (1979). *Who Are the Self-Employed?* In *Casual Work and Poverty in Third World Cities*. Edited by Ray Bromley and Chris Gerry. New York: John Wiley and Sons, pp. 105-132.
- Seligmann, Linda J., ed. (2001). *Women traders in cross-cultural perspective: Mediating identities, marketing wares*. Stanford University Press, Stanford.
- Serrat, Olivier (2008). *The Sustainable Livelihood: Asian Development Bank*
- Sharit K. Bhowmik. *Hawkers and the Urban Informal Sector: A Study of Street Vending In Seven Cities for National Alliance of Street Vendors of India (NASVI)*
- Smith, Joan and Wallerstein, I. (1992). *Creating and Transforming Households*. Cambridge: Cambridge University Press.
- Suriansyah, Yasmin (2005). "The existence of street vendors as a reflection of urban life: Case study of the Gasibu Area in Bandung, West Java, Indonesia." *Journal of Asian Urban Studies* Vol. 6, No. 2
- The Economist (2004). *In the Shadows*; 17th June, 2004
- Tigray Regional Trade and Industry bureau Report on micro and small enterprises
- Tinker, Irene (1997). *Street foods*, Oxford, New York.
- Todaro, M. P. (1994) 'Urbanisation and Rural-Urban Migration: Theory and Policy'. *Economic Development*. New York and London: Longman.
- UNCTAD (2003): *Trade and Development Report: Capital Accumulation, Growth and Structural Change*. UNCTAD, New York.

- Vandenberg, Paul (2004). *Poverty reduction through small enterprises: Emerging consensus, unresolved issues and ILO activities*
- Weeks, J. (1975). *Policies for Expanding Employment in the Informal Sector in Developing Economies*. International Labour Review
- World Business Council for Sustainable Development (2007). *Promoting Small and Medium Enterprises for Sustainable Development; Development Focus Area*
- Yasmin, Gisele (1996). "Bangkok's food scape: Public eating, gender relations and urban change." Doctoral thesis, Faculty of Graduate Studies, University of British Columbia.
- Zewde and Associates (2002). *Jobs, Gender and Small Enterprises in Africa: Preliminary Report Women Entrepreneurs in Ethiopia*

# Annexes

---

**ANNEX A**

**QUESTIONNAIRE PREPARED FOR STREET VENDORS**

---

**Introduction**

The purpose of the study is to conduct a research for partial fulfillment of the requirement for Master of Arts degree in Development Studies, Department of Management, College of Business and Economics, Mekelle University. The title of the study is the *“role of informal sector on household livelihood case of street vendors in Mekelle city”*. By promising that your response will be used for academic purpose and kept confidentially I courteously request you to give me your sincere responses for the questions.

Business type \_\_\_\_\_

Area \_\_\_\_\_

**I. Demographic Characteristics of Respondents**

1. Sex                     Male                     Female
2. Level of Education    None                     1-4                     5-8
- 9-12                     Diploma                     Degree
- Other please specify \_\_\_\_\_
3. Age                     Below 18                     18-30                     31-45
- 46-60                     above 60                    Above 55
4. Place of birth \_\_\_\_\_

5. Marital status       Married       Unmarried       Divorced  
                                  Separated       Widowed  
                                 Other please specify \_\_\_\_\_

6. Family size \_\_\_\_\_

## II. Business Start Up Related Questions

7. What did you work before joining the business? \_\_\_\_\_

8. Why did you choose to join street vending rather than doing something else?

- Lack of formal employment       I am too old  
 It gives me better income/higher profits than other products or services  
 To supplement the income that I earn else where  
 I prefer to work for myself (sense of independency)  
 No options are available than selling on street  
 It is the profession that I know       Family tradition

Other (specify) \_\_\_\_\_

9. When did you start this business? \_\_\_\_\_

10. How much was your start up capital?

- Less than 500 birr       500- 1500       1501-2500  
 2501-3500       3501-4500       Above 4500

11. What were your sources of capital?

- Own capital       Debt capital       Family support       Friends support

Other please specify \_\_\_\_\_



**a. Financial Assets (Income And Saving)**

1. What is your average monthly income from the business?

< 500                       500-1500                       1501-2500  
 501-3500                       3501-4500                       Above 4500

2. Do you have other source of income?

Yes                       No

3. If your answer for question number 2. Is yes please indicate other sources of income in the past years.

S.No	Source of Income	Yes	No	If yes
				Estimated monthly income
1.	Paid employment			
1.1	Government			
1.2	NGO			
1.3	Private			
1.4	Others			
2.	Assistance from wage work			
3.	Remittance			
4.	Dairy			
5.	Poultry			
6.	Other please specify 1. _____ 2. _____ 3. _____ 4. _____ 5. _____			

### III. Change in Livelihood

1. What do you think is your economic status in the community before joining street vending?

Poor /Low income     Non-poor/Middle income     Rich/High income

Other please specify \_\_\_\_\_

2. On average how many times did you and your family take food per day before joining this business?

Once     Twice     Three times     Four times     More than four times

3. Do you think that there is a change in your livelihood after joining the business?

Yes                       No

4. If your answer for question number 3 is yes what do you think are the changes?

- Self sufficiency and leading independent life
- Being able to support family
- Able to generate income
- Having savings but not considering expansion
- Having saving and considering expansion
- Having more children to school (afford school fee)
- Other please specify \_\_\_\_\_

5. What do you think are the causes of change?

---

---

---

---

---

**a. Comparison of Livelihood Assets (Human, Financial, Social, Physical)  
Before and After Joining Street Vending**

S. No	Description	Have you had it before joining the business		If yes	After joining the business		If yes
		Yes	No	Total Cost	Yes	No	Total Cost
I.	<b>Physical capital</b>						
1.	<b>(Household commodities)</b>						
1.1	Television						
1.2	Radio/Tape						
1.3	Satellite dish						
1.4	Sofa set						
1.5	Refrigerator						
1.6	Closet (wardrobe)						
1.7	Commodity set						
1.8	Bed						
1.9	Rent/ residential house						
2.	<b>Utilities</b>	<b>Before joining the business</b>		<b>After joining the business</b>			
2.1	Monthly expenditure on:						
i.	Water						
ii.	Telephone						
iii.	Electricity						
iv.	Transport						

S. No	Description	Before joining the business	After joining the business
<b>II.</b>	<b>Financial Capital</b>		
1.	Income (average monthly income)		
2.	Saving (average monthly saving)		
<b>III.</b>	<b>Human Capital</b>		
1.	Monthly expenditure on:		
2.	Food		
3.	Health		
4.	Education		
<b>IV.</b>	<b>Social Capital</b>		
1.	Relationship with neighbourhoods		
2.	Participation in informal group		
2.1	Equip		
2.2	Edir		

1. How is your status after joining street vending?

- Poor /Low income  
 Non-poor/Middle income  
 Rich/High income  
 Other please specify \_\_\_\_\_

2. On average how many times do you and your family take food per day after joining this business?

- Once     Twice     Three times     Four times     More than four times

## IV. Expectation of the Venders on Street Vending

1. Do you want to be street vender all of your life?

Yes

No

2. If your answer for question number 1 is Yes, what are the reasons to work in the business for life time?

I want to save money

Autonomy

Too old have no other choice

Off season occupation

Waiting for students to finish school

Other please specify \_\_\_\_\_

3. If your answer for question number 1 is No, what are the reasons not to stay?

I want to go home

Too old I want to rest

I want to do something else/change the business

Other please specify \_\_\_\_\_

4. Do you encourage your friends to sell on street

Yes

No

If Yes why \_\_\_\_\_

\_\_\_\_\_

If No why \_\_\_\_\_

\_\_\_\_\_

5. Do you encourage your children to sell on street?

Yes

No

If Yes why \_\_\_\_\_

\_\_\_\_\_

If No why \_\_\_\_\_

\_\_\_\_\_

6. Do you encourage anyone other than your friends and children to sell on street

Yes

No

If Yes why \_\_\_\_\_

\_\_\_\_\_

If No why \_\_\_\_\_

\_\_\_\_\_

## V. Questions Regarding Problems of Street Vending

For the following problems please rate according to the following points

**V.S** = Very Serious **S** = Serious **A** = Average **L.S** = Less Serious **N.S** = Not Serious

**D.N**= Doesn't Exist

S. No	Description of the problem	V.S	S	A	L.S	N.S	D.N
1.	Lack of Supply of quality raw materials						
2.	Lack of supply of finished products						
3.	Lack of Supply of raw materials (quantity)						
4.	Sale of product - lack of customer						
5.	Sale of product- too much competition						
6.	Lack of space - adapted premises						
7.	Financial difficulties – lack of access to capital and credit						
8.	Lack of equipments						
9.	Lack of managerial skill						
10.	Lack of promotional support						
11.	Lack of formal linkage with other sellers						
12.	Lack of Informal linkage with other sellers						
13.	Other specify 1. _____ 2. _____ 3. _____ 4. _____ 5. _____						

## VI. Over All Evaluation

1. Do you think that you are successful in the business?

Yes

No

2. If your answer for question number 2. is yes what do you think are the success factors?

S. No	Description	Yes	No	
1.	Hard working			
2.	Self confidence			
3.	Knowledge of financial planning			
4.	Knowledge of cheap sources of raw materials/products			
5.	Assistance from family			
6.	Sufficient own capital			
7.	Good relationship with vendors			
8.	Good relationship with buyers			
9.	Location advantage			
10.	If other please specify 1. _____ 2. _____ 3. _____ 4. _____			

3. If your answer for question number 2. Is No what do you think are the failure factors?

S. No	Description	Yes	No	
1.	Lazy			
2.	Lack of self confidence			
3.	Lack of financial planning(cost-profit calculation)			
4.	Lack of family support			
5.	High interest to pay			
6.	Bad pricing			
7.	Over spending			
8.	If other please specify 1. _____ 2. _____ 3. _____ 4. _____			

4. Does the business bring change to your livelihood?

- Significant change       Some change       Average  
 Insignificant change       No change

5. Are you satisfied with the business?

- Highly satisfied       Satisfied       Average  
 Dissatisfied       Highly dissatisfied

6. If your answer for question number 5. is dissatisfied or highly dissatisfied what are the reasons for your dissatisfaction?

---

---

---

---

---

7. If you have anything you want to say please state here \_\_\_\_\_

---

---

---

---

---

Thank you!!!



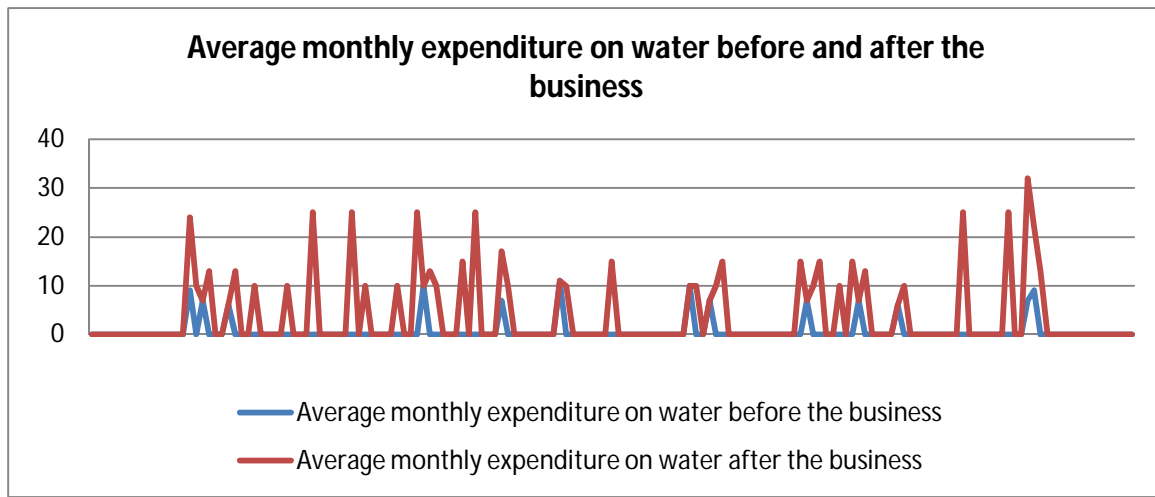
---

**ANNEX B**

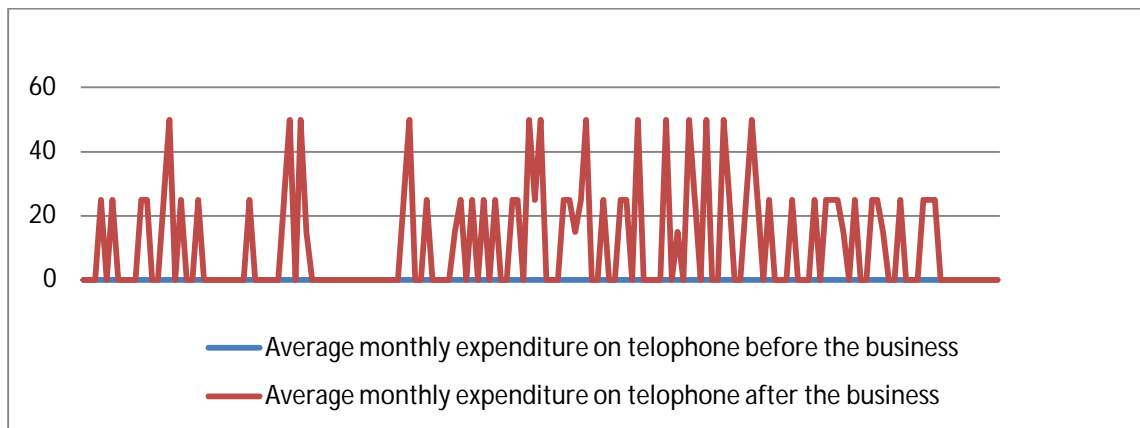
**AVERAGE MONTHLY EXPENDITURE ON WATER, TELEPHONE, ELECTRICITY  
AND TRANSPORTATION**

---

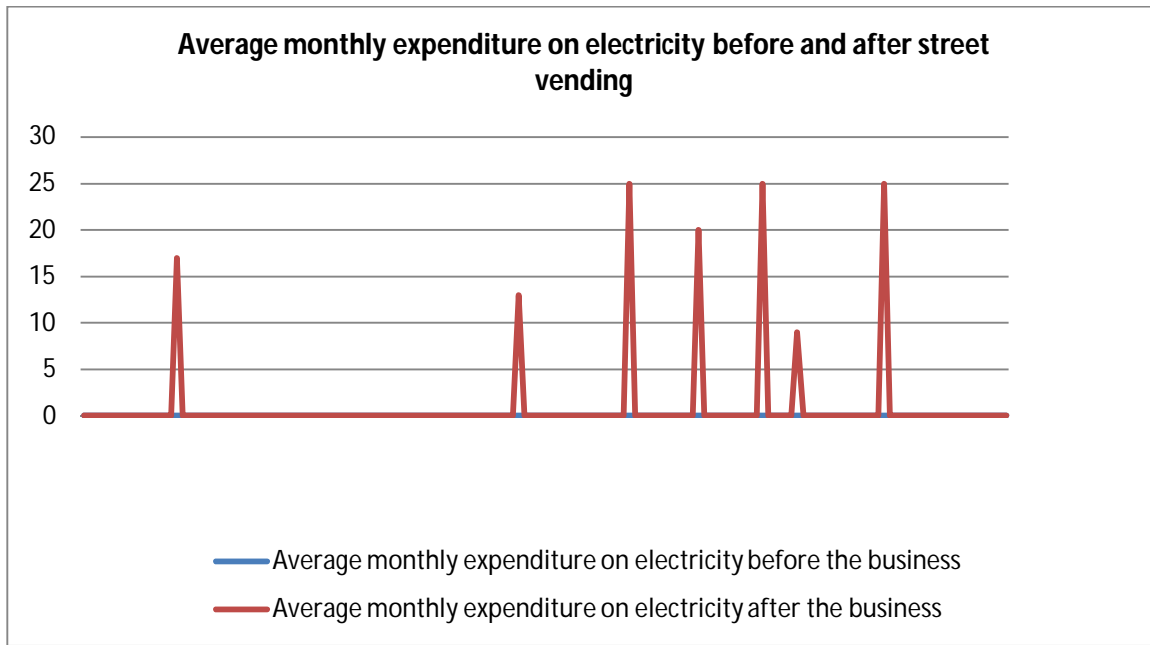
Water



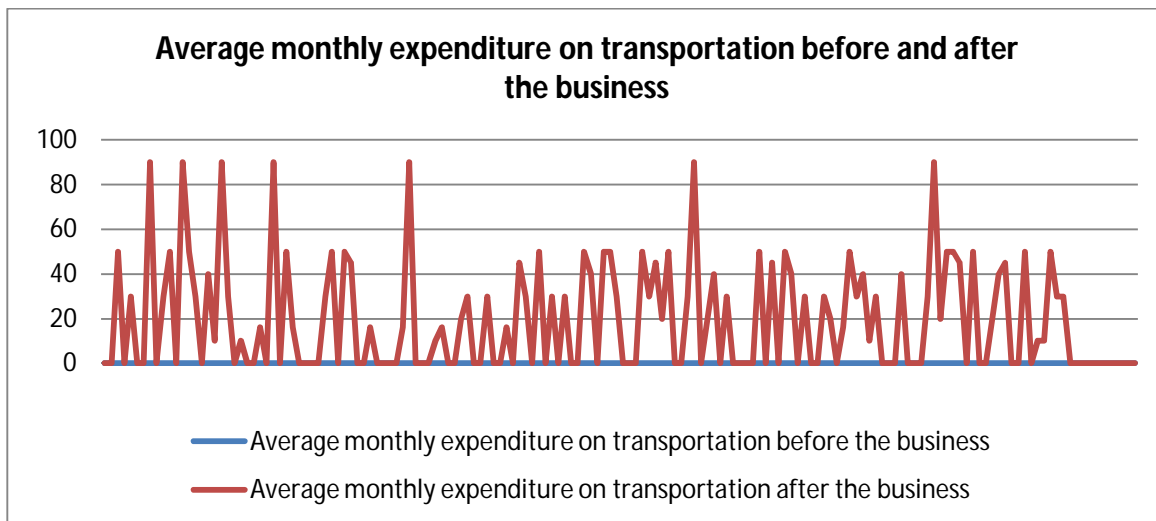
Telephone



## Electricity



## Transportation





#### iv) Radio before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe1_2b	150	200.3	14.19867	173.8975	172.2432	228.3568
qe1_2d	150	44.13333	8.277857	101.3826	27.77618	60.49049
combined	300	122.2167	9.364656	162.2006	103.7877	140.6457
diff		156.1667	16.43549		123.8223	188.511

diff = mean(qe1\_2b) - mean(qe1\_2d)      t = 9.5018  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

#### v) Satellite dish before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe1_3b	150	55.33333	16.98233	207.9903	21.77602	88.89065
qe1_3d	150	0	0	0	0	0
combined	300	27.66667	8.626633	149.4177	10.69006	44.64327
diff		55.33333	16.98233		21.91284	88.75383

diff = mean(qe1\_3b) - mean(qe1\_3d)      t = 3.2583  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 0.9994      Pr(|T| > |t|) = 0.0013      Pr(T > t) = 0.0006

#### vi) Sofa set before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe1_4b	150	58	15.1656	185.7399	28.03257	87.96743
qe1_4d	150	27	11.03817	135.1894	5.188434	48.81157
combined	300	42.5	9.40577	162.9127	23.99011	61.00989
diff		31	18.75731		-5.913571	67.91357

diff = mean(qe1\_4b) - mean(qe1\_4d)      t = 1.6527  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 0.9503      Pr(|T| > |t|) = 0.0994      Pr(T > t) = 0.0497

#### vii) Closet (wardrobe) before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe1_6b	150	73.4	13.81787	169.2337	46.0957	100.7043
qe1_6d	150	13.66667	5.285933	64.73919	3.221593	24.11174
combined	300	43.53333	7.584128	131.361	28.6083	58.45836
diff		59.73333	14.79441		30.61857	88.8481

diff = mean(qe1\_6b) - mean(qe1\_6d)      t = 4.0376  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0001      Pr(T > t) = 0.0000

### viii) Commodity set before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe1_7b	150	101.9333	11.62951	142.4319	78.95326	124.9134
qe1_7d	150	30.66667	8.24386	100.9662	14.37669	46.95664
combined	300	66.3	7.407996	128.3103	51.72158	80.87842
diff		71.26667	14.25506		43.21332	99.32001

diff = mean(qe1\_7b) - mean(qe1\_7d)      t = 4.9994  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

### ix) Bed before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe1_8b	150	340.2	13.7082	167.8905	313.1124	367.2876
qe1_8d	150	153.6	15.60281	191.0946	122.7686	184.4314
combined	300	246.9	11.68731	202.4302	223.9002	269.8998
diff		186.6	20.76927		145.727	227.473

diff = mean(qe1\_8b) - mean(qe1\_8d)      t = 8.9844  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

### x) Rent/Residential house before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe1_9b	150	132.7667	4.147865	50.80076	124.5704	140.9629
qe1_9d	150	27.4	3.571488	43.74161	20.34269	34.45731
combined	300	80.08333	4.092401	70.88247	72.02978	88.13689
diff		105.3667	5.473601		94.59486	116.1385

diff = mean(qe1\_9b) - mean(qe1\_9d)      t = 19.2500  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

### xi) Water before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe2_1b	150	3.32	.5479529	6.711025	2.237238	4.402762
qe2_1a	150	.6866667	.1866067	2.285456	.3179293	1.055404
combined	300	2.003333	.2988084	5.175514	1.415299	2.591367
diff		2.633333	.5788561		1.49417	3.772497

diff = mean(qe2\_1b) - mean(qe2\_1a)      t = 4.5492  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

## xii) Telephone before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe2_2b	150	11.76667	1.315997	16.11761	9.166238	14.36710
qe2_2a	150	0	0	0	0	0
combined	300	5.883333	.739783	12.81342	4.427492	7.339174
diff		11.76667	1.315997		9.176841	14.35649

diff = mean(qe2\_2b) - mean(qe2\_2a)      t = 8.9413  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

## xiii) Electricity before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe2_3b	150	.8933333	.3472032	4.252353	.2072553	1.579411
qe2_3a	150	0	0	0	0	0
combined	300	.4466667	.1752255	3.034995	.1018352	.7914981
diff		.8933333	.3472032		.2100526	1.576614

diff = mean(qe2\_3b) - mean(qe2\_3a)      t = 2.5729  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 0.9947      Pr(|T| > |t|) = 0.0106      Pr(T > t) = 0.0053

## xiv) Transport before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe2_4b	150	20.68	2.002154	24.52127	16.72372	24.63628
qe2_4a	150	0	0	0	0	0
combined	300	10.34	1.164637	20.17211	8.048075	12.63192
diff		20.68	2.002154		16.73985	24.62015

diff = mean(qe2\_4b) - mean(qe2\_4a)      t = 10.3289  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

## xv) Income before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe3_1b	150	568.4	14.74741	180.6182	539.2589	597.5411
qe3_1a	150	213.1	15.83109	193.8905	181.8176	244.3824
combined	300	390.75	14.90591	258.178	361.4162	420.0838
diff		355.3	21.63584		312.7216	397.8784

diff = mean(qe3\_1b) - mean(qe3\_1a)      t = 16.4218  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

## xvi) Saving before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe3_2b	150	109.2667	8.763406	107.3294	91.95006	126.5833
qe3_2a	150	36.16667	6.239159	76.41378	23.83801	48.49533
combined	300	72.71667	5.770809	99.95335	61.36012	84.07321
diff		73.1	10.75753		51.92965	94.27035

diff = mean(qe3\_2b) - mean(qe3\_2a)      t = 6.7952  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

## xvii) Food before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe4_1b	150	414.4	10.10481	123.7582	394.4328	434.3672
qe4_1a	150	167.6667	11.07365	135.6239	145.785	189.5483
combined	300	291.0333	10.33906	179.0777	270.6868	311.3799
diff		246.7333	14.99109		217.2315	276.2352

diff = mean(qe4\_1b) - mean(qe4\_1a)      t = 16.4587  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

## xviii) Health before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe4_2b	150	2.2	.5973094	7.315516	1.019709	3.380291
qe4_2a	150	0	0	0	0	0
combined	300	1.1	.3048658	5.28043	.5000456	1.699954
diff		2.2	.5973094		1.024521	3.375479

diff = mean(qe4\_2b) - mean(qe4\_2a)      t = 3.6832  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 0.9999      Pr(|T| > |t|) = 0.0003      Pr(T > t) = 0.0001

## xix) Education before and after

Two-sample t test with equal variances

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
qe4_3b	150	17.9	2.259591	27.67422	13.43502	22.36498
qe4_3a	150	5.966667	.9081986	11.12312	4.172054	7.761279
combined	300	11.93333	1.263627	21.88665	9.446605	14.42006
diff		11.93333	2.435277		7.140814	16.72585

diff = mean(qe4\_3b) - mean(qe4\_3a)      t = 4.9002  
 Ho: diff = 0      degrees of freedom = 298

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000