ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

COLLEGE OF DEVELOPMENT STUDIES

Urban Development and Management Center

Measuring the *Affordability and Quality of the* Integrated Housing Development Program (IHDP): The Case of Addis Ababa

A Thesis Submitted to the Addis Ababa University in Partial Fulfillment of the Requirement for Degree of Master of Arts in Urban Development and Management.

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List of Abbreviations and Acronyms

AESF - Availability of External Source of Finance

AFF - Affordability

ASCI - Amhara Saving and Credit Institution

CBOs – Community Based Organizations

CSA – Central Statistical Authority

E.C. – Ethiopian Calendar

FDRE – Federal Democratic Republic of Ethiopia

FRC - Finishing and Related Costs

GTZ – German Technical Cooperation Agency

HDPO - Housing Development Program Office

HHS - Household size

HQI – Housing Quality Indicators

IHDP – Integrated Housing Development Program

MCSI - Membership in Credit and Saving Institution

MSEs – Micro and Small Scale Industries

MOFED – Ministry of Finance and Economic Development

MWUD – Ministry of Works and Urban Development

NGOs – Non-governmental Organizations

ORAAMP – Office of Revision of the Addis Ababa Master Plan

PASDEP – Plan for Accelerated and Sustainable Development to End Poverty

RS - Renting Status

SNNP – Southern Nations and Nationalities and Peoples region

SPSS – Software Package for Social Sciences

SV - Household Saving

SX – Sex

TOC - Type of Occupation

UN – United Nations

Abstract

There is an ongoing debate whether the trial being made by the Ethiopian Government to provide housing for the poor through the program called the IHDP (the Integrated Housing Development program) is reaching the target, the urban poor, or not. This research, hence, tries to shed some light on how the affordability of these housing units is determined and what factors lie behind it. Thus, it is found in this research that there are some socioeconomic factors that are partly responsible in the determination of this important concept, affordability. As per the findings of this research, factors like the household saving, type of occupation of the household head, availability of external source of finance, and finishing and related costs are found to be having the upper hand in determining affordability of these housing units. The research also attempts to see how this trial to make the housing units affordable is affecting its quality. Hence, it is found that the four indices of quality show varying results but they all demonstrate a fall in quality to some extent. It is acceptable that such massive interventions that aim at providing houses for the urban poor may not necessarily fulfill all the measures of quality even at the Ethiopian context. However, as we are building for the future, at least some areas shall be reserved so that services can be provided when the ability comes and the need arises. But such forward looking planning mechanisms are sometimes missing from projects which may lead into problems in the future time.

Chapter 1

Description of the Study and Research Methodology

1.1. Introduction

The city of Addis Ababa is characterized by its high rate of unemployment and dominance of the informal sector. To alleviate these and other problems at the national level, trials are made using different intervention mechanisms. The intervention mechanisms range from enhancing agricultural productivity in the rural area to triggering development in the urban areas in the form of subsidizing the manufacturing sector and provision of housing and infrastructure (PASDEP, 2005). As per this PASDEP, more than 40% of the urban employment is in the informal sector. There is also a very severe incidence of unemployment in the Ethiopian urban centers, which is around 29% in the city of Addis Ababa. The same source pointed out that the 40% of the Ethiopian urbanites live below the poverty line. These figures have highly reduced the per capita income of the citizens.

ORAAMP (2002), also states that around 80% of the dwellers earn a very small income which is less than around Birr 970 per month. There is a consensus among scholars that a one dollar per day limit is used as a threshold to measure of extreme poverty. If one uses this as a bench mark, a very significant portion of the population in our capital city falls in this category. This portion of the population is the one who thinks about his/her bread, let alone building and/or consolidation ones own home. This resulted in to the dilapidation of homes in all over the city and acute imbalance of demand and supply of housing in the city.

According to World Bank (2008) and Azeb(2006), about 80% of the houses in the inner city are dilapidated and need complete replacement. This further raises the gap between the demand and supply to about 387,000 housing units (this includes the demand for new homes plus the replacement of the dilapidated ones). On top of this, World Bank(2008)

pointed out that there is also a growth in demand of new homes by about 40,000 each year in this city. The incidence of poverty does not only manifest itself in the form of housing shortage, but also in the form of deterioration of quality.

1.2. Statement of the Problem

The city of Addis Ababa, among others, has faced an acute shortage of houses. This problem is accentuated by the meager income earned by its dwellers that does not allow them build their own houses. As a result, the city administration has launched the grand housing program, named as the Integrated Housing Development Program in 2003/2004. According to the proceedings of the conference held in Abuja Nigeria in 2008, the Ministry of Works and Urban Development has clearly pointed the major objectives of the IHDP. Among others, is to enable the poor own homes through a highly subsidized program. Or in other words, the government will try to put many measures in place to make the housing units affordable to these disadvantaged portions of the society. However, there is no consensus among scholars as to how to define the very term of "affordability". Hence, before embarking on the different issues of affordability, let me first try to shade some light on its definitions. In his article entitled as "what is Housing Affordability: The case of residual income approach", Stone (2006) defined affordability as a concept related to the

> *"...challenge each household faces in balancing the cost of each actual or potential housing, on one hand, and its non- housing expenditures, on the other hand, within the constraints of its income".*

It can be clearly observed that there are three important concepts raised in the definition. These are the housing expenditure, the non-housing expenditures and the income of the household. Hence, both the internal (income and other non-housing expenditures) and external factors (housing expenditure) affecting affordability are included in the definition. As a result the writer stressed on the word RESIDUAL INCOME to express affordability. This is because it is not only the price of the housing unit that ultimately

determines weather the housing unit is affordable or not. But also, it is the residual income of the household that makes the housing unit affordable. (Residual income is the net income left after all consumptions take their shares from the total income). The other important thing that we need to take note in this definition is that this definition does not tell us anything about the **ability of the person to pay for the services related** to the house after it is constructed or purchased.

Another shorter definition is also provided by Kamete (2001). According to Kamete, affordability is defined as the ability to pay for the housing. As will be shown subsequently, this is the definition adopted by the Ethiopian Integrated Housing Development Program. The important part of this definition is that by ability he meant the actual potential of the person to pay for the house and the services associated with the new home. It is worth while to mention this point because, for the poor, it is, in most cases, difficult to pay for the services associated with new houses, not only for the housing unit.

However, there are sizeable proportions of people who argue that, though the program has stemmed some of the yawning gap between demand and supply of housing, it has not reached the **targeted groups** and there is a huge **compromise in quality** that could have been avoided in one way or another with out incurring much extra cost.

Hence, this study will try to shade some light on the trials made so far in making the housing units affordable to the poor portion of the society and the way to be pursued in the future in order to achieve the intended objectives. Along with this, the researcher will also use his utmost effort to investigate the compromises made in the quality of the housing units and the way this can be improved with out raising the cost of the units.

According to the British Homes and Community Agency standard called HQI-Version 2 (2000), the quality of a housing unit can be measured using the following ten indicators.

These are:

1. Location
2. Site – visual impact, layout and landscaping
3. Site – open space
4. Site – routes and movement
5. Unit – size
6. Unit – layout
7. Unit – noise control, light quality, services and adaptability
8. Unit – accessibility within the unit
9. Unit – sustainability
10. Building for Life (Durability and Feedback)

The same document continues outlining that these measures of quality can be categorized in to three main parameters; namely:

- Location;
- Design;
- External Environment.

As the outputs of the IHDP are meant for the poor and the middle income people, one can not normally expect them to fulfill the standards set by western institutions. Hence, a trial is made to customize these measures, set by the British, to the Ethiopian standards and only some of them, with major modifications, are used in the quality measurement.

1.3. Objectives of the Study

The main objective of the study is to measure affordability and quality of the outputs of the Integrated Housing Development Program. The researcher, on top of investigating this, also specifically tries to shed some light on the following. The specific objectives of the study are:

a. to identify the factors that affect affordability.
b. to investigate the sources of finance for the payments made to own the housing units produced by the IHDP.
c. to assess the how the money the home owners mobilize from renting their new home to tenants is affecting their lives.
d. to measure the new related costs added on the household expenditure and finishing costs of the housing units provided by the program and its impact on affordability.
e. to asses the quality after the units are transferred to the owners.
f. And finally, to outline other difficulties faced by the owners along with some possible recommendations.

1.4. Research Questions

As the objective of the housing project is to meet the needs of the poor portions of the society, it would be worthwhile if one asks the subsequent questions. Hence, the research tries to answer these questions to draw a facts the can be important inputs to the academia and the policy makers pointing the way as to how to go about it in the future. The questions are:

- What are the factors that determine affordability? And
- How is the need to make the houses affordable compromising quality?

1.5. Data Source and Methodology

The study makes use of the usual two sources of data; namely, the primary and secondary data. To this end, the researcher collects a primary data from the residents of two selected condominium housing sites, and another purposively selected dilapidated neighborhood. The researcher first intentionally divided the sub-cities in the metropolis into two, inner and expansion area sub-cities. Then, two sub-cities, one from the periphery (Gulele Sub-city) and the other from the inner city (Arada Sub-city), are selected and a site from each sub-city is selected using simple random sampling technique. Accordingly; the "Abuare site" from Arada, and, "the Mikililand site", from Gulele are selected following the aforementioned procedure. The first one, which is composed of only four buildings, is placed inside an already built up area and a dilapidated neighborhood which dominates the condominium building; while the second site is the one that has many buildings and seems to have a dominant impact on the area. This, according to the researcher, has an impact on the quality of the housing units, which is of great importance to the investigator as one of the major objectives of the study is to measure quality of the units.

On top of this, as the main intent of the research is also to see the determinants of affordability, a trial is made to get data from the residents that live around the "Abuare" condominium site that are selected on a systematic random sampling basis, where every-fifth household is interviewed. This area is purposively selected because it represents one of the most dilapidated and old houses in the city. And, the same questionnaire is administered to these groups of people. In addition, an extensive personal observation is also be made to assess the quality of housing units of the IHDP, and as there are many buildings in the selected sites, and since the researcher can not get the exhaustive list of households, a systematic random sampling method is employed to choose the households from which the data is collected, and then, an Amharic version questionnaire is administered to the owners of these houses for a better understanding. Finally, information obtained from key informants is also used to come up with the intended results.

On top of this, relevant secondary sources are also consulted. Particularly, data and literatures from the Addis Ababa Housing Agency, Ministry of Works and Urban Development, ORAAMP, GTZ, World Bank, and the academia will be extensively used. To analyze these data, both econometric and descriptive methods are employed. And hence, a software package called SPSS 15 is partly used for the analyses. Apart from this, a qualitative description is also made for non-measurable traits, particularly for those related with quality.

It is very obvious that the measurement of quality is a qualitative matter. However, a software developed by the British Homes and Community Agency (2000) has the capacity to transform the qualitative descriptions in to quantitative figures that presents the findings in graphical form. It is, therefore, this program that is used to measure the quality of the housing units in this study. As described in the statement of the problem, the British Homes and Communities Agency uses ten indicators as measures of quality. However, as many of these indices are meant for fancy and luxurious homes, this study utilizes only four (1. location, 2. design, 3. Public and shared open space, security and children's play, and 4. Routes, Movements and the External Environment) that are considered to be basic, and has also customized them to the Ethiopian context by utilizing some of the standards set by governmental offices. Some of the Ethiopian standards used as a yardstick in the measurement of quality are taken from a document named as Norms, Standards and Guidelines of the Addis Ababa Structural Plan and its Components prepared by the ORAAMP (2002).

As described previously, an econometric model is used to identify some of the factors that determine affordability of the housing units. To this end, a **binary logistic model** is utilized so that the effect of some relevant variables on affordability is investigated. The researcher decided to use this model because the dependent variable is a categorical (dichotomous) variable whereby the respondent is either able to afford the housing units or unable to do this.

1.6. Significance of the study

This research, as it focuses on a new and an underway project, I believe, it will be an important document for the concerned bodies; particularly for the people involved in the implementation of the project. Though it is to be conducted on a smaller scale; i.e, few sites, the output will be an important input for the academia too to debate on and propose a new and/or improved form of intervention in the housing sector. The study, I hope, will also create curiosity among students so that they will appreciate the problem and helps build group of scholars that are aware of the problem itself.

1.7. Scope of the Study

This study is conducted only on two condominium sites, the "Abuare" and the "Gotera" sites. The focus of which will be to investigate the affordability and its impact on quality. However, though the focus of the study is on these two sites, this does not mean that we cannot say anything about the rest of the sites. As the data will be of great quality, we can safely infer the facts drawn from the study to the other sites.

1.8. Limitations of the study

The researcher has a strong belief that the sites selected do provide relevant data on the variables. Nevertheless, it is obvious that the output would have been best if it could be scaled up and covers as many sites as possible. On the other hand, the limit in financial resource is also critical. In addition, as usual, the researcher is afraid that the respondents may not accurately state their personal saving, which is an important variable that determines affordability. But, the researcher uses his utmost effort to avoid this problem and come up with a good data that avoids a "Garbage-In-Garbage-Out" scenario.

1.9. Organization of the research

This research has five main parts. The first chapter is the introductory section which gives an overview of the research. This part includes the subtopics like statement of the problem, objective, methodology, scope and rationale of the study. The second chapter deals with the review of literatures of relevant topics. This chapter also presents of the existing housing conditions in Addis Ababa and program description of the IHDP. Chapter three is about the description of the model to be used in the fourth chapter and the all the variables used in the research are defined in this part. The fourth chapter of presents the major findings of the research along with the analysis. And finally, the fifth chapter contains summary of findings and recommendations.

Chapter 2

Literature Review

2.1. Introduction

> *"Apart from inadequate conditions and an absence of enough construction materials and basic amenities, a large portion of the urban housing units in the country [Ethiopia] are in despair for various reasons, including extremely low household incomes and property rents."*
> *(UN-HABITAT, 2007)*

It is using such negative and pejorative words that many literatures describe the housing condition both in Ethiopia and in the capital, Addis Ababa. "Dilapidated, sub-standard, cancerous, aged" and other words are also common in the description of housing in Ethiopia..

Though contentious, there is a belief that urban centers are the engines of growth. They are considered to be the most dynamic organs of a nation where frequent changes are apparent. That is why it is common developing countries see migrants from rural areas continuously flocking to the nearest and sometimes the farthest urban centers, hoping that this dynamism brings them a positive change in their lives. Kessides(2006) described this migration as one of the reasons as to why urban centers face an unprecedented growth, which is even larger than the national population growth. The other reasons raised by this author as factors behind the surge in population growth in cities and towns are the natural growth and the redefinition of boundaries. The three forces are therefore to be blamed for the rise in population which in most developing countries has gone beyond the accommodating capacity of the resource base. One of the manifestations of this imbalance between the rise in the number of population and the necessities occurs in the form of deteriorating housing conditions both in terms of inability to supply what is needed and dilapidation of the existing ones.

2.2. Poverty and Housing Conditions

According to Kessides (2006) the rate of growth of the urban population in the Sub-Saharan African countries, is as high as 5 percent, implying that the population has the capacity to double itself in only 15 years. Almost equivalent figures are reported by the CSA, as cited in MOFED (2004) as to how the urban population is growing in Ethiopia. The document produced by this office shows that the urban population in Ethiopia is growing at about 4.3 percent per annum and more than 16 percent of the population is currently living in the urban centers.

Some writers like Kessides(2006), argue that it is very incorrect to think that the African urbanization is the one that is taking place with out economic growth. Nevertheless, it is worth mentioning that the growth is not capable of raising the per capita income of the population and overcome poverty in a sustainable way. The reasons given by this writer for the prevalence of poverty in the African urban centers are traditional ways of production, absence of competition, dominance of the informal sector, absence of skill and lack of capital endowment.

The report of the UN-HABITAT(2005), on financing the urban shelter, also adopted the same position as Kessedes regarding the paces of growth in population and the economy. This report acknowledges that the population growth rate has overtaken the rate in economic growth in many developing countries. This, as the report says, is why more than 1 billion of the worlds' urban population lives in slums and continues posing a serious pressure on the housing demand all over the developing world.

It is very debatable to claim that poverty is the result of poor housing or the other way round. The UN-HABITAT (2005), however, took the position that poverty is caused by the lack of housing and infrastructures. This lack of basic needs constrains the growth of enterprises in such a way that their struggle, rather than focusing on competition and product improvement, will focus on the self-provision of infrastructures. It is very obvious that such strive will also constrain the ability to create employment that will

further put strain on the wellbeing of the population. The report cited a study undertaken in Nigeria, where 35 percent of the assets owned by enterprises mostly goes to provision of infrastructure by oneself. And it is due to this that poverty is intergenerational and perpetuates itself in slum dominated poor neighborhoods.

There is a second camp scholars that argues the other way round. For instance, Abraham (2007) in his article reiterated the forward causal linkage between poverty and housing deprivation. As to him, the prevalence of poverty is to be blamed for slum dwelling in the city of Addis Ababa. He mainly mentioned the financial aspect of the linkage between poverty and housing. People, as to this writer, live in slums because of their poverty which manifests itself in different forms, among which are unavailability of saving that that can be used for housing construction and inaccessibility of loan that can be used for the same purpose. This argument resembles the one raised in Gilbert and Googler(1992). Lewis, as cited in Gilbert and Googler(1992), stressed on what is called the "culture of poverty". By this phrase they tried to show the relationship between poverty and housing conditions. Gilbert showed that the relationship is vicious rather than causal or unidirectional. This vicious relation between the living conditions and poverty is expressed by a five worded definition as to why people are poor. The definition says "people are poor because they are poor". This shows how circular the issue is. To what ever direction the line of the argument flows, it is very evident from these three arguments that there is a close relation between poverty and housing.

This fact is strengthened by the figure mentioned in ORAAMP(2002) stating that about 80 percent of the dwellers in the city of Addis Ababa earn a very low income of less than Birr 970 per month. Azeb(2007), also pointed out that about the same percentage of the city's housing stocks are dilapidated and call for a complete replacement. These figures clearly tell us how poverty and housing conditions are correlated.

2.3. Housing Finance

2.3.1. Conventional Bank Lending and the housing Sector in Developing Countries

Our world has witnessed varying forms of financing the shelter of the urban poor. According to Davis (2006) there are three conventional broader classifications of housing finance. These are financing through the conventional bank lending, microfinance, and government subsidy. The first method, the conventional lending method, caters the need s of the middle and the upper classes of the community. It works only in places where there is enough supply of money for the mortgage market. In poorer nation, where the rate of saving in the economy is meager and there is a shortage of capital as a result, relying on these banks to render efficient services for poor is unthinkable and it is difficult to expect mortgage lending from these banks per se. Banks usually loose the interest of lending to the urban poor for housing because of the varying risks associated with it. The risks are the instability of the income earned by the poor that put the regular repayment under question. The second reason for the lack of interest from the banks side in financing housing in developing countries is because of the competing loan demands in the face of financial shortage. Short term commercial lending seems to be less risky and banks tend to go for it than lending to the relatively long term housing loans.

Other supra national institutions started to realize the failure in the conventional bank lending only in recent years. UN-HABITAT (2005) clearly indicated that it is only after the 1970s and 1980s that the world started to realize that the conventional housing finance or the mortgage financing failed to respond to the needs of the urban poor. Then, writers and practitioners started to forward alternative ways of financing housing for these people, the urban poor. The poor are initially excluded from the conventional ways because of the reason that the poor:

- have no regular source of income
- make the institution incur huge transaction cost as the loans are small and dispersed
- are believed to be not creditworthy, and etc.

Like many developing countries, the act of conventional bank lending for housing is very uncommon in Ethiopia too. It is only the construction and Business Bank of Ethiopia, that has a relatively better track of record in extending housing loan. This bank caters the needs of the salaried people having a regular income. It lends for a medium term of about 10 to 20 years. Davis(2006)mentioned that other commercial banks in Ethiopia are less interested in in financing shelter. She mentions the trials made by the Wagagen Bank in its effort to provide a short term housing loan to borrowers in cities like Mekelle, where a loan of 10 to 20 thousand birr were being extended for finishing works. However a close scrutiny of such programs shows that the are not still serving the needs of the urban poor. This is clearly seen from the title of the loan itself, "...for finishing works".

Davis (2006) noted that the initial intention of the establishment of the present Construction and Business Bank of Ethiopia, formerly called the Mortgage Bank, was to provide loans directed to housing. However, evidences show that, though it was established for the aforementioned reason, the loan record of the bank reveals that it favors short term commercial loans or else lending for real estates. Its housing loan performance is so low that only 40% goes for the same purpose. The bank, which was extending housing loans to salaried people in the former times, has now scraped the program and even the salaried people are not able to access the housing loans. Although the usual reason of tilting to the commercial lending is partly to blame for this, there are people like Davis, who argue that the inflation has played its role in excluding these people from using the loan.

2.3.2. Microlending and the Housing Sector

Microfinancial institutions are the other sources of housing finance. The lending rates of these microfinancial institutions for housing are so high that, in some cases, the rates excel the banks' by more than 10 percentage points. The reason behind the emergence of these institutions is to bridge the gap created by the failure of the formal financial sector in the provision of housing loan to the urban poor. These institutions, which are growing stronger in developing countries, are now becoming promoters of change among the

poor. (Davis, 2006). The same author continued upholding the role of these institutions and the failure of the formal financial sector by citing success stories in different countries. The South African government, according to Davis (2006), for instance, has tried to stem the housing problems of the poor through the conventional banking system for more than a decade. However, it is only after a long time that the government realized that the scheme failed to produce homes for the most vulnerable parts of the society, the poor. This is why, as quoted in the work of the same author's work, the director of the Capetown's Kuyasa Fund said "while it is attractive to think that all South Africans should be able to enjoy the same kind of housing finance products, the reality is that South Africa's 'two economies' require different housing finance strategies." By 'two economies' according to the writer, the director meant the upper and the lower economic classes in the society, and hence, there should be a means of tracing down the poor and come up with an innovative scheme that makes them participants in the home construction or purchase.

One can cite many other literatures as to how these microfinancial institutions are changing the lives and living conditions of the urban poor. For example, Boonyabancha(2001) favors a saving and loan program as a remedy to the housing problems in the developing countries. She views the housing problem as not solely the result of financial problem. On top of providing capital, such saving and credit arrangements aimed at housing provision, have spillover effects. The first advantage is that it strengthens the social cohesion among the poor and puts the poor in a position that they can have a better negotiation power. Second, it brings about the sense of financial prudence that most poor gravely lack. Third, it avoids the sense of dependence and help them solve their problems by their own. And finally, it helps the community members get acquainted with each other and helps them know how to relate to themselves to external parties with a better financial position. Generally, saving and loan associations are not ends by themselves; rather they are means by which societal problems can be tackled.

Many writers discussed the advantages of joining hands in the face of competition and negotiations. These days there are stronger institutions in many fields that are strong and

are feared of actions. When they ban products and can bring down the bigger ones to the level that the negotiator can not survive in the market. This is the advantage of dealing at association level than one-to-one confrontation. Boonyabancha(2001), described that there are some saving and credit institutions in Asia that grew stronger and held stronger negotiating power because they are linked to each other and formed a network. This helped the new entrants tap the financial potentials of the existing ones and learn some negotiation skills. It has also the advantage of accessing external financial sources as they are no more lame and powerless. It is in such a way that organizations can bring about a long lasting development.

Davis(2006), like many writers, is skeptical about the notion that credit provision alone is a remedy for the housing problems of the urban poor. Rather, she has a strong belief that this credit provision has to be accompanied by other pro-poor services. She reiterated the role of these institutions because of their convenient service to the urban poor discussed as follows. Many countries have a good track of record in providing successful smaller housing loans through innovative ways like arranging flexible ways of repayment that do not require a guaranteed income (like salaries), using convenient locations and time to make the program attractive to the poor, easier loan application processes, and staffing themselves in a way that does not make them incur huge operating cost, having a lowering impact on the lending rates. On top of this, encouraging competition among the banks, creating customer friendly schemes and getting assistance from the government bodies in guaranteeing housing loans is very imperative in strengthening the roles of smaller microfinancial institutions in the provision of housing loans.

It is clear that the microlending institutions grew in developing countries because of their advantages over the conventional lending. Davis(2006) further pointed out those characteristics that differentiate microlending from the formal bank lending. Among the major characteristics of microlending are the smallness of the loans having a shorter maturity period, a relatively higher interest rates, the requirement of no collateral, and the provision of technical assistances to the borrowers on one or all of the processes in house construction. If properly delivered, these defining characteristics of microlending have

clear advantages over the conventional bank lending in the eyes of the poor. For instance, as the people we are dealing with are poor and are not capable of constructing big and fancy homes, extending such smaller loans is of great advantage. It helps them build few rooms first and add the remaining some time in the future.

The idea of incremental housing, raised in Davis(2006) is also very much distinct in Gilbert and Googler (1992). Gilbert, in this book, raised the concept of progressive housing many times linking it with the ability of the poor in building new homes. According to Turner (1969) as cited in Gilbert and Googler(1992), what the poor need to transform their homes to acceptable standard levels, is only a secured tenure. Hence, as per this writer, what matters most to the poor is the security towards their tenure, and if this is achieved, the poor, as witnessed in many parts of the developing world, can effectively build and consolidate their homes.

On top providing a secured tenure to these poor in the urban centers of the developing world, Davis(2006) still holds on to the provision of microlending. She further reasoned out as to why these schemes are advantageous over the banks. As described previously, the flexibility in the collateral requirement is one. As the borrowers are usually employed in the informal sector that can never guarantee an income with a predefined pattern, it becomes very difficult for the loan assessors to give the green light to the underwriters or the lenders. Hence a remedy should be there to make this urban poor benefit from the scheme. The most innovative way of escaping such bottlenecks in microlending is a peer-monitoring technique, whereby the borrowers cooperate among themselves in groups and monitor each others repayment performance. In cases of default, there will be an enormous pressure form the associates on the defaulter, as the subsequent borrowers will not get the loan.

2.3.3. Issues beyond Finance and Country Experiences

A good housing finance is the one that first finds ways of supplying plots of lands to new builders or guarantees security for the already occupied ones. As most of the poor do not have the capacity to purchase land, such a system allows them use the smaller finance they secured from whatever source for construction purpose. It is because of this reason that the UN-HABITAT(1996), argues that there should be an active role of the government in housing for the poor. It further stated that the credit market in developing countries is inefficient in providing loans for housing. However, this document adopted the position that the role of the government should only be limited to the provision of credit for housing investment (purely from financial side). It is against subsidy and direct intervention as it is feared of bringing an unintended outcome, which might be against the objective of the program. The problem of the poor, here, is viewed as being the lack of credit, not its cost. It is stated that credit is better than subsidy because it avoids the sense of dependency among the poor and makes the poor feel that they own the project.

It is still evident that the poor in developing countries are not only faced with financial and land related problems. It is common to find the poor in developing countries facing hurdles in accessing housing and land with a secure tenure. It is because of this that, in many countries, governments intervene in the housing sector. However, this intervention from governments is not free from problems. Boonyabancha(2001) pointed out some of the problems that government housing programs face. The most serious problem the well entrenched tradition of bureaucracy that hinders the accomplishment of jobs on time. This opens a wide door for corruption. On top of this many government programs suffer from a syndrome called "missing the Target". Thought the programs are lamented as being focused and targeted to the poor, it is becoming increasingly difficult for the poor access the housing built in their names. The poor mostly loose the battle in accessing housing programs which are initially meant for them because of the following reasons. That is because the poor are mostly isolated, fragmented, and unorganized in nature. This defining behavior of the poor mostly leads them into exclusion from the decision making

process, and this is why the pro-poor policy makers argue that the poor are being asked to participate in a program which they can not afford. On the contrary, they tend to support those programs focused on the provision of land with a secured tenure so that the poor will have the freedom to consolidate their homes through time in a way that matches their household income.

It is due to the aforementioned reasons that many literatures support loan to subsidy. Once the loan is extended to the potential users, there are different ways of improving the repayment. The UN-HABITAT(1996) outlines some of the ways of improving loan repayment. In this regard, it points out the practical experiences of FONHAPO, a housing project in the Philippines, which introduced innovative measures that enhance loan repayment. These measures require the borrower participate in a three month successful saving period prior to the provision of the loan and it also calls for the participation of the community organization in the repayment programs. The document also lists some of the elements that need to accompany the lending process. This includes maximizing the amount of money that the poor receives from the program (introducing other cost reduction techniques in the construction process). This can be achieved through self building, self provision of building materials, and the provision of subsidy on loans (not direct subsidies that can not segregate between the rich and the poor).

The second method is through maximizing other non-financial supports. These measures include supports like the collective credit methods and community lending practices that have long-term development impacts. For instance, in cases of sickness, finding ways through which the community takes over the repayment until the borrower gets better is a fruitful arrangement. The third element that should accompany a housing loan is to look ways of maximizing the multiplier effects of this loan. By multiplier effect, it means to help turn the injected finance in the community over and over again. This can be achieved through encouraging home builders use local knowledge and inputs so that the money changes hands in that community(the money stays in the community) in such a way, the community gets the maximum benefit from that money. Such programs can help

the community transform the effect of the housing loan to other socio-economic development endeavors. (UN-HABITAT, 1996)

Many microfinancial institutions cater the needs of the disadvantaged sects of the society, the urban poor. As the women make up the major part of this society, they can benefit a lot from such an arrangement and can help them own home. Davis (2006) labeled the Grameen Bank in Bangladesh, SEWA Bank in India, Financiera Calpia in El Salvador, PROA Alto in Bolivia, and the KUYASA FUND in South Africa as microlenders that have helped dozens of women own homes in their respective countries. These are, therefore, the some of the institutions from which we can learn a lot. Hence, the following part is dedicated to describing some of the salient features of these institutions from which a lesson can be drawn as discussed in Davis (2006).

PROA Alto – Bolivia: This institution provides a microlending service using a finance obtained from larger financial institutions. The program was initially started in 1991 by using "Solidarity Group" as collateral against defaulters. This act, which is popularly, called the group-lending uses the peer pressure to force the defaulters to repay what they borrowed for housing. However, this scheme did not last long because of the absence of a close follow-up and scrutiny of the borrowers' status of credit worthiness. By learning from the huge loss it incurred from this bad experience, the institution redesigned its credit process whereby a strict and stringent lending policy is followed and the credit worthiness of the borrowers is first investigated, which finally led into success. Some of the extra measures put in place to improve the repayment are rescheduling the repayment time in cases of income fluctuations, reducing the relatively higher interest rate to 13.5 – 15 percent per annum, assessing the ability to repay of the borrower, providing long term loans(5 – 10 years), and making it a self-sustaining business with out a significant mark-up.

Financiera Calpia – El Salvador: Calpia was not initially established to provide housing loans. Nevertheless, there was a huge pressure from the clients to get larger loans for

housing construction and improvement. And as a result this institution, which mainly provides loans to the women, has helped them a lot to own homes.

Grammen Bank – Bangladesh: This world's most famous financial institution immersed its hands into housing loan in 1984 in response to the needs of the clients. The people eligible for this housing loan are those who have participated in the commercial loans and have a good track of record in the repayment of the loans. Because of its huge experience in tapping the resource from donors, this bank has successfully reduced the lending rates to 8 percent per annum. This is one of the smallest lending rates in the history of microfinancial institutions. One of the problems these institutions face in their participation in the provision of housing loan is their inability to reduce the operating costs, which has a direct implication on the interest rates. However, looking around, and using the finances from non-governmental organization can help a lot in reducing the lending rates to some acceptable levels. As the clients are getting the loans at minimum rates, as seen from the Grammen Bank's experience, the rate of repayment will be high.

SEWA Bank – India: Initially founded by women, this cooperative bank extended its loan services to housing after seven years from its date of establishment. It raises its capital from saving of its members (which is compulsory), public investments (like pension funds and sale of shares), and donations. The loans provided by this institution are small and short term having an interest rate of up to 17 percent. The institution does not require collateral; rather a close attention is given to the previous saving history of the borrower in the bank. One of the unique features of this bank is that it provides a "doorstep banking" service, a quality that the formal bank lenders lack, which is believed to have made the monitoring process easier. It is due to this, and other extra measures that it registered a 93 percent repayment rate.

Kuyasa Fund – South Africa: This form of microlending is a very unusual form of financial institution in developing countries. It is an institution that provides a loan which is purely meant for housing purpose. It is a saving based lending systemused along with a subsidized housing program. This program provides a family with a minimum standard

housing through a provision of housing which is as high as $1540, which has to be repaid in a period of up to 30 months with a 40 percent interest rate. If the borrower successfully repays the money, he/she can borrow a second round of money for the expansion (it was stated that the initial borrowing has only constructed a minimum standard house that needs a further expansion). All the loans provided by this institution focus on low and middle income people, and hence hey do not require collateral. To be eligible for the program, the potential borrower has to save about one-third of the amount needed prior to the loan. Though the loan is provided on individual basis, the saving group and the support centers(which organize the residents wanting to participate in the People's Housing Program) put pressure on the borrower repay the money. If there is a default, the institution delays the loan to be provided to the upcoming ones on the queue. Hence, it is up to the pressure groups to force the defaulter repay the money.

All the schemes discussed previously have lessons to be learnt from, however, the later arrangement seems an all-inclusive one and has many lessons to be drawn from. It is a very crucial arrangement that our IHDP can learn a lot from. This is because it is one of the successful programs that produced around one million houses in all over South Africa. The forced saving and loan programs are closely linked to the housing program that is designed to provide homes to the poor. Hence it helps the poor own homes through directly channeling their savings to housing fund.

When one raises the Ethiopian experience in microlending for housing what comes at the forefront is the trails made in the Amhara and Tigray regions. The Amhara Saving and Credit Institution(ASCI) extends loans to formally and informally employed people which ranges up to Birr 15,000. This practice is common in some areas in the region. (Davis, 2006). As can be seen from the name itself, this institution pursues a forced saving scheme before extending the loans. The Dedebit Saving Association, like the ASCI, provides variety loans, of which the housing loan is part. These two institutions charge interest rate of 14 and 15 percents, respectively. As they both require less of paper works than the banks, the operating costs are small and the repayment rates are good. There are also many employee cooperatives, saving and credit institutions, NGOs, and

other smaller institutions that provide loans to home builders in different places and times. Some of these institutions, particularly the regional Saving and credit associations, through assistances from the regional and federal governments, have succeeded in transforming themselves to banks. The introduction of the IHDP is also among the external shocks believed to have an impact on the upsurge of loan demand for hosing.

2.4. Government Subsidy and Housing for the poor

According to Davis(2006), there are people who strongly criticize housing subsidy programs for not clearly targeting the beneficiary group, the urban poor. These groups of people claim that it is the middle and high income group who are receiving the subsidies for which they are not entitled to. Hence, to have an effective subsidy a program should devise:

- a targeted subsidy program
- a transparent program that shows the amount of subsidy
- a system having a positive overall impact
- a system which does not stifle the private sector, and
- a system which is simple to administer and control

A caution also needs to be taken as to what the word finance itself stands for. For some it is related to the housing financial outlay only. For others it is also composed of the infrastructure cost. Housing Finance, according to UN-HABITAT(1996) is not only related to the monetary outlay made for the housing unit. But, it also includes the one meant for the provision of infrastructure and services that go along the housing unit. This is because when a new home is built, there should be a new connection to water supply, roads and etc, which necessitates a new money outlay. That is why it is common to include the infrastructure and service costs to the general housing cost.

The provision of finance by itself should not be considered as a panacea to all the housing problems of the urban poor. Rather, the coordination of action between many parties is very imperative. For instance, local governments can participate in the provision of land,

extending technical assistances, project management, and revenue raising for infrastructure laying. Regional and central governments have also a crucial role to play in reducing standards, establishing the framework in which NGOs and another institution can contribute, streamlining and coordinating the duties of sectoral offices for the common goal of housing production. Other important participants in the program can be the private sector. The experience from the FANHAPO housing project in Philippines shows us that large private companies can also participate in the form of building quality homes at low price. Or else they can also participate in the construction of "Low Cost Housing". Last but not least, it is important to reiterate the role of the NGOs. Calling for the bigger international NGOs that are known for their names of "Social Producers" of houses is as important as other measures and has a positive impact on the overall realization of objectives of programs aimed at housing the poor. (UN-HABITAT, 1996)

But why are all these scholars and policy makers crying about housing for the poor? According to Boonyabancha(2001) the urban poor and the informal sector produce the largest amount of housing units in Asian countries through creativity, efficiency and match between household income and housing cost. As there is a severe shortage of capital even at times the loan from the saving and credit institutions is secured, it seems better to help the poor build their own homes rather than forcing them to participate in an expensive and compete housing units. In such a way strengthening the saving and credit institutions play an important role in the sector as it allows the poor pursue the incremental housing construction method that is affordable to them.

There are many important lessons than countries like Ethiopia can learn from other developing countries regarding the kinds of supports to be provided to reduce the pressure on housing demand. This includes allowing varying ranges of loans that support incremental housing, keeping the loans short term, linking forced saving schemes to housing programs, encouraging NGOs and CBOs to provide housing loans, cross subsidization and providing technical assistance to home builders. (Davis, 2006).

2.5. Urban Land Tenure and Housing

This part of the literature review is dedicates itself on how the urban land tenure system affects the hosing sector. It is obvious that housing is the result of many interrelated and intertwined factors. These are the tenure system, the finance, the economic philosophy the nation follows, level of perfection of the market and etc. Among these, the objective of this part will be on shading some light on the link between the tenure system, and the nature of housing. Before going to the details of tenure system, let us first try to cite its definitions given by writers. Payne(1996) defined land tenure as a " *mode by which land is held or owned, or the set of relationship among people concerning the use of land and its products.*" Hence as can be seen from this definition when the issue of tenure is raised, Payne does not mean that it only includes the matters of land ownership, but it also incorporates all the permanent and temporary changes made on the land (because the definition includes the phrase "land and its products"). Though they are slightly different, people mostly use land tenure and property rights interchangeably. The same author defined property right as a recognized interest in land or property on the land vested by the individuals or groups. It includes the rights of access, use, develop and transfer which can be viewed in line with ownership. Hence even though it is incorrect to use the terms interchangeably, there exists some kind of similarity between tenure and property right.

Many literatures make a distinction between the "formal and informal forms" of tenure systems. Others call it the "legal and illegal" tenures. And there are many competing ways of naming land tenure systems. However, I would like to give the credit to Payne(1996) for ruling out such improper naming the tenure systems and dichotomizing tenure systems. As per this writer, it is difficult to dichotomize tenure systems as this and that. Payne claimed so because tenure is better expressed in continuum than on a discrete basis as the previous ones. He also criticized others on the usage of the terms themselves. If we are forced to categorize them in to two, as Payne says, we better call them the "formal and non formal" forms of tenure. This seems a better expression because the term "legal Vs illegal" have an implicit message of categorizing all the "extra-legal" arrangements as "illegal", which is not necessarily true.

Payne(1996), tries to discussed tenure as a continuum in the following way. As to him, the dichotomy in tenure is further categorized in to six broader classes. The first among these is the customary or the traditional tenure system. Some of these traditional systems allow individual ownerships while others allow only communal land ownership rights. Such forms of ownerships exist in clan based and traditional African, Asian and Latin American peoples. In most cases, these systems bans the sale of land and they ensure only the use right of land.

The second form of tenure is the modern tenure system. This system is further divided into two subsystems; namely, the perpetual and the finite period holding systems. As the name itself signifies the former one is a right that persists forever, while the second one has an expiry date. The free holding is a typical form of the perpetual subsystem. And, the rental, leasehold, and the contractual holding are the examples of the finite tenure subsystem.

Thirdly, there is the public land holding system. This, as others, takes different forms. State land holding, trust lands, Parastatal and lands for specific use fall under this category. In such forms of ownership, the individual rights of owning land are totally missing from the equation. What an individual can do is to use the land, while the ownership remains under the public.

The derived form, the fourth typology of land tenure, as can be seen from the name itself, is a derivative of the common kinds of tenure systems. It includes the lease holding (which is also raised in Modern system), condominium, cooperatives and etc. In such an arrangement, the land is shared among people or groups on the basis of time or space. Hence, the spatial and temporal factors are the defining behaviors of the tenure system.

Fifth, there is the non-formal system. It is a system by which squatters, unauthorized builders, illegal sub-dividers and other extra-legal arrangements feel own the land. The writer, here, preferred to use the term "non-formal" very intentionally. There is a

continuous debate among the urban scholars as to what term to use to such group of settlers. And, Payne fall in the category who ague that it is improper to call these people "illegal", as they have the natural right of having a plot of land to live on. "Who are we to call these people illegal?", asks Payne, especially when the land is originally theirs. This is why he preferred to use the term "non-formal" tenure.

Last, but not least, there is a sixth, and the rarest form of land tenure system called the "Interest". This category is composed of arrangements like the easement, mortgages and the servitude. These are tenure systems where there is no full transfer of ownership until a certain agreed condition is fulfilled. It could be repayment of loan or a physical labor service. One can assess the performance these forms of tenure using three criteria. These are clarity of the system, the ability of the system in ensuring equity and efficiency

As described in Payne's fourth tenure typology, the current grand housing project pursued by the Ethiopian government falls in the derivatives, where the owners share space. Doebele(1982) raised such derivatives forms as a remedy for the housing problems in developing countries. As to him, like Payne, the derivative forms take the form of space of time sharing arrangements. He calls them both, condominium. They are arrangements whereby the owners own part of the building forever or for some time. Hence, the sharing is either spatial or temporal. They are systems that discourage horizontal city developments, and hence reduce the cost of infrastructure lying.

Doebele(1982) and Payne(1996) share a common view on how to evaluate the performance of a tenure system. To Doebele, equity and efficiency should be the major yardsticks with which one measure how a given form of tenure performs. He used the terms "productivity" and "social justice" to refer to what Payne called equity and efficiency. In this article he emphasized on how systems should respond to changing conditions in societies. That is why he recommended a continuous redefinition of tenure systems across time.

Doebele(1982) considered squatting as being the result of the a tenure system. As to him, the initial period of the laissez-fairre is partly to blame for the emergence of squatting in many areas of the developing world. It was a period in which the squatters were being tolerated. This system of tolerance opened a door for free migration of worker s form rural areas to the urban centers. However, as time goes the expansion of population in the urban centers and the parallel increase in the area occupied by the squatters forced the policy makers rethink their policy of "let it free". It was at this very time that policy makers started to consider the squatter settlements as treats to the exiting population from different perspectives such as from a rise in service demand, crime and etc. Hence, this view among some policymakers hailed the era of demolition.

It is after the period of 1960s, as shown in Doebele(1982), that the migrants started to be considered as assets than liabilities. Writers of this period like Turner were among those who favored the positive aspects of these vulnerable social groups. Suck kind of thinking led into the introduction of programs like the "self-help", "site and service", and upgrading". They are all the results of the debate among the scholars in the area of urban housing problems. Though huge finance has been mobilized to help the poor own homes through such programs, the rate of success was minimal and that is why the renowned writers of the period started to trace the problems. Influential writers like Payne(1996) and began thinking of institutional reforms and structural changes in the government bodies and policies that affect the urban land and housing market. Along with this, community land ownerships cross subsidization programs, financial intervention and condominium housing projects started to pop up.

2.6. Affordability and Housing for the Poor

There is an obvious close relationship between economic status and housing conditions. Low income households tend to own "sub-standard" houses, which in most cases receive unfavorable treatments like demolition from the people in office. They usually face such mistreatments because authorities consider these houses as "sub-standards" and the neighborhoods as problems of a city. That is why many officials at different times and

places went on demolishing the life lines, the houses, of the poor. On the contrary, other group of individuals and organizations were selling the ideas of the poor and their right to live in a place where they want to; and they were striving for the achievement of this grand objective of helping the poor own homes. However, this idea of assisting the poor build their own home can only be achieved through making those units affordable to them.

Before going to the details, let us first try to see the definitions of the term "Affordablility". Many writers in the urban arena at different times tried to define the term affordability. Though no pronounced per se, divergence in definitions exits among the definitions of the term. This part of the literature review pays a close attention even to the minor differences of definition as the slightest deference in the definition has a greater policy implication. Davidson and Payne (1983), as cited in Kamete(2001), gave the simplest definition of affordability. As per this definition, the term only refers to "the ability to pay" of the potential buyer or builder. However, as Kamete (2001) and other writers criticize, the definition lacks the essential clarification as to what this "ability" is referring to. That means, does it refer to the housing unit? Or also to all the services related to it? is not clearly indicated. Kamete argued so because, as to him, many housing intervention strategies fail because of absence of clearer definition of the term itself. This is so because it is the definition that guides what should be done and all other future courses of action. Hence a program that defines affordability as being the ability to pay only for the housing units does not care about other things, but always devises ways of reducing the prices of the final product, the housing unit, nothing else's.

Kamete(2001) also cited the works of Kearl and Jimenez (1983), who defined the term affordability as having the concepts of both the ability and willingness to pay. This definition appears to be a better one as it includes additioanl essential concept to the previous one, which is the issue of "choice" or "willingness". Though Kamete did not comment on the definition, it seems that this definition also suffers from the same problem as the first. It still does not indicate to what these ability and willingness are directed. Is it only for the housing unit or with the services related to it? is not still clearly

indicated. This dichotomy between the housing unit and the services related to it are the points on which different housing intervention strategies lack clarity.

Many writers including Kamete (2001) have proposed different ways by which houses can be made affordable to the urban poor. However, there are many poor people who are still in those "sub-standard" units despite numerous interventions. This is a clear indication for the failure of many policies. This writer generally divided all sorts of interventions aimed at improving the affordability of housing units to the poor into two major categories. These are the EXTERNAL and INTERNAL interventions. The external factors affecting affordability are those measures taken by second parties (not from the household side) that are aimed at reducing the cost of the housing unit and usually focus on the building. It includes measures like reducing the costs of land provision, infrastructure provision, planning, designing, administration, and other community services. The cost reduction can also come from subsidies from the government like reduction in interest rate, extending the period of amortization, free provision of land and etc.(Davidson and Payne, as cited in Kamete, 2001). This process of reducing cost has something to do with the previous definitions that focus on "the ability to pay." This is so because they all focus on how to reduce the price of the housing units and hence enhance the ability to pay of the poor.

The second way of intervention is the internal one. This second way is closely linked with the socio-economic conditions of the potential buyer or builder of the house. To Kamete(2001), affordability can not be brought through one way intervention that focuses on the external factors. What he called the "irreducible core" are the witnesses for the failure of such interventions that focus on the cost reduction strategies. The irreducible core , for Kamete, are those people who cannot access any form of housing units because of their extreme poverty. Whatever external measure is taken it appears to be impossible to bring some people into the scheme. It is those kinds of people that Kamete called the "irreducible core". Had the external measures were integrated with the internal ones, some portion of these people could have been brought to the beneficiary category. In other words, a policy intervention that is geared towards to the poor that

maintains their income should be there along with any housing strategy aimed at helping the poor. Such measures that have an impact on the lives poor may include reduction in the size of the family, teaching the poor on how to save money, and creating the aspiration that the poor can own can own homes is believed to pay a lot in any program.

Kamete(2001) mentioned the four measures adopted in Zimbabwe in making homes affordable to the urban poor. The first among these is the one related to the "product type". It is using this measure that the government of Zimbabwe resorted to the provision of unfinished and smaller houses instead of bigger and finished products. In such a way, it was believed that the poor will have the flexibility to finish the unit acoording to their capacity. The second measure was the introduction of new reduced standards that were believed to have a significant impact on the stock of housing in the country. The reduction in standard was applied to a variety of phases of housing construction. Some of the measures are reduction in plot size, components in the house, and construction materials. However, this method faced very strong criticism from anti-segregationists, who criticized the arrangement as being particularly aimed at reducing the living conditions of the indigenous poor black people. As a result some of these measures did not last long and were revised upwards to their original standards. Later, a third view from the supranational institutions like the World Bank came to existence. Such views strongly criticized the involvement of the government in the housing provision. They argued that the hands of the government should be restricted to "enabling" than providing. And following this era, the involvement of the government was reduced to enabling the market produce houses. This measure was also adopted by the Zimbabwean government with out hesitation because of the strong hands of those "big brothers" and also because of the dwindling funds as a result of the inflation. This is, therefore, the time when the "aided self-help" and other methods were introduced where the role of the government was reduced to the position of an enabler. A fourth measure was also put in place to achieve the objective of affordability. This is through coercing employers contribute some amount of money in the name of the employee, like the pension contribution, that can be withdrawn and used for housing. This contribution by the employers is called the "housing levy", and this money is used as revolving fund in the

housing construction. This method also faced a strong opposition from employers and as a result got terminated.

In the final analysis Kamete(2001) came to the conclusion that all the four measures are external factors that have successfully failed in answering the needs of the poor and called for an overhaul in the way of engaging the problem of affordability. It is at this juncture that he upheld the role of the internal factors that aim at maintaining the income of the poor. Therefore, for Kamete, these external and internal measures of making a house affordable to the poor should not be introduced as mutually exclusive events, rather one should accompany the other in order to succeed in meeting the target.

From what Kamete(2001) said so far one can infer his definition of affordability very easily. In his article he capitalized on introducing the concepts of the internal factors and their impact on making the houses affordable to the poor. Hence, his definition of affordability, as I perceive, is related to the ability and willingness to pay for housing and all other services related to it.

An equally important and better definition of affordability is given by Stone(2006). He used the notion of "cost of housing vs other non-housing expenditures" to define the term affordability. This concept of "cost of housing vs other non-housing expenditures" coined by Stone integrates the "external and internal factors" that Kamete was talking about.

Stone criticized the ratio of housing cost to income ratio method of measuring affordability calling it a "rule of thumb". This rule of thumb assumes that 25 percent of people's income is spent on housing, and any housing scheme that forces people spend more than this is not affordable and those below the 25 percent threshold are categorized as affordable. This measure was being used in the United States of America until about the 1990s.

According to Stone(2006), housing subsidies are not always geared towards ensuring affordability. Subsidies are sometimes games with which governments ensure their

varying interests. For instance, political and financial interests fall in this category. Therefore, the reason that subsidies, in many cases, miss their targets is not a surprise to the formulators, as the ideas they sell on the media differs from what they intend to do. Hence, what is literally told to the public sometimes differs from the tacit targets known only to the policymakers.

Though not clearly indicated in his article, Stone's(2006) point of view is similar to Kamete's(2001) in the sense that they both recognize the role of the internal and external factors in making housing units affordable to the urban poor. He tried to substantiate his argument on affordability and its relation with the income by citing the work on Rapkin(1987), which he quoted in his article as the amount of money that a household spends on housing(rent) should approximate the weekly salary of the household, ie. about one-fourth of the monthly income. However, this assertion of the fixed ratio relation between housing expenditure and income is refuted by Baer(1976), as cited in Stone(2006), as being naïve and misleading. There is a strong feeling among many scholars that such fixed relationship between income and housing expenditure does not exist.

Before stating his final definition of affordability Stone(2006) raised some of the approaches used defining affordability. For him almost all of the definitions given are related to the budget of the household. However, the definition given by Stone differs from the others because if further defines the budget itself. For him, the income that determines the ability to pay of a household is not the total money that the family has, but it is the "residual income". By residual income he meant the difference between the total income of the household and the sum of all non-housing expenditures. Hence, as per Stone's(2006) definition it is this residual income that determines affordability, not the total income. This definition, like Kamete's definition we saw previously, has a behavioral concept in it. I felt so because it is the spending behavior of people that determines their "residual income". Hence, what Kamete called the "internal measures" of ensuring affordability are contained in the "residual income" concept of Stone that is composed of some socio-economic issues in it.

2.7. Existing Housing Conditions in Addis Ababa and Program description of the IHDP

2.7.1. Introduction

The city of Addis Ababa is among the textbook examples of primate cities. According to CSA (2008) report, the population in the capital city, Addis Ababa, is 9 times larger than the second largest city, Dire Dawa. The same source pointed out that the population in Addis Ababa is growing at 2.1 percent per annum. With its population of more than 2.7 million in 2007 and with the aforementioned rate of growth, the population of the city is now reaching about 3 million. This huge agglomeration of population, coupled with severe poverty and unemployment, has led into the deterioration of life in the city. Prevalence of the informality, which is as high as 40 percent in terms of its contribution to employment, is partly to be blamed for the deterioration of life in the metropolis. PASDEP(2005) estimated the rate of unemployment in the city to about 28.6 percent. Hence, the huge rate of unemployment, along with the "hidden unemployment", which is mostly not a recognizable figure, are playing their parts in pulling down the life standards of the city dwellers.

It is only after 1995 E.C that the government started to realize the burden of housing demand or backlog created by the lack of official intervention for more than three decades. This period marked an important period in the history of housing of the city of Addis Ababa. The condominium proclamation of 370/1995 was enacted during this period and it was this proclamation that laid the legal and political ground for the neglected sector, the housing sector. This law, coupled with the lease law and the land expropriation law, has created a fertile ground for the government to mobilize resources and bring about a massive intervention in the housing sector. (PASDEP, 2005)

It was described repeatedly that there is a severe shortage of housing in the city. To overcome this shortage, the city government of Addis Ababa adopted varied forms of intervention strategies. Some of them are: the IHDP (which constructs new condominium houses), a "Kebele" renewal program(which focuses on freeing prime lands for

commercial and other purposes by moving the residents to the newly constructed houses), regularizing, providing incentives for private developers and demolition. This partly overlaps with the ones describer in World Bank(2008). Fey and Wellinstain (2005), as cited in World Bank(2008), pointed out additional ways of responding to such pressing housing demands. These ways proposed by the document includes regularization, which is particularly chosen as it is one of the methods believe to have a positive impact on the most vulnerable portions of the population, the poor, on the assumption that the poor cannot participate in the market that can produce affordable houses. The other solutions could be promoting rental homes and capitalizing on cooperatives and self-help housing.

The Urban Development Package of the FDRE (2006) identified the housing development activity as one of the five key intervention areas. On top of reducing the strains on housing, this housing development program aims at raising the capacity of the construction sector through enhancing their capacity to develop low cost houses, mobilize saving and support real estate developers. This program is part of the PASDEP(2005) that has clearly set the target of reducing slum dwelling by 50 percent by the end of the program period, i.e 2010 in the whole nation. The survey conducted by the Ministry of Finance and Economic period in 2005 for the preparation of the PASDEP showed that more than half of the total households live in a single room house and only 32 percent live in houses having two rooms. The same source continues that it is still very small proportion, one-tenth, of the houses have three or more rooms. Besides, the severe incidence of poverty and unemployment worsens the slum dwelling in the nation in general and in the city in particular.

2.7.2. Program Targets

According to Solomon et al(2004) about 70 percent of the urban population in Ethiopia live in slum and sub-standard houses. And it was because of this dilapidation and the massive housing shortage that the pilot project of the GTZ and the IHDPO (Housing Development Program Office) launched their low cost housing projects. As described in Urban Development Package(2006), this program, which is called the IHDP, envisages to improve the living conditions of the low income residents of Addis Ababa through the

provision of affordable housing and employment opportunities. The World Bank (2008) narrates the assumptions on which the program was launched. The program was commenced, as per the document, on the assumption that the market can not produce housing units hat are affordable to the poor. Having this as its final objective, the document sets its various targets which are summarized as follows:

Table 1: Quantifiable Program Targets

QUANTIFIABLE PROGRAM TARGETS:		
Type of Goal	Initial Target of 2004-2008	**Revised Targets 2006-2010**
Housing Construction	Construction of 150,000-200,000 houses	Construction of 192,500 housing units in 4 years
Employment creation	Create 60,000 job opportunities	Create 80,000 job opportunities
MSE promotion	Expand the development of up to 2000 MSEs	Strengthen the existing 1300 MSEs and increase their numbers to 2300.
Slum Upgrading	Reduce slum and decaying areas of the city by 50%	Reduce slum and decaying areas of the city by 50%
Land development	Prepare and develop 1200 ha of land required for housing development and related local development works	Prepare and develop 1200 ha of land required for housing development and related local development works

Source: World Bank (2008)

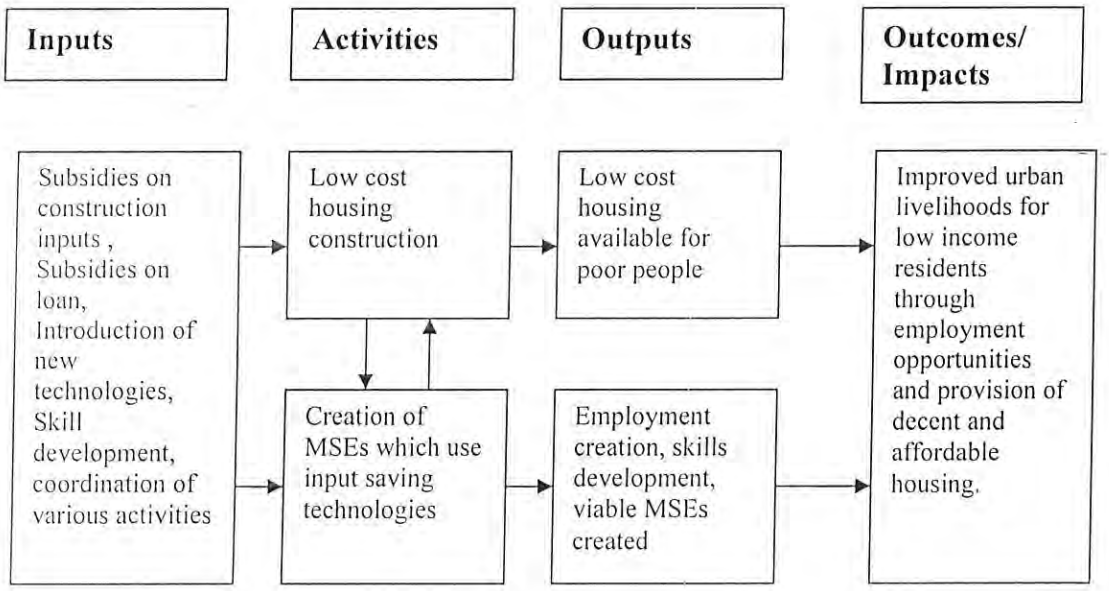
When comes to the city level, this program is administered by the Housing Development Project Office (HDPO). The office executes activities like land preparation, executing design works, purchase and supply of major inputs and coordinating activities and institutions such as the MSEs and others. As part of the decentralization process, many of the duties like site selection, administering the construction, organizing the MSEs, organizing the construction materials, and supervision are now delegated to offices formed at sub-city levels.

As part of the cost reductions strategy, the condominium buildings are standardized and are more or less homogeneous. This homogeneity of activities will obviously lead into

specialization and finally to cost reduction. The program has so far produced apartment program buildings of 4 and 5 storey high. The individual buildings included in these buildings are few in category that the clients have limited freedom of only choosing between studio, single bed, double bed and triple bed room houses. It is only a recent phenomenon that the city government planned to build 7 storied buildings as part of the program aiming at densification in the city centers.

As the program intends to supply housing to the lower income people, the units are less luxurious and all possible means are exploited to reduce the cost of the final product. To achieve this objective, new technologies, which use for cheaper inputs are utilized. This includes the use of pre0fabricated beams and hollow blocks. All suppliers of inputs are selected in such a way that they need to agree apriori to supply the inputs on fixed price basis. (World Bank, 2008)

Figure 1: Rationales of the IHDP



Source: World Bank(2008)

The IHDP, as described in the Urban Development Package(2006), has set the objective of constructing 360,000 housing and 36,000 commercial units in four years time spanning

between 1999 and 2002 E.C in the nation as a whole. On top of realizing this, it also aims at creating a favorable environment for the private sector that includes the real estate developers, housing associations and private home builders to build more than 500,000 housing units. Among the other objectives of the program are, reduction of the urban sprawl, and densification. Through such methods, the program believed that there will be reduction in cost of infrastructure provision. The job creation effect of the IHDP is also another positive impact of the program. The same source continues outlining that the program it enhances the development of about 100,000 smaller construction companies.

Table 2: Regional distribution of houses to be constructed by the IHDP in the specified years.

Regions	Years				
	1999	2000	2001	2002	**Total**
Oromia	9020	12,628	18,040	27,060	**66,748**
Amhara	6710	9394	13,420	20,130	**49,654**
SNNP	4950	6930	9900	14,850	**36,630**
Tigray	4070	5698	8140	12,210	**30,118**
Dire Dawa	1650	2310	3300	4950	**12,210**
Harari	1100	1540	2200	3300	**8140**
Addis Ababa	*3300*	*38,400*	*55,000*	*66,000*	***192,500***
Total	**60,500**	**77,000**	**60,5000**	**148,500**	**396,000**

Source: Urban Development Package, MWUD(2006).

It was repeatedly described in different literatures and reports that the housing sector is linked to many job creating strategies that benefit the poor and thereby raise their incomes. And this fact is true and is substantiated by the researches undertaken by third parties like the World Bank(2008). This document outlines that there was an initial objective of creating up to 80,000 jobs from this housing intervention (the condominium housing project) and a very significant amount of job has been created. However, as many of the programs in many developing countries, the program lacks a direct linkage of the job creation process to the housing ownership. The writer of this report does not

come across a housing project whereby the potential owners participate in the construction or contribute in labor for the direct housing ownership. Or in other words, the program did not make sure that the potential owners are employed by the program. If the program is the one meant for the poor, and as the poor do not have the ability to pay for the housing units, officials should look for ways of integrating the potential home owners with income generation opportunities.

2.7.3. The Affordability Strategies

The Integrated Housing Development Program mainly aims to benefit low and middle income urban residents who aspire to own a house. To achieve this objective, the program broadly introduced different measures from two directions: external and internal. Among the external measures are: provision of subsidy, availability of grace period, extension of the payment period, reduction and abolition of interest payments, and the reduction of the advance payment. Apart from this the policy document also outlines other internal measures that are believed to make the houses affordable to the poor urbanites through promoting job creation and allowing the poor to rent part or all of their new housing units as means of income generating opportunities.

Table 3: Different payment modalities and subsidy schemes (in 2003/04)

S.No.	Items	Studio	1 Bed Room	2 Bed Rooms
1	Monthly income	300	600	1200
2	Area in m^2	26	32	40
3	Price in birr/ m^2 (in 2003/04)***	665	665	950
4	Selling price (in 2003/04)***	16000	18000-27000	33000-57000
5	Advance payment	10%	10%	30%
6	Interest rate	------	2%	7.5%
7	Payment period	20yrs	20yrs	15yrs
8	Grace period	6 months	3 months	-------
9	Rate of subsidy	30%	30%	-------

***these are the former prices, and the current prices are given in the subsequent tables

Source: Adapted from the Addis Ababa Housing Agency

Other strategies used by the Agency to make the houses affordable can also be summarized in to the following major categories.

A. *Absence of Finishing Works (inner doors, painting, ceramic lying, polishing the ceiling...):*

This measure is adopted for two different purposes. The first one is obviously to make the houses affordable to the poor people so that they can handle the finishing work according to their income. The other one is to give flexibility for the beneficiaries to finish the house as per their need.

B. *Reduction of Standards:*

Though the two kinds of houses which are meant for the poor (studio and one bed room), they still lack bed rooms, dining room, and sometimes walled kitchen which obviously shows a reduction in standard.

C. *Provision of subsidy:*

Subsidies are extended to the beneficiaries in different forms. Among these are, absence or reduction of interest rates, postponement of the payment and grace periods, and etc which reaches up to 30% for studio houses.

D. *Free access to Public Land:* Since the land is owned publicly, no payment is being made, at least for those projects undertaken on open spaces. Or else, though evacuation is made, the government has the full right of using the land for public purpose after making a certain amount of compensation. (the Urban Planning Proclamation, 2008).

E. *Creation of job opportunities:*

As mentioned previously, all the aforementioned measures aim at reducing the price of the housing unit. However, to make the units affordable to the users, there also needs to be an internal measure that mitigates the income problems of the urban poor. To achieve this end, the program also aims at creating job opportunities through

micro and small scale enterprises, so that the urban poor will get enough money to settle their debts.

F. *Allowing the poor to Rent part or all pert of their houses to lodgers:* Even though not clearly indicated, the agency has practically allowed or gave the poor an elephant ear to rent their houses so that they will be in a position to repay their loans. This could also be categorized as an internal factor. Because, in the final analysis, it maintains the income of the poor beneficiary. As we will be looking in the subsequent part, the poor are even making bigger fortunes out of this arrangement, which needs to be further promoted through provision of directives.

Table 4: Summary of the new payment schemes of the IHDP in Addis Ababa

Typology	Average construction cost per m^2	Cross-subsidization	Average area in m^2	Selling price per m^2 after the cross-subsidization	Average price per housing unit
Studio	1507	30%	26.8	1100	28,271
Single Bed	1507	5%	48	1414	68,719
Double Bed	1507	+5%	54.8	1728	86,713
Three Bed	1507	+10%	65.3	1808	108,248
Commercial Units	1507	+50%	53	2500	124,921

Source: Adapted from the Addis Ababa Housing Agency

As can be seen from this table, the IHDP is a program that utilizes a cross-subsidization as the main means of helping the poor own homes. The two minimum standard homes, the studio and the single bed houses receive subsidies which is as high as 30%. On the contrary, two bed and commercial units pay an extra amount of 5% and 50% respectively which will be used to subsidize the poor. This subsidization is clearly seen on the selling price of the units. Although the construction cost is the same for all units, this act of cross-subsidization has brought about a difference in selling price. This price is higher for commercial units, 2500 birr per square meter, and relatively lower for studio houses,

which is 1100 birr per the same. This shows us that the people who purchase the commercial units pay more than a double of the price of the studio houses.

On top of this, there is a help extended from the government to make the housing units affordable to the urban poor. The data obtained from the HDPO reveals the same fact. All expenditure titles listed below are borne by the government, and the home owner does not pay a dime for these cost items. These cost items, which are totally borne by the government, are given in table 5.

Table 5: Costs entirely incurred by the government

S.No.	Expenditure title
1	Land leveling and soil disposal
2	Compensation payments
3	Sewerage line lying costs
4	Electric and water connection expenditures(partly)
5	Road construction (external)

Source: Adapted from the Addis Ababa Housing Agency

The price of the housing units only includes items like the construction costs, the recurrent expenditures of the project, design and consultancy expenditures, interest on bank loans, and for the basic services related to the housing unit. Table 6 summarizes the costs of the housing unit which are included in the selling price.

Table 6: Expenditures to be paid by the home owners

S.No.	Expenditure title
1	**All sorts of construction Expenditures**
2	**Salary and other recurrent expenditures**
3	**Design and consultant expenditures**
4	**Electric and water connection expenditures(partly)**
5	**Expenditure for routes and roads (internal)**
6	**Interest payment on loans from Banks**
7	**Solid waste collection container**

Source: Adapted from the Addis Ababa Housing Agency

The program, though was ambitious at the start, has undeniably produced many housing units that stemmed some of the housing problems in the city. And it has also helped the city official that such bigger projects can be undertaken so that accumulated problems having backlogs of more than four decades can be solved. The realization of the project, with all its difficulties, has helped the concerned officials develop the required confidence that they can do more to abate some of the problems in the city. Although they are at different stages, the most recent data obtained from the Addis Ababa Housing Development Program Office (as of March, 2010) reveals that around 78,220 thousand homes have been produced. The majority of these, around 52,171, have already been transferred to the owners. This accounts for 66.7% of the total number. The other category is the one whose construction is finished and waiting for transfer. Under this category, there are 7,991 houses and it ahs a share of 10.2%. The third and the last category is related to those which are under construction. These housing units are around 18,061, and account for 23.1% of the project achievement so far. Table 7 summarizes the housing typologies produced at different rounds.

Table 7: Number of the housing units constructed by the IHDP in Addis Ababa

Typology	Round 1 and 2	Round 3	Round 4	Round 5	Under construction	Total
Studio	5925	1467	1426	1997	3247	14,062
Single Bed	11,144	2951	5257	3075	6734	29,161
Double Bed	11,637	1914	3722	1524	5642	24,439
Three Bed	1770	468	1255	420	1174	5087
Commercial	1727	634	871	975	1264	5471
Total	32,203	7434	12,531	7991	18,061	*78,220*

Source: Adapted from the Addis Ababa Housing Agency

Chapter 3

Model Description and Variable Definition

3.1. Model Description

Regression models are among the essential tools that describe the relationship batween different socio-economic variables. That is why researchers use such models very frequently. When one studies the extent to which one variable explains the other, a regression model is the one which best meets the intended objective. If the objective is to determine how one variable, say variable "X", determines another variable, variable "Y", we usually resort to such models which are given as follows:

$$Y = \beta_0 + \beta_1 X + U \quad \ldots\ldots(1.1)$$

Equation (1.1) is the simple regression model. It is called simple because it has one explanatory (independent) variable, ie, variable "X" and another explained(dependent) variable, variable "Y". β_0 is the intercept term and β_1 is the slope variable. β_1 measures the strength of the relation between the dependent and independent variable. In other words, a unit change in "X" brings about a β_1 amount of change in "Y", that is why researchers are highly interested on the amount or magnitude and sign (as it shows whether the relationship is positive or negative) of the coefficient of the explanatory variables. β_1 practically measures the effect of a unit change of "X" on "Y", keeping all other variables constant. "U" is an error term(disturbance term) that captures the change in "Y" which is not explained by the change in "X". As the change is random (as it is sometimes above "Y" and other times below it) its sum across all observations is assumed to be zero. (Wooldridge, 2000).

One can simply call equation (1.2) a multiple regression model. The only difference here is that in equation (1.1) the explanatory(independent)variable is one ,while in the multiple regression case the number of the explanatory variables, as the name itself signifies ,is

many (more than one). The following model is an example of a multiple regression models.

$$Y=\beta_0+\beta_1X_1-\beta_2X_2+\beta_3X_3+U\text{------}(1.2)$$

As can be seen from equation (1.2) there are three variables (X_1, X_2 and X_3) that have impact on "Y"; or the value of variable "Y" depends on the values that these three dependant variables (X_1, X_2 and X_3) take. As in equation (1.1)the coefficient changes of X_1,X_2 and X_3 measure the impacts of the respective variables on Y, and as usual we care a lot both about the magnitude and the signs of these coefficients.(Wooldridge,2000)

Equation (1.2) better captures the realities of this world because in most cases variables depend on many other factors. It is very rare that only one variable affect the value of other.

However, to use such regression models both the explained and explanatory variables (the dependent and independent variables) should be measured at least on scale level. Other sorts of data which are, for instance, measured on categorical or ordinal levels can not be processed using the previous forms of models. The definitions of these forms of variables is given as follows:

Scale variables – are variables whose values represents ordered categories with a meaningful metric, so that distance comparisons between values are appropriate.

Nominal variables – are variables whose values represent categories with no intrinsic ranking. For example, we can use 1 for males and 2 for females, or else we can give the same form of numbering for religious affiliation. Here, the numbers and what they represent do not have any relation.

Ordinal variables – when the value of a variable represent ordered categories with some intrinsic ranking. For example, level of satisfaction can be labeled as 1st, 2nd, 3rd ...etc. (www.spss.com/variable level)

Therefore, in cases where the variable, specially the dependent variable, is measured on categorical (nominal) level we need to use more advanced model for regression. A logistic regression model, hence, is used when the dependent variable is categorical. If, for example, the dependant variable is dichotomous, where the answer is "yes" or "no", or "male" or "female", we use a binary logistic regression model. The word "binary" signifies that the values to be entered in the dependent variable column take two values. (Wuensch, 2009). According to this writer, the model works when the explanatory variables are all categorical, continuous, or mix of the two, or else if the variables are not well distributed. [NB: logistic models make no assumptions about the distributions of explanatory variables. Here it needs to be remembered that dichotomous variables are not normally distributed; rather they are binomial distribution with double pick being constrained between zero and one].

According to Tranmer et. al (no date) there is a huge difference between probabilities and continuous numbers in regression models. 0 and 1 bound the probabilities, while the later can take any value between positive and negative infinity. If P is the probability of occurrence of an event [P could, for instance, be the probability of having a behavioral problem, hence 1-P will be the probability of not having the problem. (It is a dichotomous variable). To transform this probabilistic dependent variable that is bounded between 0 and 1 to a continuous number taking any value between positive and negative infinity we use a logistic or logit transformation.

$$\text{Logit}(P) = \log[(P/(1-P)] \quad \text{.....(1.3)}$$

The term in the square bracket in equation 1.3 is known as the odds of an event occurring. This logit function will then be linked with sets of explanatory variables. Hence the model will have the following form.

$$\text{Log}[(P/(1-P)] = \text{logit}\,(P_i) = \beta_0 + \beta_1 X_1 \quad \text{.....(1.4)}$$

Let P_i be the probability of being perceived as having behavioral problem, X_1 could be an ethic group (0 for white boys and 1 for black boys) that may affect behavioral problem. Therefore, β_0 gives us the log odds of a white boy perceived to have a behavioral problem (when $X_1=0$) and β_1 shows how these odds differe for black boys (when $X_1=1$).

The model (equation 1.4) can be rewritten as:

$P_i/(1-P_i) = \exp(\beta_0 + \beta_1 X_1)$ Where exp stands for expected value of the terms in the bracket.

$P_i = \exp(\beta_0 + \beta_1 X_1)/[1+ \exp(\beta_0 + \beta_1 X_1)]$.....this equation stands for the probability of being perceived as having behavioral problem. Or,

$1-P_i = 1/[1+ \exp(\beta_0 + \beta_1 X_1)]$...which stands for the probability of not having behavioral problem.

Considering the error term the equation will be given as in equation 1.5:

$$P_i = P_i + f_i = \exp(\beta_0 + \beta_1 X_1)/ [1+ \exp(\beta_0 + \beta_1 X_1)] + f_i \quad \text{.....(1.5)}$$

Though logit models are very essential in regressing functions containing categorical variables, its interpretation is not as simple as the simple linear regression case. One has to be very careful in interpreting the results of a logistic regression functions. For example, taking the previous variables, if a researcher comes up with the following function, the interpretation will be as follows:

Let,
P_i = the probability of having behavioral problem
EG = Ethnic Group (EG = 0 for white boys, and EG = 1 for black boys)

$\text{Logit}(P_i) = -1.56 + 1.65EG.$

Hence the Logit(P_i) = -1.56, if the boy is white, and

Exp(-1.56) = 0.21.....(1.6)

Therefore, the odds of a white boy to be perceived as having a behavioral problem is 0.21.

The log odds of a black boy to be perceived as having behavioral problem is

Logit(P_i) = -1.56 + 1.65(1) = 0.09

The odds, hence, is .....exp(0.09) = 1.1 .....(1.7)

From the above two results (equations 1.6 and 1.7) we can calculate the relative odds of a person to view a black boy as having behavioral problem is (1.1/0.21) = 5.2, which means a black boy is perceived as having a behavioral problem 5.2 times higher than that of a white boy.

3.2. Variable Definition

3.2.1. Dependent Variable

Affordability (AFF): For this particular study affordability is defined as "the ability and willingness of home owners or potential home owners to pay for the housing units and the services related to it." It is a dichotomous dependant variable in the model. It has two groups of responses; namely, those who can afford the housing units supplied by the IHDP taking a value of 1, and those who can not afford this unit taking a value of 0. For the purpose of identifying the factors that determine affordability the same sort of questions is administered to two different groups of people. Namely, to those who afforded the housing units (who are currently living in it), and to those who responded that they can not afford the units living in poor neighborhoods. For the later case, the questions are administered to the residents of the dilapidated neighborhood that surround the selected site.

3.2.2. Independent variables

It is clear that there are many socio-economic variables that affect affordability. Among these are the Household Saving, sex of the household's bread winner, household size, type of occupation of the bread winner of a household, availability of external source of finance, membership in any credit and Household Saving institutions, renting status, and finishing and related costs. These variables, among which some might be dropped because of multicollinearity and insignificance, are believed to be having impact on affordability.

Household Saving (SV): it is very natural to use this variable as the major determinant of affordability. The researcher argued so because, who ever defined it, the definition of affordability always includes the concept of income in it in one way or the other. Considering this variable in this model will, therefore, be worthwhile. Some define affordability as being purely the ability to pay; others include the concept of willingness. Still others use the proportion of income and household saving to define affordability.

Household Saving in this study is defined as the part of the income of the household left after deducting all the monetary outlays made for consumables (goods and services), which can be either saved or kept on hand and measured in Birr per month and used to buy or build houses. For the sake of hypothesizing, the researcher adopts the position that SV is positively related to the dependent variable, affordability.

Household size (HHS): It is a positive scale variable which refers to the total number of people living permanently (for more than two years) in the family. The researcher decided to include this variable because this variable may affect the dependant variable in two ways. First, as the size of the family increases and since the housing units are smaller in size, the units may not be chosen by families having large households size, affecting the willingness to pay. Second, as the size of the family gets larger, it becomes very difficult for the household head to put some money aside for housing (as large family leaves no income for Household Saving), hence, in both cases affordability and family size appears to be negatively related.

Sex (SX): this is a variable which refers to the gender of the head of the household or the bread winner in the family. It is a categorical variable that takes a value of 1 for males and 2 for females. In developing nations, males tend to afford the housing units better that women as their earning ability tends to be higher and have better information , as they spend much of their time outside the house; however, the policy variable of helping the women own homes play an opposing role and reduces the close relationship between home ownership and male gender. Hence, the predicted sign of the relationship between the dependent variable, affordability, and sex is indeterminate because the strength of the relationships is difficult to predict at this stage.

Type of Occupation (TOC): this is a dichotomous variable that refers to the kind of occupation that the family head or the bread winner is engaged in. It takes a value of 1 for a formally employed person and 2 for the informally employed one. This variable, like sex has an undetermined relation with the variable because the researcher does could not

come up with a conclusive relationship between affordability and the type of occupation of the household head.

Availability of External Source of Finance (AESF): This is a dichotomous variable taking a value of 1 for those who responded "yes" to this question [ie, to those that mobilized external source of finance to settle their advance payment or the installments. The source could be from a relative, family member or any other source of income from individuals in the form of gift or loan both from abroad and locally] and 2 otherwise. For this variable, as it seems clearly, the researcher has a belief that it is positively related to the dependent variable, affordability.

Membership in Credit and Household Saving Institution (MCSI): this, as the name itself implies, refers to whether any person in the family is a member of Household Saving and credit institution. This variable is also dichotomous taking a value of 1 for membership and 2 otherwise. This is believed to affect affordability in different ways. These are: as a source of loan for the member, as a defacto guarantor for the home owner (potential home owner), or else as a form of a forced Household Saving scheme that helps the home owners save their money prior to the ownership, which are all believed to affect affordability in a positive way.

Renting Status (RS): this variable refers to as to whether the owner or potential owner has (will) rented his/her house or not to tenants or potential tenants. It takes a value of 1 if the house is rented out and 2 if not. The variable is included in the analysis because the researcher believes that poor new home owners are frequently seen renting their housing units to tenants being attracted by the lucrative renting market that highly helped them settle their mortgage payments and make the houses affordable to them. Though not legal, this source of income seems to have made the housing units affordable to the urban poor. Hence, the researcher believes that this particular variable has a positive impact on affordability.

Finishing and Related Costs (FRC): this variable refers to the monetary outlay made by the home owner or potential home owner to finish the housing unit and cover other related costs like fees to be paid for contractual agreements for water and electric connections. As the variable is a measure of costs it takes any positive value and is measured on scale level. Since the rise in this variable makes the housing units less affordable to the potential home owners, the researcher has a strong belief that this variable is negatively related with the dependant variable, affordability.

Table 8: Variable description

Variable codes	Variable	Expected Sign	Units of measurement
AFF	Affordability		1= Afford 0= Can not afford
SV	Household Saving	+	In Birr
HHS	Household Size	(-)	Head count
SX	Sex	+(-)	1= male 2= female
TO	Type of Occupation	+(-)	1= formally employed 2= informally employed
AESF	Availability of External Source of Finance	+	1= Available (can get) 2= Not Available (can't get)
MCSI	Membership in Credit and Saving Institutions	+	1= Member 2= Non-member
RS	Renting Status	+	1= Rented (want to rent) 2= not rented(don't want to rent)
FRC	Finishing and Related Costs	(-)	In Birr

Source: Own analysis

3.2.3. Quality

The term quality in this research is defined in terms of the following four indicators, which are all included in the checklist. These indicators are:

[NB: The items included under the following four indicators listed below are not exhaustive lists. If the reader is interested to know all the items used in the measurement of quality in this research it is better to refer the entire checklist which is available in the appendix part.]

1. Location – this refers to the major amenities that need to be included in a housing project and the surrounding. It includes healthcare facilities, schools, playgrounds, sport fields, worship places, cafes, restaurants, retail, public transport, environmental liabilities (all kinds of pollutants) that contribute negatively to quality; and others.

2. Design - This refers to the major elements that the building should include in it. It includes the beauty of the buildings in relation to the pre-existing environment, the street patterns, positioning of external elements like street lights, water meters, easiness move about the site, noise control, relationship between the buildings, the way solid waste is dumped, spaces for greenery, and etc

3. Public and shared open space , security and children's play – This is also related with the design, and it refers to the usage of all sorts of open spaces in the premises of the project. As can be seen from the name itself, it refers to the availability of open spaces and how these open spaces are used in the compounds. It also relates itself to design of the buildings in terms of providing the required security to the residents (for example, visibility in the compound, avoidance of surveillance by unnecessary person, presence of guards, provision of play lots for children and its security, and the like.

4. Routes, Movements and the External Environment – this refers to the roads and pedestrian ways in the site, routes for emergency, service delivery and other vehicles in case anything happens, and the external environment which deal with the availability of enough parking spaces, and the impact of the construction on the environment and the community.

Chapter 4

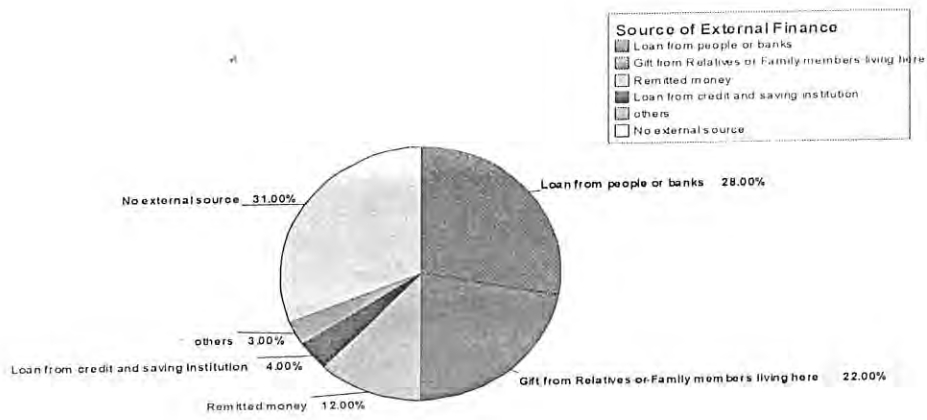
Results and Discussion

4.1. Descriptive Results

4.1.1. Description of Factors Having Positive Impacts on Affordability

There are multitudes of factors that affect affordability, and the researcher, thereafter, makes a trial to assess the effects of some of these major determinants. It is less debatable that the poor residents of the city of Addis Ababa are facing immense challenges in paying for the housing units constructed by the IHDP. And it is because of this that many of the respondents resorted to other sources of finance to pay for the advance payment and the installments. The result obtained from the respondents shows that these home owners and potential owners use varying sources of external finances to pay for the housing units. The sources mentioned by the subjects of the research are loan from people and banks, gifts from relatives and family members, remitted money from abroad and loan from credit and saving institutions. These sources are used or will be used at the time when the home owners received their keys or will do so. Accordingly, graph 1 summarizes the respective shares of these sources out of 100 percent.

Graph 1: Source of External Finance



Source: Own computation

As can be seen from graph 1, though 31 percent of the respondents do not (will not) get any external source of finance for housing purpose, the remaining 69 percent have resorted into some form of finance either to settle their whole debt or their advance payments. Out of this, 28 percentage points received loans from people or banks, while the 22 percentage points received some amount of gift from whatever source during the time they won the chance. 12 percentage points got some amount of money from remittance and the remaining 7 percentage points secured money from saving and credit institutions and other unmentioned sources. This clearly shows how strongly home owners and potential home owners rely on external sources at times when they get the opportunity of owning houses. This fact is in line with the poverty incidence in the city and the nation at large. As described in the introductory part, ORAAMP (2002) states that around 80 percent of the dwellers earn a very small income which is less than around Birr 970 per month. Hence, it is not surprising to see 69 percent of the respondents resorting to some form of external finance to settle their mortgage payments and/or their advance payments.

The other factor that plays a supportive role in maintaining the income of citizens and improves their ability to pay for the housing units is the ability of the people to rent out their houses. Here, renting rates are included in the list of factors affecting affordability because it is frequently described by the respondents that it has helped them in repaying their mortgages and mend their lives. Many of the poor who owned the housing units are renting them out and are living in sub-standard and cheaper houses somewhere else. As one can see from table 9, the current rate of the condominium housing units is so high that some of the respondents said that it is this lucrative rate that compelled them rent their houses to other people. Though renting the houses built by the IHDP is illegal, the residents are doing so and they claim that it maintained their income by a larger extent. This renting rate is so high that many people are benefiting from this additional income.

The rates vary considerably that the minimum one is for a studio houses, which is about birr 700, and the maximum one is as high as birr 2000 for two bed room houses per

month. An interview made with some of the home owners reveals that it is using this rental income that they are paying back the money they borrowed to settle their advance payments. On top of doing so, this rental income received from the housing units has also helped the residents consolidate their lives. As per the interview made with one key informant, the income mentioned previously has greatly helped her in educating her two children on top of servicing the loan she received from relatives.

Table 9: Description of the renting rates

	No.	Minimum	Maximum	Mean	Std. Deviation
Renting Rate	57	700.00	2000.00	1445.61	444.03594

Source: Own computation

4.1.2. Description of Factors Having Negative Impacts on Affordability

The two facts raised previously, i.e. the ability to rent the houses and the external finance, are the ones that help the home owner in one way or another afford the housing unit. The first one is the ability of some poor residents to secure income from the lucrative housing rental market, and the second one is the ability of the residents to get finance from some external sources during the time they get the chance of owning homes. However, there are other forces playing a reversal role and holding back people from owning homes. In other words, there are also forces that are making the housing units less affordable to the urban poor. One of these is the rising cost of finishing the housing units. It is good that the absence of finishing work gives the residents the chance for finishing it the way they want, but the cost of this work in some cases may stop some residents from owning the houses for ever. According to the data obtained from the residents, the finishing costs are so high that they sometimes rise up to birr 6300 per house. The finishing costs vary from house to house depending on its typology and the ability to pay of the owner. The minimum one described in the research is birr 450 for a studio type. This minimum cost is when the resident does not add anything except painting the walls. Therefore, it is very clear that the rise in these costs has the power of making the housing units less affordable to the urban poor. The average result calculated from the respondents reveals that a household pays around 2686 per house for finishing purpose.

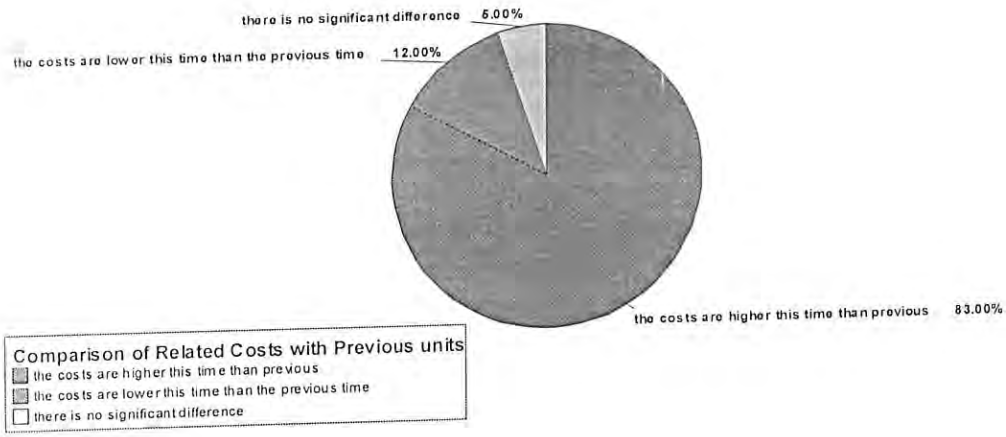
Table 10: Description of the Finishing and Related Costs

	No.	Minimum	Maximum	Mean	Std. Deviation
Finishing and Related Costs	57	450.00	6300.00	2685.91	1242.47

Source: Own computation

The other factor that is playing a reversal role and making the housing units less affordable is the issue of other related costs. This variable is included in the analysis because there is a point made clear by respondents stating that there are practically some poor people who are renting their homes due to their inability to pay for the services related to it like water(toilet uses more water, and generally sanitation consumes more water and etc), electricity (no cooking is possible using the traditional cheap ways like the firewood and leaves, hence the only way of cooking is using the electricity and etc), and solid waste collection and the like. They complained that there is a payment for every in and out, which made them less attractive to the poor people. The data gathered from the respondents reveals that 83 percent of the respondents are paying more to these urban services than the previous time (before they came into the condominium houses). Only 17 percent responded that they are paying the same or less than their previous units. Hence, it seems highly probable that this is also among the factors that make the housing units less affordable to the urban poor, at least in terms of making them less attractive. [Remember that the definition of affordability also includes the concept of WILLINGNESS, that is related to the needs of the people, not only the ability to pay,]. Graph 2 shows the result obtained from the survey regarding the comparisons made by the home owners about the related service costs of the new housing units with their previous dwelling units.

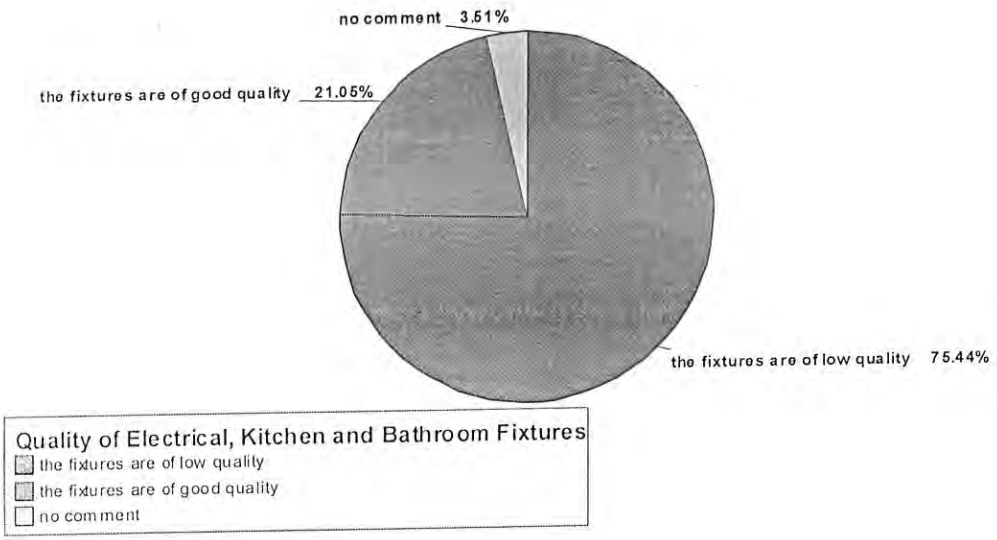
Graph 2: Comparison of related costs with the previous units



Source: Own computation

The last, but not the least, factor that plays its part in making the houses less affordable to the people is the quality of some fixtures in the house. As per the information obtained from the key informant some able households make a complete replacement of the electrical, kitchen and bathroom fixtures beforehand due to their sub-standard nature. The survey also introduced a question regarding the quality of these electrical, kitchen and bathroom fixtures in terms providing the intended services. According to the response obtained from the research subjects, around 75 percent of them feel that these materials are of low quality and are broken in a very sooner time after the delivery of the housing units. And only 21 percent responded that they are of good quality and around 4 percent are undecided. According to the observation made by the researcher, these materials are really of poor quality and easily breakable. As most of them are purchased with cheaper price they are highly preferred by the contractor to reduce the construction cost.

Graph 3: Quality of fixtures



Source: Own computation

Having this in mind, let us see the impact of the aforementioned facts on affordability. As can be seen from table 11 studios and one bed room type of units are sold at 30 and 5 percent, respectively, less than the selling price. The beneficiaries of these types of units are also assumed to pay 25 percent of their monthly income to finish their loan with in 20 years at 0 percent and 2 percent interest rate respectively.

Taking the price of the housing unit and the associated finishing works in to account; the gross current price of the units is around birr 31,000 and birr 71,400 for the studio and single bed houses, respectively. [NB: the current selling prices for these housing units are 28,200, for studio and 68,700 for single bed houses. When the average finishing cost of 2,700, as calculated previously, is added to them the result is around 31,000 and birr 71,400 birr respectively]. It is agreed that 20 percent of these prices have to be paid as an advance payment; and the remaining 80 percent will be amortized for the subsequent 20 years. Hence, a studio home owner needs to pay about 6,200 birr in advance and the remaining 24,800 has to be paid in 20 years time free of interest. If we spread this money

(24,800) for 20 years time, the home owner has to pay around 110 birr per month to own the house in twenty years time. And if we assume that the home owner has to pay about 25 percent of his income for the mortgage, the person should earn more than 500 birr per month to be eligible for the program. This calculation does not consider the occurrence of inflation in the meantime.

Using the same logic we can also calculate the minimum monthly income that a single bed house owner needs to earn to own the unit. After settling the advance payment, a single bedroom house owner should pay around 57,100 birr in the 20 years time. When amortized for the 20 years time, the person should pay around 240 birr per month. Hence, to be eligible for this form of housing unit, the potential home owner needs to earn an income of not less than 1000 birr per month (because there is also a 2 percent interest rate for these dwelling units).

Here, the researcher wants to remind the readers that around 80 percent of the city dwellers earn smaller than 970 birr per month. (ORAAMP, 2002)

4.1.3. Inflation and the Price of the housing units

On top of all these, the sustainability of the existing selling price is still under suspicion as a result of price escalation of construction materials. Between the years of 2004 and 2009 the price of the construction materials has shown a dramatic growth of more than 210 percent (CSA, 2004 and 2009). This is considered by the housing agency as the main challenge faced by the government in providing low cost houses to the urban poor. And it made it very difficult for the government to provide these housing units for the poor sections of the society. The following table summarizes the average construction cost, the way the cross subsidization is being undertaken, the selling price in meter square and average selling price of the housing units.

Table 11: Summary of the new payment schemes of the IHDP in Addis Ababa

Typology	Average construction cost per m^2	Cross-subsidization	Average area in m^2	Selling price per m^2 after the cross-subsidization	Average price per housing unit
Studio	1507	30 percent	26.8	1100	28,271
Single Bed	1507	5 percent	48	1414	68,719
Double Bed	1507	+5 percent	54.8	1728	86,713
Three Bed	1507	+10 percent	65.3	1808	108,248
Commercial Units	1507	+50 percent	53	2500	124,921

Source: Adapted from the Addis Ababa Housing Agency

It is described previously that the IHDP is a program that utilizes a cross-subsidization as one of the ways of helping the poor own homes. The two minimum standard homes, the studio and the single bed houses receive subsidies which is as high as 30 percent. On the contrary, two bed, three bed and commercial units pay an extra amount of 5 percent, 10 percent and 50 percent respectively which is used to subsidize the poor. This subsidization is clearly seen on the selling price of the units. Although the construction cost is the same for all units, this act of cross-subsidization has brought about a difference in selling price. This price is higher for commercial units, 2500 birr per square meter, and relatively lower for studio houses, which is 1100 birr per the same.

4.2. Regression Result

As can be seen from table 12 only five of the eight proposed variables are included in the analysis because three of them are excluded as a result of the presence of strong collinearity. The multicollinearity result shows that there exists a strong relationship between the type of occupation (TOC) of the home owner or potential home owner and his/her sex (SX). Hence, the existence of this strong collinearity between the aforementioned variables led into the drop of one of them, sex (SX) of the home owner or potential home owner, out of the model. The variable is chosen to be dropped because of the following reason. It will be redundant to include both of these variables in the analysis as these two variables emerge as dependant on one another, which necessitates the inclusion of only one of them. This relationship seems to be normal because such relations are usually stronger in developing countries, where sex affects educational achievement; and hence the kind of occupation the person is engaged in. In developing countries males tend to dominate the formal employment leaving the informal one to the women. This could be the reason why, in this research, the two variables, TOC and SX, show stronger correlation.

There are also other groups of variables that show stronger relationship which can be justified in economic terms. Like the previous variables, Membership in Credit and Saving Institutions (MCSI) and Availability of External Source of Finance (AESF) also appeared to be correlated with one another. This might happen due to the reason that all people who are members of any credit and saving institution mobilize external finance from these institutions at any point in time, particularly, at the time when they get the houses. It may be the case that, most members answered "yes" to the availability of external source of finance, showing strong positive correlation with one that questions their membership. This, hence, compelled the researcher to drop, once again, one of these two variables and accordingly MCSI is dropped out of the model. This is because any person who is a member if the credit and saving institution can mobilize external finance. On top of this, AESF also refers to gifts, other loans from individuals and etc, which are not included in MCSI. Hence, as AESF seems to be the subset of MCSI, the researcher

feels that dropping MCSI is a better decision. Furthermore, the Household Size (HHS) and Household Saving (SV) are still highly correlated leading to the rejection of one of them from the model. The variable that is dropped as a result is household size (HHS).

Therefore, the regression is undertaken to see how the remaining five variables; namely, Household Saving (SV), Type of Occupation of the home owner (TOC), Availability of External Source of Finance (AESF), Finishing and Related Costs (FRC), and Renting Status (RS) affect the dependent variable, Affordability.

Table 12: Variables in the Equation and the regression result

		B	S.E.	Wald	Df	Sig.	Exp(B)
	SV	0.008	0.002	9.447	1	0.002	1.008
	TOC(1)	2.420	0.971	6.208	1	0.013	11.246
	AESF(1)	2.237	1.130	3.917	1	0.048	9.362
	RS(1)	1.736	0.891	3.797	1	0.051**	5.675
	FRC	-0.002	0.001	13.071	1	0.000	0.998
	Constant	-0.517	1.425	0.132	1	0.711	0.597

a Variable(s) entered on step 1: SV, TOC, AESF, RS, FRC.

** indicates that the variable is insignificant at 5%, but significant at 10%.
Source: Own computation

The regression result shown above shows that there is another variable that is to be dropped from the model. This variable, the Renting Status (RS), is dropped because, as can be seen from table 12, it is statistically insignificant at 95 percent confidence interval.

Therefore, only four variables (SV, TOC, AESF, and FRC) appeared to have statistically significant impact on the dependent variable, Affordability. Or put in other ways, these are the variables whose variation impacts affordability. Accordingly, the following model is the final result of the binary logistic regression:

$$\text{Logit}(\mathbf{AFF}) = -0.517 + 0.008\mathbf{SV} + 2.420\mathbf{TOC(1)} + 2.237\mathbf{AESF(1)} - 0.002\mathbf{FRC}$$

In any logistic regression result, the last column of the regression result, as shown in table 12, is believed to be better in explaining the impact of the variation in independent

variables on the dependent one. Hence, the researcher uses the Exp (B) [i.e. the expected value of the regression coefficients, B] to interpret the regression result. It explains how the change in the four variables (SV, TOC, AESF, and FRC) is going to change the likely occurrence of the event (affording a housing unit).

It is clear from the above model that the non-standardized coefficient of the SV (Household Saving) is 0.008. However, as described previously, the researcher uses its expected value, i.e. Exp (0.008) to see how this variable affects affordability. The Exp (0.008) is 1.008 which means whenever there is a unit rise in the Household Saving; the family is 1.008 more likely to afford the outputs of the Integrated Housing Development Program. This result goes in line with the hypothesis that Household Saving, which is measured in Birr, and affordability are positively related in such a way that a rise in SV puts the family in a better position in affording the housing unit. Household saving, as defined in the previous part, is the income left over after deducting all sorts of expenses out of the total household income. It is money that is put aside to be saved and in most cases it is this money that is used to buy house in developing countries where the chance of accessing housing loan is small.

The second variable that appears to be having a significant impact on affordability is the Type of Occupation the Household Head is engaged in (TOC). This variable may affect affordability in different ways. First, people in the formal sector (mostly government employees) have stable incomes to pay for the housing unit, which makes them eligible to the program. Second, formally employed people are mostly new and young settlers (that mostly do not have their own properties (houses) in the city center, as a result, most of them are tenants) that makes them strongly prefer these housing units so that they queue up and register in the first place to be eligible for the program. Accordingly, the regression result turned out to be the same and reveals that this variable is among those having statistically significant impact on affordability. And accordingly, the result in the model shows a positive coefficient for TOC showing a positive relationship between affordability and formal employment. As can be seen from table 12, formally employed

people are 11.246 times more likely to afford these housing units than the informally employed ones.

The third variable that has another important impact on affordability is Availability of External Source of Finance (AESF). This variable shows weather the household head or the owner of the house has mobilized some form of finance from whatever source it is during the time he/she owned the housing unit. And it seems less debatable to put that the availability of such sources of finance have positive impacts on affordability. Likewise, the result from the regression reveals that this variable, AESF, is positively related with the dependent variable, affordability. It shows that those people who can access finance from the aforementioned sources are 9.362 times more likely to afford these housing units produced by the Integrated Housing Development Program (IHDP) than those who can not access external sources of finance.

The last, but not least, the variable that is found to be significant in the model is Finishing and Related Costs (FRC). This cost, as the name itself signifies, refers to the cost that the owner or potential home owner incurs to finish the housing units and cover other related costs like fees to be paid for contractual agreements for water and electric connections and etc. As it is a cost item, it definitely reduces the ability to pay of the residents or potential residents for the housing units that the IHDP produces. The result given in the regression table shows that whenever there is a unit rise in FRC, the family will be 0.998 times less likely to afford the housing units. Hence, this result reveals very clearly (it can be seen that the coefficient of the FRC variable is negative) that affordability and a rise in Finishing and related costs (FRC) are negatively related.

Finally, a test is made to see the overall fit of the binary logistic regression model using the Hosmer and Lemeshow (H-L) test, also called the chi-square test. This test is considered more robust than the traditional chi-square test, particularly if continuous covariates (in this research there are two continuous covariates; namely the SV and FRC) are in the model or sample size is small (the sample size is also relatively smaller). A finding of non-significance, as in the result below, corresponds to the researcher

concluding the model adequately fits the data. If the H-L goodness-of-fit test statistic is greater than .05, as we want for well-fitting models, we fail to reject the null hypothesis that there is no difference between observed and model-predicted values, implying that the model's estimates fit the data at an acceptable level. That is, well-fitting models show non-significance on the H-L goodness-of-fit test, indicating model prediction is not significantly different from observed values. This does not mean that the model necessarily explains much of the variance in the dependent, only that however much or little it does explain is significant. The following test result reveals that the **overall model is fit** as the significance test shows non- significance (NB: 0.838 is greater than 0.05 which shows non-significance) showing that what the model predicts does not differ from the observed values. (The model we predicted does not differ from the observed facts, or the model explains the observed facts well)

Table 13: Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	4.208	8	0.838

Source: Own computation

There is also a need to investigate by how much strength that changes in those four independent variables (SV, TOC, AESF, and FRC) explain the change in the dependent variable (AFF). The measures that reflect the strength of the ability of the independent variables to explain the changes in the independent are Cox & Snell R Square and Nagelkerke R Square. The result of these tests reveals that a sizeable proportion of the change in the dependent variable are triggered by the changes in the independent variables. Hence, the nearer the result of these two tests (particularly of the Nagelkerke R Square) to 1 shows that the model is a better one. Accordingly, the following table shows that the ability of the independent variables in explaining the dependent variable ranges between 0.63 and 0.84, which is a result telling that the changes in the independent variables (SV, TOC, AESF, and FRC) are responsible for the majority of the change in Affordability.

Table 14: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	39.291(a)	0.630	0.839

a Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

Source: Own computation

5.3. Quality Measurement

Writers like Kamete(2001) argue that multi directional efforts are being made by governments, like in Zimbabwe, to make the condominium housing units affordable to the urban poor. However, they are mostly unidirectional in such a way that they focus only on the external factors. As defined in the literature review part, these external factors are those that aim at reducing the price of the housing unit, rather than maintaining the income of the buyer, i.e. the internal factors. When one raises these internal factors, it is natural to mention some of the socioeconomic factors that affect the ability of the household to afford the housing units. The measurement of affordability is, therefore, linked with varieties of these socioeconomic factors. The previous econometric analysis is dedicated to identifying some of the socioeconomic factors that are believed to be having impacts on affordability. However, this affordability can also be affected by other external factors. Among these is the quality of the housing unit. The Ethiopian government, as mentioned repeatedly, has tried a lot to make the housing units they produce affordable to the urban poor through quality reduction and other innovative strategies.

The IHDP also adopts this mechanism as one method to make the housing units affordable to this component of the society. One simple way of achieving this, adopted by the government, is the reduction in size of the housing units. It is shown on table 11 that the studio houses have only an area of about 26 – 28 m^2, which obviously is far below the area required by a house to be labeled as habitable. This clearly indicates that the IHDP utilized a reduction in quality as a strategy to bring down the price of these housing units. This is not the only method used by the government to make the housing units affordable to the urban poor. The objective of this part is, therefore, to see whether this trial to make

the housing units affordable to the urban poor has significantly led into a compromise in quality.

The researcher here wants to remind the readers that, as these housing units are meant for the poor, some of the compromised qualities are tolerable while others are not. For instance, although the ORAAMP (2002) clearly states that there should be at least one car parking plot for a household for condominium houses, this research does not necessarily require each project to fulfill such criterion. This is because of the mere reason that the houses are built for the poor, not for car owners. Hence, having some acceptable amount of parking lot which can accommodate cars for about half of the households is taken by the researcher as having the quality. However, as the houses are built for fifty and sixty years time, there are some compromises in quality which are quite essential and are indispensable for any household. The need to make the housing units affordable to the urban poor might have compromised essential qualities; such as absence of children play lots which by no means should be left out in designing a project, which will be thoroughly investigated in the subsequent part.

Accordingly, this research employs the following four indicators in measuring the quality of the housing units produced by the IHDP, particularly of the "Abuare and Mikililand" sites. The indicators are:

1. Location,
2. Design,
3. Public and shared open space , security and children's play, and
4. Routes, Movements and the External Environment

The standards used in the preparation of the checklist used to measure quality are basically prepared by the British Homes and Communities Agency(2000, 2007)). Nevertheless, as these measures do not reflect the existing conditions in Ethiopia in general , and in Addis Ababa in particular, the standard prepared by the ORAAMP(2002) are extensively used to customize the British standards to the Ethiopian context in this

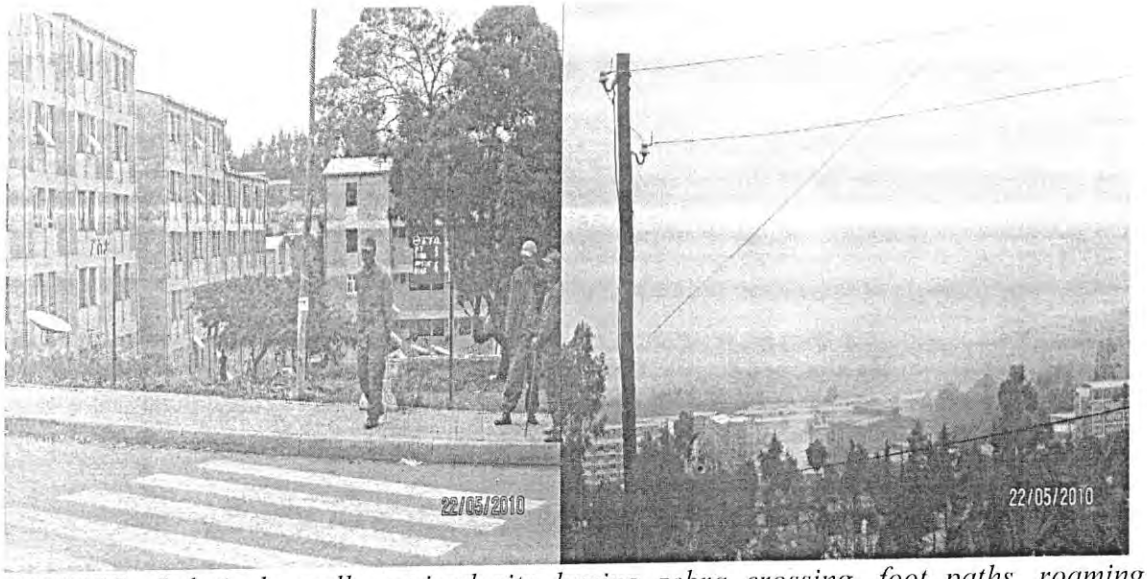
research. (NB: the checklist used for this research is attached as an appendix). The following part discusses the performance of the four indicators on the two selected sites, "Abuare" and "Mikililand" projects.

4.3.1. Location

Location, the first indicator, is not as it sounds in our day-to-day language. It is composed of many measures in it. It includes support services such as healthcare facilities, worship places, cafes, restaurants, and retail outlets such as shops, markets, banks, post office, and other commercial centers. It also includes all sorts of non fee paying schools that run from kindergartens to high schools, play and leisure, and public transport facilities. The other important component of location is the relative position of the project site in terms of its nearness to environmental liabilities (all sorts of pollutants including sound pollution)having a negative impact on quality. Each have their respective weights given as follows:

Support services (20 percent), Retail (20 percent), Schools (10 percent), Play and leisure (10 percent), Public transport (20 percent), and all sorts of Liabilities (20 percent)

This index, which is measured out of 100 percent, turned out to be 77 percent for "Abuare" and 80 percent for "Mikililand" condominium site. The figure is this much because the "Abuare" site is an infill site that is located in the middle of a built-up area that is relatively better furnished with the necessary services, and the "Mikililand" site is a larger one that fulfils its own necessary services. The percentage fell to this level because of the reason that items like "play and leisure", are totally missing from both sites or they are given less emphasis during the implementation phase. There are also some liabilities that pollute the environment and hence reduce the quality of the site, such as the presence of a manufacturing firm around both sites in a very close distance that produces noise, dust, polluted water ways and others.



PHOTOS: Relatively well serviced site having zebra crossing, foot paths, roaming guards, post office, and zonal and building names (upper left photo), emission of pollutants to this big neighborhood by a nearby factory (upper right photo), planned greenery and better access to bus route (lower left photo), and no safe play ground for children(lower right photo)

4.3.2. Design

Design is the second index used to measure the quality of the housing units. It includes sub-measures like the Visual impact (overall visual effect and relationship to the local character) carrying a weight of 33 percent, Layout (relationship of buildings to each other, open areas and the site itself) contributing the same, 33 percent, and lastly Landscaping accounting for the balance, 33 percent, to the total measure of design.

Having this as a benchmark, the "Abuare" site fulfilled only 23 percent of the indicator. This is so low because the site lacks qualities such as street furniture, coordination of elements in the compound such as refuse bins, water and electricity meter boxes, easiness to move about in the compound like directions and signs. Some of the buildings in the site, as mentioned by the residents, also suffer from absence of enough sun light during the day time, because of the nearness of the buildings to each other, care also does not seem to be taken about the view through windows. On top of this, total absence of landscaping is among the factors that reduced the score to 23 percent. This particular factor is totally missing from the project and could lead into the creation of future desert city that do not have any greenery.

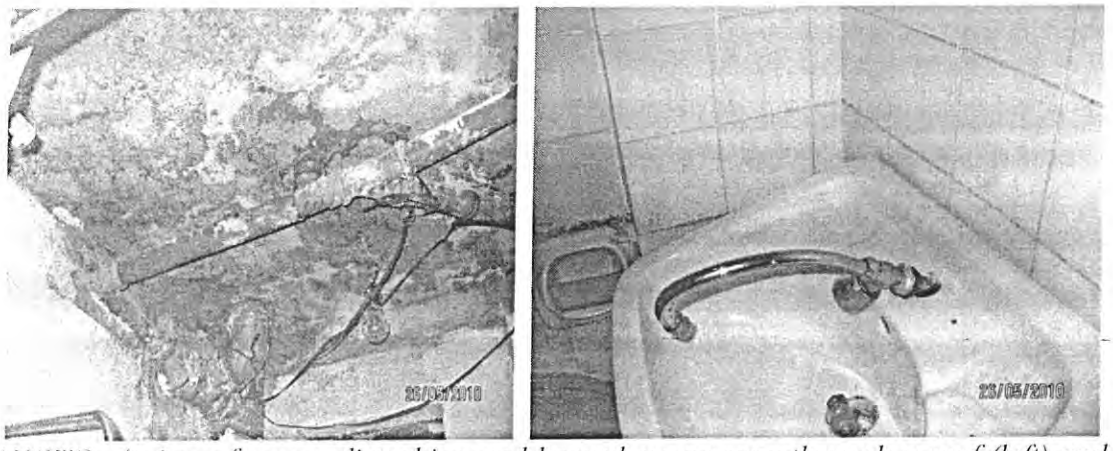
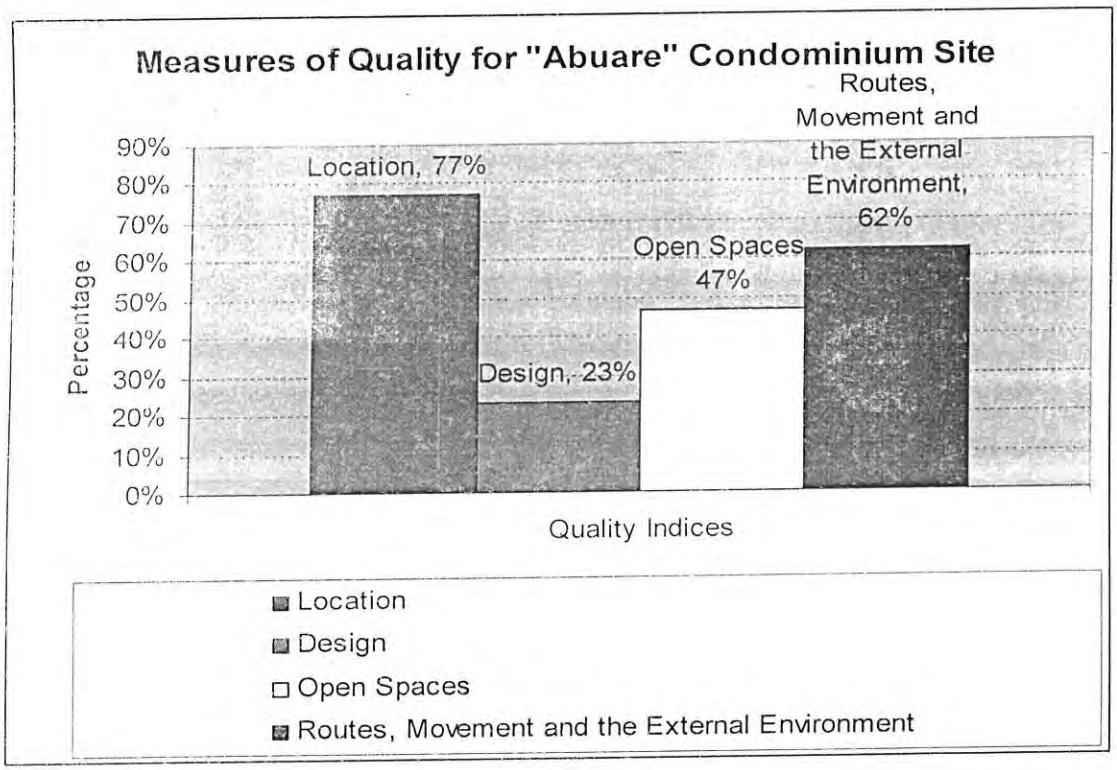


PHOTO: A view of a very disturbing and hazardous seepage through a roof (left) and a new but broken bathroom fixture (right)

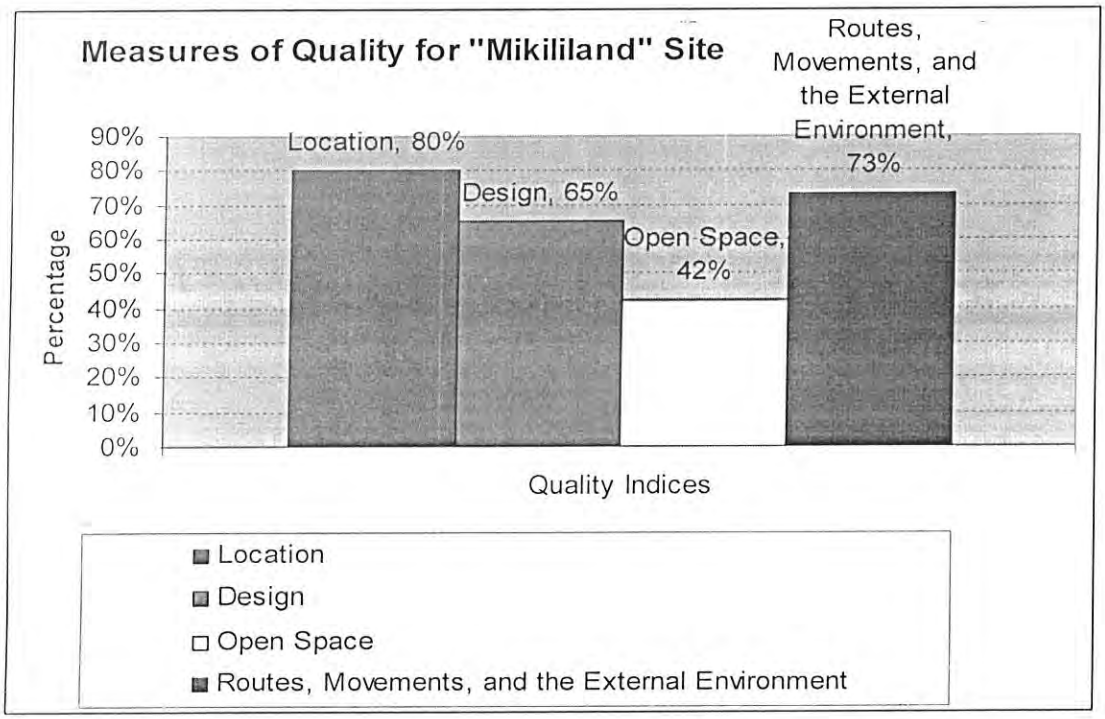
In terms of the same indicator, as given in graph 5, the "Mikililand" performs better than "Abuare", i.e. it scores 65 percent. (The score for the Abuare site is 23 percent). This is because of the size of the project. As the "Mikililand"project is bigger in size it has a detailed design that improved the overall visual effect of the area. This made it possible for the better integration of the roads, the buildings, the lighting system, and bring about better coordination in the area. As can be seen from the photographs, the site is also better equipped with furniture like zone and building names, directions and signs that makes it easier for a new comes to move about in the neighborhood. Landscaping is also done for the site which gave it a better view for any person.

Graph 4: Measures of Quality for "Abuare" site



Source: Own computation

Graph 5: Measures of Quality for "Mikililand" site



Source: Own computation

4.3.3. Open Space

Open Space is the third index with which quality is measured in this research. It encompasses site security (30 percent), (which includes the nature of open space planning in the compound, security of the open spaces, nature of the boundary setting, the way the buildings are grouped in terms of avoidance of surveillance by unknowns, vulnerable points in the site), usage of shared areas on the building (20 percent), children play areas (this considers the presence of children playing lots for different age groups and the way they are designed in terms of avoiding noise pollution and etc - 20 percent), characteristics of gardens and parking areas (this refers to the way the parking lots are lit, availability of parking for visitors, availability of open spaces for gathering and festivity, availability of outside electricity supply and so on – 30 percent).

By considering all these and others, the quality measurement of open spaces of the "Abuare" site gives a weighted average of 47 percent and 42 percent for "Mikililand" site. The factors that pulled down the result are total absence of play grounds for all age groups, problems of using open spaces for intended purposes, lack of well coordinated planning for open spaces and etc.

4.3.4. Routes, Movements, and the External Environment

Lastly, there is this fourth index that measures quality of the housing units produced by the HDP in terms of Routes, Movements, and the External Environment. This index, like all the others, contains many questions under it. It is divided into two parts each contributing 50 percent to the index. The first captures facts related to routes and movements, which has three parts that evaluate the general movement, movement of vehicles and pedestrians. The second one diagnoses the building characters, designing, construction, roads, parking, and pedestrianization, the environment and the community.

Accordingly, the fourth result registered 62 percent in the measurement of quality for "Abuare" and 73 percent for "Mikililand". These results fell particularly because of the second sub-part, i.e, the one related to the environment. When comes to this sub-measure, only about half of them are met for "Abuare" and 68 percent is fulfilled for "Mikililand" and this led into the overall fall in result of the fourth index for the two sites.

The previous four indices of quality show varying results but they all show a fall in quality by some amount. It is acceptable that such massive interventions that aim at providing houses for the urban poor may not necessarily fulfill all the measures of quality even at the Ethiopian context. However, as we are building for the future, at least some areas shall be reserved so that services can be provided when the ability comes and the need arises. But such forward looking planning mechanisms are sometimes missing from projects which may lead into problems in the future time.

Chapter 5

Summary of Findings and Recommendations

5.1. Summary of Findings

It seems less debatable that every citizen needs an accommodation to reside in. Such questions of basic necessities are not always fulfilled in the countries of the world. The claim becomes more pronounce in countries like Ethiopia, where large portion of the population lives under the poverty line, and in cities like Addis Ababa, where around 80 percent of the population lives in dilapidated and sub-standard houses.

It was after 2004 that the government realized that the sector needs a clear policy intervention to tackle this multifaceted problem. A detailed program of this sector, the IHDP, is put in place, therefore, only after 2006. As described in the literature review part, the program is called "integrated" because it targets many areas such as housing provision, infrastructure laying, delivery of essential social services and the like. Accordingly, more than 78,200 housing units have been constructed so far and made the same number of households home owners. The provision of the houses is accompanied by different forms of subsidies. The subsidies are both direct and indirect. The direct subsidies include subsidies on loan, extension of the payment periods, reduction in advance payments, availing new construction technologies and so on; while the indirect ones are free access to public land, provision of infrastructure and etc.

All trials, as discussed in the previous parts, are divided in to two, namely; the internal and external interventions. Many argue that both internal and external measure should be there to ensure the affordability of housing units. The internal factors are those that maintain the income of the household. As the name itself signifies, they are internal socioeconomic factors to the household. The external ones are those which are geared towards reducing the price of the housing units. Having this dichotomy in mind, most of the interventions made by the Ethiopian government are external.

The integration of both internal and external measures is better than the individual approaches in making the houses affordable to the urban poor. The IHDP has much emphasis on the external ones; while the internal measures are given less attention. The only major internal measure aimed at the income of the buyer is the reduction in interest rate for studio and single bed houses. Researchers usually recommend myriads of internal measures that help the urban poor afford such housing units. This includes targeted job opportunities, incremental housing strategies, teaching people how to save money, labour contribution during construction and etc. It is mentioned that the IHDP gives less or no due attention to these measures and only focuses on the external ones.

This study, therefore, partly dedicates itself to measure the effect of these internal measures, some of which are very specific to the Ethiopian context, on affordability. The empirical analysis reveals that internal factors like household saving, the type of occupation the household head is engaged in, availability of external source of finance, and finishing and related costs are among the variables having significant impact on affordability.

Household saving, which encompasses the sum of savings made by all members of the family, is one of the variables having significant positive impact on affordability. As expected, household saving and affordability turned out to be positively related, i.e. a rise in saving puts the family in a better position in terms of affording the housing units.

A trial is also made how affordability and the type of occupation of the household head are related. And, it is found that formally employed people are better than the informal employees in affording the housing units the IHDP produces. The same is true for availability of external source of finance. Those people who mobilized or are in a position to have a better capacity to afford the units. Lastly, the regression result also reveals that the finishing and related costs are also significant enough to affect affordability. A rise in these costs reduces the ability of the person to pay for these housing units.

When measured descriptively, it is also unfolded that a considerable portion of the current home owners have mobilized finances from external sources during the time they won the chance of owning the homes. The study result reveal that 69 percent of the home owners have used external source of finance to pay for the housing units. It is only 31 percent of the home owners who solely relied on their income to service their mortgage and advance payments.

Information obtained from the respondents shows that rises in related and finishing costs coupled with the inconveniences of the housing units(particularly for those having disabled family members and children) are to be blamed for the decision of some home owner to evacuate their units and rent it to tenants. Accordingly, 83 percent of the respondents feel that they are paying more that their previous housing units for the related services like water, electricity and waste collection in these houses. They also complain about the rise in monetary outlay because of the sub-standard nature of the quality of the fixtures in the houses. These are, therefore among the factors that are making the housing units less affordable and less attractive to the urban poor.

Hence, the result is an indication that many people, which might be as high as 80 percent of the population in the city, can not afford more than the single bed housing unit, which is obviously below the livable area standard.

It is described repeatedly that the housing units built by the IHDP are for the poor and middle class. To achieve this objective, every possible measure has been put in place, which includes reduction in area, compromise in some quality issues and etc. However, the quality measurement made by the researcher reveals that some quality measures which should never be compromised are seen being done the same in these sites. The measures of some of the indices are so small as a result of this. As the residents described, the houses are not suitable for raising children and the disabled people. There are also no or less greenery schemes in the project sites. Very less emphasis is also given to children play grounds and for all age groups. Although the IHDP helped many people to own homes, the absence of the aforementioned measures of quality may make these housing units less attractive in the future.

5.2. Recommendations

5.2.1. Recommendations Related to Affordability:

- The research result clearly reveals the impact of external source of finance on affordability is significant. Hence, capitalizing on and encouraging social values, such as helping one another during times of happiness and grief, can result into the improvement of the ability to pay of the urban poor. As some of the external sources of finance are from the saving and credit institutions established at office and neighborhood levels, strengthening these institutions is very imperative.
- Household saving is another important variable that determine affordability. And, it is described in the literature review part that the poor do not have the tradition of saving. Hence, teaching the poor how to save money and aspire for the future is very essential. This can be achieved through the introduction of forced saving schemes along with some lessons.
- Practical evidences show that the houses built for the poor are being sold to the rich under the table. This, in other words, means the subsidies are reaching the unintended targets, the haves. Therefore, the government should raise its hands against such illegal acts taking place under its eyes.
- The government is usually heard claiming that the job creation strategy embedded in the IHDP has helped people raise their income and own homes. However, there is a doubt whether these job opportunities are reaching the target home owners or not. Hence, gearing the newly created jobs towards the potential home owners, as in South Africa (described in the literature review part), may bear fruits in terms of enabling the poor to pay for the housing units.
- Putting stricter contractual agreements in place helps bring the contractors to the right track in terms of avoiding the usage of sub-standard inputs and fixtures. This screens the home owners from bearing unnecessary costs because of the mischievous behaviors of some contractors.
- Formulating strong contractual agreement is also important to hold contractors accountable for all sorts of wrong doings that force the poor pay more. For

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Schools (10%) **(Excluding fee paying)**

1.1.12. Is there a pre-school/nursery very near (within 200m)? _ _

1.1.13. Is there a pre-school/nursery fairly near (between 200m and 1 km)? _ _

1.1.14. Is there a primary school very near (within 500m)? _ _

1.1.15. Is there a primary school fairly near (between 500m and 1.5 km)? _ _

1.1.16. Is there a secondary school within 1km? _ _

1.1.17. Is there a secondary school more than 2km but within 5 km? _ _

Play and leisure (10%)

1.1.18. Are there toddler play areas within sight of family houses? _ _

1.1.19. Are there play facilities for 5 – 12yrs very near (within 500m)? _ _

1.1.20. Are there play facilities for 5 – 12yrs fairly near (between 500m and 1 km)? _ _

1.1.21. Are there play facilities for over 12yrs very near (within 500m?) _ _

1.1.22. Are there play facilities for over 12yrs fairly near (between 500m and 1 km)? _ _

1.1.23. Is there a park/public open space within 1 km? _ _

1.1.24. Is there a leisure/sports facility (eg pool or gym or playing fields etc.) within 1 km

Public transport (20%)

1.1.25. Is there a bus stop very near (within 500m)? _ _

1.1.26. Is there a bus stop fairly near (between 500m and 1 km)? _ _

1.1.27. Is there a taxi route very near (within 500m)? _ _

1.1.28. Is there a taxi fairly near (between 500m to 1km)? _ _

1.2: Liabilities – how close are they? (10%)

1.2.1. Is there a refuse tip and/or ground contamination within 500m? _ _

1.2.2. Is there an industry generating smells or potential health hazards within 500m? _ _

1.2.3. Is there a derelict site – institutional/industrial/other within 500m? _ _

1.2.4. Are there high voltage overhead power lines within 500m? _ _

1.2.5. Are there polluted waterways within 250m? _ _

1.2.6. Is the site in a sea or river flood plain, within 3m (vertical) from high water level?

1.3: Noise sources – **how close are they? (Absence of all of these will increase the score by 10%)**

1.3.1. Is there a bus route or major road within 20m? _ _

1.3.2. Is there a major road within 50m? _ _

1.3.3. Is there a motorway within 150m? _ _

1.3.4. Is there a railway within 150m? _ _

1.3.5. Is there a market within the 500m that produces noise? _ _

1.3.6. Is there industry generating noise within 150m? _ _

1.3.7. Is there an outdoor leisure facility (playing field, pool, etc.) within 150m? _ _

2. DESIGN

SITE: VISUAL IMPACT, LAYOUT, LANDSCAPING

(N/A - applies for those questions that do not apply to the site and they do not contribute to the total and do not have an impact on the overall result)

Visual Impact – **overall visual effect and relationship to local character (33%)**	Yes	No	N/A
2.1. Does the site scale and concept fit well with the surrounding area? _ _ _			
2.2. Are the buildings in context with local buildings, street patterns (form, mass, detail and materials)? _ _ _			
(When the local environment is of poor visual quality enter n/a for questions 2.1, 2.2)			
2.3. Do the buildings enhance the local environment? _ _ _			
2.4. Are elements associated with the overall site (lighting, street furniture, street names and direction signs, curbs, benches/seats etc) well detailed, co-ordinated with each other and carefully located?			
2.5. Are external elements associated with the dwellings (walls and fences, garages, refuse bin, electricity meter boxes, drain pipes, etc) well detailed and co-ordinated?			
2.6. Are existing important elements (natural or man-made) protected, to give the site maturity? _ _ _			
2.7. Are any elements that could confer a special identity to the site used to do so? _ _ _			

2.8. Is it easy to understand how to enter and move about the site? ___

Layout – relationship of buildings to each other, open areas and site (33%)

2.9. Is overlooking of habitable rooms avoided e.g. 50% of units with at least 10m a way from other buildings or public spaces, including pedestrian routes? ___

2.10. Are buildings (houses, flats garages others) arranged to protect residents from external noise? ___

2.11. Are units grouped to take best advantage of local topography? ___

2.12. Has best advantage been taken of sunshine for views, heat and light in outdoor areas and in dwellings? ___

2.13. Are there distant or varied views from public areas? ___

2.14. Is density regulation respected during the construction?

2.15. Are the buildings built by considering the land use of the master plan of the city?

2.16. Is the private/shared open space enclosed within building boundaries, well designed in shape, dimension and location? ___

2.17. Do different public areas have specific differentiated characters? ___

2.18. Are refuse and bin storage areas convenient and inconspicuous? ___

2.19. Is communal bin storage serviced by tap and drainage for cleaning? ___

Landscaping – excluding private open space (33%)

2.20. Are there hard surfaces or soft landscaping in the scheme?

2.21. Is there varied planting to create visual interest in different seasons using height, colour, texture? ___

2.22. Has planting been related to climatic conditions to provide wind protection and/or shade? ___

2.23. Are there trees in the public open areas or streets? ___

2.24. Is screening provided for in- curtilage and grouped parking (rails, fences, plantin

2.25. Are planted/grassed areas sufficiently large to be viable (approximately equivalent to a dwelling plot)? ___

2.26. Does layout of site discourage 'cutting corners' across landscape and/or private space? ___

2.27. Has any trial been made to beautify the open spaces with the available plants?

2.28. Are hard surfaces varied – to suit relation to buildings or identify larger areas with different uses? _ _ _

2.29. Is landscaping able to be easily and cost effectively maintained?

2.30. Is water (e.g. pool, stream, fountain etc) incorporated into the site and appropriately protected (or is land is reserved for this purpose)?

3. SITE: OPEN SPACE

Site Security (30%)

3.1.1. Are spaces between buildings planned for specific uses? _ _ _

3.1.2. Are boundaries between public and private spaces clear? _ _

3.1.3. Are spaces that are to be shared by residents but not for the general public clearly defined? _ _ _

3.1.4. Is casual intrusion by non-residents beyond clearly defined public areas discouraged – eg using barriers, 'gates', concierges or security systems? _ _

3.1.5. Is site route network designed to discourage strangers and hinder escape? _ _ _

3.1.6. Is best advantage taken of opportunities for private open space? _ _

3.1.7. Do building boundaries consist of strongly built walls or railings to deter intruders and vandalism? _ _ _

3.1.8. Is main entrance clearly visible and hiding places, near front doors and pedestrian routes, avoided? _ _

3.1.9. Does building grouping, position of windows or cameras allow surveillance of unexpected visitors? _ _

3.1.10. Does building grouping and position of windows allow supervision of open space and play? _ _ _

3.1.11. Are vulnerable points on buildings visible by other residents or passers by? _ _

Shared areas in flats (20%)

3.1.12. Are flats with shared areas provided? If 'No' go to Q 3.1.18 _ _

3.1.13. Are halls and corridors in blocks of flats well lit (both natural and artificial light)?

3.1.14. Are vandal and graffiti resistant glass/finishes used to 2000mm from the ground?

3.1.15. Is there an entry security system on main entrance that protect strangers from freely entering and cause problems? _ _

3.1.16. Is there a concierge (guard) desk in the main entrance or gate of the site

Children's play (20%)

3.1.17. Is the housing designed for households with children? If 'No' go to Q 3.2

3.1.18. Are play areas provided for 2–5 year olds within sight of 100% of family dwellings? _ _

3.1.19. Are play areas provided for 5–12 year olds – at a minimum of one for 40 dwellings? _ _

3.1.20. Are play areas fitted with play equipment for the age group? _ _

3.1.21. Is energetic play provided for – e.g. by adventure playground, cycle paths, etc? _

3.1.22. Are play areas and public spaces sited to avoid nuisance to neighbors? _ _

Characteristics of gardens /shared open space and Car Parking provisions (30%)

3.2.10. Robust principal open space

3.2.11. Is the parking lot secured and well lit?

3.2.12. Is there an open space for social gathering or any festivity?

3.2.13. Is there enough premise for car parking for each household?

3.2.14. Is there external secured storage suitable for large items (eg bicycles unused properties)

3.2.15. Is there a parking space for visitor parking?

3.2.16. Is there an outside tap with suitable drainage

3.2.17. Is there an outside electricity supply

3.2.18. Is there a clothes drying facility with access path

4. ROUTES, MOVEMENTS AND THE EXTERNAL ENVIRONMENT

4.1. Routes, movements (50%)

General

4.1.1. Do routes connect with the surrounding neighborhood _ _

4.1.2. Is the hierarchy of routes clear? _ _

4.1.3. Are road, place and building names and unit numbers clear, visible and legible and sited appropriately in relation to buildings? _ _

4.1.4. Do routes take advantage of vistas/landmarks within or around the project site? _

Vehicles

4.1.5. Are appropriate traffic calming measures used to control vehicle speed? _ _

4.1.6. Is vehicle segregation possible to help pedestrians (e.g. young children) to use safe routes? _ _

4.1.7. Can large, emergency or service vehicles come within 30m of all front doors of units or flats? _ _

4.1.8. Are there spaces for refuse and service/delivery vehicles to stand without blocking routes? _ _

4.1.9. Are the routes well planned (do they fulfill traffic regulations like visibility

Pedestrians

4.1.10. Are public spaces connected by clear, well lit and hard surface routes? _ _

4.1.11. Is lighting appropriately related to buildings and easy to maintain? _ _

4.1.12. Does position of lighting prevent 'pools' of darkness where people walk both outside and in common parts of flats?

4.1.13. Are kerbs dropped where foot paths cross roads? _ _

External Environment and layout (50%)

4.2. Building Character	Yes	No
4.2.1. Does the scheme feel like a place with distinctive character? _ _		
4.2.2. Do building exhibit architectural quality? _ _		
4.2.3. Are streets defined by a well-structured building layout? _ _		
4.2.4. Do the building and layout make it easy to find your way around? _ _		
4.2.5. Does the scheme exploit existing buildings, landscapes or topography _ _		

Roads, Parking and Pedestrianisation

4.2.6. Does the building layout take priority over the roads and car parking, _ _ so that the highways do not dominate?		
4.2.7. Are the streets pedestrian, cycle and vehicle friendly? _ _		
4.2.8. Is the car parking well integrated and situated so it supports the street scene? _ _		
4.2.9. Does the scheme integrate with existing roads, paths and surrounding development? _ _		
4.2.10. Are public spaces and pedestrian routes overlooked and do they feel safe? _ _		

Design and Construction	Yes	No
4.2.11. Is the design specific to the scheme? _ _		
4.2.12. Is public space well designed and does it have suitable management arrangements in place (Like appropriate corridor usages)? _ _		
4.2.13. Do buildings or spaces outperform statutory minima, such as Building Regulations?		
4.2.14. Has the scheme made use of advances in construction in technology that enhance its performance, quality and attractiveness? _ _		
4.2.15 Do internal spaces and layout allow for adaptation, conversion or extension? _ _		
4.2.16 Does the building has an emergency exit in case of fire outbreak –		
4.2.17 Does the building consider the needs of the disabled people		

Environment and Community

4.2.18 Does the development have easy access to public transport? _ _

4.2.19 Does the development have any features that reduce its environmental impact? _ _

4.2.20 Is there a tenure mix that reflects the needs of the local community? _ _

4.2.21 Is there an accommodation mix that reflects the needs and aspirations of the local community? _ _

4.2.22 Does the development provide for (or is it close to) community facilities, such as a school, parks, play areas, shops, pubs or cafes? _ _

A Questionnaire to be filled by owners and those who did not use the chance of owning condominium housing units of the IHDP

Dear respondent, this is a questionnaire to be filled by the residents of "Abuare" and "Mikililand" Condominium Sites. As the objective is to measure affordability, the questions will also be presented to those people who did not use the chance. The questionnaire is used only for a Masters Thesis to be submitted to the Addis Ababa University, Department of Urban Development and Management. Hence, it is a questionnaire meant only for academic purpose and the researcher guarantees you that no one will have direct access to your personal response. As your accurate answers counts for the quality of the research, the researcher kindly requests you to provide the answers very honestly.

Thank you in advance!

1. Can you afford the condominium housing units if in case you get the chance?
   a. Yes b. No
2. Sex (of the owner):
   a. Male
   b. Female
3. Household size during the time you won the chance of the housing unit? _____

4. Your occupation; Please specify it_____

5. What is the type of your housing unit?
   a. Studio
   b. Single bed
   c. Double bed
   d. Three bed

6. Please specify your monthly household disposable income (saved money in whatever means). _____

7. Have you used other sources of income to finance the advance payment?
   a. Yes
   b. No

8. If your answer for Question number 7 is "yes" specify the source. _____ (Loan, assistance from friends/ family members, any other external source of finance…….).

9. Are you a member of any credit and saving institution?
   a. Yes
   b. No

10. If your answer for Question number 8 is "Yes", have you received credit from them that you used to acquire the housing unit?
   a. Yes
   b. No

11. If your answer for Question number 9 is "Yes", how much did you use from this source to pay for the advance payment of housing unit? Specify_____

12. Are you currently living in your home or renting it?
   a. I am renting it.
   b. I am living in it.
   c. If your answer for Question number 11 is choice "a", please specify the rate per month._____

13. How much did you pay to make the house ready for living (for finishing works)?_____

14. How do you assess the related costs with your new house, (such as water bill, electric bill, solid waste bill). State the amount_____

15. When you compare the money you pay for the services listed in Question number 14 in the new housing unit with your previous dwelling unit (before you moved in to the condominium house) your answer will be,

a. I am paying more than the previous dwelling unit

b. I am paying almost equivalent to the previous one

c. I am paying less than before.

16. Did you get the house on the first chance or you were in the waiting list?

a. I was in the first chance

b. I was in the waiting list

17. How do you assess the quality of sanitary and electrical fixtures in the housing unit?

a. They are of poor qualities which are broken time and again even with proper handling.

b. They are of a normal (good) quality

c. No comment

18. How much did you pay so far to change sub-standard or broken sanitary, electricity and Kitchen fixtures to replace them with a new one (only if done so)?_____

19. Would you enumerate the difficulties you faced so far while you are living in the new housing unit?

_____

_____

_____

20. What do you generally recommend to overcome the problems you mentioned above?

_____

_____

_____

_____

_____

Thank you once again!!