ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS
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The Assessment of 20/80 Condominium Housing Projects in Addis Ababa: The case of Bole and Akaky Kaliti Sub cities

A Thesis Submitted to the Department of Public Administration and Development Management of Addis Ababa University in Partial Fulfillment of the Requirements for the Master's Degree in Public Management and Policy

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Statement of Declaration

Guesh Dejen, hereby, declare that the thesis on the topic entitled "The Assessment of 20/80 Condominium Housing Projects in Addis Ababa: The case of Bole and Akaky Kaliti Sub cities" submitted to the Department of Public Administration and Development Management at Addis Ababa University in partial fulfillment of the requirements for the master's degree in Public Management and policy is my original work and it has not been presented for the award of any other degree, diploma, or other similar titles of any other university or institution and sources of materials used for the thesis has been duly acknowledged.

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Acronyms

AAHPO:	Addis Ababa Housing Project Office
AAIHDP:	Addis Ababa Integrated Housing Development Program
AHURI:	Australian Housing and Urban Research Institute
ACIF:	Australian Construction Industry Forum.
CSA:	Central Statistics Agency
EHDA:	Ethiopian Housing Development Agency
MoFED:	Ministry of Finance and Economic Development
MWUD:	Ministry of Work and Urban Development
UN-HABITAT:	United Nation Human Settlements Program
UNMDG:	United Nation Millennium Development Program
WHO:	World Health Organization
GTZ:	The German Technical Corporation
NGO:	Non-Governmental Organization

Abstract

The purpose of the study was to assess 20/80 condominium housing projects in Addis Ababa. Mixed methods with quantitative and qualitative approach were applied as a methodology to address the research questions. Data was collected through semi structured questionnaire distributed to 160 purposively selected respondents, with10 key informant interviews were conducted and secondary data was collected from various sources. The data collected was analyzed using both quantitative and qualitative approaches. The techniques used to analyze data were frequency and percentage using Microsoft excels.

The major findings indicated that the status and realities of condominium housing projects calls for collaboration of the public and private sector at large because the government capacity is very limited in providing adequate houses though it promised to build many condominium housing to the society. Regarding to this, there are many problems concerning to the client such as problem in selection of competent consultants and reliable contractors, absence of good methods and systems in purchasing and finance, slow speed in decision making, poor planning and controlling, lack of leadership skills of project manager, poor coordination and communication with stakeholders, and lack of sense of ownership and degradation of moral obligation. With regard to the consultant, there is lack of knowledge and experience, poor management and difficulty in controlling contractors, poor coordination and communication with the project stakeholders, slow response regarding to testing and inspection, lack of commitment to ensure construction work according to specification and design. Depending on the contractors lack of experience and technical profession, poor planning and scheduling, Insufficient coordination and communication, lack of leadership quality, less commitment, wastage of resources around the project sites, construction mistakes and defective works.

In conclusion the weakness of the client, consultants and contractors affects the time, budget and quality of the project of condominium housing. Due to this result the projects could not achieve beyond half of their objectives. The study recommends that the private sector and the society at large are very important in construction of condominium housing, so government should open different alternatives to build houses in quantity and quality by employing the capacity of the public and private sector to match the demand with supply of housing.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Urbanization is a development phenomenon that comes about with the development of a country's economy in general and industrialization in particular. It follows that the rate of urbanization is considered to be one of the indicators of a country's economic development. The rate of urbanization is directly related to the demand for houses. It is expected that as a country becomes more urban, more houses were needed to accommodate the increasing population in urban centers. The practice, however, does not support this in that the acceleration in urbanization is not accompanied by the provision of adequate housing (UN-Habitat, 2009).

Around the world, over one billion urban residents live in inadequate housing where living conditions are poor and services are insufficient. Thus, increasing the supply of homes is a key priority for government through the later part of the 20thcentury. A growing population coupled with an increasing tendency of people to live alone has resulted in continuous rising demand for homes, but the supply of new housing feel dramatically over the same period. This gap between supply and demand has resulted in problems of housing affordability, with rising prices creating particular pressure for the first time buyers (UN-Habitat, 2016).

The demand for housing grows every day, as people migrate to cities and create new households. The global urban population, fuelled by both inward migration to cities and the natural population increase of existing urban residents, has increased more than five-fold since 1950, from 746 million to 3.9 billion in 2014. This growth has greatly elevated the demand for adequate, safe, and accessible housing. The global urban population is estimated to grow by an additional 1.18 billion from 2014 and 2030 and 2.46 billion from 2014 to 2050. Responding to the existing housing deficit which also planning for anticipated future housing needs especially in areas experiencing high urban growth forms the crux of the housing policy challenge. Effective response to this challenge will yield benefits beyond the housing sector itself, as housing not only drives urban development, urban form and density, but also plays an important role in generating employment and economic growth (UN-Habitat, 2014c).

The right to adequate housing remains unrealized for a distressing number of urban dwellers, especially the poor, the vulnerable, and special needs groups. According to the UN Economic Commission for Europe Charter on Sustainable Housing, poor, disadvantaged, and vulnerable populations often lack affordable and adequate housing as well as other public services such as water and sanitation. They live in precarious conditions and often address their housing needs informally. Since approximately half of the 72 million displaced persons refugees and internally displaced persons in the world live in urban areas, expanding housing options to this population will yield significant benefits. Recent studies show that migrants often settle in urban areas; they are disproportionately represented among the urban poor in many informal settlements (WHO, 2015).

Since urbanization is the outcome of social, economic and political developments that lead to urban concentration and growth of large cities, changes in land use and transformation from rural to metropolitan pattern of organization and governance, housing has become an important public issue in almost all societies of the world. Although, housing is the basic necessity of people in many parts of the world, its construction is a major challenge for both city dwellers and municipalities. With the varying degrees the problem exists in both developed and developing countries (Nesru, 2007).

However, the problem is most pronounced in the cities of the third world. While housing investments have generally increased over time, access to housing remains a key challenge, especially in developing countries, where relative to the developed world, investment has generally been low, resulting in inadequate housing delivery and consumption (Ibid).

In Ethiopia, urbanization is mainly accelerated by rural-urban migration which is starting to impose high pressure on the holding capacity of cities. This acceleration of urbanization needs to go hand in hand with the growth of various services, which are essential for the wellbeing of the society. Ethiopian cities lack the basic needs and facilities that are vital for residents. One of the major problems facing urban centers is lack of appropriate housing (Azeb, 2007).

According to Abraham (2007), shortage of housing is one of the major problems that call for immediate action. Even the majorities of houses in Ethiopia are below qualitative standard and lack adequate space. The extent of provision for water supply, electricity, and drainage is also very minimal. These affect the lives and health of people living in these houses. All these will continue in the future unless major improvements are made in the housing markets and in the expansion and improved provision of infrastructure and services.

As a result, lower income households that are unable to access affordable housing either because there is an inadequate total supply or because the limited supply that does exist is rented to those with a higher capacity to pay, are forced into housing stress by virtue of having to pay 30 percent or more of their income in rent (Ibid).

Also Addis Ababa, the capital city of Ethiopia as well as the capital city of Africa and also it is the largest seat of international organization, remain with high population estimated 3,470,000, Poor living standard, high level of unemployment(40%), housing deficit about 850,000,about 70 % of the population lives in slums with inhuman and unhygienic conditions,35 % of the solid waste generated by the city is not collected ,only about 9 % of the built up has connected with a sewer system, about 71% of households do not have adequate sanitation. Even though in the Millennium Development Goal Cities are expected without slum and reduction of poverty by 50% up to 2015 Internationally agreed Millennium Development Goal, but the problem of housing and poverty continued in the worst condition in Addis Ababa (UN-Habitat, 2014).

1.2 Statement of the problem

The housing situations of Ethiopian cities are a manifestation of the interplay of urbanization and demographic factors. Over-crowding of dwelling units and growing of squatter settlements, resulted from high rates of population growth and migration to urban areas. Insufficient housing productions have become distinguishing characteristics of Ethiopian cities. Although the extents of such problems differ from one urban area to another e.g. high density, sanitation problems, unsafe living conditions, and insecurity of tenure are some of the common constraints of urban areas (UN-Habitat, 2007).

Ethiopia's housing deficit is between 900, 000 and 1,000,000 units in urban areas, and an estimated 225, 000 housing units are required a year to meet the Millennium Development Goals by the 2015. The youth Ethiopia's population, who accounts more than 50% under the age of 18, coupled with a high population growth rate that could see Ethiopia's population reach 100 million by 2020, is putting considerable pressure on demand for rapid housing provision. It is estimated that only 30% of Ethiopia's total housing stock is in fair condition, while the remaining 70% is in need of total replacement. As a result, Addis Ababa city administration has started an ambitious of housing construction and inner city up grading program (UN-Habitat, 2011).

Sustained high urbanization and population rates in Ethiopia will put extra pressure on already failing and deteriorated urban infrastructure, services, and housing stock. The massive housing needs are unlikely to be met by the small scale housing cooperative, government, and upgrading approaches prevailing from the late 1970s until the mid-2000s, especially considering the high by the low-income sector of the population for affordable housing. In response to this challenge, the Ethiopian government outlined an ambitious vision for low-income urban and housing development, formulated as the Integrated Housing Development Program (IHDP), since 2005, for all slums to be cleared within ten years and for Ethiopia to be a middle income country by 2025. In particular, the IHDP envisages the utilization of housing as an instrument to promote urban development, create jobs, revitalize the local urban economy through MSE (micro and small enterprise) development, encourage saving and empower urban residents through property ownership, and develop the capacity of the domestic construction industry (Mehader,2013).

Addis Ababa, the capital city of Ethiopia has faced very rapid population growth due to immigration and natural growth. So it increases the pressure on housing demand. However, the housing development pace is not so fast to contain this huge number of population. Because of this, there is severe housing shortage in the city of Addis Ababa. Most of the residents of Addis Ababa have low and irregular income. So the available houses both from the government and the private real estate developers are not affordable to the low income group of the population. Because of this, a large number of households are forced to live in private rental houses and kebele houses (wondwesen, 2013).

Provision of adequate, affordable and decent housing for low income households is clearly in short supply. The players in this industry are too few and there seems to be a minimal interest of other private sector housing developers to provide low income housing units. These private sector developers as by their success in the middle and high income housing markets, implies that they may have the capacity and skill set to supply the low-income housing required to alleviate, at least partly, the housing shortfall in the country (UN-Habitat, 2016).

The recently emerging strategy in this city is provision of readymade collective dwelling units (condominium housing units) which aimed to be affordable for low and middle income groups. The major objective of condominium housing project is minimizing disparities by viewing governments concern and commitment to improve the main slum settlement, ensuring access to decent and affordable housing for the poor urban dwellers, which are homeless or inadequately sheltered and bringing fair distribution of wealth. However, to what extent the affordability and adequately of the housing units to the urban poor is still questionable (UN-Habitat, 2011).

Actually, before five years ago the Integrated Housing Development Program (IHDP) said that the city's current housing project has a goal of constructing 400,000 condominium units between 2010 and 2015. However, the project office has built 171,000 housing units to date (IHDP, 2015). Therefore, the researcher of this study wanted to assess the government objectives in providing adequate and affordable housing in line with the low and middle income people of Addis Ababa which is promised at the Integrated Housing Development Program and to investigate the critical factors that affecting the performance of condominium housing projects in the selected research area.

1.3 Research questions

This study attempts to answer the following research questions

- Can government achieve the demand for condominium housing without any multiple private sector alternatives?
- What are the major factors those affecting condominium housing projects in terms of time, cost and quality in the selected sub city of Addis Ababa?
- What are the possible solutions (remedies) to the stated problems?

1.4 Objective of the study

1.4.1 General objective

The major objective of the study is to assess the condominium housing projects in Addis Ababa with reference to Bole and Akaky Kaliti sub cities' project offices and their project sites.

1.4.2 Specific objectives

The specific objectives of this thesis are:

- To assess whether government can achieve the demand for condominium housing, without any multiple private sector alternatives.
- To investigate the major factors those affecting condominium housing projects in terms of time, cost and quality.
- To forward possible solutions (remedies) to the stated problems.

1.5 Significance of the study

The purpose of the thesis is to indicate the constraints of construction of condominium housing projects in some parts of the projects in Addis Ababa, this paper is expected to give academic knowledge and the study would create interests in researchers to undertake farther investigation on the issues. Lastly, the finding and recommendation of this research used for those concerned bodies to find out more effective solution on the problems of condominium housing projects.

1.6 Scope of the study

Even though the construction of condominium housing projects 20/80 has applied on the ten sub-cities (more than 18 project sites) of Addis Ababa, due to constraints of finance, time and the researcher ability, the study would bound by Bole and Akaky Kaliti sub cities' project offices and their project sites. Those sub cities are purposively selected because they have currently ongoing projects than any other inner sub cities of Addis Ababa, also one sub city is not enough in terms of the respondents number, so use the opportunity of two sub cities are better to get educated and experienced respondents. Finally, this research is tried to assess issues of condominium housing projects since the Addis Ababa housing project office has been legally established.

1.7 Organization of the paper

This paper is organized in five chapters, the first chapter deals with introduction part reflecting on the background of study, statement of the problem, research question, and objectives of the study, significance of the research, scope of the study, organization of the paper and definition of operational terms. The second chapter discusses about review of related literatures concerning theoretical (conceptual) and empirical evidence to show what is already known and research gap is to be fulfilled depends on the challenges of condominium housing project issues. Chapter three explains about the design and methodology of the research and description of the study area. And the fourth chapter is dealing with presentation of data and analysis of the given data. Finally based on the finding of the study vital conclusion and recommendations are presented in chapter five.

1.8 Definition of operational terms

Condominium: it is a Single, individually owned housing unit in a multi-unit building. The condominium owner holds sole title to the unit, but owns land and common property (elevators, halls, roof, stairs, etc.) jointly with other unit owners, and shares the upkeep expenses on the common property with them. Unit owner pays property taxes only on his or her unit, and may mortgage, rent, or sell it just like any other personal property. And also the word condominium divides in to the prefix "con" means sharing and "dominium" which means, owner ship. It is simply means sharing with others. A condominium is not particular kind of building rather; it is a legal arrangement. It refers to a form of owner ship (Condominium Proclamation No. 370/2003).

Condominium housing: is a name given to the form of housing tenure where each resident household owns their individual unit, but equally shares ownership and responsibility for the communal areas and facilities of the building, such as hallways, heating systems, and elevators. There is no individual ownership over plots of land. All of the land on a condominium site is owned by all homeowners (UN- Habitat, 2011).

Project: it is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates that a project has a definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer

exists. A project may also be terminated if the client (customer, sponsor or champion) wishes to terminate the project (Harold and Kerzner, 2004).

Household: a group of persons who often live in the same housing unit or in connected Premises and have a common arrangement for cooking and eating food. A household consists of a husband, his wife, their children, relatives and some other persons residing together in the household (MoFED, 2008).

Housing unit: is a separate and independent place of abode, either intended for habitation or not but occupied as a living quarter by a household at a time of census (CSA, 2010).

Housing affordability: is the willingness and ability of households to pay to consume Housing services, which depends on the housing price, household income, and the terms and availability of mortgage finance (AHURI, 2006).

Housing supply: is the flow of houses into the market either that offered for sale or rent at any one time with changing prices. It is mainly depending on the number of new housing units constructed by the concerned bodies (Ibid).

Time: It is the length of time that extends the project duration (Atkinson, 1999).

Cost escalation: changes in the cost or price of specific goods or services in a given economy over a period (Ibid).

Quality: fitness for purpose (Newton, 2007),

CHAPTER TWO: REVIEW OF RELATED LITRATURE

2.1 Theoretical literature review

2.1.1 Introduction:

Housing is one of the basic necessities for human beings. However, there are very complex linkages between adequate housing supply and affordability practices. Throughout the less developed countries cities, uncontrolled rapid population growth from high rate of natural increase and rapid rural to urban migration together with low level of their income has resulted in high demand of urban housing which resulting in critical problem of housing supply and affordability. Like most urban centers of developing countries, Ethiopia's urban centers are characterized by poorly developed economic base. Most cities and towns in Ethiopia face a plethora of problems, including an acute and ever worsening housing shortage. But; housing problems may not be the same in each city because of variations in physical conditions, economic development and cultural preferences of the given society (UN-Habitat, 2016). Therefore, the function of housing is the most important economic resource to Addis Ababa residents than any other urban cities of our country.

Now, this chapter presents the review of related literature which is relevant to the study. The core point is to investigate the government policy in providing adequate and affordable housing in line with the low and middle income people of Addis Ababa which is promised in its objective at the Integrated Housing Development Program (IHDP), actually before five years ago (2010) the IHDP said that the city's current housing project has a goal of constructing 400,000 condominium units between 2010 and 2015. However, the program has not met its original targets it has built 171,000 housing units to date. Now, the question is why the projects of condominium housing failed by more than 50 percent.

2.1.2 Explanation and meaning of condominium housing in different countries

The term condominium identifies a form of ownership of real property. Property becomes a condominium simply by recording a Declaration which submits the real property to the Condominium Property Act. Condominiums are not a new concept. The form of ownership which is utilized for condominiums was used by the Romans as early as the 6th century B.C. In

Europe, the concept has been available for many centuries. The concept has existed in South American countries for at least two centuries. After World War II, essentially the only type of commonly owned housing that was available to the general population was the cooperative (UN-Habitat 2011).

Technically, a condominium is a collection of individual home units and common areas along with the land upon which they sit. Individual home ownership within a condominium is construed as ownership of only the air space confining the boundaries of the home. The boundaries of that space are specified by a legal document known as a Declaration, filed on record with the local governing authority. Typically, these boundaries will include the wall surrounding a condo, allowing the homeowner to make some interior modifications without impacting the common area. Anything outside this boundary is held in an undivided ownership interest by a corporation established at the time of the condominium's creation. The corporation holds this property in trust on behalf of the homeowners as a group; it may not have ownership itself. Condominiums have conditions, covenants, and restrictions, and often additional rules that govern how the individual unit owners are to share the space (Ibid).

Condominium housing is a name given to the form of housing tenure where each resident household owns their individual unit, but equally shares ownership and responsibility for the communal areas and facilities of the building, such as hallways, heating systems, and elevators. There is no individual ownership over plots of land. All of the land on a condominium site is owned by all homeowners. Usually, the external maintenance of the roof and walls are undertaken by a Condominium association that jointly represents ownership of the whole complex, employing strict management to ensure funding from each homeowner. This association consists of representatives of all condominium residents who manage the site through a Board of directors, elected by association members (UN- Habitat 2008).

A register of condominium units and common areas on site and any restrictions on their use is commonly established in a master deed which authorizes the Board of directors to administer condominium affairs and assess owners on their performance of adequate maintenance. Rules of governance are usually covered in a separate set of by laws which generally govern the internal affairs of the condominium blocks. By laws usually establish the responsibilities of the condominium association; the voting procedure to be used at association meetings; the

qualifications, powers, and duties of the Board of directors; the powers and duties of the officers; and the obligations of the owners with regards to assessments, maintenance, and use of their unit and common areas (Ibid).

A set of rules and regulations, providing specific details of restrictions and conduct, are established by the Board and are more readily amendable than the declaration or by laws. Typical rules include mandatory maintenance fees (often a monthly collection), pet and livestock restrictions, and color/design choices visible from the common areas of the buildings. The upkeep of walls and features inside a condominium unit is the sole responsibility of homeowners themselves. This area is defined as the area bounded by the walls of the building, allowing the homeowner to make some interior modifications without creating an impact on the common areas. These boundaries are specified by a legal declaration, filed with the local governing authority. Anything outside this boundary is held in an undivided ownership interest by a corporation established at the time of the condominium's creation (UN- Habitat 2009).

Condominium unit owners can be permitted to rent out their home to tenants, although leasing rights may be subject to conditions set forth in the original declaration, such as a rental cap on the total number of units a community can lease at any one time, or otherwise as permitted by local law. The program recognizes the opportunity for housing to stimulate the economy, create employment, and improve the capacity of the construction and financial sectors (Ibid).

2.1.3 History and brief over view of housing during different government of Ethiopia

In the first half of the twentieth century land and housing in Ethiopia were possessed by a few individuals and groups who owned and controlled land and housing development. Housing supply was led by the land owning elite with less than one per cent of the population owning more than 70 per cent of the arable land, on which 80 per cent of the peasants were tenants. Low income households had little option but to rent housing and this was done outside of any formal control or planning system. In 1962, for example, 58 per cent of the land in Addis Ababa was owned by only 1,768 individuals, equating to ownership of over 10,000m^2 each, and leading to 55 per cent of housing units being rental housing. While government urban housing and land strategies were debated and documented at length they did not materialize into built projects to

address the severe housing demand. The government exhibited little national commitment to land and housing development for the low income sector and there was no coherent approach or action toward land and housing provision. Therefore, ad-hoc policies and approaches prevailed and informal, unauthorized housing proliferated (UN-Habitat, 2011, p.2).

During 1974, the land and housing situation significantly changed as a result of the political revolution that saw the overthrow of Emperor Haile Selassie by the Derg. In July 1975, Proclamation No. 47: 'Government Ownership of Urban Lands and Extra Houses' nationalized all urban land in an effort to force a faire distribution of wealth across the country. Two new typologies in the housing sector were established: Government owned rental units, administered by the Agency for the Administration of Rental Houses, and Kebele Housing managed by Kebele Administration units, the smallest government administration unit, operating at the neighborhood level. During this time approximately 60 per cent of housing in Addis Ababa was rental accommodation and Kebeles accounted for 93% of this rental accommodation. A consequence of the nationalization was a significant reduction in the rental price for low cost rental housing of between 15 and 50 per cent for occupants paying below ETB 300 (USD 23). In Addis Ababa, the rent of 80 per cent of the city's population was reduced by30 per cent. Housing supply was controlled by the centralized government yet it was drastically insufficient to meet the large demand. For instance, in Addis Ababa between 1975 and 1995, only one tenth of the projected dwellings were built because of very low effective demand, rock bottom national housing investment rates, and from regulatory constraints in the supply of land, credit, and building materials (UN-Habitat, 2011c).

The Derg government was controlled ownership of urban lands, and rental dwellings or extra houses (a person is not allowed to have more than one house). Consequently, ownership of all urban land and extra houses were transferred to the government in an effort to enforce a faire distribution of wealth across the country. During the Derg regime, housing supply was controlled by the central government and urban residents were allowed to keep one residential house and another business house, if necessary. Housing supply was insufficient to meet the large demand and all cities in Ethiopia experienced acute housing shortages and ever deteriorating housing conditions (Teshome, 2008).

In the late 1980s, the 'Derg' loosened its control of housing supply by allowing private house owners and tenants of public premises to sell and exchange their houses although in reality the government devolved very little control and maintained its position as the key driver of housing supply. Proclamation No. 292 of 1986 specified that "residential buildings could be produced only by state enterprises, municipal governments, housing cooperatives and individuals who build dwellings for their personal consumption effectively excluding large scale private sector housing developers to address the large demand. The housing stock continued to be characterized by high rates of rental housing. By the mid-1980s, rental housing accounted for 60 per cent of the total housing stock in Addis Ababa. The low rental rates resulted in little to no investment in housing which led to a further deterioration of housing quality. The housing conditions were poorest in the center of Addis Ababa. According to the 1985 analysis report by the Municipal Technical College for the Teklehaimanot Upgrading Scheme, the average house had a floor area of 20m², 35 per cent of all houses had only one room, and 39 per cent of the urban population lived in overcrowded housing that lacked basic services such as potable water and sanitation(ibid).

Since the overthrow of the 'Derg' by the Ethiopian People's Revolutionary Democratic Front (EPRDF) in1991, Ethiopia has been undergoing market orientated reforms, structural adjustment policies, decentralization of governing structures, and a program of agricultural development led industrialization. Following the new constitution and federal system of government, in 1994 a rural development policy, named the Land Reform Program, was introduced. This sought to decentralize urban planning responsibilities and to encourage secondary cities to attract rural migrants to ease pressure on the already limited housing available for urban dwellers living in Addis Ababa and other major urban areas. Addis Ababa's first housing policy, incorporating the government's practice of maintaining public ownership, was also implemented at this time but it assumed that the housing market alone would meet the demand for affordable housing of the low-income population. Despite large subsidies and land provided at highly subsidized rates, the private sector has failed to deliver affordable housing at the large scale required. During this time house prices significantly rose making it extremely difficult for even professionals such as doctors and lawyers to access affordable housing (UN-Habitat, 2007).

The post 1991 housing sector can therefore be typified by the following four characteristics: The private housing sector has not been sufficiently engaged and therefore has not met the immense housing demand. The practice of low cost government owned rental housing continues to be the dominant low income housing strategy. The housing stock is of a very low quality, is poorly maintained, and needs either replacement or significant upgrading. Informal unplanned housing has proliferated as a result of high urbanization, limited housing supply, and unaffordability of formal housing (ibid).

2.1.4 The current government Policy and legal frameworks related to housing

Since 1991 Ethiopia has had a decentralized regulatory structure with considerable autonomy devolved to regional states regarding the management of their internal affairs. The country is divided into nine states and two autonomous administrative areas, the cities of Addis Ababa and Dire Dawa. The states are, in theory, financially independent from the national government. Each state comprises zones, districts (Woreda), cities, and neighborhood administrations (Kebeles). In each region the districts are the basic planning unit and have jurisdiction over the kebeles. The capital city of Addis Ababa has ten sub-city administrations containing 11elected executives and 128 councilors at city level. There are 99 Kebeles within the capital and 300 councilors between them to represent 30,000 people. All land is property of the national government and is leased, not sold, for development (UN-habitat, 2011, p.3-4).

Until recently, there were few national coordination policies regarding housing and urban development. In 2005, the Council of Ministers of the Federal Democratic Republic of Ethiopia formulated and approved a consolidated Urban Development Policy to link together the small scale efforts made by regional governments and cities since 2000. They also created the national Ministry of Works and Urban Development (MWUD) to guide the overall development of the country's urban areas and conducting studies on its urbanization patterns. Within MWUD, the National Urban Planning Institute is responsible for preparing physical urban development plans, the Housing Development Bureau works towards the implementation of the Integrated Housing Development Program (IHDP) including the Micro and Small Enterprise(MSE) Development Programs, the Urban Development Support Services deal with financial planning, human resources, and capacity building(ibid).

A major player in providing housing is the state dominant manifested through its various arms such as regional governments, districts, and kebeles. The state controls the key of the rental accommodation and influences the supply of new housing through active involvement in material production and importation, land supply, and housing finance. Very few private housing developers exist. The private construction industry is very small and it is complicated and time consuming to start a company, register it, and conduct business. Those that do exist operate only for high income groups as there is little incentive to construct low income housing (UN-Habitat, 2010).

Since the late 1970s housing cooperatives have also provided an avenue for home ownership. This delivery method was established in 1978, through Proclamation No. 138. The approach is for citizens to organize themselves into small groups for land allocation, develop savings capacity, prepare settlement plans, receive land and secure tenure, and largely build their housing themselves incrementally. Cooperatives have received varying levels of government support over the last 40 years. Between 1986 and 1992, housing supply by cooperatives did increase due to the significant subsidy of construction materials (60 per cent), land being allocated with no charge, and low mortgage interest rates, but this help was inadequate to meet the magnitude of housing demand. Between 1975 and 1992 housing, cooperatives produced a mere 40,539 units. In addition to its small scale, cooperative housing is challenged by the undesirable peripheral location of land allocated, low quality of allocated land making construction costly and difficult, and the exclusion of the poorest sector of society (ibid).

Informal unplanned housing provision constitutes a considerable proportion of the total housing supply, although there are vastly different estimates of the scale of urban informality. Informal housing is especially prevalent in Addis Ababa accounting for 34.1 percent of total housing supply between 1996 and 2003 and it is the fastest growing supply method. Involvement in the housing market by Non-Governmental Organizations (NGOs), both national and international, has been of small scale. While many NGOs operate in Ethiopia, few deal with housing and land issues. The three most visible NGOs dealing with housing are the Integrated Holistic Approach Urban Development Project (IHA-UDP), care and concern, who have been involved in upgrading of sanitation and infrastructure and facilitating community participation in upgrading projects. They work mainly at the city and kebele level. The German Technical Corporation

(GTZ) has been operating in Ethiopia for many decades, primarily in providing technical support and building capacity in building construction (UN-Habitat,2011, p.5-6).

The existing housing stock is a very low physical quality. Using the UN-Habitat slum definition, 80 per cent of Addis Ababa is a slum with 70 per cent of this comprising government owned rental housing. The majority of low income Ethiopians resides in rented kebele housing. The quality of kebele housing stock is low typically constructed of mud, wood, and discarded materials. Kebele houses are old, having been constructed many decades ago and little to no maintenance has been carried out. Some houses remain with no access to water and electricity, and many do not maintain minimum standards of sanitation. Government inactivity in kebele housing maintenance as well as the low rents is the major reasons why the kebele housing stock is of such a low quality. Although also of relatively low quality, owner occupied houses are of a higher standard than kebele housing. They are less deteriorated due to age and greater attention to maintenance. Data on the national stock of informal housing unit's is not available although Addis Ababa in the year 2000 had an estimated 60,000 informal 'squatter' units representing 20 per cent of the city's housing stock. The physical form of Ethiopian housing has been dominated by single storey construction, with a high proportion of 'terrace housing' (housing units adjoining other units rather than free standing). Nationally, in the 1994 census, 98.3 per cent of buildings nationwide were single storied and the remaining 1.7 per cent was multistoried buildings. In terms of tenure, private house ownership levels are low. In Addis Ababa, only 30 per cent of houses are owner occupied. Rental housing is the dominant tenure mode. In Addis Ababa, in the 1994 census 57.3 percent of the housing stock was government rental, either local municipalities, or the National Agency for Administration of Rental Housing (ibid).

The government estimates that the current housing deficit is between 900,000 and 1,000,000 units in urban areas, and that only 30 per cent of the current housing stock is in a fair condition, with the remaining 70 percent in need of total replacement. In Addis Ababa alone, 300,000 units are required to meet the deficit. The housing deficit is set to increase concurrently with the foreseen high population and urbanization growth. Between 1983 and 2007, Ethiopia's population more than doubled, from 33.5 million to 81.2 million, and it is projected to more than double again by 2050 to reach 170.2 million. To accommodate future growth, the Urban Sector Millennium Development Goals Needs Assessment (2004) predicted that to meet the Millennium

Development Goals (MDGs) in 2015 requires 2,250,831 units, which equates to a considerable 225,000 houses per annum. There is massive demand for serviced, healthy, affordable housing. This demand stems from both the current housing deficit and the poor quality of the existing kebele housing stock that is beyond repair. However, there is low effective demand. Effective demand is based on the ability and willingness to pay for housing, affected by income and what households are prepared to pay. Although effective demand is difficult to determine because it requires reliable data on income levels and expenditure patterns of households, their savings capacity and prioritization of housing vis-à-vis other forms of investment, it is the case that the majority of Ethiopians cannot pay for formal housing supplied by the private market. Therefore, the greatest need is for affordable housing (CSA, 2007).

There is a distinct absence of a diversified and flexible housing finance sector in Ethiopia. For many years, the Construction and Business Bank (formerly the Housing and Savings Bank) was the only bank to offer housing construction loans and long term mortgages for the procurement of housing. The Bank, which was owned by the government of Ethiopia, relied heavily on the Central Bank for its capital. During previous regimes this was not a problem, as the government was responsible for the procurement of housing for the urban poor and housing units were completed and held by the government in a rental portfolio. However, in the 1990s, the Construction and Business Bank started lending money directly to housing cooperatives. Overall, this centralized financial set up has resulted in a housing finance sector that is very limited in its scope and diversity of the products it offers. A major challenge facing securing affordable housing for low income Ethiopians has been access to housing finance (UN-Habitat, 2011).

Following the market led adjustments, implemented post 1991, subsidized interest rates were removed which significantly increased lending rates. Rates increased from 4.5 per cent for cooperatives and 7.5 per cent for individuals to 16 per cent for both severely reducing the opportunity for the low income households to secure a home loan. Furthermore, with a high percentage of low income people receiving income from informal sources and lacking capital to use as collateral, access to formal credit has been limited or nonexistent. The low level of domestic savings of the population, coupled with the shortage of external resources, has affected the availability of investment in the housing sector. At the household level, these translate into a low level of investment in housing, and little capacity of the low income population to own

minimum standard housing. Houses of a minimum standard have simply been out of financial reach for the poor (ibid).

Like other provision, the government significantly controls the construction industry. Before 1991 the government had a monopoly over the production and supplies of building materials. Even though the government is still active in retailing and some subsidies remain in place, material production and supply is gradually shifting to a market based approach where prices are by and large market prices. Building materials are high in price and of a low quality relative to neighboring countries. For low income housing the most common building materials used are wattle and daub ('chikka') for walls, with roof rafters of round tree lengths covered with corrugated iron sheeting, and skim concrete or compacted earth floor. Larger multistory commercial and residential buildings in urban areas are composed of reinforced concrete frame and slab construction with hollow brick or fired brick infill walls. There is a pressing need for more cost efficient alternative materials, as the current cost of construction materials is a high proportion of total construction cost, typically around 70 per cent (UN-Habitat, 2012).

The construction industry comprises four main sectors: building and residential development sector, civil engineering sector, professional services, and informal self-building sector. Construction companies are classified according to size, expertise, and financial capability. They must be registered with the MWUD and licensed to undertake construction work. There is little specialization in contractors' work, with contractors taking on all aspects of a building project. The professional services sector comprises mostly architects, engineers and quantity surveyors. Logically, the informal self-building sector is not registered but supplies materials and labor at a very large scale, employing a large number of people. There is little cross collaboration between the professional sector and informal sector (UN-Habitat, 2009).

The national Ethiopian Building Code, Ethiopian Building Proclamation 624/2009 is a legal document that outlines the building regulations and requirements, for use by local authorities to ensure building standards are maintained in their jurisdiction. The codes are only used and enforced in buildings developed in the formal sector. The construction sector is undergoing several changes. The government's plan for the budget year of 2008/09 was to enhance the capacity of the construction industry by making it capable and competitive, enhancing its contribution to the country's economy, enabling it to meet the demand for housing construction,

and enabling it to create ample employment opportunities. It aimed to achieve this by improving construction industry policy; developing a construction industry capacity-building program and ratifying and implementing the national building proclamation (ibid).

2.1.5 Global challenges of urbanization and housing

A large number of people move to urban areas primarily because cities promise more jobs, better schools for poor's children, and diverse income opportunities than subsistence farming in rural areas. For example, in 1995, 95.8% of migrants to Surabaya, Indonesia reported that jobs were their primary motivation for moving to the city. However, some rural migrants may not find jobs immediately because of their lack of skills and the increasingly competitive job markets, which lead to their financial shortage. Many cities, on the other hand, do not provide enough low cost housing for a large number of rural urban migrant workers. Some rural urban migrant workers cannot afford housing in cities and eventually settle down in only affordable slums. Further, rural migrants, mainly lured by higher incomes, continue to flood into cities. They thus expand the existing urban slums (Ali and Toran, 2007).

The other reason is social networks might also explain rural urban migration and people's ultimate settlement in slums. In addition to migration for jobs, a portion of people migrate to cities because of their connection with relatives or families. Once their family support in urban areas is in slums, those rural migrants intend to live with them in slums (ibid).

Lack of affordable low cost housing and poor planning encourages the supply side of slums. The Millennium Development Goals proposes that member nations should make a significant improvement in the lives of at least 100 million slum dwellers by 2020. If member nations succeed in achieving this goal, 90% of the world total slum dwellers may remain in the poorly housed settlements by 2020(UN-Habitat, 2008).

Choguill (2007), claims that the large number of slum dwellers indicates a deficiency of practical housing policy. Whenever there is a significant gap in growing demand for housing and insufficient supply of affordable housing, this gap is typically met in part by slums. The Economist summarizes this as, "good housing is obviously better than a slum, but a slum is

better than none". Insufficient financial resources and lack of coordination in government bureaucracy are two main causes of poor housing planning. Financial deficiency in some governments may explain the lack of affordable public housing for the poor since any improvement of the tenant in slums and expansion of public housing programs involve a great increase in the government expenditure. The problem can also lie on the failure in coordination among different departments in charge of economic development, urban planning, and land allocation. In some cities, governments assume that the housing market will adjust the supply of housing with a change in demand. However, with little economic incentive, the housing market is more likely to develop middle income housing rather than low cost housing. The urban poor gradually become marginalized in the housing market where few houses are built to sell to them.

Housing accounts for more than 70 percent of land use in most cities and determines urban form and densities, also providing employment and contributing to growth. That it has not been central to government and international agendas over the last 20 years is evident in the chaotic and dysfunctional spread of many cities and towns. Since 1996, in Europe and the US, housing has become more of an asset for investment than a place to live, but when the property bubble burst in 2007-08**,** housing investment stalled in many countries, despite soaring demand, and trust in the market was severely dented. In the face of unprecedented urbanization and population growth many cities developing and emerging have accrued huge housing shortages (UN-Habitat, 2016, p49-51).

In reality, one and the same bias has been artwork across the world: middle class formal home ownership has been systematically enabled, but ever growing numbers of poor citizens have been durably disabled from access to adequate housing, remaining confined in single room or informal housing, not to mention sheer homelessness. While many of the world's richest countries have significant over provision of housing, in Eastern and Central Europe and in developing countries, shortfalls of formal housing tend to be very large at present and even larger going forward. In South Asia, housing shortfalls are particularly acute amounting to 38 million dwellings. Furthermore, while housing for the middle class may be overprovided in many cities, the poor are generally under housed. Over supply for the middle classes can result in many empty dwellings (ibid).

Housing is where successive generations find shelter to keep healthy, develop, socialize, be educated and prepare for fulfilling adult lives. In this sense, housing speaks to every dimension of personal human development, hopefully generating a double sense of identity and social belonging. Both are essential to sustainable cities and their participatory governance. If the emerging futures of our cities are to become sustainable, then the housing conditions of one billion slum residents must become sustainable, too (UN-Habitat, 2011).

There is a general acknowledgement that enabling the market has failed to provide affordable, adequate housing for the predominant low-income households in the rapidly urbanizing parts of the world. Besides, at the dawn of 2016, many serious challenges face the housing sector. Given the daunting proportions of both the policy failure and the challenges around the world, housing must become a major part of international policy and the development agenda in the future (ibid).

Housing has been a major investment in developed and emerging countries during the last 20 years. Oversupply has been fuelled by economically destructive speculation in Ireland and Spain, and has resulted in wasted capital in China. At the same time, some developed countries have accrued substantial shortfalls as a result of poor policies. Brazil, Ethiopia**,** India, Malaysia, Singapore and countries in the Middle East and North Africa have continued to be very hands on in supply, generating large numbers of apartments for low and middle income households. However, since the mid-1990s, housing for the poor majority has had a low priority in most developing countries, as most have reduced their housing activity. Most involvement by governments has been focused on helping the middle class to achieve home ownership in a formal sector, but the poor people remain without housing (UN-Habitat, 2016).

2.1.6 The role of government and private sector in providing housing

Serious challenges remain to fund projects to improve housing. In a fiscally tight environment, social investments have not typically been prioritized at the local or national government levels. Furthermore, in an era of decentralization, municipal or sub national government agencies often face new responsibilities without sufficient capital transfers or statutory rights to mobilize local revenues. For example, there is often an absence of functioning municipal taxation systems and effective financial tools which capture land-value increases that could raise municipal revenue

and lead to increased funding for housing. Community-based finance options are also weak and disconnected from main stream financial institutions, despite the critical role they play for poor urban dwellers to engage in savings and loans. Evidence suggests that the provision of urban services significantly raises land values and, under certain conditions, can promote private investment in housing (UN-Habitat, 2015c p.16).

International agencies have a crucial role to play in supporting housing. At the strategic level, absentee governments and the weak performance of other actors created a gap and eventually contributed to housing overlooked as a priority in the international development agenda. Despite the benefits of adequate housing, including improvements to health and the environment, lending from several donor organizations has tended to move away from housing. The donor community is a needed partner to stimulate innovation in housing finance, affordable housing designs, urban service delivery, and municipal revenue collection to ensure long-term financial sustainability. Equally important, the donor community can better promote hybrid value chains in which private sector companies' partner with microfinance providers and citizen groups to lower the cost of producing housing (ibid).

As the state has shrunk in so many developing countries, the private sector has been left to take up the initiative in formal housing supply, which in reality mostly provided just for the more profitable and solvent top few per cent of the population, with privileged access to services and in the best location. At the lower income levels, in developing countries, it is the informal private sector through partnerships between households and local artisan builders that continues to provide most housing, usually in tandem with informal land sub-dividers or customary owners as in the case of Sub-Saharan Africa (UN-Habitat, 2016c).

The enabling approach sought to organize the building industry in four related ways: eliminating monopoly practices, encouraging small firm entry, lowering import controls, and supporting research. The approach advocated against long permit delays, restraints on competition, and public monopolies. Further recommendations included support to small-scale construction with dedicated credit mechanisms. Many governments have indeed reorganized building Industries but emphasis has been on firms building for the middle classes rather than the poor majority. The property lobby has reaped the benefits of public private partnership (PPP) housing projects, encouraging governments to favor formal developments to the detriment of realistic efforts benefiting the poor. This is how in Accra or Lusaka, consortia with foreign contractors seem to

have received tax breaks, import duty holidays, subsidized or free land, favorable loans, etc., instead of the small local builders who provide housing for the majority(ibid).

In Chile, the Camera Chileans de Construction was a prime mover in designing the original capital subsidy programmed. In some countries, assistance to formal contractors has led to oversupply of upper middle and high income housing, as in Algeria. In Addis Ababa, Dubai and Doha, as in many cities in China and India, major construction projects focus on the middle class, as well as attracting foreign companies. Smaller contractors, however, have received little of the help recommended even though they build the housing occupied by the majority of households. Still unrepresented in policymaking consultations and absent in subsequent programmers', these builders have instead often felt the heavy hand of bureaucracy or ineptitude disabling them from effective housing supply (UN-Habitat 2015b).

If cities emerging futures must be sustainable, housing must be placed at the centre of urban policies. With rapid population growth, high levels of poverty and pervasive urban inequality; it is evident that housing is inseparable from urbanization and should be a socioeconomic imperative. The housing policies put in place over the last 20 years through the enabling approach have not succeeded in promoting adequate and affordable housing. Governments have backed away from direct supply without giving sufficient consideration to the markets and regulatory framework to enable other actors in the process to step forward and provide adequate and affordable housing. After a long period in the wilderness, housing is emerging as an important sector once again (UN-Habitat 2013a).

It is vital to recognize that the main housing supplier for the 60-90 percent majority in developing countries is the informal sector. The Housing Strategy must recognize that single artisans and small scale building contractors are the key suppliers of housing to the majority; continuing to ignore them in favor of the relatively small formal sector supply would be perverse. In developing countries, especially in Sub-Saharan Africa, many households are unlikely ever to find themselves in a position to sell property. Therefore, secondary housing markets hardly exist, making it impossible for them to capitalize on the value of their property in times of need or to move to more expensive housing. Thus, the "housing ladder", so important in conventional property mechanisms, is weak to non-existent in many developing countries and

any arguments on households filtering up through the housing stock are unlikely to be helpful(ibid).

The State should facilitate and assist the creation of private entities, also those not driven a priori by profit, such as cooperatives, to be development agents and mechanisms to mobilize resources. Cooperative housing organizations were highlighted as important actors in the UN Habitat Agenda and in the World Action plan because they stimulate mobilization of people and decrease the costs related to low income housing (UN-Habitat, 2015/16).

The success of the New Urban Agenda will depend on the collaboration in its design and implementation by all stakeholders. All levels of government will have a role in creating enabling environments for housing policies and legislation, and in ensuring that the right to adequate housing for all. Civil society organizations will be critical in creating access to adequate housing and infrastructure by building partnerships with residents. The private sector will be essential in mobilizing resources to supply a menu of housing options including rentals, housing preservation, and rehabilitation, as well as in expanding the affordable housing stock. The donor community will play a key role in elevating visibility and in mobilizing support for housing in the international development agenda (Ibid).

2.1.7 Critical factors affecting the performance of construction of housing

There are many factors that contribute to causes of delays in construction projects. Delays occur in every construction project and the magnitude of these delays varies considerably from project to project. It is essential to define the actual causes of delay in order to minimize and avoid delay in any construction project. A number of studies have been carried out worldwide to determine the causes of delay in construction projects.

Sambasivan and Soon (2007) have identified the 10 most important causes of delay in Malaysia through a questionnaire survey. The questionnaire survey was carried out with clients, consultants and contractors. About 150 respondents participated in the survey. Based on their survey results, the most important delay factors were: contractor's improper planning, contractor's poor site management, inadequate contractor experience, inadequate client's finance and payments for completed work, problems with subcontractors, material shortage, labor

supply, equipment availability and failure, lack of communication between parties, and mistakes during the construction stage. A similar study in Malaysia was carried out by Alaghbari et al. (2007) with a list of 31 delay factors. The major delay factors from their survey results were: financial difficulties and economic problems, contractor financial problems, late supervision and slowness in making decisions, material shortages, poor site management, construction mistakes and defective work, delay in delivery of materials to site and lack of consultant's experience.

Chan and Kumaraswamy (2002) conducted a survey in Hong Kong to determine and evaluate the relative importance of the significant factors affecting the construction delays. They analyzed and ranked the main factors affecting the construction time, and classified them into two groups: the role of the parties in the local construction industry and the type of projects. Based on their survey results, they indicated that the five major causes of delays were: poor site management and supervision, unforeseen ground conditions, low speed of decision making involving all project teams, client initiated variations and necessary variations of works. Fugar and Agyakwah-Baah (2010) also studied the causes of delays in building construction projects in Ghana. They identified 32 possible causes of delay and further categorized into nine major groups. The list of the causes of delay was conducted into a questionnaire survey, which included 130 respondents who participate in the survey. Based on their analysis, they concluded that the delay in honoring certificates, underestimation of the costs of projects, underestimation of the complexity of projects, difficulty in accessing bank credit, poor supervision, underestimation of time for completion of projects by contractors, material shortage, poor professional management, fluctuation of prices/rising cost of materials and poor site management were found to be the top ten most important factors affecting the construction time.

The study of El-Razek et al. (2008) was carried out to determine the causes of delay in building construction projects in Egypt. A questionnaire survey was carried out to confirm the causes and identify the most important delay factors. Based on the survey results, the top five delay causes were: financing by contractor during construction, delays in contractor's payment by owner, design changes by owner or his agent during construction, partial payments during construction and non-utilization of professional construction management. Sweis et al. (2008) in a similar study carried out in Egypt, also concluded that financial difficulties faced by the contractor and too many change orders by the owner are the leading causes of construction delay. Both research

outcomes showed that financial difficulties were important factors causing delays in Egypt. This factor will be included in the questionnaire survey of the present research to determine the severity on the Western Australia's construction industry.

Tumi et al. (2009) studied the delays in construction project in Libya. They concluded that the main causes of delay in construction projects were improper planning, followed by lack of effective communication, material shortage, design errors and financial problem. Alwi and Hampson (2003) had a similar study on the causes of delays in building construction projects in Indonesia. A questionnaire survey was carried out targeting only the contractors. The respondents were asked to assess the effects of the 31 potential delay factors on their projects. The delay factors were grouped into six major groups. The results showed that the top five most important delay causes were slow decision-making, which was ranked the highest, followed by design changes, poor distribution of labor, inappropriate construction methods, and poor coordination among project participants.

The significant factors that cause delay of construction projects in Malaysia, Alaghbari, Kadir, Salim and Ernawati (2007) classified the factors into four major factors; these are contractor factor, consultant factor, client factors and external factors. Financial problems, shortage of materials and poor site management practices were considered the top most factors. Client related factors included delayed payments, slow decision-making and contract scope changes. The most important factors by consultant were poor supervision, slowness to give instructions and lack of experience. External causes identified included shortage of materials availability, poor site conditions and lack of equipment and tools in the market. In a related study of the causes and effects of delay in Malaysia construction industry Sambasivan& Soon (2007) found poor site management, inadequate experience' and poor subcontractors among the major causes of time delays on construction projects. Causes of delays as identified from previous studies include labor productivity, inadequate contractor experience, number of change orders, financial constraints and owners' lack of experience in construction, ground conditions, poor site management and supervision by consultants, environmental restrictions, exceptionally low bids (Odeh&Battaineh, 2002; Koushki, Al-Rashid &Kartam, 2005; Lo, Fung, & Tung, 2006).

Fetene (2008) categorized some of the major causes of cost overrun under faults of the clients,

consultants, contractors, government and others. Morris (1990) considered inadequate project preparation as the most important factor that underlie cost overrun, which often lead to scope changes during implementation. The inadequacies cover deficiencies in demand forecasts, ground surveys and technology choice. Murali and Yau (2006) in their research identified contract-related factors such as change orders, mistakes and discrepancies in the contract document as the major causes of cost overrun. Doloi and Young (2009) reported among these three categories, the five most significant sources of cost overruns as perceived by the consultants, clients and contractors which are extent of completion of pre-contract design, escalation of material prices, mistakes and discrepancies in contract documentation, client initiated variations and shortage of materials.

Previous studies in the Nigeria construction industry have shown that the issue of cost overrun is prevalent. Elinwa and Buba (1993) found that the most important cause of cost overruns was the increase in the cost of the materials, fraudulent practices, materials' prices increment, high cost of machineries and poor planning. Mansfield, et al. (1994) in their study added that the lack of geotechnical studies before starting the construction and the delays caused by the involvement of complicated rules to check and approve construction processes, can also be reasons for cost overruns in Nigerian constructions. Kasimu (2012) classified the causes of cost overrun in Nigeria into five: financial factor, construction parties, construction items, environmental factors and political factors. Factors of note in each category include market condition, experience of parties involved in contract works, insufficient time devoted to planning and design, project locations and monopoly of material supplier.

The project sponsor may be an individual, a private company or a public authority. The project sponsor (or program manager in some cases), has ultimate responsibility for defining the characteristics of the project that is being procured. It is very important for desk officers to know exactly who the project sponsor is. If this cannot be clearly established, the risk of cost over-runs and even project failure will be high. It is important also to understand whether the project sponsor has any construction expertise or has staff who can work closely with the other members of the project team. If an inexperienced project sponsor has major responsibility for costing, this may lead to poor project cost estimates. It is important from an evaluation point of view to understand exactly what role the project sponsor has in project development (Abdul, 2011).

The project manager is responsible to a project sponsor for the overall planning, control and coordination of a project and for ensuring that a project is completed within time, on budget and that it satisfies the project sponsor's specifications. The project manager may also be responsible for assembling the project team, assessing the project's viability and securing the funds to implement the project. The project manager's role will vary from project to project. It depends on the degree to which the project sponsor wants to be involved as opposed to delegating the responsibility to the project manager. Good project managers should be aware of all factors that can threaten the successful implementation of the project. They will ensure that adequate performance reporting is carried out at all stages. This ensures that problems can be identified quickly and measures taken to mitigate them (Ibid).

Project management action is a key for project success suggested that by using the management tools, the project managers would be able to plan and execute their construction projects to maximize the project's chances of success. Then, the variables in project management include adequate communication, control mechanisms, feedback capabilities, troubleshooting, coordination effectiveness, decision making effectiveness, monitoring, project organization structure, plan and schedule followed, and related previous management experience. A number of attributes will affect this factor, including the communication system, control mechanism, feedback capabilities, planning effort, organization structure, safety and quality assurance program, control of subcontractors' works, and finally the overall managerial actions (ACIF, 2010).

The consents managers include the local authority officials' responsible for administering town or regional planning mechanisms, as well as other government agency officials with responsibility for licensing, safety aspects, environmental management etc. They have responsibility for ensuring that the project can legally be implemented in a particular location. At times they may also be involved in undertaking some of the feasibility work for a project and be responsible for assessing the potential environmental and economic impacts of the project (ibid).

The architect is responsible for designing buildings, public spaces and landscapes. In some Member States the architect also undertakes certain consents duties. The architect may also act as the project manager. The costing or quantity surveyor, (the abbreviation "QS" is known in some

Member States), is the person/s responsible for calculating the costs of a project, preparing tender documentation and also monitoring the value of the work undertaken during the construction phase. The"QS" (or equivalent) may also be responsible for monitoring the project's cash flow. The QS is usually appointed at the beginning of any construction project to advise on costs and alternative forms and methods of construction which may be more cost effective. If a project sponsor wants a change in the project's design or specification during construction, the QS will cost these changes and assist in the decision-making on whether to agree the changes (Puspasari, 2005).

Engineers are the main professionals involved in the technical design of projects. There are many different types of engineer but the most commonly used are civil/structural, and mechanical and electrical. Their responsibilities vary between Member States. Civil and structural engineers have expertise in the following types of works: roads, railways, bridges, ports, dams, buildings. Mechanical and electrical engineers are concerned with the design and integration of machinery and electrical systems within infrastructure projects. Engineers may be hired separately by a project sponsors design consultants. Alternatively, they may work with a contractor in both design and construction roles. Engineers may be hired separately by a project sponsor as design consultants. Alternatively, they may work with a contractor in both design and construction roles. Also be responsible for designing the project as well. The contractor may be a single company but in some larger projects, two or more contractors may work together in a consortium (ibid).

Project participants as the key players, including project manager, client, contractor, consultants, subcontractor, supplier, and manufacturers. He considered influence of client and client's representative as a significant factor on construction time performance. The client related factors concerned with client characteristics, client type and experience, knowledge of construction project organization, project financing, client confidence in the construction team, owner's construction sophistication, well-defined scope, owner's risk aversion, client project management (Mbachu and Nkando, 2007).

Designers play a vital role as their work involves from inception to completion on a project considered that design team related factors consist of design team experience, project design

complexity, and mistakes/delays in producing design documents. The main contractor and subcontractors start their main duties when the project reaches the construction stage. The variables include contractor experience, site management, supervision and involvement of subcontracting, contractor's cash flow, effectiveness of cost control system, and speed of information flow. The project manager is another key stakeholder in a construction project and his competence is a critical factor affecting project planning, scheduling, and communication. Variables under this factor consist of the skills and characteristics of project managers, their commitment, competence, experience, and authority. A construction project requires team spirit; therefore, team building is important among different parties. Team effort by all parties to a contract owner, architect, construction manager, contractor, and subcontractors is a crucial ingredient for the successful completion of a project. The attributes of this factor can be mainly divided into two categories: one is related to client, another is the project team. For the first group, it includes client's experience and ability, nature of client, size of client organization, client's emphasis on cost, time and quality, and client contribution to the project. For the second group, it includes project team leaders' experience and skills, project team leaders' commitment on time, cost and quality, project team leaders' involvement, project team leaders' adaptability and working relationship, and the last one is support of the project team leaders' parent companies (Axson, 2013).

2.1.8 Global and practical problems in housing construction projects

Projects are needed to be completed within the time frame, budgeted cost and required quality. However, unfortunately many projects take longer time to complete, cost more than necessary and some projects are cancelled because of various factors directly or indirectly related with it. Project failures have significant effect from economic as well as political points of view. If the project takes longer time it requires additional resources, and budgets and this increases labor, material, machinery and equipment cost. This affects the budget of other projects and in general, it affects the economy of the country. Similarly, due to delay in project implementation the people and the economy have to wait for the provision of public services facility longer than necessary. Thus failure of project limits the growth of the economy because the outputs provided by the housing projects serve as input for many other sectors of the economy (www.getformsonline.com, 27/12/2016).

Project delay can be defined as an incident that causes extended time to complete all or part of a particular projects. Delay can also be defined as the time overrun, either ahead of the date for project completion specified by the contract or further than the extended contract period where an addition of time has been granted. The project delay in the construction industry is a universal or large-scale observable fact affecting not only the construction industry but the overall economy of a country as well (ibid).

Today, development is increasingly seen as an issue of managing change. This notion replaces older idea of development as the transfer of knowledge of advanced technology. However, in straightforwardly addressing change technical cooperation projects have become much more complex. In fact, coping with complexity has become the main challenge to projects. Management is the key to mastering complexity. However, classical project management approaches are often of little help for the management of institutional change. Many technical cooperation project advisors already employ elements of a systemic management approach, but often in contravention of established procedures and on an adhoc basis. There is a growing disparity between project methods as hitherto standardized and prescribed in procedures and handbooks, and the reality of current project implementation there is a necessity to streamline and formalize the principles of project management as applied to organizational change. This will make them more useful and become a means of increasing the effectiveness of current project management. It must be remembered that project management is first and foremost a philosophy of management, not an elaborate set of tools and techniques. It will only be as effective as the people who use it (Hass, 2009).

When goals are not clearly identified; the whole project and team can suffer. When upper management cannot agree to undefined goals, the project in question typically has little chance of succeeding. The project manager must ask the right questions to establish and communicate clear goals from the outset. Scope Changes occurs when project management allows the project's scope to extend beyond its original objectives. Clients and supervisors may ask for changes to a project, and it takes a strong project manager to evaluate each request and decide how and if to implement it, while communicating the effects on budget and deadlines to all stakeholders. Project can shine when each member of the team takes responsibility for his or her role in achieving project success. Conversely, a lack of accountability can bring a project to a complete

halt. Finger pointing and avoiding blame are unproductive, but all too common features of flawed project management. Learning to direct teams toward a common goal is an important aspect of project management training (Ibid).

Contractor performance has a direct impact on project performance for instance poor contractors' performance can lead to poor project performance. From the strength, weakness, opportunity and threat (SWOT) analysis made by many researchers' low productivity, little interest in education and training among small construction companies. The other factor that negatively affects contractor performance is that contractors are non-customer oriented and focused, service and quality seems to be ignored. Further added factors that negatively affect contractor performance in terms of quality for instance workers' skills, out of sequence work, late information, emphasis on production, project duration, poor specification, design change, employer change, bad weather, and late information and procurement system (Basheka and Tumutugyereize, 2012).

Due to the above constraints, it is difficult for the contractor to deliver quality production; which then affects the construction sector as a whole. These attract international organizations to develop improvement program, as the construction sector is important to economic development since it comprises a wide variety of activities, products and actors. Contractors are very important to development program to overcome poor workman ship and maximize development impact on projects in poor communities. Thus, development programs have to consider management options that encourage development, institutional roles that ensure coordination and project success and project options that match the project with development objectives (ibid).

The role of the consultant on a construction project is often not fully understood by the other parties involved on the project, including the consultant's client, the owner. Consequently, the consultant may find itself underutilized. There are also instances where the consultant itself is not fully aware of its duties and obligations to the owner and others, thereby exposing itself to potential liability claims. During construction, the role of a consultant is to administer the contract as described in the contract documents. However, the contract documents do not reference the agreement between the owner and consultant which outlines the professional services to be provided to the project. As noted above, the impact of the services provided by the consultant can be significant. The contractor should make themselves aware of the arrangement

in place between the owner and the consultant and understand the scope of that arrangement at the outset of the project. With increased awareness and understanding, all parties can benefit from the advantages of having a consultant involved in the construction process. With a clearer understanding of its obligations, the consultant can better carry out their obligations to the owner and others (Addo, 2015).

2.1.9 The problems of urbanization and housing in Ethiopia

Since 2004, the Ethiopian government has been rolling out a national housing project to solve the country's urban housing challenge. While the project has made some gains, there remains a housing deficit, especially in urban areas. Ethiopia has one of the lowest proportions of citizens living in urban areas: only 16.7 percent. However, things are changing and the country is now urbanizing at an annual growth rate of 3.49 percent. The combination of high population and urban growth rates, coupled with a high prevalence of urban poverty, has placed enormous strain on Ethiopian cities, especially when it comes to adequate and affordable housing. Almost 50 percent of city slum dwellers live below the poverty line and their hardships are enormous (Mekonnen 2015).

Nationally, 80 percent of the population lives in sub-standard slum housing that needs either complete replacement or significant upgrading. In Addis, slum dwellers live in congested houses that have no access to roads, sanitation and basic infrastructure. Though many slums areas are slowly disappearing in Addis, there are still many of them concentrated in the inner city areas. The housing challenge remains large. The current housing deficit is between 900,000 and 1,000,000 units in urban areas, and only 30 percent of the current housing stock is in fair condition, with the remaining 70 percent in need of total replacement. In Addis Ababa alone, 300,000 housing units are required to meet the deficit. A lack of well-established urban development indicators have also been one of the major constraints in decision-making, policy formulation and planning process at all levels of the country's metropolitan areas (Abera, 2015).

Affordable housing plan, since the launch of the affordable housing project in 2004, most of the country's urban areas have been in a state of fundamental transformation in terms of physical, socio-economic and spatial aspects and most of them now boast a housing project. The program is a large scale approach to address the current housing deficit, the poor quality of the existing housing stock, and the future housing needs due to continued urbanization. The government has

been building condominium houses as part of its Integrated Housing Development Program. Typically, these houses are four story buildings with basic features inside. They are built both in the center of cities or in peripheral areas at low cost. The houses, not fancy structures, are made of concrete and steel and have common laundry and slaughter areas. 2,948 condominium houses are being built at five sites in the current fiscal year in the Sengatera, Crown, EhilNigid, Asko and Tourist Nigid areas and 25 contractors and consultants are working to finalize the condominium houses (Yohannes, 2015).

According to the EHDA (2015), in all regions, condos have been transferred to their owners by way of a computer based lottery system. When registering for the lottery, applicants choose which condominium site, sub city and unit type they prefer. Thirty percent of housing units are allocated to women. There are no special provisions for the elderly or disabled, although if their names are drawn in the lottery they have first choice in choosing a ground floor condominium. Presently, there is no income verification system in place but lottery entrants must be able to prove that they have lived in Addis for at least six months. Up to January 2014, over 800 million dollars was earmarked for the housing projects in cities across Ethiopia. Some 22,000 condos were handed over to beneficiaries in 2014 alone, and the government expects to transfer 76,000 houses to individuals this year. The construction of 65,000 houses commenced in 2013 and construction of the same number of houses will begin this year.

According to the MUWD (2013), Addis Ababa has received priority due to the high demand for housing. Close to one million individuals that seek condos have been registered since 2012 in Addis Ababa only, and in the last few years, the city administration has completed thousands of condos in the central part of town, although most of the big condo compounds have been built on the outskirts. Since housing demand remains high, the city administration aims to build more homes in the capital. However, the housing shortage continues to be a major problem for city residents.

Sintayehu Bushe, a resident of the Yeka Sub-City in Addis Ababa, said he has been waiting for the government's houses for the past six years now. "I don't think enough houses are being built. I know lots of other people who are waiting for close to ten years now," he said adding that he can no longer afford to pay for the house he is renting for 1,500 birr (close to 75 USD).The city's

current housing project has a goal of constructing 400,000 condominium units between 2010 and 2015. Although the program has not met its original targets it has built 171,000 housing units to date. This has increased the number of homeowners, who would not have owned a home in their lifetime, and benefited the housing market by increasing the supply of owner occupied housing and rental units. This is an achievement, considering the previously limited capacity of the Ethiopian housing sector. There are, however, a number of unanticipated challenges facing the program. The most challenge is the affordability of the units for low-income households, with the cost increases in the price of condominium houses deeming them no longer an option for many low- income household, (Mekonen, 2015).

The program aims to produce low-*cost* but not low *quality* housing. Nonetheless, there are concerns over the quality of the built environment, in particular the quality of construction finishes and infrastructure. For example, there have been reports of burst sewerage pipes that leaked through all floors and wide spread cracking of wall plaster. The expected life span of the units is 100 years, although local professionals and residents doubt the validity of these predictions. Construction quality is affected by micro and small enterprises seeking to make additional profit by using cheaper substandard fixtures, such as doors and door handles, as well as the low levels of construction skills and capacity, which is somewhat understandable considering the vast numbers of recently employed inexperienced contractors and builders necessary for projects of this scale. Following quality issues with early condominium projects, consultants have been hired to carry out quality supervision and monitoring. Quality checks on building materials have been implemented alongside monitoring of structural frame quality, crucially important in the earthquake-zoned city of Addis Ababa (UN-Habitat, 2011, p.42-43).

Alongside construction quality, construction delays are a major issue facing the program. The productivity of the construction phase has not been as efficient as planned during the program's implementation thus far due to gross material shortages, a lack of adequate infrastructure, and poor construction management delaying completion by as much as a year on some sites. Approximately 50 per cent of condominium sites are behind schedule because of delays in the building of Infrastructure. The solution to this problem is to start the construction of infrastructure prior to, or alongside, the housing units so as to avoid the delays that cause the

entire development to hold up. The most significant material inefficiency has been in the quantity of cement over the past two years. The government has commissioned the building of multiple cement factories across the country to lessen the burden on the existing three, to reduce their imports of up to one million tons of cement and iron bars from as far away as Turkey and the Ukraine, and deal with the surging demand of materials for condominium projects (ibid).

To improve construction efficiency and reduce costs, the government is currently investigating alternative building technologies and systems. They are concentrating their efforts on increasing the use of local construction techniques and materials, and promoting private investment in the national production of cement, glass, and iron. Research is currently being conducted on alternative materials; in particular, on the greatest challenge that of finding an alternative material to cement, for the partition walls of the buildings, to avoid the delays it currently causes and to reduce costs. One of the other major challenges facing the project concerns post occupation management and monitoring, which have received very little attention to date. The program has no systems in place for post occupancy engagement on issues such as community cohesion, maintenance of communal areas, and the establishment of community groups and community based management of facilities (UN-Habitat, 2011, p.43).

2.2 Empirical Literature Review

2.2.1 The Housing constraints in developing countries

Every day, as people migrate to cities and new households are created, the demand for housing grows. The urban population has increased more than five-fold since 1950, from 746 million to 3.9 billion in 2014. This growth has greatly elevated the demand for adequate, safe, and accessible housing. In addition to the existing 980 million urban households in 2010, 600 million more are estimated to require housing in cities between 2010 and 2030. Responding to the existing housing deficit, while planning for anticipated future housing needs especially in areas experiencing high urban growth forms the crux of the housing policy challenge. Effective response to this challenge will yield benefits beyond the housing sector itself, as housing not only drives urban development, urban form and density, but is also a key sector for generating employment and economic growth (UN-Habitat, 2015c, p.4).

The world's urban population has soared from 2.6 billion (45 per cent of the whole) in 1995 to 3.9 billion (54 per cent) in 2014. With urban populations expanding at unprecedented rates since 1996, it is perhaps unsurprising that many cities are falling short in housing supply. UN-Habitat's estimates show that there are 881 million people currently living in slums in developing country cities compared to 792 million in the year 2000 and all the while the enabling approach has been in force. By 2025, it is likely that another 1.6 billion to enable access to housing for all urban residents will require adequate, affordable housing. This should come as a wake-up call to governments, urging them to act determinedly (UN-Habitat, 2016, p.51).

Given that housing has slipped from the development agenda since 1996, housing shortfalls represent a challenge that is hard to measure. In 2010, as many as 980 million urban households lacked decent housing. Another estimate shows that one billion new homes are needed worldwide by 2025, costing an estimated US$650 billion per year, or US$9-11 trillion overall. In addition, shortages in quality are much larger than those in quantity; in Latin America, 61 and 39 per cent respectively. This suggests that long-term international vision and commitment are overdue to turn housing into an integral part of planned urbanization (UN-Habitat, 2016, p.52).

Globally, a billion new houses are needed by 2025 to accommodate 50 million new urban dwellers per year; costs are estimated at USD 9 to USD 11 trillion by 2025. Funding for large scale affordable housing and for expanding housing finance options for the urban poor has remained limited. While private sector investment in housing has increased, significant challenges deter higher investment in pro-poor, affordable housing. Some studies suggest that the affordable housing gap now stands at $650 billion a year and is expected to grow.liv Applying the UN Millennium Project Task Force on Improving the Lives of Slum Dwellers estimations of the cost of neighborhood upgrading per beneficiary, it would cost approximately $6.3 billion each year from 2016-2036 to improve the lives of 20% of residents (176 million) who live in slums (the global slum population is 880 million). The total amount would equal $111 billion. Based on the assumptions provided by the Task Force, donors would need to provide approximately $39.1 billion to achieve these goals by 2036. Governments of developing countries would need to cover $60.5 billion and residents of slums themselves would cover the remaining $11.2 billion (UN-Habitat, 2015c, p.15).

Yet local and national government budgetary commitment are critical to a scaled-up effort at working with the urban poor to improve lives today and providing alternatives for the future. In countries in which governments have built housing for low-income households, it has had to be subsidized to significant levels. In most developing countries, subsidies appear to benefit very few households compared with the need and have a built-in bias against poor households as they usually require a minimum income threshold of affordability or proof of formal employment (ibid).

According to Un-Habitat (2013), around 33% of the urban population in the developing world in 2012, or about 863 million people, lived in slums. The proportion of urban population living in slums was highest in Sub-Saharan Africa (61.7%), followed by South Asia (35%), Southeast Asia (31%), East Asia (28.2%), West Asia (24.6%), Oceania (24.1%), Latin America and the Caribbean (23.5%), and North Africa (13.3%). Among individual countries, the proportion of urban residents living in slum areas in 2009 was highest in the Central African Republic (95.9%).

The formation of slums is closely linked to urbanization. In 2008, more than 50% of the world's population lived in urban areas. In China, for example, it is estimated that the population living in urban areas will increase by 10% within a decade according to its current rates of urbanization. The UN-Habitat (2008), reports that 43% of urban population in developing countries and 78% of those in the least developed countries are slum dwellers. Some scholars suggest that urbanization creates slums because local governments are unable to manage urbanization, and migrant workers without an affordable place to live in, dwell in slums. Rapid urbanization drives economic growth and causes people to seek working and investment opportunities in urban areas. However, as evidenced by poor urban infrastructure and insufficient housing, the local governments sometimes are unable to manage this transition. This incapacity can be attributed to insufficient funds and inexperience to handle and organize problems brought by migration and urbanization (UN-Habitat 2008).

In many cities, the informal sector accounts for as much as 60 percent of employment of the urban population. For example, in Benin, slum dwellers comprise 75 percent of informal sector workers, while in Burkina Faso, the Central African Republic, Chad and Ethiopia, they make up 90per cent of the informal labor force. Slums thus create an informal alternate economic

ecosystem that demands low paid flexible workers, something impoverished residents of slums deliver. In other words, countries where starting, registering and running a formal business is difficult, tend to encourage informal businesses and slums. Without a sustainable formal economy that raise incomes and create opportunities, squalid slums are likely to continue. Urban poverty encourages the formation and demand for slums. With rapid shift from rural to urban life, poverty migrates to urban areas. The urban poor arrives with hope, and very little of anything else. He or she typically has no access to shelter**,** basic urban services and social amenities. Slums are often the only option for the urban poor (UN-HABTAT, 2010).

Problems of housing exist in many countries and have become a global phenomenon. There were nearly one billion people settling improper housing settlements in most cities of Latin America, Asia, and Africa, and a smaller number in the cities of Europe and North America. In 2012, about 863 million people in the developing world lived in slums. Of these, the urban slum population at mid-year was around 213 million in Sub-Saharan Africa, 207 million in East Asia, 201 million in South Asia, 113 million in Latin America and Caribbean, 80 million in Southeast Asia, 36 million in West Asia, and 13 million in North Africa. Among individual countries, the proportion of urban residents living in slum areas in 2009 was highest in the Central African Republic (95.9%), Chad (89.3%), Niger (81.7%), and Mozambique (80.5%). These are sometimes called slum cities (UN-Habitat, 2012).

Ethiopia is one of the poorest countries in the world. It is ranked 169th out of 175 countries in the United Nations Development Program Human Development Index. Among other indicators demonstrating the massive developmental challenges facing Ethiopia, primary school enrolment is remarkably low at only 46 per cent, infant mortality is high at nearly ten per cent (98 child deaths per thousand), 53 per cent of the population is illiterate, and 40 per cent of the population lives below the poverty line. National unemployment is high at16.7 per cent, although in the capital city of Addis Ababa it is even higher at 32 per cent. With a population of 79 million, Ethiopia is the second most populous country in Africa. It is growing rapidly; the annual growth rate is 2.6 per cent, equating to two million births per year. Despite having one of the lowest proportions of urban population in the world at only 16.7 per cent, Ethiopia is rapidly urbanizing at a high annual growth rate of 3.49 per cent. In the space of seventeen years the urban

population more than doubled from 6.4 in 1990 to 13.8 million in 2007. The population is very young with 45 per cent under 15 years of age (UN-Habitat, 2011, p.1).

The combination of high population and urban growth rates coupled with a high prevalence of urban poverty have placed enormous strain on Ethiopian cites. 80 per cent of the population lives in sub-standard slum housing that needs either complete replacement or significant upgrading. Ethiopian cities suffer from a high degree of homelessness, environmental degradation, urban decay, a shortage of infrastructure and basic services, and high unemployment. These factors combine to produce the critical urban issue addressed in this publication: the lack of affordable, healthy housing for all sectors of the population (ibid)

According to the 2007 Population and Housing Census by CSA, in Ethiopia there are 15,103,134 housing units most of which, 12,206,116 units, are found in the rural areas and the 2,897,018 13 units are found in the towns of the country. Most of the housing units found in the towns, 836,074 units, are in the Oromia region. Out of the housing units found in the country, about 81.5 percent are owner occupied and around 9 percent of the units are rented from private households. In the urban areas, the owner occupied housing units' account for about 39 percent and about 40 percent of the urban housing units are rented from private households. In Ethiopia, the average number of households per a housing unit is 1.044 and the average number of rooms per a housing unit is 1.8 (CSA, 2008).

2.2.2 The housing problem in Addis Ababa

Addis Ababa, the capital city, is relatively young having been established only one hundred and twenty years ago. It is located in the state of Oromiya and has a population of approximately 3.4 million, ten times larger than the second largest city in the country, Dire Dawa. In the past ten years Addis Ababa has risen from a city of self-built single-storey homes, to a city of skyscrapers. This growth is set to continue as in the coming 15 years the population is projected to grow by 3.8 per cent per year (UN-Habitat, 2011, p.2).

The major problem facing Addis Ababa is housing shortage and standard. The study of integrated housing development program (IHDP) undertaken in 2006 indicated that the housing deficit in the urban area of the country is 900,000 out of which 450,000 is the share of Addis Ababa. Similarly 50% of the urban housing stock is in poor or irreparable condition. The number of

households of urban area at national level is 3,009,285 and households in Addis Ababa are 651,970. The average national house hold size in the urban area is 3.9 while the Addis Ababa house hold size is 4.1 and persons per housing unit are 5.5 with an average floor area per person is about $12m^2$,(CSA 2007).

Housing which constitutes a living space with physical structure and basic infrastructure facilities is not only one of the basic necessities but also a right for human beings to survive. The housing situation of Addis Ababa in spite indicates that housing shortage, poor quality of housing and poor living and working environment have remained as a critical problem of the majority of the population for more than 30 years. Measures taken to alleviate the problem by public and private sectors could not bring about a solution especially from the need of the poor. The city administration had difficulties to supply standard housing, in quantity as well as in quality terms, and basic services. Scarcity of financial resource is the main factor for its inefficient performance in the sector. Housing construction by the private sector was also unsatisfactory for the reason that the construction cost of the units is unreachable to the low income group of the city (Azeb, 2007). Generally, based on the above theoretical and empirical literature review knowledge, the researcher of this paper will study depends on the general objectives that means the challenges of condominium housing projects in Addis Ababa with reference to the selected sub cities and organizations.

CHAPTER THREE:

RESEARCH DESIGN AND METHODOLOGY

3.1 Research design (procedure)

Research design as a master plan specifying the methods and procedures for collection and analyzing the needed information. *A* research design is simply the framework or plan for a study that is used as a guide in collecting and analyzing the data. It is a blueprint that is followed in completing a study. Research design is the blue print for collection measurement and analysis of data. Actually it is a map that is usually developed to guide the research (Gibaldi, 2009).

This thesis used mixed research design to answer the research questions. Mixed methods research is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone (Ibid).

Therefore, the researcher employed both qualitative and quantitative primary data survey design for the thesis that is realized through questionnaires, interviews, and secondary data is also used from published and unpublished documents. This helped to assess the major factors that affecting condominium housing projects on process (from the initiation up to closing of the project).

By purpose, this study relatively fits into the descriptive study design. Descriptive research provides an accurate account of characteristics of a particular individual, event or a group in real-life situations (Saunders and Lewis, 2007). Therefore, this study is descriptive statistical method of analyzes such as frequencies, percentages, averages, etc. are employed and the findings are described and presented in tabular format using Microsoft excel.

3.2 Study factors those affect projects

There are different criteria for assessing project performance. These are measured on the bases of time, cost and quality identified these three criteria as the 'Iron Triangle'. Apart from these basic criteria project success should also include customer satisfaction, project psychosocial outcomes, and the satisfaction of interpersonal relations with project team members. These include meeting budget, schedule, and quality of workmanship, client and project manager's satisfaction, transfer of technology, friendliness of environment, health and safety (Tekalign, 2014, p.27).

There are many factors that affect the efficiency and effectiveness of the projects of condominium housing in Addis Ababa. These are shown in the review of literature in this research. These include, the project sponsor, project manager, contractor, consultant, consents managers, Architect, costing/quantity surveyor, engineer ,communication system, procurement and tendering method, financial system, developing an appropriate organizational structure, motivation, skills of the project manager and leader, training and development, shortage and rising of materials, frequently changing designs and specifications by owner or his agent are some of the major factors that affect the projects of condominium housing in the study area.

3.3 Target Population and sample

3.3.1 Population of the study

The research area of the study was Bole and Akaky kaliti sub cities housing project offices and their project sites, were better to this research because there were many projects run under this office at that time than the inner sub cities of Addis Ababa. Therefore, all of the two sub cities active condominium housing projects were covered by the researcher of this thesis. The other key important issue of this study was population of this research which was found under the geographical area of the study. Definitely the population for this study was the project parties (stakeholders) who were working in the projects; these were the engineering and social science experts and officers, the Addis Ababa Housing Project Office and Integrated Housing Development Program, the contractors and consultants, the huge number of temporary workers, the direct beneficiaries from the project, the indirect supporters such as, the Ethiopian Electric Corporation, Commercial Bank, Road Authority, Land Administration, the indirect facilitators in the office. But the question was which population was more relevant to respond the researcher's

questionnaires and interviews in terms of having adequate experience, knowledge, willingness and awareness to get better data, so the contractors, consultants, foremen, expertise, managers etc. of the direct participants of the project sites and the most important supporters of officials, experts and officers of the Addis Ababa housing project office were relatively good against the factors that are affecting the projects positively or negatively, but some people who have less information in different cases were not included in this population target.

Table 1: Size of populations that have information and experience to the research study

target population	group of specific profession of the respondents								Total size of population
	engineers	purchasing	Finance	Supply mgt.	Budgeting	Human resource	researches	Communic ation	
Bole sub city project offices	40	12	17	9	4	5	4	3	94
AkakyKaliti project offices	38	15	18	10	5	4	3	4	97
Addis Ababa housing project office	29	13	15	7	4	6	6	7	87
Total	108	40	50	26	13	15	13	14	278

Source: AAHPO, March 2017

3.3.2 Sampling

To investigate the projects of housing in Addis Ababa in the selected research area it needed some basic understanding and experience about the current issues of condominium housing, but there were problems to use organized or grouped homogeneous targeted population in order to gather the required information. Then the better alternative way was purposively selected the more profession, experienced, knowledgeable, responsible and volunteer people related to the issue to respond for the questionnaires and interviews. Therefore, Akaky Kaliti sub city, Bole sub city and Addis Ababa housing project offices' employees were more appropriate to answer the questionnaires and interviews, and more than half the population was used as a sample because the purposively selected population was less in number, so the questionnaires were distributed for 176 people and the interview questions at least for 10 officials' were prepared.

Table 2: Size of sampling that has relevant information and experience to the research study

Sampling	group of specific profession of the respondents								Total size of sampling
	engineers	purchasing	Finance	Supply mgt.	Budgeting	Human resource	researches	Communic ation	
Bole sub city project offices	36	5	4	3	2	2	2	1	55
AkakyKaliti project offices	35	7	6	4	3	3	1	2	61
Addis Ababa housing project office	27	7	8	6	3	2	3	4	60
Total	98	19	18	13	8	7	6	7	176

Source: AAHPO, March 2017

3.4 Data sources and Data Collection Instruments

Regarding to the research design proposed above, both primary and secondary sources of data were preferred in this research to obtain the required data for conducting the research. The primary data both quantitative and qualitative are through questionnaires and interviews. Most of the information pertaining to the secondary data sources was obtained from published and unpublished documents, different researches, magazines, pamphlets, internets and information from Addis Ababa housing project office; central statistics agency etc. and the details were summarized as follows.

3.4.1 Semi structured questionnaires (in a quantitative and qualitative ways)

The questionnaires were organized in to three main sections. Section one basically looked at the personal information of the respondents which included educational level, types of job description and experience, etc. The second part of the questionnaire focused on obtained the information about factors that affect condominium housing projects during the project process through close ended questionnaire from the selected respondents. The third section of the questionnaire looked at getting information by the help of open ended questionnaires from the sample respondents of the population to more develop the closed ended questionnaires.

3.4.2 Key informant interviews

The researcher employed an important interview with the highest experienced members of the condominium housing project officials and those officials are taken from different department such as project managers, finance department, purchasing and supply management, administrative department, senior experts, contractors, consultant etc. And their number is 10 respondents.

3.4.3 Secondary data collection

Published and unpublished data sources related to the projects of condominium housing (20/80) in Addis Ababa were utilized in order to support and make sense the efforts of primary data collected from questionnaires and interviews. These data were collected from central statistics agency, Addis Ababa housing project office, integrated housing development program, internet etc.

3.5 Method of data analysis and interpretation

To analyze the data collected from primary and secondary sources using various methods, descriptive statistical method of analyzes such as frequencies, percentages, averages, etc. were employed and the findings were described and presented in tabular format. Finally, the finding of the research would be interpreted and would be used to draw conclusions and recommendations.

3.6 Ethical consideration

Research involves human participant's raises unique and complex ethical, legal, social and political issues. Research ethics is specifically interested in the analysis of ethical issues that are raised when people are involved as participants in research. The first objective is to protect human participants. The second purpose is to ensure that research is conducted in a way that serves interests of individuals, groups and society as a whole. Finally, the third objective is to examine specific research activities and projects for their ethical soundness, looking at issues such as the risk, protection of confidentiality and the process of informed consent (Saunders and Lewis, 2007). Therefore, participants' privacy, confidentiality awareness and anonymity have been guaranteed.

CHAPER FOUR:

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents, data presentation, analysis and findings from based on different data sources regarding the assessment of condominium housing projects in Addis Ababa. The data was mainly collected from the questionnaires and interviews which were distributed to Bole Sub city Project office, Akaky Kaliti Sub city Project office and Addis Ababa housing Project office. A total of 176 questionnaires were given while 160 respondents were filled and returned which accounts to 90.9 percent. In addition to the questionnaires, there were interviews conducted with ten management of client, consultant and contractor project office and all of them were filled the interviews. Furthermore, secondary data were collected from Addis Ababa housing project office and the study area of project sites. The reason why the researcher used different data sources was to increase the reliability and validity of data. This in turn enhances the quality of the research findings up which the conclusion can be drawn /made.

The data analysis is grouped in to four major sections; these are personal information of the respondents, some secondary data related to the study, detail analysis regard to the questionnaire and interviews in a combined manner and finally summary of the findings, because the content of the questionnaires, interviews and secondary data have the same objectives regarding to the research study. Finally, the data are summarized and presented in tables, frequencies and percentages in the whole process of this section.

4.2. Characteristics of respondents

The purpose of the personal information of the respondents is to indicate their general background with regard to respondents' location, organization type, education level, job experience, and their professions are engineering and social science related to the project activities to understand about the sample population, whether they have relevant contribution to the study or not.

Table3: Distribution of respondents by their Location ,organization type , education level, job experience, and their professions			
No	**Item**	**No of respondents**	**Percentage**
1	Respondents Location		
	Bole Sub city Project office	50	31.3
	AkakyKaliti Sub city Project office	49	30.6
	Addis Ababa housing Project office	61	38.1
	Total	**160**	**100**
2	Organization Type		
	Owner (Government)	106	66.25
	Consultant	29	18.13
	Contractor	25	15.63
	Total	**160**	**100**
3	Level of Education		
	Secondary School	0	0
	Diploma and Certificate	18	11.3
	First degree and above	142	88.7
	Total	**160**	**100**
4	**Job experience**		
	0-2Year	29	18.1
	3-5 Year	31	19.4
	6 Year and above	100	62.5
	Total	**160**	**100**

Source: Author computation, April 2017

As it is shown in the above table 3, item 1, about 31.1 percent of the respondents are Bole Sub city Project office, 30.6 percent are Akaky Kaliti Sub city Project office and the remaining 38.1 percent are Addis Ababa housing Project office. Then the researcher assumed that they are better to get integrated and balanced data to the research work, since there is appropriate distribution of respondents among the three project offices regarding the size of their population.

Table 3, item 2 shows that, 66.25 percent are government employees in the project office, 18.13 percent consultants, and 15.63 percent represented contractors. This data indicates that more clients of respondents are participated in the research questionnaires than the consultants and contractors because the government's respondents are large in number and they are available in the project office regularly.

The above table 3, item 3, regarding educational level of employees, these are 0% secondary school, 11.3 percent diploma and certificate, and finally 88.7 percent of the respondents are first degree and above. This table clarifies that since they have a better background of education the majority of the employees are in a good position to easily communicate and understand the contents of the questionnaires and their objectives.

As shown in the above table 3, item 4, the job experience of the respondents out of 160 respondents, 0-2 years 18.1 percent, 3-5 years 19.4 percent and the rest who have job experience 6 years and above 62.5 percent. As can be understand from this data since most of the employees have more than three years' job experience, there are assumed to respond to the questionnaires properly.

Generally, the respondents are more relevant in terms of the research title or the assessment of challenges of condominium housing projects in Addis Ababa: The case of Bole and AkakyKaliti sub cities project office.

4.3 Analysis based on secondary data sources

The secondary data related to the research thesis are taken from the selected sub cities especially from the specific separate four project site offices to support the relevant of data that we are taken from the questionnaires and interviews. This data is also directly taken from each consultant's office of the project site and it shows the performance of the project in terms of the contract time from the beginning up to the ending of the projects.

Table 4: Performance of condominium housing project in Bole Sub City, Site Bole Arabsa one				
Number of contractors 30				
No	**Activities**	**G+4**	**G+7**	**Total**
1	Total number of blocks	27	56	83
2	Total number of active blocks	17	52	69
3	Contract time	540days	720days	
4	Revised contract time	0	0	
5	Completion date	13-Jun-15	13-Jun-15	
6	Revised completion date	0	0	
7	Elapsed time to date	625days	625days	
8	Accomplished to date (%)	31.52	27.75	30

Source: Belese Consulting, March 15, 2017

From the above table 4, item 1 there are 83 total numbers of blocks but 69 blocks are active in the project sites while 14 blocks are not active utile Feb 30, 2017. In the same table row 3 there is contract time for G+4 about 540 days and for G+7 was 720 working days to complete the projects while the elapsed time to date 625 for G+4 and G+7 of the blocks that means G+4 is used extra time 85 days and G+7 remains 95 days to complete the contract time. The important data in this table, row 8 is about the blocks accomplished to date from June 13, 2015_Feb 30, 2017 G+4 accomplished 31.52 percent and G+7 accomplished to date 27.75 percent, generally on average for block G+4 and G+7 accomplished to date about 30 percent.

Now we are talking only about the active 69 blocks not for the remaining 14 blocks those did not start their activity. Therefore, if the active 69 blocks are taken almost 2 years for the performance of accomplished to date with an average of 30 percent, therefore, it needs another extra 2years to complete the remaining of 70 percent of the work of the project. The implication for G+4 shows that the contract time was 540 work days this is already passed and it uses extra time about 85 days but the accomplished to date is 31.52 percent. This is very poor performance and it needs time more than it is consumed to complete the remaining activities. The same thing G+7 is also poor performance though it has remaining a few days to complete the contract time.

Table 5: Performance of condominium housing project in Bole Sub City Site-Bole Arabsa two				
Number of contractors 32				
No	**Activities**	**G+4**	**G+7**	**Total**
1	Total number of blocks	8	72	80
2	Total number of active blocks			
3	Contract time	540 days	720 days	
4	Revised contract time	720 days	0	
5	Completion date	January20-2016	January25-2017	
6	Revised completion date	July25-2017		
7	Elapsed time to date	767 Cal day	767 Cal day	767 Cal day
8	Accomplished to date (%)	31.29	34.81	33.05

Source: Image Consultancy PLC March 15/2017

In table 5, in the first row total number of blocks 8 and 72 for G+4 and G+7 respectively. The contract time for G+4 is 540 days and for G+7 are 720 days. The revised contract time for G+4 is 720 days (extra 180 days) but the revised contract time for G+7 does not clearly put as G+4.The commencement date January 20, 2016 and January 25, 2017 for G+4 and G+7 respectively. In row 6 there is revised completion date for the second time up to July 25, 2017 but for G+7 the revised contract time does not get decision until Feb30, 2017 formally. Total elapsed to date based on row 7; about 767 days are passed for each G+4 and G+7 blocks. Finally, the performance accomplished to date for G+4 project site is 31.29 percent and 34 .81 percent for G+7 or an average accomplished to date 33 percent for G+4 and G+7 blocks.

The point is about the delay of the projects, for example, the first proposed plan to complete G+4 was 1year and 6 months but the blocks takes 2 years with performance accomplished to date 31.29 percent and G+7 plan to complete was 2years but it consumes more 2 years with performance accomplished to date 34.81 percent. So no one can sure the blocks of the project sites to finish with in another extra 2 years because the variation of the plan and actual performance of the project to complete the blocks are frequently shown big differences.

Table 6: Performance of condominium housing project in Akakykality Sub City Site-Koye Feche one				
Number of contractors 62				
No	**Activities**	**G+4**	**G+7**	Communal
1	Total number of blocks	156	15	
2	Total number of active blocks			
3	Contract time	540 days	720 days	
4	Revised contract time	Feb-1-2014	June-05-2014	
5	Commencement date			
6	Completion date			
7	Revised completion date	Jul-26-2015	Aprl-25-2016	
8	Elapsed time to date	782 days	658 days	
9	Accomplished to date (%)	76.9	59.07	68

Source: Perfect Architects and Engineering 18-03-2017

In the table above there are 156 blocks in G+4 and 15 blocks in G +7. The contract time was 540 and 720 days for G+4 and G+7 respectively. The commencement date was Feb 1,2014 for G+4 and June 05, 2014 for G+7. Completion date was 1 year and 6 months to G+4 and 2 years for G+7.when we see row 8 in the same table the blocks of the project site consumed or elapsed time to date 782(242 extra days used) days for G+4 and 658(62 remaining days) days for G+7.But the performance accomplished to date G+4 about 76.96 percent and G+7 is 59.07 percent. From this data we can observe that even though the project plan is try to complete the blocks of the project sites with in 540 and 720 days for G+4 and G+7 respectively, but no one blocks of the project site finished successfully within the plan due to many delay factors of the project.

Table7: Performance of condominium housing project in Akakykality Sub City Site-Koye Feche two			
Number of contractors 50			
No	**Activities**	**G+4**	**G+7**
1	Total number of blocks	56	70
2	Total number of blocks under construction	55	69
	Bach One		
3	Contract time	540 days	720 days
4	Revised contract time	180 days	
5	Commencement date	24-Aug-14	24-Aug-14
6	Completion date	15-Feb-16	13-Aug-16
7	Revised completion date	30-Jun-17	30-Jun-17
8	Elapsed time to date	101	101
9	Number of blocks under construction Bach One	44	45
10	Accomplished to date for Bach One (%)	50.97	39.00
11	Accomplished to date (%) Average for Bach one	44.99	
	Bach Two		
12	Contract time	540 days	720days
13	Revised contract time		
14	Commencement date	20-Mar-15	20-Mar-15
15	Completion date	10-Sep-16	9-Mar-17
16	Revised completion date	30-Jun-17	30-Jun-17
17	Elapsed Time to date	101	101
18	Number of blocks under construction Bach two	11	24
19	Accomplished to date for Bach two (%)	29.68	38.05
20	Accomplished to date (%) average for Bach two	38.87	
21	Accomplished to date (%) average for Bach one and two	42.24	

Source: Nome Engineering (Consultancy) 18-03-2017

The number of blocks under construction of batch one are 44 for G+4 and 45 are for G+7. Batch one block of the project sites are started in 24 Aug, 2014 and the completion date was 15 Feb, 2016 for G+4 and 13Aug 2016 for G+7 but it extends the completion date to 30 June, 2017 for both types of blocks. Batch two numbers of blocks under construction are 11 and 24 for G+4 and G+7 respectively. The commencement time 20 march 2015 for both kinds of blocks up to the completion date Feb 10, 2016 for G+4 and march 9, 2017 for G+7 but both batch are not completed according to the stated time rather they extended (revised) to completion date to 30 June, 2017 for both G+4 and G+7 blocks because the accomplished to date for batch one 29.68 percent and batch two 38.05 percent. Generally, batch one and two accomplished to an average of 42.24 percent with an average of 3 years.

Table 8:Houses transferred to winners from 1-11th rounds

Round & E.C	Studio(10/90)	Studio(20/80)	One bed room	Two bed room	Three bed room	Total
1st,1998	0	4,118	5,677	6,548	2,645	**18,988**
2nd,1999	0	2,592	5,070	6,263	1,106	**15,031**
3rd,2001	0	2,695	3,679	3,626	735	**10,735**
4th,2002	0	2,797	6,755	4,108	1,372	**15,032**
5th,2002	0	3,088	4,719	2,028	934	**10,769**
6th,2003	0	1,255	4,467	2,747	1,531	**10,000**
7th,2004	0	2,952	3,594	433	321	**7,300**
8th,2005	0	1,326	4,665	2,952	1,155	**10,098**
9th,2005	0	2,570	4,423	2,330	934	**10,257**
10th,2007	960	6,734	15,670	7,309	4,327	**35,000**
11th,2008	23,016	2,449	6,262	3,316	2,489	**37,532**
Total	**23,976**	**32,576**	**64,981**	**41,660**	**17,549**	**180,742**

Source: AAHPO, March 2017

According to AAHPO (2017), the demand for condominium housing before 2012 was around one million, but the total houses delivered to the beneficiaries with in eleven years are only180, 742 houses. Here the data in table 8 shows that the number of condominium housing compared to the demand for housing is inadequate that means the demand for housing increasing at an increasing rate but the performance of condominium housing project does not show growth in quantity from time to time. For example, in the first round lottery in 1998 the total number of housing transferred to the beneficiaries were 18,988 but from the second round up to nine round the number of condominium housing does not indicate increasing at an increasing rate progress of condominium housing projects. There was only good increasing rate in tenth round and eleventh rounds by the number of 34,040 and 37,532 houses respectively. The other thing is that about the twelve rounds, according to AAHPO (2017), the twelve rounds are transferred to 2010 EC rather than in 2009 because there are problems in the performance of condominium housing projects.

Table 9: The price(cost) of condominium housing between 2012 and 2016						
Item	2012			2016		
	Down payment	Monthly payment	Total payment	Down payment	Monthly payment	Total payment
Studio	10,430.58	-	45,288.98	18,519	677	92,594
One bed room	18,117.88	-	82,202.67	35,105	1,292	175,525
Two bed room	36,032.97	-	168,233.64	65,984	2,728	329,469
Three bed room	43,789.01	-	205,479.32	95,364	3,957	476,821

Source: AAHPO, March 2016

Table 9 is used to know the cost of condominium housing whether it is increased from time to time in order to more clarity the cost of condominium housing by taking previous and current price of condominium housing. The cost of condominium housing increasing from time to time, for example, in 2012 the total price of studio was 45,288.99 birr, one bed room 82,202.67 birr, two bed room 168,233.64 birr and three bed room was 205,479.32 birr. But in 2016 the total price of studio is 92,594.00 birr, one bed room 175,525.00 birr, two bed room 329,469.00 birr and the three bed room is 476,821.00 birr for the same purpose. Look at the total price of condominium housing in 2016 for three bed room is 476,821 birr, but before four years ago in 2012 the price of three bed room was 205,479.32 birr and their variation is 271, 341.68 birr this is increased by 132 percent. The worst thing is about people with low income who have registered for studio, for example, in 2016 down payment for studio is 18,519 birr, but in 2012 down payment for studio was 10,430.58 birr and their difference is 8,088.42 birr and this also increased by 77.55 percent.

4.4 Detail analysis regard to the questionnaires and interviews

This analysis part specifically answers the research questions stated in section 1.3 of chapter one on page five as “Can government achieve the demand for condominium housing without any multiple alternatives? “And “What are the major factors that affecting condominium housing projects in the selected sub city of Addis Ababa? “to answer these questions the researcher of this thesis focus on the major variables that affects the construction of condominium housing projects such as critical failure factors related to the client, consultants, contractors, time and cost, and

quality through data collected of semi structured questionnaires and in-depth interviews to answer the research questions effectively

Table10: Critical failure factors related to client in the construction of housing

No	Major weakness factors related to owner (Client)		Scale					Total
			SA	A	UD	D	SD	
1	Inappropriate selection of competent consultants and reliable contractors to do the work of projects	F P	40 25	85 53.1	12 7.5	23 14.4	0 0	160 100
2	Absence of good methods and systems in purchasing ,finance and supply management	F P	38 23.8	80 50	17 10.6	24 15	1 0.6	160 100
3	Inadequate knowledge and experience in purchasing ,finance and supply management	F P	42 26.3	65 40.6	29 18.1	19 11.9	5 3.1	160 100
4	lack of motivation and training to employees	F P	55 34.4	63 39.4	18 11.3	21 13.1	3 1.9	160 100
5	The project is beyond the government capacity therefore participation of private sector is needed	F P	46 29	77 48	10 6	21 13	6 4	160 100
6	Unhealthy communication and insufficient coordination with contractors ,consultant and suppliers	F P	26 16.3	82 51.3	17 10.6	30 18.8	5 3.1	160 100
7	Slow speed in decision making for critical issues of the project	F P	47 29.4	87 54.4	13 8.1	10 6.3	3 1.9	160 100
8	Delay in approving design document and site preparation	F P	38 23.8	77 48.1	23 14.4	20 12.5	2 1.3	160 100
9	There are weakness in planning ,leading and controlling the project activities	F P	46 28.8	75 46.9	12 7.5	26 16.3	1 0.6	160 100
10	Too many change orders from owner	F P	23 14.4	54 33.8	48 30	32 20	3 1.9	160 100
11	Financial constraints faced by the owner	F P	44 27.5	67 41.9	20 12.5	26 16.3	3 1.9	160 100
12	Lack of leadership skills of project manager	F P	41 25.6	77 48.1	18 11.3	21 13.1	3 1.9	160 100
13	Lack of committed leadership of manager	F P	38 23.8	59 36.9	29 18.1	30 18.8	4 2.5	160 100
14	Poor information and communication technology are used in the project activities	F P	35 21.9	71 44.4	22 13.8	29 18.1	3 1.9	160 100
15	Insufficient learning from best experience of own and others	F P	29 18.1	75 46.9	26 16.3	24 15	6 3.8	160 100
16	Inappropriate project organizational structures	F P	31 19.4	71 44.4	26 16.3	28 17.5	4 2.5	160 100
17	Shortage of land to the project	F P	16 10	35 21.9	19 11.9	63 39.4	27 16.9	160 100
18	Shortage of foreign currency	F P	16 10	65 40.6	36 22.5	33 20.6	10 6.3	160 100

Source: Field work, April 2017

Note: SA-stands for strongly agree, A-stands for agree, UD-stands for undecided, D-stands for disagree and SD-stands for strongly disagree, lastly F-stands as frequency and P- for percentage.

The way to analysis the data is by grouping similar answers of the respondents' frequency and percentage such as strongly agree by adding to agree takes as an agreed with respect to the question, undecided takes as it is and finally disagree plus strongly disagree consider as disagreed to the individual question.

Table 10, row 1 states that about problem in selection of competent consultant and reliable contractor and the respondents said that 125(78.1) percent agreed with the idea, 12(7.5) percent they did not sure to decide, 23(14.4) percent disagreed. This data indicates that there is a problem concerned to the selection of consultants and contractors since an average of strongly agree and agree 78.1 percent of the respondents complained to this issue. Table 10, row 2 presents that 118(73.8) percent of the sample population agreed, 17(10.6) percent they did not sure what to answer about the question, 25(15.6) percent disagreed. In short, the existence of the problem supported by an average of 73.8 percent respondents even though some respondents opposed to this problem, so the problem is existed according to the respondent's response.

When we see table 10, row 3 about 107(66.9) percent agreed, 29(18.1) percent they did not sure to take position, and 24(15) percent disagreed. The point is that an average of 69.9 percent respondents answered that there is inadequate knowledge and experience in purchasing, finance and supply management, therefore, since most of the participants supported the case of the issue the problem is happened in the government activities of the project. According to table10, row 4, 118(73.8) percent of the respondents believed that lack of motivation and training to employees, 18(11.3) percent they did not have clear information about the issue and 24(15) percent disagreed. This shows that there is lack of motivation and training to the government employees because most of the respondents supported the proposed issue.

As we can see from table 10, row 5 the respondents replied that about 123(77) percent, the project is beyond the government capacity, 10(6) percent they did not have clear answer to agree or disagree with the issue and 27(17) percent disagreed. These data show that since many respondents are supported the question of "the project is beyond the government capacity", therefore participation of private sector (other alternative) is needed to solve the housing problem. When we look at table 10 row 6 about 108(67.6) percent of the sample population said that agree, 17(10.6) percent they did not decide what to say while 35 (21.9) percent disagreed to the governments communication and coordination with the project stockholders.

The major finding from this data is there is unhealthy communication and insufficient coordination with contractors, consultants and suppliers by the government since more than half of the respondents agreed with the existence of the problem. Table 10, row 7 show that 134(83.8) percent of respondents agreed that there is slow speed in decision making for critical issues of the project by the government, 13(8.1) percent did not decide about the question and 13(8.1) percent disagreed. From this data we can say that the problem is very critical since the highest number of respondents support the issue. Table 10, row 8 distribution of response under delay in approving design document and site preparation showed that 115(71.9) percent of the respondents agreed to the existence of the problem, 23(14.4) percent could not decide while 22(13.8) percent disagreed with the stated problem, so the problem is highly existed since a large number of respondents are supported the proposed issue. Table 10, row 9 reveals that about 121(75.6) percent of the respondents agreed with the governments weakness in planning, leading and controlling during the project life time, 12(7.5) percent they did not have information to agree or disagree whereas the remaining 27(16.9) percent disagreed. In this row a large number of respondents believed for the occurrence of the issues, so the problem was happened undoughtily based on the respondents' feedback.

From table 10, row10 we can say that 77(48.2) percent agreed with the problem said that too many change orders by the government during the project of condominium housing, 48 (30) percent did not agree or disagree whereas 34(21.9) percent did not agree with the idea raised by the researcher. Based on this information even though there are 48.2 percent of the respondents supported the issue but more than 50 percent of the respondents did not decide and disagree with the problem proposed by the researcher, therefore, the existence of the problem may not frequently have happened according to the respondents an average response. Regarding table 10, row 11 concerned about financial constraints of the government 101(69.4) percent agreed, 20(12.5) percent undecided while the remaining respondents 28(18.2) percent of them disagreed. So according to the respondent's response the government should not have reliable financial resource to run the project continuously. In table 10, row 12 about 118(73.7) percent of the sample population believed that there is lack of leadership skills of project managers in the project site of condominium housing, 18(11.3) percent of them they did not decide to the position of agreement or disagreement whereas 24(15) percent of them expressed their disagreement.

From this information we can say there is lack of leadership skills in the project sites or offices because a large number of the participants of the sample of the population gave their evidence. With respect to lack of committed leadership of project manager in the project of condominium housing in table 10, row 13, 97(60.7) percent of them agreed, 29(18.1) percent they did not have full information to decide and the rest 34(21.3) percent of the respondents disagreed with the issue. More or less lack of committed leadership presented in the project but it is not as high as the problem stated in row 12 about the problems of lack leadership skills of project managers in the project site of condominium housing. Depending on poor information and communication technology in the same table, row 14 about 106 (76.3) percent agreed, 22(13.8) percent undecided and 32(20) percent disagreed. This indicates there is poor information and communication since many of the sample population agreed with the stated problem.

In table 10, row 15 which says insufficient learning from best experience of own and others regarding to this 104(65) percent agreed, 26(16.3) percent did not have clear information to decide and the remaining 30(18.8) percent disagreed. The implication of this data inferred that there are obstacles to learn from best experience but it does not always, since there were some peoples with the position of undecided and disagreement. In the same table, row16, 108(63.8) percent of them argued that there is inappropriate project type organizational structures, 26(16.3) percent they did not sure to decide and 32 (20) percent disagreed. Based on the given information there is inappropriate project type of organizational structures though some respondents were in the position of undecided and disagreed.

In the issue of shortage of land in the project in table 10 row 17, 51(31.9) percent of the respondents agreed, 19(11.9) percent did not sure to decide while relatively large number of the respondents 90(56.3) percent of them disagreed. It is clear from the finding that shortage of land was not as a major bottle necks in the projects of construction of condominium housing even though there were some impacts. Finally, in the same table, row 18 concerning the shortage of foreign currency 81(50.6) percent of the respondents agreed, 36(22.5) percent undecided whereas 43(26.9) percent of the respondents disagreed. Concerning shortage of foreign currency half of the respondents believed that about the shortage of financial constraints whereas nearly half of them they did not supports. From this data we can say that there is relatively problem regarding the respondents' response.

According to the data obtained from interviews and open ended questionnaires (March, 2017), the major problem that is identified by most of respondents is that the government capacity is limited to provide house quantitatively and qualitatively because the demand for housing in Addis Ababa is very large in number and it shows an increasing rate from time to time. But some respondents said that there is risk on the quality and price of construction of condominium housing if there is given large space participation to domestic and foreign investors on the construction of condominium housing projects, so the government should work with the private sector in a coordinated and integrative situation rather than completely leaving to the private sector.

The other information obtained from the interview has more clear about the construction of materials in the project, for example, the total item of construction materials is above 500 if there are few materials are not delivered to the site, the activities of the project does not continue, because of this there is problem in the construction of condominium housing. In the project of condominium housing the headache and bottleneck issue is the purchasing system because the government purchasing system is very rigid and bureaucratic it has negative impact on the projects time and escalation of costs and also the project does not have get quantitative and qualitative materials with the specified time. Therefore, with this kind of inflexible purchasing system nobody can expect the projects achievement to their objectives on time, budget and quality.

Furthermore, according to the interview of respondents, lack of infrastructural provision is one of the reasons for the condominium housing project weakness and the project cannot move in the right speed. Since the infrastructure sectors are part of (stake holders) the project their inefficiency and ineffectiveness are reflected on the construction of condominium housing activities. Because, when we take supply of electric power, water and road there are very important variable in the project sites that means they are independent variables that determine the time, cost and quality of the condominium housing. As a result, poor supply of infrastructure is going to have huge impact on the accomplishment of the project program. Therefore, the concerned body should give attention to provide adequate infrastructural service to minimize the problem of condominium housing projects.

Finally, there is additional information to enforce this issue; Addis Ababa housing project office could not have delivered more than 175,000 houses to the registered residents within twelve years in the eleven rounds of lottery, but more than 800,000 people who have registered for condominium housing are still they have being waiting for governments houses until now, so if the procedures' of condominium housing project is not assessed it will take 55 years to provide only for these registered house seekers (Addis Zemen Newspaper,vol,No172, Feb 14 ,2017).

Table 11: Critical failure factors related to consultant in the project of housing

No	Critical failure related to consultant		Scale					Total
			SA	A	UD	D	SD	
1	Long waiting in changes of drawing and specification during projects	F P	36 22.5	80 50	26 16.3	16 10	2 1.3	160 100
2	Underestimation of deadlines ,complexities and costs for the project	F P	40 25	70 43.8	25 15.6	21 13.1	4 2.5	160 100
3	Lack of knowledge and experience in the organization's consultant	F P	27 16.9	62 38.8	28 17.5	40 25	3 1.9	160 100
4	Poor management and difficulty in controlling contractors	F P	36 22.5	87 54.4	15 9.4	18 11.3	4 2.5	160 100
5	unclear and mistakes in specifications and drawings during the construction	F P	26 16.3	69 43.1	34 21.3	28 17.5	3 1.9	160 100
6	Poor coordination and communication by the consultant with the stakeholders	F P	31 19.4	75 46.9	27 16.9	21 13.1	6 3.8	160 100
7	Slow response regarding to testing, inspection and progress payment to contractors	F P	26 16.3	74 46.3	32 20	23 14.4	5 3.1	160 100
8	Lack of commitment to ensure construction work according to specification and design	F P	24 15	81 50.6	24 15	27 16.9	4 2.5	160 100
9	Inadequate involvement to follow up and monitor the project progress	F P	24 15	88 55	25 15.6	20 12.5	3 1.9	160 100
10	Qualified technical staff are not employed by the consultant	F P	29 18.1	78 48.8	15 9.4	29 18.1	9 5.6	160 100
11	There is benefit relationship with contractors which affect the project	F P	33 20.6	61 38.1	38 23.8	20 12.5	8 5	160 100

Source: Field work, April 2017

Table 11, row 1 explains long waiting in changes of specification and drawing during construction for this point 116(72.5) percent agreed, 26(16.3) percent they did not know the correct answer and 18(11.3) percent disagreed. From the findings above many of the respondents were agreed with the stated problem, so this problem was contributed to the time delay and increasing in cost of the project of condominium housing. In the same table, row 2 for the question, underestimation of deadlines, complexities and costs for the project works 110(68.8) percent agreed, 25(15.6) percent abstained to agree or disagree and 25(15.6) percent of the respondents disagreed. It infers that since there are many participants assured to the underestimation of deadlines, complexities and costs of the project works it is considered as the major impact to the performance of the project.

In table 11, row 3 out of 160 participants, 89(55.7) percent of the respondents agreed, 28(17.5) percent undecided and the rest 43(26.9) percent of the respondents disagreed. The result on lack of knowledge and experience in the organization's consultant not considered as an extreme constraint to the project continuity it is in between because the respondents' responses are balanced among the choices. As table 11, row 4 indicates 123(76.3) percent of the respondents agreed, 15(9.4) percent did not say agree or disagree and the remaining 22(13.8) percent they said disagree. This result shows a very high response regarding to poor management and difficulty in controlling contractors, therefore, it is major weakness to the consultants' organization.

In the similar table, row 5 about 95(59.4) percent agreed, 34(21.3) percent undecided and 31(19.4) percent disagreed. Regarding to poor coordination and communication in table 11, row 6 the respondents believe that 106(66.3) percent of them agreed, 27(16.9) percent undecided and in the same rate 27(16.9) percent disagreed. With respect to slow response regarding to testing, inspection and progress payment to contractors in the same table, row 7 out of 160 respondents 100(62.6) percent agreed ,32 (20) percent they do not sure to decide in the choice of agree or disagree and 28(17.5) percent of them disagreed. On the basis of lack of commitment to ensure construction work according to specification and design in table 11, row 8 equal to 105(55.6) percent agreed, 24(15) percent undecided and 31(19.4) said disagree. The finding of row 5, 6,7and 8 show that there were problems but there are not in an extreme way, this is according to the respondents' response.

From the table 11, row 9 explains Inadequate involvement to follow up and monitor the project progress for this question 112(70) percent of the participants of the population agreed, 25(15.6) percent undecided and 23(14.4) percent disagreed. This result shows that since more than one 100 respondents supported the proposed problem it is considered as the major impacts to the achievements of the project of condominium housing. Qualified technical staff are not employed by the consultant says in table 11, row 10 and the respondents replied that 107(66.9) percent of them agreed, 15(9.4) percent undecided and 38(23.7) percent disagreed. This problem was existed but not as in a very highly manner.

Finally, in the same table last row the question says there is benefit relationship between consultants and contractors by affecting the project performance and the respondents believed that 94(58.7) percent of them agreed, 38(23.8) percent of the respondents undecided and 28(17.5) percent disagreed. Though this issue is very difficult to easily observe, since there are nearly more than half of the sample of the population supported about the benefit relationship consultant with contractors by affecting the project performance the problem is existed more or less in the construction of condominium housing projects.

Based on the opinion of Addis Ababa housing project office employees at Coye Feche, head office, and Bole Arapsa Sites during the open ended interviews and questionnaires many respondents claimed that some consultants have poor quality of experience and specialized profession and the role of the consultant on condominium housing project is often not fully understood by the other parties involved on the project, including the consultants' client or the owner. Consequently, the consultant may find itself underutilized. There are also instances where the consultant itself is not fully aware of its duties and obligations to the owner and others, thereby exposing itself to potential liability claims. During construction, the role of a consultant is to administer the contract as described in the contract documents. However, the contract documents do not reference of the agreement between the client and consultant which outlines the professional services to be provided to the project. As a result, the provision of the professional services by the consultant cannot be match compared to the amount of money they get from the project.

Table 12: Factors related to contractors in condominium housing projects

No	Critical failure factors related to contractors		Scale					Total
			SA	A	UD	D	SD	
1	Lack of experience and technical profession in the contractor's organization	F P	39 24.4	85 53.1	17 10.6	17 10.6	2 1.3	160 100
2	Poor planning, scheduling and handling of the project by contractors	F P	47 29.4	83 51.9	11 6.9	16 10	3 1.9	160 100
3	Financial difficulties and delays in payments to subcontractors	F P	40 25	86 53.8	15 9.4	17 10.6	2 1.3	160 100
4	Incompetent team leaders and technical staffs assigned to the projects	F P	43 26.	75 46.	21 13.	19 11.9	2 1.3	160 100
5	Lack of employees motivation due to low payment	F P	52 32.5	74 46.3	16 10	18 11.3	0 0	160 100
6	Insufficient coordination and communication with project stakeholders	F P	31 19.4	89 55.6	16 10	19 11.9	5 3.1	160 100
7	Low commitment by team leaders and experts to achieve the proposed cost, time and quality of projects	F P	38 23.8	84 52.5	17 10.6	18 11.3	3 1.9	160 100
8	Construction mistakes and defective works during the project process	F P	35 21.9	83 51.9	19 11.9	17 10.6	6 3.8	160 100
9	Wastage of resources around the project sites	F P	62 38.8	79 49.4	9 5.6	7 4.4	3 1.9	160 100
10	Lack of leadership quality in the contractor's organization	F P	37 23.1	81 50.6	22 13.8	19 11.9	1 0.6	160 100
11	Poor provision of information to project participants	F P	20 12.	84 52.	34 21.	22 13.	0 0	160 100
12	Adequate technical staff not employed by the contractors	F P	28 17.5	69 43.1	34 21.3	27 16.9	2 1.3	160 100

Source: Field work, April 2017

As we can see from table above 12, row 1 the respondents replied that about 124(77.5) percent lack of experience and technical profession in the contractor's organization, 17(16.6) percent undecided and the rest 19(11.9) percent disagreed with the proposed idea.

From the information above it is possible to explain that the contractor's main problem is lack of experience and technical profession during the project life cycle and this also leads to the project delay in time and escalation of cost. In the same table, row 2 regarding to poor planning, scheduling and handling of the project by contractors 130(81.3) percent of the participant agreed, 11(6.9) percent undecided and 19(11.9) percent disagreed. The output of this question is a critical issue to the contractor's organization because a large number of respondents gave their response about the existence of poor planning, scheduling and handling of the project by the contractor and this also affects the performance of the project activities. Depending on financial difficulties and delays in payments to subcontractors in row 3 there are 126(78.8) percent of the respondents agreed, 19(9.4) percent undecided and 19(11.9) percent disagreed. This reveals that the contractors have shortage of financial capacities and also delay to pay to subcontractors and also this affects the work of projects.

On the question incompetent team leaders and technical staffs assigned to the projects in row 4, about 118(73.8) percent of the respondents agreed, 21(13.1) percent undecided and 21(13.1) percent disagreed. As it is depicted by the above respondents' response to this problem is also the main weakness of the contractors because this issue determines to continue or not, the activities of the project of condominium housing. Concerning lack of employees' motivation due to low payment in row 5, 126(78.8) percent of the respondents agreed, 16(10) percent undecided and 11(11.3) percent disagreed. This shows that without employees' motivation nothing to do in the project sites because human resource is the major factors in every activity, so there is influence in the output of the project. From the point of view insufficient coordination and communication with project stakeholders under row 6 the respondents' response 120(75) percent of them agreed, 16(10) percent undecided and 24(15) percent disagreed. Coordination and communication is also very important factors to facilitate the projects work but most of the respondents assured that it is insufficient work.

When we see the question of low commitment by team leaders and experts to achieve the proposed cost, time and quality of projects of condominium hosing in row 7 out of 160 respondents 122(76.3) percent agreed,17(10.6) percent undecided and 21(13.1) percent said disagree. We also observe that from row 8 about 118(73.8) percent of the respondents said that agreed for the construction mistakes and defective works during the project process, 19(11.9)

percent undecided and 23(14.4) percent disagreed. Row 9 in the above table states that on the issue of wastage of resources around the project sites, for this 142(88.2) percent of them agreed, 9(5.6) percent undecided and 10(6.3) percent disagreed. In row 10 in the same table explains that lack of leadership quality in the contractor's organization then the respondents' response was about 118(73.7) percent agreed, 22(13.8) percent undecided and 20(12.5) percent disagreed. According to row 11 in the table above 104(65) percent believe that there is poor provision of information to project participants by the contractors, 34(21.3) percent undecided and 22(13.8) percent disagreed. Lastly in row 12 on the point adequate technical staff not employed by the contractors 97(60.6) percent agreed, 34(21.3) percent undecided and 29(18.1) percent disagreed.

The implication of the above row, 7, 8, 9 and 10 are taken as key constraints to the contractors because more than 73% of the participants of the population supported the occurrence of the problems though some peoples are undecided and disagreed to these issues. And from this the existence of these problems has a major obstacle to the achievement of the project life cycle. To the results of row 11 and 12 many people are giving their responses for the occurrence of the stated problems but the numbers of response are slightly less than the above mentioned problems though we considered as a weakness to contractors' organization.

Regarding to the opinion of Addis Ababa housing project office employees at head office, Coye Feche and Bole Arapsa sites during the open ended interviews and questionnaires many people said that some contractors have lack of knowhow, experience, and specialized professions, for example, the contractors do not have specialized engineers, accountants and leaderships, simply the organization of contractors represented by un expected and single person to save their administrative costs and this follows problem on the performance of the projects, and finally the negative impacts of the project transfers to the individual beneficiaries of condominium housing. And also some contractors do not have commitment and love to their country, only their mind set is to get money from the government. Therefore, the higher officials of the project should focus on the selection of competent and reliable contractors to keep the projects efficiency and effectiveness.

Table 13: Factors contributing to time delay and cost of projects

No	Factors affecting Project time and cost		Scale					Total
			SA	A	UD	D	SD	
1	Poor site management and supervision	F P	32 20	88 55	11 6.9	25 15.7	3 1.9	160 100
2	Mistakes during the construction stage	F P	25 15.6	84 52.5	26 16.3	25 15.6	0 0	160 100
3	Lack of consultants' experience and profession on engineering, procurement and finance	F P	19 11.9	84 52.5	26 16.3	22 13.8	9 5.6	160 100
4	Slow speed in decision making on critical issues of the projects	F P	39 24.4	97 60.6	10 6.3	10 6.3	4 2.5	160 100
5	Underestimation of costs and complexities of the projects	F P	32 20	82 51.3	22 13.8	19 11.9	5 3.1	160 100
6	Shortage and rising costs of materials and also delay in delivery to the project sites	F P	55 34.4	79 49.4	15 9.4	9 5.6	2 1.3	160 100
7	Design and specification changes by owner or his agent during construction	F P	23 14.4	82 51.3	20 12.5	24 15	11 6.9	160 100
8	Poor in planning, scheduling and handling of the project by the contractor	F P	37 23.1	91 56.9	17 10.6	14 8.8	1 0.6	160 100
9	Inadequate number and modern equipment	F P	40 25	79 49.4	19 11.9	18 11.3	4 2.5	160 100
10	Slow response regarding to testing, inspection and progress payment to contractors	F P	25 15.6	89 55.6	17 10.6	25 15.6	4 2.5	160 100
11	Lack of good management and leadership in planning, leading and controlling the project activities by owner	F P	33 20.6	93 58.1	17 10.6	14 8.8	3 1.9	160 100
12	Unforeseen ground condition and incomplete project information	F P	21 13.1	69 43.1	42 26.3	24 15	4 2.5	160 100
13	Inflexible government rules and regulations leads to slow decision making on the projects	F P	33 20.6	70 43.8	29 18.1	25 15.6	3 1.9	160 100
14	Poor selection of competent consultants and reliable contractors to carry out the project	F P	36 22.5	88 55	17 10.6	16 10	3 1.9	160 100
15	Inadequate information and communication technology by the project participants	F P	28 17.5	84 52.5	28 17.5	20 12.5	0 0	160 100

Source: Field work, April 2017

In table 13 in the first row above regarding to poor site management and supervision 120(75) percent agreed, 11(6.9) percent undecided and 28(17.5) percent disagreed. With respect to row 2 the question to respondents said that mistakes during the construction stage for this 109(68.1) percent agreed, 26(16.3) percent they did not sure to agree or disagree and 25(15.6) disagreed. Considering to lack of consultant's experience and profession on engineering, procurement and

finance there were 103(64.4) percent agreed, 26(16.3) percent undecided and 31(19.4) percent disagreed. In row 4 about the question of slow speed in decision making on critical issue of the project 136(85) percent agreed, 10(6.3) percent undecided and 14(8.8) percent disagreed. Relating to row 5 for underestimation of costs and complexities of the projects 114(71.3) percent agreed, 22(13.8) percent undecided and 24(15) percent disagreed. In row 6 on the basis of shortage and rising costs of materials and also delay in delivery to the project sites 134(83.8) percent agreed ,15(9.4) percent undecided and11(6.9) percent disagreed.

Depending on row 7, for the design and specification changes by owner or his agent during construction 105(65.6) percent agreed, 20(12.5) percent undecided and 35(21.9) percent disagreed. Row 8 indicates that about poor in planning, scheduling and handling of the project by the contractor for this the respondents replied 128 (80) percent agreed, 17(10.6) percent undecided and 15(9.4) percent disagreed. For the point of inadequate number and modern equipment in row 9, 119(74.4) percent agreed, 19(11.9) percent undecided and 22(13.8) percent disagreed. As can be observed in row 10, slow response regarding to testing, inspection and progress payment to contractors 114(71.3) percent agreed, 17(10.6) percent undecided and 29(18.1) percent disagreed. For lack of good management and leadership in planning, leading and controlling the project activities by owner in row 11, then 126 (78.8) percent agreed, 17(10.6) percent undecided and 17(10.6) percent disagreed. Row 12 states that unforeseen ground condition and incomplete project information then the respondents said that 90(56.3) percent agreed, 42(26.3) percent undecided and 28(17.5) percent disagreed. Row 12 explains that about inflexible government rules and regulations leads to slow decision making on the projects 103 (64.4) percent agreed, 29(18.1) percent undecided and 28(17.5) percent disagreed. As it is presented in row 13 above 103(64.4) percent agreed, 29(18.1) percent undecided and 28(17.5) percent disagreed about the question of inflexible government rules and regulations leads to slow decision making on the projects. Moreover, row 14 shows that concerning the issue of poor selection of competent consultants and reliable contractors to carry out the work of project for this response about 124(77.5) percent agreed, 17(10.6) percent undecided and 19(11.9) percent disagreed. Finally, for question inadequate information and communication technology by the project participants about 112 (70) percent agreed, 28(17.5) percent undecided while 20(12.5) percent disagreed.

The implication for the factors affecting project time and cost are out of 160 respondents more than 100 respondents are supported for each the proposed question except row 12 states that unforeseen ground condition and incomplete project information is only supported by 90(56.3) percent. Therefore, since these mentioned above problems are happened in the construction of condominium housing it is assumed that the performance of the project is faced to extra time and cost and this also leads to the failure of the objectives of condominium housing projects because time and cost are the major variables in the day to day project activities. Therefore, controlling and monitoring the factors that have negative impacts on time and cost is very important to the project continuity.

With respect to the data obtained from interviews and open ended questionnaires most of the respondents complained that about the profession of the projects managers in the 18 project offices of Addis Ababa housing project office. Numerically, there are 18 General Managers and 18 Deputy General Managers totally 36 managers, out of this one General Manager is with the profession of civil engineer and the rests are with other professions. The question is why the government should not focus on the integrated and balanced of political and professional selection of the project managers because the project needs very competent engineers and leadership managers to evaluate the work of contractors and consultants independently. So to solve the problem the government should not focus on the single extreme side of profession rather it should be based on the related and ingredients of qualified engineer, leadership and management input, this is all about the respondents' opinion.

The other major problem that raised by the respondents are about the sense of ownership. In the individual households and private sector when construction of housing is run the use of material resources and time is in a very carefully follow up and control the time schedule, cost (budget) and quality of the house because the project has direct ownership participation. But in the context of government sector that have the sense of ownership or moral obligation to the project is unquestionable as in our real life experience, every bodies worries (fears) to his personal accountability and monthly salary and also some people (officials) are corrupted and the project considered as their sources of personal benefits. Since the government is faced to lack of ownership, degradation of moral obligation and corruption the vision of condominium housing project cannot meet its objectives. So why people registered for condominium housing and

waiting for 20 and 30 years to get house, why the government try to work beyond its capacity are the questions to be answered.

Farther more, Addis Zemen newspaper complained that about the title under “unfinished and out of use for 12 years condominium housing project” The newspaper discovered around Addis Ketema sub city one block building which is started in 1997, but its progress stopped on the first flower and lacked any responsible and committed party of the government to finish the house (Addis Zemen Newspaper, Vol No. 186. Feb 15, 2017).

Now the real capacity to build house is in the hands of the individual households and private sectors because some households and most of the private sectors they have capacity to build their house without wasting time and resources, therefore, the government should play its roles on the bases of mobilizing the whole society and government capacity to build house quantitatively and qualitatively, and the special effort of the government project should focus on the poor society.

Generally, Addis Zemen newspaper also made interview with Deputy General Manager of Addis Ababa housing project office, under the title of “fulfilling house demand by only Addis Ababa housing project office (government) is very difficult” and the Deputy General Manager responded to the paper “it is impossible to fulfill Addis Ababa housing demand only by the interference of government and as a principle individuals should build their house”. He also addressed that about the challenges of international purchasing system, currency problem, and contract administration as a key problem to the project of condominium housing achievement (Addis Zemen News Paper, Vol.No.176, and March 05, 2017).

Table14: Factors affecting project quality

No	Factors affecting project quality		Scale					Total
			SA	A	UD	D	SD	
1	Changes in design ,plan and schedule frequently	F	22	66	30	35	7	160
		P	13.8	41.3	18.8	21.9	4.4	100
2	Unavailability and delay in supply of materials as planned and specification during the project	F	41	86	13	16	4	160
		P	25.6	53.8	8.1	10	2.5	100
3	Improper integration, coordination and inspection by the participant of the projects	F	44	77	18	19	2	160
		P	27.5	48.1	11.3	11.9	1.3	100
4	Less quality techniques and mechanisms are adopted in the construction	F	47	75	14	22	2	160
		P	29.3	46.9	8.8	13.8	1.3	100
5	Low consultants commitment to ensure construction according to specification and design	F	29	91	13	25	2	160
		P	18.1	56.9	8.1	15.6	1.3	100
6	Poor supply of quality labor, equipment and raw materials in the projects	F	37	82	16	23	2	160
		P	23.1	51.3	10	14.4	1.3	100
7	Poor selection of well standard consultants and contractors during bidding	F	34	76	25	25	0	160
		P	21.3	47.5	15.6	15.6	0	100
8	Improper training ,motivation and payment to labor	F	42	86	18	13	1	160
		P	26.3	53.8	11.3	8.1	0.6	100
9	Financial problems arise during construction	F	41	70	23	24	2	160
		P	25.6	43.8	14.4	15	1.3	100
10	Heavy and continuous rainfall during the project	F	14	42	35	57	12	160
		P	8.8	26.3	21.9	35.6	7.5	100
11	Lack of management commitment to continual quality improvement	F	43	86	17	14	0	160
		P	26.9	53.8	10.6	8.8	0	100
12	Lack of strong coordination between designers and contractors	F	30	85	16	27	2	160
		P	18.8	53.1	10	16.9	1.3	100

Source: Field work, April 2017

About changes in design, plan and schedule frequently in row 1 in the above table, 88(54.1) percent agreed, 30(18.8) percent undecided while 42(23.3) percent disagreed. Row 2 in the same table said that unavailability and delay in supply of materials as planned and specification during the project time for this the answer of the respondents were 127 (79.4) percent agreed, 13(8.1) percent undecided and about 20(12.5) percent disagreed. From the point of view improper integration, coordination and inspection by the participant of the projects in row 3 there are about 121(75.6) percent agreed, 18(11.3) percent undecided and 21(13.2) percent disagreed. Less quality techniques and mechanisms are adopted in the construction said the question in row 4 in the above table then the answer was 121(75.6) percent agreed, 18(11.3) percent undecided and 21(13.2) percent disagreed.

For the issue of low consultant's commitment to ensure construction according to specification and design, in row 5 the participants said that 120(75) percent of them agreed, 13(8.1) percent undecided and 27(16.9) percent disagreed. Regarding to poor supply of quality labor, equipment and raw materials in the projects the respondents assured that 119(74.4) percent of them agreed, 16(10) percent undecided and 25(15.7) percent disagreed. In row 7 related to the question poor selection of well standard consultants and contractors during bidding the respondents of the sample population 110(68.8) percent are agreed, 25(15.6) percent undecided and 25(15.6) percent disagreed. On the basis of row 8 or improper training, motivation and payment to labor 128(80.1) percent of the answer agreed, 18(11.3) percent undecided and 14 (8.7) percent disagreed. Concerning financial problems arise during construction in row 9 about 111(69.4) percent agreed, 23(14.4) percent undecided and 26(16.3) percent disagreed. In row 10 on the problem of heavy and continuous rainfall during the project 56(35.1) percent agreed, 35(21.9) undecided and 69(43.1) percent disagreed. With respect to lack of management commitment to ensure quality improvement in row 11, 129(80.7) percent agreed, 17(10.6) percent undecided and14 (8.8) percent disagreed. In the last row with respect to the problem lack of strong coordination between designers and contractors 115(71.9) percent agreed, 16(10) percent undecided and 29(18.2) percent disagreed.

The total results for these factors affecting project quality are grouped in to three categories these are in row 10 on the issue of heavy and continuous rainfall during the projects for this question more than 104(65%) respondents under the choice of undecided and disagree only56 (36%) of respondents are supported, so the question is not considered as a major problem though some peoples are supported to the issue. The next category is about changes in design, plan and schedule frequently in row 1, there are nearly more than half of respondents are supported and this implies that the problem did not happen frequently though it is considered as a problem. The last category is about the remaining many questions all of them are supported by more than 110 respondents for each question this indicates that the problems are existed in a highly condition in the project sites and this also affects the total quality of the project of condominium housing. Therefore, to keep the quality of the projects the respondent bodies should fight these constraints.

Concerning the open ended interviews and questionnaires the respondents said that they cannot talk about the quality of condominium housing in general, because the projects are composed of with different quality of materials, professions, technologies, leaderships etc. So the quality of the projects is not the same in all sites. But in some project sites it is difficult to say quality of condominium housing are transferred to the beneficiaries, specially these projects that does not have infrastructure exposed to quality assurance because they do not have provision of water, electric and road availability from block to block specially these building does not get adequate water faced to poor quality of houses.

The other problem that identified by the respondents is that the finishing of condominium housing project is very poor that beneficiaries exposed to extra costs after receiving the house from the government. Most of the respondents pointed out that the finishing cost they incurred very much amount of money because the government is transferred the project sites of the condominium housing before the projects they do not have completed finishing work and this cost is very headache to the individual households to finish the inside activities such as doors, windows, floor, walls, electric lines, water lines and to replace the agree stone work etc. So, basically the house looks like as a real house after an extra much amount of money is spent on, that means the final finished or end of the projects are done by the efforts of the condominium housing residents.

4.5 Summary of the findings

It was clearly indicated at the outset that the purpose of this chapter pertains to answering the research questions as stated under section 1.3 of chapter one on page 5 “Can government achieve the demand for condominium housing without any private sector participation?”And “What are the major factors that affecting condominium housing projects in the selected sub city of Addis Ababa?” The analysis and discussion of data from various sources reveal the following important points that are specifically relevant in terms of effectively answering the research questionnaires, interviews and secondary data under consideration.

Regarding to this there are many problems concerning to the government such as problems in selection of competent consultants and reliable contractors, absence of good methods and systems in purchasing and finance and supply management, slow speed in decision making,

poor in planning and leading and controlling the project activities, lack of leadership skills of project manager, poor coordination and communication with contractors and consultants and suppliers, Financial constraints faced by the owner, and finally lack of sense of ownership and degradation of moral obligation.

With respect to the consultant the major problems indicated that there is lack of knowledge and experience in the organization's consultant, poor management and difficulty in controlling contractors, poor coordination and communication by the consultant engineer with the project stakeholders, slow response regarding to testing and inspection and progress payment to contractors, lack of commitment to ensure construction work according to specification and design, there is benefit relationship with contractors by affecting the project performance, underestimation of deadlines, complexities and costs for the project works.

Similarly depending on the contractors key constraints described are lack of experience and technical profession in the contractor's organization, poor planning and scheduling and handling of the project, financial difficulties and delays in payments to subcontractors, insufficient coordination and communication with project stakeholders, lack of leadership quality in the contractor's organization, low commitment by team leaders and experts to achieve the proposed cost and time and quality of projects, wastage of resources around the project sites, construction mistakes and defective works during the project process, and the worst thing that complained by the respondents are some contractors do not have commitment and love to their country, only their mind set is to get money from the government.

Farther more, the constraints that was mentioned by the participant of the research was based on factors affecting time and cost of condominium housing projects are; poor selection of competent consultants and reliable contractors, Lack of qualified profession and leadership in planning and leading and controlling the project activities by owner, inflexible government rules and regulations leads to slow decision making on the projects, poor in planning, scheduling and handling of the project by the contractor, shortage and rising costs of materials and also delay in delivery to the project sites, lack of consultant's experience and profession on engineering and procurement and finance, slow response regarding to testing and inspection and progress payment to contractors, poor site management and supervision, inadequate information and communication technology by project participants, underestimation of costs and complexities of

the projects, mistakes during the construction stage, unforeseen ground condition and incomplete project information.

Finally, the serious problem that was identified by most respondents is that, about factors affecting quality in construction of condominium housing projects these are; poor selection of competent consultan and reliable contractors, lack of management commitment to continual quality improvement, poor quality of workmanship of supply of labor and equiepment and raw materials, less quality techniques and mechanisms are adopted, unavailability and delay in supply of materials as planned and specification, low consultants commitment to ensure construction according to specification and design, insufficient training and payment to labor, lack of strong coordination between designers and contractors, improper integration and coordination and inspection by the participant of the projects.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

The main objective of this research is to explore condominium housing projects in Addis Ababa: The case of selected area. This thesis is also deeply motivated to examine the client's institutional capacity to provide adequate and quality condominium housing to the low and middle income people and also major factors affecting the construction of condominium housing in terms of time (It is the length of time that extends the project duration), cost escalation(changes in the cost or price of specific goods or services in a given economy over a period) and quality(fitness for purpose) of the project based on the role of the project participants. Using a mixed concurrent triangulation strategy and giving emphasis to quantitative aspects, the study investigated the performance of the construction of condominium housing projects and pointed out the implications of this research study. Using relevant theoretical and conceptual frameworks developed in chapter two, the analysis and interpretation of primary and secondary data has led to key findings, which the researcher believes have effectively answered the two research questions posed under section 1.3 of chapter one on page five. The following conclusion and recommendations, which are thoroughly informed by analysis and interpretation of data, are drawn or made.

5.1 Conclusions

The conclusion drawn under this section is related to the individual research questions and analysis and interpretation of data conducted in chapter four to answer the research questions, this section also restates the research questions in chapter one and presents the major conclusion reached as answers to the basic questions as follows:

Despite a strong commitment of the government to address house issues in Addis Ababa, attempts to deliver house services using a strong public sector orientation did not adequately address the housing needs of the citizens. The thesis approved that there is limited capacity of government in providing qualitative and quantitative houses in the study area though the government promised to build many condominium housing. Until now there is high gap between supply and demand for housing in Addis Ababa, but the government has tried to build condominium housing projects without addressing the problems in the city.

The housing problem is needed the collaboration of the public and private sector to maximize their efforts because no one can cover the role of the private sector alternatives inters of providing adequate and affordable housing. However, the client could not pay special attention in facilitating a comprehensive national housing policy by providing land, funds, discounted interest rates, materials free from tax and infrastructures to participate the private sector and the individual citizens to solve the housing deficit. Rather it ignores the roles and contributions of the private sector on construction of condominium housing projects.

The most common causes of cost overrun are inflation or increase in the cost of construction materials, change in foreign exchange rate (for imported materials), change orders and lack of control on excessive change orders, failure to identify problems and institute the necessary and timely actions. Even though there are plenty of management techniques to control time and cost overrun in construction projects, most of the projects are facing the problem. Many projects are suffering because of delay from the part of the client to supply of some of the materials which as part of the contractual agreement they have to supply to the contractor.

The lack of careful identification of qualified contractors at the early stage of bidding is adversely affected the practice and performance of the project in time, cost and quality because there are many contractors participate in the project with their major problems such as ineffective planning and scheduling of project, poor site management and supervision, poor qualification of technical staff and difficulties in financing projects are the most sever causes of delay by the contractors. Delay in progress payments by owner and consultants are other critical factors which result in time delays of the projects. The study clearly indicates that bureaucracy in housing project office is also one of the key sources of construction delays particularly in purchasing producers and finance systems. Bureaucracy leads to lengthy and complex payment process in the housing project office, and the processes are strongly contributing to construction delays in the project of condominium housing.

Quality is an essential component for sustainability and customer satisfaction while unskilled workmanship, inferior of quality materials, and poor profession of project management and leadership have contributed to the housing project problems. Lack of coordination and communication between project stakeholders, lack of commitment and sense of ownerships are the major common bottlenecks of the project stakeholders. And lack of previous experiences of

contractor was also identified as contractor related factors that affected the performance of projects. Moreover, the headache of the project beneficiary in today is about the improperly condominium housing transferred to the individual households because to complete their individual house they spend an average of more than one hundred birr.

From this thesis we can understand that the construction of condominium housing projects are more complex and difficulties with large number of project participants while lack of an introduction of capacity building through training and development to the stakeholder's employees are existed. In addition, inadequate motivation and payment to the project workers has its own impact on quality of the construction and the unskilled workmanship and project managements are the major causes of time delay, cost overrun and poor quality of the project of condominium housing project because they could not compete and adjust their professions with the difficulties of the project characteristics.

Generally, even though, there are no specific ways and procedures to overcome all the problems identified from this study, but there are many possibilities depending on the causes and appropriate action taken by the stakeholders, such as, assuring continuous capacity building, attitudes, coordination among project stakeholders, and use the private sectors as a potential for the project throughout the construction life cycle for solving the problems and to achieve the project objectives. Therefore, change in non-stopping capacity building, attitudes and the wise use of the private sectors are the major problems to the project participants' particularly the government against the project characteristics.

5.2 Recommendations

On the basis of the findings and conclusion of the research, the researcher would like to forward the following recommendations.

- Government should give more attention to appropriate policy intervention, administration, monitoring and evaluation rather than monopolize every individual activities of the construction of condominium housing projects. It should participate based on its capacity and give space to the competent and reliable investors and even the individual households in the project of condominium housing to match the demand with supply of housing.
- The government should pay special attention in facilitating a comprehensive national housing policy by providing land, funds, discounted interest rate, and infrastructures to participate the private sector and the individual citizens to solve the housing deficit.
- From the study, it was evident that the study found out that there is lack of professions and leaderships of project managers, so the government should give special attention in selection and appointing qualified project managers.
- Government should focus on selection of competent consultants and reliable contractors to carry out the work of project of condominium housing. It should also assure continuous coordination and relationships among project participants are required throughout the project life cycle for solving problems and development project success.
- The study showed that the occurrence of high government bureaucracy in the projects especially in purchasing, finance and supply management affects the projects in their time, cost and quality; therefore, the study recommended that government should provide appropriate and flexible rules and regulations concerning the project characteristics.
- The study recommended that clients should strictly supervise construction of condominium housing projects to minimize time delay, cost overrun and poor quality of houses. In addition, owners are encouraged to facilitate payments to contractors in order to overcome delay, disputes and claims.
- Government should focus on strong political commitment at all levels of administration to address the major challenges of the integrated housing development program, and

appropriate organizational structure is needed including with better higher management and experts to monitor and evaluate the project activities.

- Consultants should perform their roles properly to improve the projects achievement timely with its budget and quality by employed skilled profession and also consultants are urged to facilitate and expedite orders delivered to contractors to obtain better time performance and to minimize disputes and claims.
- The contractors enhance its commitment to minimize all problems mentioned in this study, namely lack of leadership and management, poor workmanship, lack of sense of ownership to complete the project according to its time, budget and quality, and benefit oriented by ignoring the customer satisfaction.
- Since the construction of condominium housing projects are becoming more complex and difficulties, an introduction of a good motivation, training and development to the stakeholder's employees are very important to the success of the project.
- Moreover, whatever challenges are occurred on the projects of condominium housing, continuous capacity building and inherent commitment of the project participants are very important to overcome the problems by strengthening their coordination and communication to achieve the stated objectives.
- Finally, government should not only responsible for building condominium housing, but also should provide policy and strategy to stable the fastest population, migration and urbanization growth through acceptable mechanism to reduce the socio economic housing problems in our country particularly in Addis Ababa.

5.3 Directions of Future Research

This research has its own contribution and limitation depending on the researcher's academic, financial, time bound and other external factors, but the researcher of this thesis would like to advise to do more theses and dissertations on the constructions of condominium housing projects. Since the constructions of project are very complex with large number of stakeholders, further research is needed to minimize the problem of time, cost and quality in the project. Surely, detailed research surveys are required to find out the challenges of condominium housing projects in Addis Ababa.

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Appendix One: Sample Questionnaire Distributed to Respondents;

Addis Ababa University, College of Business and Economics, Department of Public Administration and Development Management, Master's Program in Public Management and Policy

Research Title: The Assessment of Condominium Housing Projects in Addis Ababa: The case of Bole and Akaky Kaliti Sub cities

Questionnaire to be filled by Bole and Akaky Kaliti sub cities and also Addis Ababa housing project office employees who are familiar with and participated in the project sites of the two mentioned sub cities.

Introduction: Thank you for your willingness to participate in this study as a respondent. This questionnaire used to collect data for the master's research entitled. "The Assessment of Condominium Housing Projects in Addis Ababa: The case of Bole and Akaky Kaliti Sub cities." Your experiences and opinions will significantly add value as an input to this thesis. The researcher assures you that the information you provide used only for academic research purpose and anonymity of the respondent maintained throughout the research process. Thank you for your cooperation.

X. Personal data of the respondents (personal information):

1. Where is your job location now: (A) Bole sub city project office or site (B) Akaky Kaliti sub city project office or site (C) Addis Ababa housing project office?

2. What is your organization type? (A) Owner (B) consultant (C) contractor
(D) Other (please specify)

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3. Your job description and position: ----------

4. Your level of education: (A) Secondary school (B) Diploma and certificate (D) First degree and above

5. Your job experience: (A) 0-2 year (B) 3-5 year (C) 6 year and above

Y. Closed ended questionnaire for the selected sample respondents:

1. Critical failure factors related to client in the construction of condominium housing:

For the following questions, please put (X) mark in the box corresponding to your preferred response using the scale below:

SA: Strongly Agree A: Agree UD: Undecided D: Disagree SD: Strongly Disagree

No	Major weakness factors related to client	Scale				
		SA	A	UD	D	SD
1	Inappropriate problem in selection of competent consultants and reliable contractors to carry out the work of project					
2	Absence of good methods and systems in purchasing ,finance and supply management					
3	Inadequate knowledge and experience in purchasing ,finance and supply management					
4	lack of motivation and training to employees					
5	The project is beyond the government capacity therefore participation of private sector(other alternative) is needed					
6	Unhealthy communication and insufficient coordination with contractors ,consultant and suppliers					
7	Slow speed in decision making for critical issues of the project					
8	Delay in approving design document and site preparation					
9	There are weakness in planning ,leading and controlling the project activities					
10	Too many change orders from owner					
11	Financial constraints faced by the owner					
12	Lack of leadership skills of project manager					
13	Lack of committed leadership of manager					
14	Poor information and communication technology are used in the project activities					
15	Insufficient learning from best experience of own and others					
16	Inappropriate project organizational structures					
17	Shortage of land to the project					
18	Shortage of foreign currency					

2. Critical failure factors related to consultant in the construction of condominium housing

For the following questions, please put (X) mark in the box corresponding to your preferred response using the scale below:

SA: Strongly Agree A: Agree UD: Undecided D: Disagree SD: Strongly Disagree

No	Critical failure related to consultants	Scale				
		SA	A	UN	D	SD
1	Long waiting in Changes of specification and drawing during construction					
2	Underestimation of deadlines, complexities and costs for the project works					
3	Lack of knowledge and experience in the organization's consultant					
4	Poor management and difficulty in controlling contractors					
5	Ambiguities(unclear) and mistakes in specifications and drawings during the construction					
6	Poor coordination and communication by the consultant engineer with the project stakeholders					
7	Slow response regarding to testing, inspection and progress payment to contractors					
8	Lack of commitment to ensure construction work according to specification and design					
9	Inadequate involvement to follow up and monitor the project progress					
10	Qualified technical staff are not employed by the consultant					
11	There is benefit relationship with contractors which affect the project performance					

3. Factors related to contractor in the construction of condominium housing:

For the following questions, please put (X) mark in the box corresponding to your preferred response using the scale below

SA: Strongly Agree A: Agree UD: Undecided D: Disagree SD: Strongly Disagree

No	Major failure factor related to contractors	Scale				
		SA	A	UN	D	SD
1	Lack of experience and technical profession in the contractor's organization					
2	Poor planning, scheduling and handling of the project by contractors					
3	Financial difficulties and delays in payments to subcontractors					
4	Incompetent team leaders and technical staffs assigned to the projects					
5	Lack of Employees motivation due to low payment					
6	Insufficient coordination and communication with project stakeholders					
7	Less commitment by team leaders and experts to achieve the proposed cost, time and quality of projects					
8	Construction mistakes and defective work during the project process					
9	Wastage of resources around the project sites					
10	Lack of leadership quality in the contractor's organization					
11	Poor provision of information to project participants					
12	Adequate technical staff not employed by the contractors					

4. Factors contributing to delay time and cost of projects;

For the following questions, please put (X) mark in the box corresponding to your preferred response using the scale below:

SA: Strongly Agree A: Agree UD: Undecided D: Disagree SD: Strongly Disagree

No	Factors affecting Project time and cost	Scale				
		SA	A	UD	D	SD
1	Poor site management and supervision					
2	Mistakes during the construction stage					
3	Lack of consultant's experience and profession on engineering, procurement and finance					
4	Slow speed in decision making on critical issue of the project					
5	Underestimation of costs and complexities of the projects					
6	Shortage and rising costs of materials and also delay in delivery to the project sites					
7	Design and specification changes by owner or his agent during construction					
8	Poor in planning , scheduling and handling of the project by the contractor					
9	Inadequate number and modern equipment					
10	Slow response regarding to testing, inspection and progress payment to contractors					
11	Lack of good management and leadership in planning ,leading and controlling the project activities by owner					
12	Unforeseen ground condition and incomplete project information					
13	Inflexible government rules and regulations leads to slow decision making on the projects					
14	Poor selection of competent consultant and reliable contractor to carry out the work of project					
15	Inadequate information and communication technology by project participants					

5. Factors affecting project quality in the construction of condominium housing:

For the following questions, please put (X) mark in the box corresponding to your preferred response using the scale below:
SA: Strongly Agree A: Agree UD: Undecided D: Disagree SD: Strongly Disagree

No	Factors Affecting project Quality	Scale				
		SA	A	UD	D	SD
1	Changes in design ,plan and schedule frequently					
2	Unavailability and delay in supply of materials as planned and specification during the construction					
3	Improper integration, coordination and inspection by the participant of the projects					
4	Less quality techniques and mechanisms are adopted in the construction					
5	Less consultants commitment to ensure construction according to specification and design					
6	Poor supply quality of labor ,equiepment and raw materials in the projects					
7	Poor selection of well standard consultan and contractors during bidding					
8	Improper training ,motivation and payment to labor					
9	Financial problems arise during construction					
10	Heavey and continous rainfall during the project					
11	Lack of management commitment to continual quality improvement					
12	Lack strong coordination between designers and contrctors					

Z. Open ended questions for the selected sample respondents.

1. What major problems do you see with construction of condominium housing?

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2. What do you suggest for the problem of condominium housing construction in general?

Appendix Two: Interview Guide for Key Informant Interviews

Addis Ababa University, College of Business and Economics, Department of Public Administration and Development Management, Master's Program in Public Management and Policy

Research Title: The Assessment of Condominium Housing Projects in Addis Ababa: The case of Bole and Akaky Kaliti Sub cities

In-depth structured interview protocol to collect relevant data from key informants in the projects of condominium housing stakeholder (owner, consultant and contractor) parties

Interview Date: _____Time: _____

Location: _____Organization: _____

Year of experience: _____Current Position: _____

Introduction: Thank you for your willingness to participate in this study as a respondent. This interview is used to collect data for the master's research entitled. "The Assessment of Condominium Housing Projects in Addis Ababa: The case of Bole and Akaky Kaliti Sub cities." Your experiences and opinions will significantly add value as an input to this thesis. The researcher assures you that the information you provide used only for academic research purpose and anonymity of the respondent maintained throughout the research process. Thank you for your cooperation.

1. How do you evaluate the status of condominium housing project performance against the objectives?

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2. What are the major weaknesses of condominium housing in terms of quality, time, and cost and client satisfaction?

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3. How much is achieved the construction of condominium housing until now compared to the objectives?

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4. What are major factors that affect the quality of condominium housing projects?

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5. What major factors do you observe that affect the time schedule and cost of construction in the project?

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6. Do you think that only government can achieve the provision of condominium housing compared to the high demand?

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7. What are the external factors that influencing the performance of housing construction?

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8. What is your opinion about the purchasing, finance and supply management in light of the urgency of the projects?

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9. Is there any shortage and increasing cost of construction material to run easily the project of condominium housing?

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10. How do you evaluate the finishing of condominium housing project in terms of customer satisfaction (expectation)?

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11. How do you see the coordination and communication of project (owner, consultant and contractors) stakeholders?

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12. What do you say about the process of selecting competent consultant and reliable contractors to carry out the work of projects?

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13. Does government follow well flexible methods and systems in purchasing, finance and supply management to speed up the project activities?

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14. Do you have idea on employees' motivation, training and development based on their long-term contribution to the project?

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15. What other major constraints do you observe during the project of condominium housing?

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