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COLLEGE OF BUSINESS AND ECONOMICS

MASTERS OF BUSINESS ADMINISTRATION

Determinants of non financial Performance of Real Estate Firms in Addis Ababa, Ethiopia

A thesis submitted to the College of Business and Economics in partial fulfillment of the requirements for the Degree of Master in Business Administration

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Graduate program

Statement of Declaration

I, Tigist Aberra, hereby declare that this research work entitled; "Determinants of non financial Performance of Real Estate Firms in Addis Ababa, Ethiopia" and submitted by me for the award of the Degree of Master in Business Administration in my own original work and that all sources of materials used for the study have been duly acknowledged.

Tigist Aberra _____Signature_____Date_____

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This thesis is submitted to the School of Graduate Studies of Addis Ababa University College of Business and Economics for examination with my approval as a university advisor.

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This is to certify this thesis prepared by Tigist Aberra, entitled; "Determinants of non financial Performance of Real Estate Firms in Addis Ababa, Ethiopia" and submitted to College of Business and Economics in partial fulfillment of the requirements for the Degree of Master in Business Administration complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Abstract

The housing sector in Addis Ababa, Ethiopia, has been described as one of the fastest expanding, although there is a lack of affordable and good housing. Similarly, there is a lack of literature on the enablers and constraints of real estate enterprises' adoption. The study's overall goal was to determine the factors that influence real estate firm non financial performance in Addis Ababa, Ethiopia. The study examined the impact of the construction period, mortgage finance, location, and pricing on the non financial performance of real estate firms. The study was conducted using a explanatory research design. An empirical model also guided the research. The current study's target group was salespeople who worked for real estate companies. The study's population consisted of 91 sales representatives. A structured questionnaire was utilized to collect data. Before data collection, the necessary permits and consents were obtained. In the analysis, explanatory and inferential statistics were used. The study found that the non financial performance of real estate firms was negatively correlated with the construction period, location, and price. The relationship between mortgage financing and the non financial performance of real estate firms, on the other hand, was positive. From the regression analysis outcome among the four determinants under investigation, mortgage financing was inferred to have the list implication on the non financial performance of real estate firms. Price was inferred to be consequential to the non financial performance of real estate firms. The study advised real estate firms to thoroughly assess their target customers before deciding on location and pricing, to correctly manage the development process, and some real estate firms were not implementing mortgage financing the research suggests them to begin integrating mortgage which benefits the buyer, real-estate firms and financial institutions.

Key words: Real estate firms, performance, Location, Mortgage financing, price, construction period

1. Introduction

1.1 background of the study

Real estate is sometimes inaccurately spoken of as a profession, but it is essentially a business. The principal divisions of the real estate business are investment, operation and agency. These differ from one another according to the aims of the persons engaging in them and the methods by which those persons expect to make their gains (Messah&Kigige , 2011). Real estate generally contributes to a country's economic development because of a corresponding growth in the demand for materials, labor inputs and backward and forward linkage effects in the economy (Abraham, 2007, p.5).

Real estate sector performance is important and critical to the overall thriving of the firms in the sector. Failure to meet the required level of performance by real estate firms in terms of revenue earned, profitability and returns on investment may jeopardize the running of activities (Etyang &Mwengei,2019).The real estate finance market is nascent and constrained by factors, which albeit difficult and could be dealt with through the creation of appropriate real estate development, investment and financing infrastructure. The study of project success and the critical success factors are considered to be a means to improve the effectiveness of project (Chan et al., 2004)

After reviewing the literature gaps were identified for future research. According Etyang &Mwengei (2019) loan financing as a independent variable but has stated that further research is therefore advocated for to focus on other factors that affect performance of real estate in Kenya. These factors include political, legal, social, economic and geographical factors. The research only looked at publicly traded companies, but it is suggested that future research broaden the data to include private businesses and compare the findings to those of other developing countries (Diaz, 2017). Gholipour and Razali (2017) looked into the link between industry-level variables such as capital formation and property transactions. Only a little amount of research has been done on firm-level issues, according to the findings. As a result, this research looks at how firm-level characteristics, such as location, affect real estate performance.

1.2 Statement of the problem

The real estate sector is included in the construction sector. The construction sector is directly or indirectly related to approximately 200 sectors, which directly affects both industry and the economy and is contributing to production in the economic structure and leadership invests in the construction sector, has the distinction of being the leading sector (Ersoz et al., 2018). Good investment returns are the result of informed investment decisions in line with the objectives of investors. Each investment decision should consider the risk factors that affect not only the investment decision but also the return on investment (Isa et al., 2013). Real estate is linked to other businesses in that it requires raw material inputs, which are delivered by importers, distributors, and manufacturers. Another factor is the demand for both skilled and unskilled workers. Not only that, but it is linked to financial organizations that give loans; poor real estate performance results in a shortage of recruiting labor, and the country's economy suffers. This research examines how firm level factors including location affect the non financial performance of real estate which is measured by asset turnover. These factors are mortgage financing, price, location, and construction period they were selected because they have a direct relationship with the performance of real estate firms.

1.3 Objectives of the Study

1.3.1 General objective

The general objective of the study is to find out the firm-level determinants of non financial performance of real estate firms in Addis Ababa.

1.3.2 Specific objectives

1. To determine the influence of price on the non financial performance of real estate firms in Addis Ababa.
2. To determine the influence of mortgage financing on the non financial performance of real estate firms in Addis Ababa.
3. To determine the influence of Location on the non financial performance of real estate firms in Addis Ababa.
4. To determine the influence of construction period on the non financial performance of real estate firms in Addis Ababa.

1.4 Research Hypotheses

The study was guided by the following research Hypothesis:

$H0_1$:Mortgage financing has a positive impact on the non financial performance of Real estate firms.

$H0_2$: Location has a negative impact on the non financial performance of Real estate firms.

$H0_3$: Price has a negative impact on the non financial performance of Real estate firms.

$H0_4$: Construction period has a negative impact on the non financial performance of Real estate firms.

1.5 significance of the study

When the scope of a project is not specified at the beginning, various misunderstandings about what has to be done and how it will be done can arise, leading to the project going in unexpected ways. Understanding the factors affecting the non financial performance of the real estate firms and performance of the real estate is important for managers, regulators, and policymakers for several reasons including. Helping formulate sustainable real estate market policies and Reducing the potential booms and busts which may have detrimental financial consequences on the emerging economy and effects on social stability (Huang & Boateng, 2013).

The real estate sector is included in the construction sector. The construction sector is directly or indirectly related to approximately 200 sectors, which directly affects both industry and the economy and is contributing to production in the economic structure and leadership invests in the construction sector, has the distinction of being the leading sector (Ersoz et al., 2018). The study will benefit real estate brokers who get a good understanding of the system. The study will benefit future researchers and scholars in real estate. Future researchers can observe possible areas that need more investigation or gaps in the research.

1.6 Scope of the Study

The investigation is focused on Addis Ababa's real estate firms. Construction period, mortgage finance, location, and pricing are the four independent variables, whereas real estate non financial performance measured by Asset turnover is the dependent variable. The focus group for this study was real estate sales personnel. The data used in this research is cross-sectional data covering 2020/2021.

1.7 Limitations of the study

Obtaining accurate information from respondents was major challenge, as some employees feared that the information would be used against them by management in terms of performance, resulting in job insecurity. Another issue was that some businesses lacked the necessary data to fill the questionnaires. This constraint was overcome by assuring respondents that the information gathered and the study, in general, was solely for academic purposes. They were also told that their identities, as well as the identities of their firms, would be kept private and that data provided would be represented in a percentage format.

1.8 Organization of the study

The research is broken down into five sections. The first chapter contains the study's background, problem statement, study objectives, research hypothesis, the significance of the study, the scope of the investigation, and finally the study's constraints. The second chapter focuses on previous theoretical and empirical studies that have been undertaken in conjunction with real estate firm determinants and conceptual framework. The methodology that regulated the study's conduct is covered in Chapter 3. It includes the research concept, target population, data collection procedure, and how the data was evaluated, and the results presented. The findings from the data analysis are presented in the fourth chapter. The response rate, as well as the findings and discussions, are presented in this chapter. Both explanatory and inferential statistics are used. The conclusion and recommendations are all covered in the fifth chapter.

2 Literature review

This chapter outlines a review of theories and empirical studies that have so far been carried out in respect to determinants of performance of real estate firms.

2.1 Theoretical review

The Gravity theory

The Gravity Theory assumes that the higher the concentration of goods and services in an area, the greater the pull or attraction it will have on consumers and other space users. Gravity theory is one of the cornerstones of retail location models, which assumes that consumers will be drawn to a retail center in proportion to the sheer magnitude or quantity of operations and the resulting choices assembled at that place. It has been changed over time to link the types of goods and services to market demographics as well as competitiveness for consumer expenditures. Theorists have postulated that when it comes to distance, space users strive to reduce the cost of friction or travel, which can be assessed in terms of money or time. If housings are built near to good demographic with a little travel the preferable.

Organizational theory

The focus of organizational theory is on formal social organizations and bureaucracies, as well as their interactions with the environment in which they function. The organizational theory arose from a variety of viewpoints aiming at improving industry efficiency and reducing bureaucracy. The organizational theory depicts the decision-making process as a series of processes that must be completed to decide. As a decision-making process, one in which each step provides an opportunity to change one's mind. Organizations have formulations that are used to create the organization's functioning units, which will increase the quality management of a project.

Bid-Rent theory

Bid-Rent theory is a geographical economic theory that describes how Real Estate prices and demand change as the distance from the central business area increases .Theory of Bid-Rent Given that real estate is fixed in place, several theories derived from geography can provide light on how the spatial aspect of real estate influences the value proposition and, as a result, urban design. In general, Bid-Rent theory is based on some variation of Gravity Theory,

which mixes gravitational force with a need to reduce travel costs to get necessary commodities and services. The Gravity Theory assumes that the higher the concentration of goods and services in an area, the greater the pull or attraction it will have on consumers and other space users. Gravity theory is one of the cornerstones of retail location models, which assumes that consumers will be drawn to a retail center in proportion to the sheer magnitude or quantity of operations and the resulting choices assembled at that place. It has been changed over time to link the types of goods and services to market demographics as well as competitiveness for consumer expenditures. Theorists have postulated that when it comes to distance, space users strive to reduce the cost of friction or travel, which can be assessed in terms of money or time. If housings are built near to good demographic with a little travel the preferable.

2.2 Empirical review

This section covers a review of empirical studies that have been conducted in the past in respect to determinants of performance of real estate firms in Addis Ababa, Ethiopia.

2.2.1 Performance of Real estate

The study makes use of A-share firm data from 2008 to 2013. Corporate governance, ownership, political connectivity of local governments, accounting data, and ultimate control are all explanatory variables. The measure of firm performance is Tobin's Q (TOBINSQ) which is the dependent variable. TOBINSQ is a stock market metric that measures stock market investors' predictions for a company's future profitability. Amount of concentration of foreign ownership, state ownership and ultimate control are the independent variables. The amount of concentration of foreign ownership is measured by foreign investment relative to total shares, while state ownership is expressed by the fraction of state shares in total shares. When ultimate control is designated as resting with the state, state control is set to 1; otherwise, it is set to ownership concentration and local government political connectivity are constant variables the proportion of shares held by the top ten shareholders is known as ownership concentration. Local government political connectivity is measured by assigning a value of 1 to those who have a political connection with their local government and 0 to those who do not. The number of members on both the board and the supervisory board is the same. If the corporation was audited by a high-quality auditor, it receives a score of 1; otherwise, it receives a score of 0. Real estate and ownership, governance, political connectivity, and other variables all have two-way interactions that are estimated. The share of state ownership and industry concentration tend to have a good impact on performance. Larger firms, higher gearing, and more foreign ownership appear to have a detrimental impact on performance. However, there are also exceptions, such as real estate enterprises, where state regulation and gearing have a favorable impact on performance. State and foreign ownership, as well as the size of the supervisory board, have a negative impact on performance. Finally, state control has a detrimental influence on performance when there are local government links, whereas increased state ownership has a good impact when there are local government connections (Xu et al., 2016).

The impact of eight firm-specific determinants on the profitability of Indonesian real estate enterprises, major, medium, and small. From 2010 to 2014, the data is based on 47 real estate businesses that were listed on the Indonesian Stock Exchange was studied. The study looked at the impact of firm-specific factors like the number of days account receivables, number of days inventory, number of days account payable, size of the company, current ratio, debt ratio, sales growth, and tangibilities on the return on an asset using multiple linear panel regression models like ordinary least squares (OLS), fixed effects (FE), and random effects (RE). Return on asset (ROA) is a metric that measures profitability per unit of assets (net income divided by total assets). It represents a company's financial success by determining how effectively it generates profits from its assets over the course of a year. The days between the spending of raw material acquisition and the collection of completed items' sales are measured by the Cash Conversion Cycle. The total asset of the company will be used to determine its size. The current ratio is calculated as current asset / current liabilities and is a measure of a company's short-term liquidity. The debt ratio is the percentage of a company's assets that are backed up by debt. Profitability is mostly influenced by sales growth. Companies with significant sales growth potential are likely to have a high-performance ratio, as growing companies are able to profit from their investments. The tangible assets, or fixed and current assets, that real estate companies have in a given accounting year are referred to as their tangibility. The number of day's accounts receivable has a negative link with profitability, although it has no impact on medium-sized Indonesian real estate enterprises, according to the data. Small businesses have a negative association with the factor number of day's inventories, but large businesses have the opposite relationship because large real estate corporations have greater liquid assets to pay maintenance expenditures connected to real estate inventories. For both large and small Indonesian real estate enterprises, size and sales growth have a good association with profitability. On the one hand, in large companies, the current ratio has a positive relationship, whereas, in small organizations, it has a negative association, because of the smaller current asset base that smaller real estate enterprises normally have (Diaz, 2017).

2.2.2 Mortgage and performance of Real estate firms

The impact of loan financing on the real estate sector's performance in Kisumu, Kenya, was investigated. The research was based on the lien theory. The study used an exploratory research design. One real estate manager and one accountant were among the responders. The

sample size was 97, and responses were chosen at random. Adjustable-rate mortgages, fixed-rate mortgages, jumbo loans, and interest-only mortgages were all used to assess mortgage finance. Turnover/sales, occupancy levels, and the number of dwelling units were all used to determine the performance of real estate sector. The study used a Likert scale to assess real estate performance. A pilot study was undertaken to assess the research instruments' validity and reliability. The data were analyzed using descriptive and inferential statistics. The study's findings demonstrated that loan financing had a substantial impact on the real estate sector's performance (= 0.170; p0.05). According to the findings, there is a considerable positive relationship between loan financing and the performance of the real estate sector (Etyang & Mwengei, 2019).

A link was made to literature on China's real estate sector and the impact of governance, ownership, and political ties on real estate's financial performance. It is determined whether these characteristics have a distinct influence on listed real estate companies than on companies in other industries.

A relationship between financing and a negotiation model has been established. They first demonstrate that finance opens new trading opportunities. In contrast to popular belief, the model demonstrates that a mutually advantageous trade does not require a buyer to value property higher than its seller, and transaction prices are not restricted by the buyer's and seller's values. Second, findings reveal that under a negotiating model without finance, the overall gain from trade is erroneously specified, and the price is consequently miscalculated. Finally, model may be used to examine a variety of popular real estate financing arrangements, including assumable loans, seller financing, and seller-paid closing costs. Acquisitions of properties are frequently financed through mortgages, in addition to the negotiation element. In many circumstances, the buyer's affordability necessitates debt financing. A buyer can also take advantage of tax benefits, enhance his financial leverage, and diversify his portfolio with a mortgage. Given that mortgage financing is frequently used in conjunction with real estate transactions, it is logical to expect that while considering real estate, you will need to consider mortgage financing. This demonstrates the importance of financing in determining transaction prices and total profits from trade. The funding opens new possibilities (Bian et al., 2018).

Ghana's housing industry has not participated in the mortgage lending market. The causes cited include mortgagors paying a high annual commission, the introduction of indexed

mortgages being unfavorable to potential and existing mortgages, and real estate developers asking excessive prices for dwellings. The goal of the study is to look at the pull and push factors that influence the mortgage financing sector in Ghana's housing delivery,Ghana Home Loans and Ayensu River Estates, both members of the Ghana Real Estate Developers. To acquire and collate the relevant information for the study, interviews and consultations were done with competent institutions such as GREDA. Association, were studied as case studies (GREDA). Payback period, payment mode, limited access to information and legal reasons were the factors that were studied. According to the findings, no GREDA members have used direct mortgage financing without the help of a financial institution. The push factors were identified as poor local economic performance, insufficient address systems, and a lack of knowledge about potential clients. The pull factors were also believed to include stable economic indicators such as prime and loan rates, efficient banking systems, and effective identification systems. The study indicates that the efficiency of the land title system is critical to the success of the mortgage market and that mortgages must be an appealing investment that provides investors with a positive and risk-adjusted rate of return. Any short-term investment reward is eroded by mortgage borrowing. The study found that the extended mortgage repayment time (due to the country's low average income level) combined with the high inflation rate does not entice investors who want to see rapid returns on any investment to put money into the mortgage (Nelson & Asamoah, 2014).

In Nigeria, mortgage financing and home construction was investigated. The study's major goal was to determine the influence of mortgage loans on Nigerian housing growth. From 1990 to 2014, data was extracted from the CBN statistics bulletin and the National Bureau of Statistics to achieve this goal. Three hypotheses were developed and tested using econometric models such as the Augmented Dickey-Fuller unit root test. The co-integration tests demonstrated that the variables have a long-run relationship. The granger causality test was used by the Error Correction Model to establish causal relationships and dynamic interactions between variables. In retrospect, independent variables such as mortgage loan, interest on loan measured by the interest rate given, and cost of construction measured by total amount of money used for construction are examined for probable relationships and the likely consequences that changes in variable have on the dependent variable, housing stock which is measured by total number of houses. The study relied on secondary data.The research revealed that there is a strong link between mortgage lending and housing growth in Nigeria. Variables such as mortgage loans and interest rates had a positive and large impact on

housing development in Nigeria, whilst the cost of construction had a negative impact. Mortgage bank deposits had a favorable influence on mortgage investment, but inflation had a negative effect on mortgage investment, according to the data. Mortgage institutions in Nigeria should establish methods to mobilize more deposits and investigate new sources of money, such as funds from the capital market via housing bonds, savings, and loans from cooperative societies, according to the report (Udoka et al., 2017). Accordingly, we hypothesized:

$H0_1$: Mortgage financing has a positive impact on the non financial performance of Real estate firms.

2.2.3 Location and performance of Real estate firms

The study was conducted in Addis Ababa, Ethiopia, where design plays an important role in both developed and developing country low-cost housing complexes. In 2006, the municipal administration established the Integrated Housing Development Programme (IHDP), which included large low-cost housing complexes. The goal of the study was to learn more about the importance of design considerations in low-cost housing provision through the IHDP, as well as how much the Addis Ababa administration thought about it. The study used primary and secondary data sources like surveys, interviews, the Delphi technique, and document analysis to conduct a detailed case analysis of condominium housing on 103 sites throughout Addis Ababa City. Data were collected in both qualitative and quantitative formats. Quantitative data were in the form total number of sites, housing typology, number of apartment block, number of housing unit and number of common blocks. Although the city administration has made significant progress in providing low-cost housing, there were shortcomings in the implementation of housing designs that considered technical concerns, people's culture, and the needs and interests of the urban poor. As a result, the study proposes that the city government improve beneficiary engagement in projects that directly touch them; and that building rules and laws in housing be implemented and monitored to ensure long-term housing provisioning and prosperity for the poor living in cities. According to the findings of this study, a variety of factors have an impact on housing. The location of the housing is one of the variables (Inwani et al., 2010).

The first predictor of real estate profitability is its location. The key item to consider is the location's economic and social situation. Infrastructure, transportation access, market

absorption rate, distribution channels, qualified personnel, well-developed industry, and promotion are all elements that influence location decisions. During the 1980s, several scholars investigated the interurban placement of high-order service activities, but few of these studies focused on the inner metropolitan location of high-order service activities (i.e., producer services, finance, insurance, real estate, investment, and holding companies). Istanbul has been the focal point for foreign investment in a large hinterland that stretches from the Balkans to the Caucasus over the last ten years. The growing relevance of high-order activities in the Istanbul metropolitan region necessitates a better understanding of high-order service companies' location behavior and its impact on the city's development. The goal of this study was to determine the factors that influence location decisions in the Istanbul metropolitan area, which is now undergoing fast development. Good location increases the worth of the real estate. Persistent analysis should be done before the commencement of real estate. The value of the purchased estate, income from the estate, operating costs related to the estate, the time of entering and retreating from the investment, time of owning the estate, costs of capital engaged to finance the estate, legal regulations are some of the factors to be analyzed. The study was aimed at determining the factors important to company officials when they make decisions regarding where to locate their companies. According to the results of factor analysis, the variables rated as important to company officials could be grouped into five-factor categories. The data reduction method is also known as the factor analysis method. By using a strategy of simplification, this statistical analysis method was employed as a measuring instrument to describe the relationships between the variables.

The first factor is Physical condition of structure and environment which include Physical condition of office, Availability of sufficient floor space, Quality of building, Availability of parking space and Pleasant surrounding environment. The second factor is desire for centralized location which includes Proximity to sector activities, Customer potential and Proximity to financial center. The third factor is Prestige dimensions which includes Accessibility and relation to transportation facilities, visible location, and prestigious location

The fourth factor is working conditions required by type of company operations, Proximity to sector subsidiary firms, Proximity to firms in same sector and Suitability of type of operations to setting. The last factor is Economic dimension which includes Lower municipal taxes, Ownership and relatively cheap real estate property. The factor group of greatest importance was found to be that of "the physical condition of the building and its surroundings." The second factor was "desire for centralized location"; the third most important factor came under "prestige dimensions"; the fourth-factor group consisted of

"working conditions required by the type of company operations"; and the fifth and least important factor was that related to "economic dimensions (Berkoz, 2000). Accordingly, we hypothesized:

$H0_2$: Location has a negative impact on the non financial performance of Real estate firms.

2.2.4 Price and performance of Real estate firms

In a large sample of single-family homes, this article investigates the complex link between selling price, listing price, property attributes, housing market circumstances, and marketing time. One important result is that the length of time it takes to sell a house of equal quality differs depending on the amount of contract mortgage rates. Overpricing by sellers, on the other hand, is not a winning strategy, even in a market where properties move quite rapidly. Finally, while newer homes have a shorter marketing period, especially those in the mid- to high-price ranges, the size of a home has no bearing on the number of days it spends on the market. Selling price is measured by the amount of money which the real estate is sold. The listing price is the advertised price of the houses. Marketing time is the time where marketing is employed. Housing market circumstance is measured by the attractiveness of overall housing market. Accordingly, we hypothesized:

$H0_3$: Price has a negative impact on the non financial performance of Real estate

2.2.5 Construction period and performance of Real estate firms

The identification of a party accountable for the occurrence of delays delayed duration, and its influence on the as-planned construction schedule is one of the long-standing challenges in the field of real estate sector construction disputes claims. A classification of delay analysis models reveals that no model exists yet that can collect the causes of construction delays and determine who is responsible by evaluating time overrun due to the addition of various delays to the as-planned construction schedule and suggesting delay prevention measures to minimize their arrival in real estate projects. The goal of this document is to create and test a design technique for determining construction delays liability in real estate sector construction projects by gathering delays arrival causes and prevention actions that should be implemented to reduce construction delays. A methodology is established for resolving real estate construction disputes claims by identifying the party responsible for late arrival and allowing one to use lean construction principles to avoid delays in other work packages and real estate construction projects. Owner responsible delay means the owner fails to approve

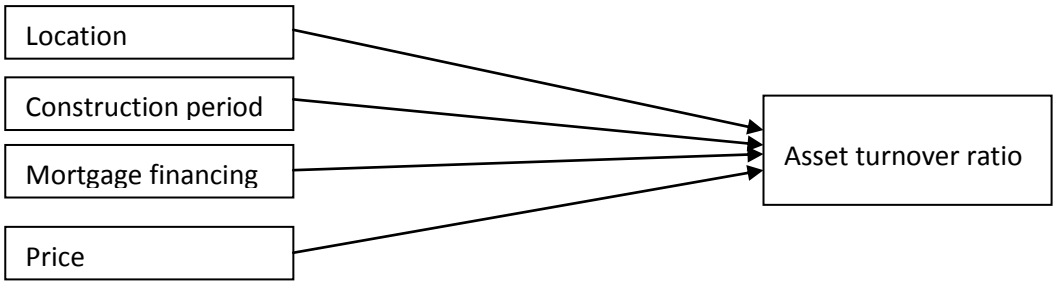
road drainage structure drawings in time during excavation work. Contractor responsible delay means the contractor does not have the proper equipment on site required to install the drainage structure on time. Excusable Delay means severe rainfall begins during construction phase. The participants' tests of this design method reveal that by completing the steps in the proposed design procedure, users will have a detailed understanding of the causes of time overruns in real estate construction projects, the responsible party for the delay will be asked for compensation based on the delayed time, and the final step of the design method will provide us with appropriate principles. It can, on the other hand, be considered as a socio-technical system that understands the relevance of people and lean construction concepts and can help achieve overall quality management in construction activities by training personnel and managing employees to reduce delays. The time impact approach of delay analysis can be used to calculate delay liabilities and resolve delays (Asim et al., 2017). Accordingly, we hypothesized:

$H0_4$: construction period has a negative impact on the non financial performance of Real estate firms.

2.3 Conceptual Framework

The study's conceptual framework can be defined as the relationship between non-financial performance, as measured by real estate asset turnover, and the parameters utilized to evaluate it. Construction time, location, pricing, and mortgage finance are all factors to consider. The values of the components are established differently in order to achieve the value of asset turnover, which is measured in percentages, such as price is measured in birr, construction period is measured in years, mortgage financing is calculated in percentages, and location is measured in kilometers. The following diagram depicts the conceptual structure of non-financial real estate performance and the criteria used to quantify it.

Figure 2.1: Conceptual framework



3. Research methodology

3.1 Introduction

This chapter outlines the research design, target population, empirical model, operationalization of study variables, data collection instrument, and how to analyze the data collected.

3.2 Research design

A research design is a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research. Research designs are plans that guide the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with the economy in the procedure (Sellitz et al., 1965). This research was a non-experimental survey.The researcher chose non-experimental research because the researcher measured the independent variables without manipulation the type of non-experimental survey, the researcher used is Cross-sectional research which is used to observe and analyze the exact time of the research to cover various study groups or samples Because the goal is to explain, explanatory research is used.

3.3 Research approach

For this research quantitative approach was used. Quantitative researchers collect data in the form of numbers and use a statistical type of data analysis (Blanche et al., 2008). The first advantage of this research approach is the use of statistical data as a tool for saving time and resources. Bryman (2001) argue that the quantitative research approach is the research that emphasizes numbers and figures in the collection and analysis of data. Imperatively, the quantitative research approach can be seen as being scientific. The use of statistical data for the research descriptions and analysis reduces the time and effort which the researcher would have invested in describing her result. Data can be calculated and conducted by a computer through the use of a statistical package for social science (SPSS) (Connolly, 2007) which saves a lot of energy and resources. Data were organized in excel format which makes it easy to insert in STATA and SPSS and the result was from SPSS and STATA. A quantitative method of approach was used by collecting data gathered from responses given by the participants through questionnaires.

3.4 Target Population, Sample Size and Sampling

A complete section of the population, events, or objects with some common observable attrib ute had been characterized as the study's population. The sample size is a part of the population chosen for a survey. There are several approaches to determining the sample size. These include using a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulas to calculate sample size (Glenn, 1992). According to data given by the Ethiopian Investment commission the real estate firm in Addis Ababa is 913.If the precision level is lower the accuracy of the result will be higher. In this research 10% precision level was chosen. The other was with higher accuracy the more time and expense.

Yamane (1967:886) provides a simplified formula to calculate sample sizes.

n=N/(1+N(e)2).

N= population (913)

e= precision level 10%

n=913/ (1+913(.1)2) =91

According to data from the Ethiopian Investment Commission, Real estate companies in Addis Ababa Ethiopia are 913 complete analyses that require too much time and effort. The expense will be beyond what a student researcher can afford. Systematic sampling is a sampling technique that is used for its simplicity and convenience. The purposive sampling technique, also called judgment sampling, is the deliberate choice of a participant due to the qualities the participant possesses. It is a non-random technique that does not need underlying theories or a set number of participants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information under knowledge or experience(Etikan et al., 2016). Real estate developers with only one apartment, real estate developers who rent the unit and real estate developers who are not active are all included in the data from the investment office. As a result, I purposively chose real estate developers who are actively building and selling homes by contacting them on the phone, their website and searching via Google.

3.5 Empirical Model

An empirical model is equally referred to as a regression model and shows the influence of independent variables on the dependent variable.

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4$

Y=Asset turnover

X1=location

X2=construction period

X3=price

X4=mortgage financing

3. 6 Operational definitions of all variables

The non-financial performance of real estate enterprises is examined in this study using the Asset turnover ratio. The ability of a company to produce revenue from its assets is measured by asset turnover. The asset turnover rate shows the company's asset use. Changes in asset turnover can be linked back to changes in the firm's current profitability. A change in asset turnover represents a change in the productivity of the firm's assets and, as a result, can be used to forecast future profitability(Fairfield et.al, 2001). This ratio is difficult to compare among organizations in different industries. Service businesses demand extremely little capital, resulting in a very high ratio. However, in order to operate, an energy company must invest a significant amount of capital. One site is considered under the real estate firm. The number of houses in that specific site and the number of houses sold in that specific site were asked in questionnaire form Asset turnover ratio is measured by dividing the total number of houses sold divided by the total number of the housing unit.

Real estate is a highly diverse good that is traded in markets where transaction costs are strongly connected. The performance of real estate portfolios or markets is reflected in real estate price indices. (Chau et al.2005). Hedonic pricing models can be used to determine how some attributes influence the overall transaction price. Each tangible and intangible building characteristic, as well as other external influencing elements, influence market pricing

(Monson,2009).Price is measured by birr or other currency the housings are sold at and the data is converted to logarithm. When obtaining data, price per square meter was requested.

Location is the site where the buildings of the real estate are built.Google map visualization is Visualization of the distances from the location to the corresponding locations (Hegde et al., 2016). Location of the site was asked then the distance from the site of construction (where housing units are located) to the center of Addis Ababa (piazza) is measured using Google Maps. Kilometer was utilized to measure the location.

The term "mortgage" simply refers to the label given to a specific sort of loan, in this case, a real estate loan. It is, like any other loan, a promise to return a sum of money received today at a later date. Mortgage financing is measured by the amount of loan the real estate firm is providing via financial institutions. A loan's amount is simply the amount of money that the borrower receives after signing the loan agreement (Mcdonald & Thornton,2018). It is measured by the percentage of the price of the housing covered by financial institutions.

The real estate firm buys the finished pad from the land developer and then does the vertical development by constructing the building improvements. Construction period means the time interval between commencement and ending of the project. Construction period is measured by the year it takes to finish construction of a housing unit regardless of its location.

To get clear vision respondents were asked a Likert scale question which supports the quantitative data. Whether they finish construction of houses on time, whether respondent’s clients prefer mortgage financing, whether their clients consider location as the dominant factor in buying houses and whether clients consider price as a dominant factor respondent will be able to answer these questions by using the Likert scale.

3.7 Data Collection instrument

The data collection instrument that is going to be used is self-administered questionnaires. Sales personnel will be given the questionnaires a self-administered survey is a data-collection process where the researcher is entirely absent when respondents are filling out the survey by providing my information if any questions were raised while filling the questionnaires. Questionnaires will be distributed with questions related to the independent and dependent variables. The research is a cross-sectional type of which means it the data of the year 2020/2021.The questionnaire has three parts (see Appendix 1). The first part asked respondents to provide their biography. The second part asked respondents to tell us their opinion, in a 5-point Likert Scale (where 1=strongly disagree and 5=strongly agree), concerning four issues, namely, whether their firm's timely finish construction of housing units, Potential customers prefer mortgage financing, Potential customers consider location as a dominant factor in their buying decisions and Potential customers consider price as a dominant factor in their buying decisions. The third part provided open-ended questions where respondents are asked to provide information on The construction period per housing unit, The location of housing units, Respondents were asked where their sites were located and the distance between their location and the piazza was estimated using Google Maps, Recent price per housing unit, Amount of loan the real estate firm is providing via financial institutions. it is measured by the percentage of the price of the housing covered by financial institutions loans the buyers got with their effort is not included because it's not the information that the sales personnel's can provide and Asset turnover ratio in terms of Asset of average housing units and housing units sold.

3.8 Tests of assumptions of linear regression

Multiple regressions employ a linear model that makes two primary statistical assumptions, multivariate normality, and homoscedasticity. These assumptions are not made from necessity but because the linear model is simpler than that includes both linear and non-linear constructs and simple models have long been known to have desirable properties (Mulaik, et., 1989). The assumptions to be tested are Multivariate normality, multicollinearity, auto-correlation and Homoscedasticity.

3.8.1 Normality test

The normality test is used to see if the data is well-modeled by a normal distribution and to calculate how likely it is that the random variable underpinning the data is normally distributed. the multivariate normal distribution is useful in analyzing the relationship between multiple normally distributed variables. The normality test is performed to see if the data set fits the normal distribution effectively, One measure of the goodness of fit of a normal model of the data in descriptive statistics. The null hypothesis assumes that error terms are normally distributed. Types of normality test are classified depending on regression and correlation. Some of normality test are Jarque-Bera test, Kernel density estimation test and K-S test.

The kernel density estimate is used. Kernel density estimation (KDE) is a non-parametric method for estimating a random variable's probability density function. Kernel density estimation is a fundamental data smoothing problem in which population inferences are obtained from a finite data sample. The location of all sample points is used in kernel estimation, which more plausibly supports multimodality.

3.8.2 Autocorrelation Test

Autocorrelation is the term for the correlation between residuals that is caused by the modification of the original data as well as the manipulation of the data through interpretation and extrapolation. The most basic and extensively used model is one in which the error terms u and ut-1 are related. On the basis of the estimated correlation coefficient between the residuals, one might test the hypothesis about for this model. Some of autocorrelation tests are Durbin-Watson test and Breusch-Godfrey test. The Durban-Watson is used for autocorrelation test which is an easy way to confirm the existence of autocorrelation. The Durban-Watson (DW) statistic, represented by DW, is a regularly used statistic for this purpose. The calculated correlation coefficient is 1 when the DW statistic is zero (d=0), and d=4 when the correlation coefficient is -1. If d is around zero or four, the residuals are closely linked. The conventional d statistic is d =2, which shows that the estimated correlation coefficient is 0 and that the residuals are not correlated. It is common practice to modify data on the basis of estimated first order autocorrelation and then apply ordinary least square with the changed data to check for autocorrelation. If it is pure autocorrelation, an appropriate modification of the original model can be used to ensure that autocorrelation is not a problem

in the modified model. We'll have to apply the generalized least squares (GLS) method in this case (Madala, 1992). Carryover of effect is a significant source of autocorrelation, at least in part. Autocorrelation can be found in both cross-section and time-series data. In cross-sectional data, neighboring units have a tendency to be similar in terms of the attribute being studied.

3.8.3 Multicollinearity test

Multicollinearity is the condition in which independent variables are inter-correlated, and it refers to the future of a sample rather than the population as a whole. The presence of multicollinearity in a model can be detected using a multicollinearity test. When a researcher attempts to establish how well each independent variable can be used most effectively to understand the dependent variable, a multicollinearity test might produce skewed or misleading results. Data-based and structural multicollinearity are the two types of multicollinearities. The first arises when an experiment is poorly designed or when the data collected is solely observational, whereas structural multicollinearity occurs when a researcher creates a new independent variable from one or more existing variables. For the presence of multicollinearity among the explanatory variables, the conventional linear regression model assumes indeterminate coefficients and indefinite standard errors. If multicollinearity is less than ideal, the regression coefficient has a bigger standard error (concerning the coefficient itself), implying that the coefficient cannot be calculated with more precision or accuracy.

The tolerance or variance inflation factor can be used to evaluate the multicollinearity test.The VIF is a simple test for determining multicollinearity.The variance inflated factor (VIF) is used to see if multicollinearity is an issue when making conclusions. When VIF>10, there is the problem of multicollinearity and hence we can reject the hypothesis of no correlation among explanatory variables and vice-versa. There are some remedial measures suggested to the problem of multicollinearity such as prior information from previous empirical works, combining both cross-section and time-series data. One of the simplest things to do is dropping the variables which are highly correlated and specification bias. The variables should also be transformed when they tend to move in the same direction (Gujarati, 2002).

3.8.4 Hetroskdasticity Test

The existence of heteroskedasticity in the disturbances of an otherwise adequately defined linear model is well known to result in consistent but inefficient parameter estimations and inconsistent covariance matrix estimates. As a result, when testing statistical hypotheses in the presence of heteroskedasticity, incorrect inferences will be drawn.

3.8.5 Model specification

The process of deciding which independent variables to include and exclude from a regression equation is known as model specification. The process of deciding which independent variables to include and exclude from a regression equation is known as model specification. The model specification test is based on the premise that if a regression is well characterized, you shouldn't be able to uncover any extra independent variables. The model specification compares the dependent variable of the original regression to the original regression's prediction and the squared prediction to see if this is true. If the test regression's squared prediction repressor is significant, implying the model is miss-leaded.

The researcher performed the link test to determine whether the regression model was appropriately described and whether there was no specification bias or error. The link test is based on the null hypothesis that the regression model's predictive value (_hat) is statistically significant at the 5% level of significance and square prediction (_hat sq) is negligible at the 5% level of significance. To test this in STATA, I created two variables from the original regression model: predictive value (_hat) and square prediction (_hat sq). If a predictive value (_hat) is statistically significant at the 5% level of significance and square prediction (_hat sq) is negligible at the 5% level of significance after regressing these two variables with the model. The Ramsey Regression Equation Specification Error Test (RESET) is a general linear regression model specification test.The Ramsey RESET Test was used to evaluate if the regression model was excluding relevant variables.

3.9 Data Analysis Procedures and Presentation

After collecting the filled questionnaires, the researcher ensures that the ones considered for analysis were completely and appropriately filled. The data collected in the research were coded and entries made in STATA. Descriptive statistics measure the distribution in the form

of frequency and percentage, measures the mean and the standard deviation of the data collected by the questionnaires. Inferential statistics in the form of multiple regressions will be used. The effect of the independent variable on the dependant variable will be viewed by multiple regression.

$$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4$$

Y= Asset turnover

X1=location

X2=construction period

X3=price

X4=mortgage financing

3.10 Ethical issue

Several ethical concerns were considered in the research. To begin, the researcher obtained the necessary permits and consents from the appropriate authorities to collect data for the study. The researcher avoided asking sensitive questions to the participants. Furthermore, the responders were not forced to reveal their own or their institutions' names. The study guaranteed the respondents, as did the researcher, that the data gathered, and the findings would not be used for purposes other than academic.

4. Data Presentations, Analyses and Discussions of Findings

4.1 Introduction

This chapter presents the findings of the data analysis as well as relevant debates. The response rate is presented first, followed by the respondents' background information. The descriptive and inferential findings are next presented. The findings are provided in conjunction with the study objectives in the later parts.

4.2 Response rate and missing data

In comparison to the number of questionnaires distributed, the response rate refers to the num ber of questionnaires that are returned or collected from respondents who have completed the m correctly. A total of 91 questionnaires were sent to the sales departments of real estate firms in Addis Ababa, Ethiopia. A total of 82 surveys were completed and returned. This results in a response rate of 90.1 percent. During data collecting, I ran into an issue where certain real estate firms left some questions unanswered, especially in mortgage financing because they didn't know much about it. I told them what mortgage financing meant and once they got a clear vision about it they answered the questions and some sales personnel knew how many houses they sold but didn't know how many they sold yearly so there was missing data but after discussing with them, we agreed to utilize the % approach. since they have a rough estimate of the number of residences sold each year.

4.3 Background information

This section summarizes the findings of the descriptive analysis in terms of respondents' background information. The findings looked at the respondent’s qualifications and work experience.

Table 4.1: Distribution of Respondents by Academic Qualifications

	Frequency	Percentage

Diploma	8	9.7
Undergraduate	44	53.6
Postgraduate	30	36.7
Others	0	0

According to the findings of the investigation shown in Table 4.1, the majority of salespeople employed by real estate firms have a bachelor's degree (53.6). According to the survey, only 36.7 percent of salespeople have a postgraduate degree, while 8.8% have a diploma. According to the findings, more educated people work in this field. A well-educated individual has obtained a liberal arts education. They have an in depth and a broad understanding of a subject.

Table 4.2 Distribution of Respondents by Work Experience in the real-estate firms

	Frequency	Percentage
Less than 1 year	22	26.8
1-5 years	51	62.1
6-10 years	7	8.6
Over 10 years	2	2.5

The study examined the distribution of sales personnel participating in the study according to their work experience at real estate firms. As shown in Table 4.2, the majority of the sales personnel (62.1%) had worked with the aforesaid firms for a period of between 1-5 years. 26.8% of the sales personnel had worked at real estate firms for less than 1 year. The findings underscored the high level of experience of sales personnel in real estate investment trusts. 8.6% of the sales personnel have been working between 6-10 years. Only 2.5% of the sales personnel have experience of over 10 years. As the data suggests, most of the sales personnel

have moderate experience .these experience is enough because the sales personnel are guided by marketing managers.

4.4 Frequency and descriptive analysis of variables

Table 4.3 below provides the opinion of respondents regarding Whether their respective firms' timely complete construction of housing units, Customers prefer mortgage financing, Whether the location is a dominant factor and Whether the price is a dominant factor Likert type items is used in this research because a single question that uses some component of the original Likert response alternative is designated as a Likert type item. Even though there are many questions, I have made no attempt to integrate the responses from the various things into a composite scale. The Likert type questions together with the quantitative data are used to make a conclusion. Since I wanted to know effect of each variable i made the decision not to combine the result. Frequency is used to measure the Likert data. The result is shown on table 4.3

Table 4.3: Descriptive statistics for the variables measured Likert type form

Questions	N	Minimum	Maximum	Mean	Std.Dev
my firm finishes construction of houses for sale on time	82	1	5	2.57	1.248
Our potential customers prefer mortgage financing to equity financing (using one's own money) when buying houses	82	1	5	3.43	0.98
Our potential customers consider price as a dominant factor when purchasing houses	82	1	5	3.76	1.272
Our potential customers consider location dominant factor when purchasing houses	82	1	5	3.99	1.024

Descriptive study provides a brief summary of the samples. The standard deviation might be greater than the mean or vies versa. If the mean is higher the data is clustered but if the Std Dev is higher the data is spread it can be seen that for all our variables mean value is greater than the Std Dev. This means there is no huge difference in the answers given to the questions my firm finishes construction of houses for sale on time, Our potential customers prefer mortgage financing to equity financing (using one's own money) when buying houses price of real estate, Our potential customers consider price as a dominant factor when purchasing houses and Our potential customers consider location dominant factor when purchasing houses.

The first of the four questions answered was if the firm complete construction on time and the outcome showed that most real estate firms do not finish on time. The second question is mortgage financing. Some real estate firms were neutral on this topic because they do not provide mortgage financing, but those who do say that customers prefer mortgage financing. The other question is regarding pricing; most real estate firms believe that price is the most important thing to consider when buying a home. When it comes to buying a home, the location is also a major consideration for buyers.

Table 4.4: Descriptive statistics for the variables measured quantitative form

Variables	Obs	Mean	Std. Dev	Min	Max
Price	82	60701.78	13129.83	32751	92000
Location	82	10.85	5.18	3	22
Construction period	82	4.02	1.49	2	9
Mortgage financing	82	16.22	25.17	0	80
Inventory turnover ratio	82	27.59	9.13	10	50

Table 4.4 provides descriptive statistics of the dependent and independent variables of this study.

Descriptive study provides a brief summary of the samples. The standard deviation might be greater than the mean or vies versa. If the mean is higher the data is clustered but if the Std

Dev is higher the data is spread It can be seen that for all our variables except mortgage financing, the mean value is greater than the Std Dev. This means there is no huge difference in the price of real estate, location, and construction period of the real estate firms while there is a difference in mortgage financing the real estate firm's offer.

4.5 Tests of assumptions of linear regression

4.5.1 Normality test

Kernel density estimation (KDE) is a non-parametric approach for estimating the probability density function of a random variable. Kernel density estimation is a basic data smoothing problem in which population inferences are derived from a small sample of data. Kernel estimate takes into account the location of all sample points, making multimodality more plausible. The null hypothesis posits that error terms are distributed normally. Bandwidth is a kernel density estimator where K is the kernel a non-negative function and h > 0 is a smoothing parameter. A bandwidth which is smoothing parameter should be zero. In this study, the bandwidth is 2.27. the normality test used is kernel density estimate, as it can be seen the kernel density estimate is similarly shaped to that of the normal density.

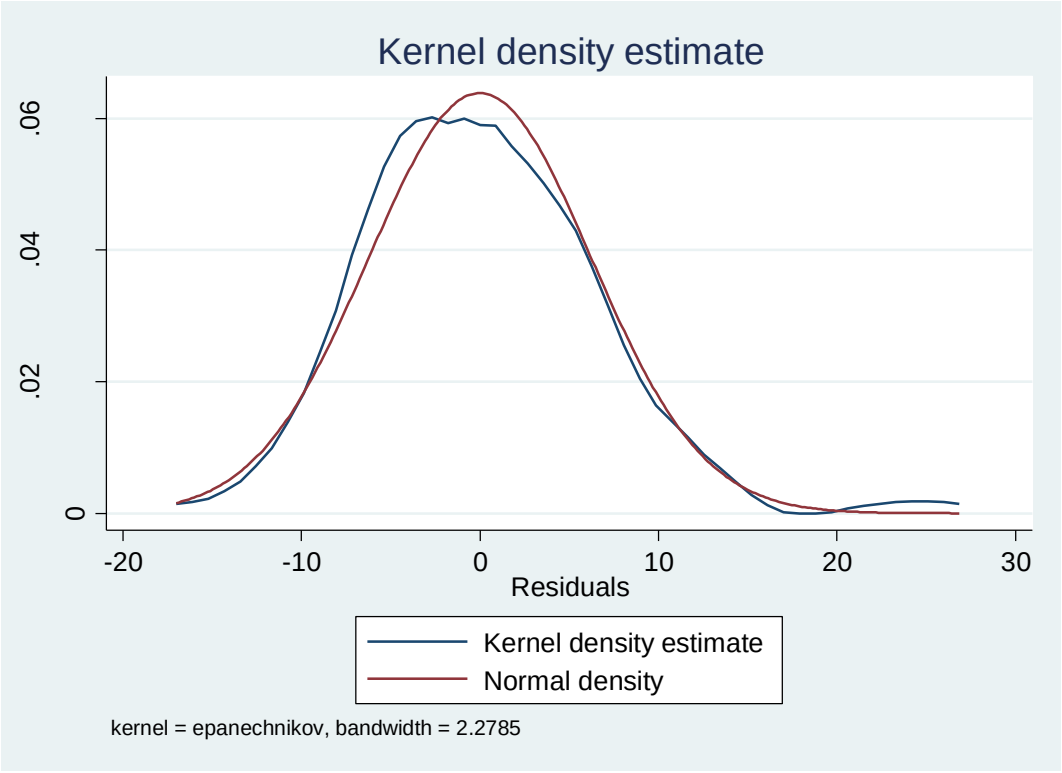


Figure 4.1 Normality test

4.5.2 Autocorrelation Test

The Durban-Watson (DW) statistic, represented by DW, is a regularly used statistic for this purpose. When the DW statistic is zero (d=0), the estimated correlation coefficient is 1, and when the correlation coefficient is -1, it is d=4. The residuals are strongly connected if d is near zero or four. The standard d statistic is d =2, which indicates that the estimated correlation coefficient is 0 and the residuals are uncorrelated. To check autocorrelation, we used the Durbin-Watson test, which yielded d= 2.49, showing a low correlation between the variables.

Table 4.5: Autocorrelation test

```
. estat dwatson

Durbin-Watson d-statistic(  5,    82) =  2.487686
```

4.5.3 Multicollinearity test

The variance inflated factor (VIF) is used to see if multicollinearity is an issue when making conclusions. When VIF>10, there is the problem of multicollinearity and hence we can reject the hypothesis of no correlation among explanatory variables and vice-versa. The outcome of the table above reveals that the VIF value of each variable is less than 10, indicating that there is less of a problem with multicollinearity.

Table 4.6: Multicollinearity test

Variable	VIF	1/VIF
Location	1.35	0.742801
Mortgage	1.33	0.754247

Period	1.3	0.766656
Ln price	1.06	0.941102
Mean VIF	1.26	

4.5.4 Heteroskedasticity test

The Breusch-Pagan test for heteroskedasticity is said to be capable of detecting heteroskedasticity that is a random function of a set of regressors. I conducted Breusch-pagan test to check heteroskedasticity. Since the p-value as provided in table 4.7 below is 38.9%, heteroscedasticity is not a problem in this model.

Table 4.7: Heteroskedasticity test

```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of assetratio

         chi2(1)      =     0.74
         Prob > chi2  =   0.3893
```

4.5.5 Model specification

I conducted Ramsey reset test to determine whether our model has omitted critical variables or included irrelevant variables. The null hypothesis (Ho) in this test assumes that no variable has been left out. We accept Ho if the test statistic result is greater than 5%, and reject it if it is less than 5%. The study revealed that the value is 75.2% which is greater than 5%. This suggests that there is no omitted variable in the model.

Table 4.8: Model specification

```
. ovtest

Ramsey RESET test using powers of the fitted values of assetratio
       Ho:  model has no omitted variables
                  F(3, 74) =      0.40
                  Prob > F =      0.7524
```

4.6 Regression Analysis

This section shows the results of regression analysis. In particular, the results of the general correlation between the determinants studied and the performance of real estate firms are outlined. The results of the coefficient of determination (r2) show the extent to which the independent variables explain the performance of real estate firms and regression coefficients are explained. As provided in Table 4.9 below, the coefficient of determination (r2 = 0.532) implies that 53.2% of the performance of real estate firms could be explained by the four determinants studied (construction period, location, price, and mortgage financing). The remaining 46.8% could be attributed to other factors that were not studied. This implied that factors investigation were very crucial in enhancing the performance of real estate firms.

Table 4.9: Regression analysis

```
. reg assetratio location period lnprice mortage
```

Source	SS	df	MS	Number of obs	=	82
				F(4, 77)	=	21.87
Model	3591.23644	4	897.80911	Prob > F	=	0.0000
Residual	3160.48305	77	41.0452344	R-squared	=	0.5319
				Adj R-squared	=	0.5076
Total	6751.71949	81	83.3545616	Root MSE	=	6.4067

assetratio	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
location	-.4855758	.1593461	-3.05	0.003	-.8028744	-.1682772
period	-1.809956	.5438653	-3.33	0.001	-2.89293	-.7269819
lnprice	-8.668229	3.192122	-2.72	0.008	-15.02456	-2.311902
mortage	.1024896	.032561	3.15	0.002	.0376524	.1673267
_cons	133.7387	34.64044	3.86	0.000	64.76081	202.7167

Based on the data in Table xx, the multiple regression model is provided below.

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4$

Y = 133.74 -0.49X1 - 1.81X2 - 8.67X3 + 0.1X4

Y= Asset turnover

X1=location

X2=construction period

X3=price

X4=mortgage financing

In regression analysis, the P-value and coefficients work together to inform you which relationships in a model are statistically significant and what those relationships are like. The coefficients show how each independent variable and the dependent variable are related mathematically. The coefficient's p-values reflect whether or not these associations are statistically significant.

The P-values of location, construction period, price, and mortgage financing in the regression analysis are 0.003,0.001,0.008, and 0.002, respectively, which are lower than the significance level (0.05), indicating that there is no correlation between the independent variables and that they are statistically significant.

The coefficients describe the mathematical relationship between each independent variable and the dependent variable.The equation shows that for every unit change in km, year, Ln of birr, and % loan there will be a change of - 0.49,-1.81- 8.67, and 0.1 change in Asset turnover respectively while holding other factors constant as reflected by 133.7387.

Customers place a higher importance on location when purchasing a home because most of the data collected falls into the strongly agree and agree categories for the question of whether location is the most significant factor. As seen in the regression, the location coefficient is - 0.49.We can see from this that Asset turnover and location are inversely related, with a unit change in location measured by km resulting in a 0.49 decrease in Asset turnover, indicating that most people prefer to buy houses near Addis Ababa's center because it is more convenient for them in terms of commute time and ease of obtaining necessary commodities previous research suggest the same which is the desire to centralized location.

Based on this hypothesis was presented. All suggest that location the far the real estate from the center the lower the performance of real estate.

According to data from the Likert type data, most real estate firms do not complete house construction on time, with most of the findings falling into the disagree and strongly disagree categories. Not only from the data we collected, other previous research states that there is a construction delay. The issue with construction delay is that it can be caused by a variety of parties, and it can be difficult to determine who is to blame. Because most clients would rather have a finished home than wait for what they paid for. The regression result of -1.81 shows that real estate performance and building length are inversely connected. For every unit change in the construction period measured year by year, the asset turnover will decrease by 1.81. If the building duration is extended, the real estate firm's performance will suffer due to its low asset turnover ratio. Employees should be trained, and project quality management should be improved to decrease project construction delays. Based on previous research, a hypothesis was suggested that there is an inverse relationship between construction period and real estate performance. The results of this study support that hypothesis.

Because majority of the data obtained falls into the strongly agree and agree categories for the question of whether pricing is the most important consideration when acquiring a home, customers place a stronger focus on price when purchasing a home, as demonstrated by the data in the Likert Type. The majority of Addis Ababa residents are from low- and middle-income families, and affordability is a major consideration when purchasing a home. The coefficient of price in the regression is -8.67, showing that price is a negative driver of real estate firm performance. Seller overpricing, on the other hand, is rarely a winning approach, especially in a market where properties move quickly. Newer properties, especially those in the mid- to high-price categories, have a shorter marketing period. The data is changed from a unit change (birr) to a percentage change in the regression because the selling prices of the houses are in logarithmic form. If the price changes by a percentage, the asset turnover will decrease by 8.67. According to earlier study, overpricing of homes has a detrimental impact, and a hypothesis was suggested based on that research. This research reveals the same conclusion: the greater the price, the worse the real estate performance.

Based on the information gathered, I have discovered that the majority of real estate firms do not offer mortgage finance that is why in the data from the Likert scale most respondents chose neutral when asked if customers prefer mortgage financing this results resembles the

research done in Ghana mortgage financing is are not mostly used in Ghana's case it is because of higher annual commission and unfavorable existing mortgage but in Ethiopia there is a shortage of knowledge in considering mortgage financing and real estate performance are directly related as shown by regression with value of 0.1 this result is similar to the research done prior .A unit change in mortgage financing will result a 0.1 change in Asset turnover. Mortgage financing is done with the help of financial institutions. Understanding from previous research and from this research implies buyer's affordability necessitate mortgage financing it increases the performance of real estate firms. Mortgages should have positive, and risk adjusted rate of return. When considering mortgage financing one must overview repayment and inflation. In previous research's mortgage financing has a positive impact on the performance of real estate hypothesis was proposed based on that research. This research came up with the same result concluding that mortgage financing has a positive impact on the performance of real estate.

5. Chapter 5

Summary of major findings, conclusion and recommendations

This section will cover the summary of findings, concluding remarks, and Recommendation.

Based on the study findings. The first part includes a summary of the major findings,

Followed by conclusion and recommendations.

5.1 Summary of major findings

The majority of real estate companies do not finish house construction. Due to its low asset turnover ratio, the real estate firm's performance will suffer if the building's lifespan is extended. To reduce project construction delays, employees should be trained, and project quality management should be improved.

When it comes to buying a property, customers value location more than anything else. We can observe that asset turnover and location are negatively associated, implying that most people choose to acquire properties near Addis Ababa's core since it is more convenient for them in terms of commuting time and the ease with which they can obtain necessary commodities.

Customers place a greater emphasis on price when purchasing a property, and pricing is the most essential consideration. Price has a negative impact on the performance of real estate companies. Overpricing by the seller, on the other hand, is rarely a profitable strategy, especially in a market where homes sell quickly.

The most of real estate companies do not provide mortgage services. Mortgages are financed with the assistance of financial institutions. Housing affordability necessitates mortgage funding, which boosts real estate enterprises' performance. Mortgages should provide a positive rate of return that is risk adjusted.

5.2 Conclusion

The main objective of this study was to examine the effect of the construction period, mortgage financing, location, and price on the non financial performance of real estate in Addis Ababa, Ethiopia. To achieve this objective cross-sectional data was used and analyzed using STATA to determine regression value and post estimation diagnostic tests.

The study found that the use of mortgage financing is low in Addis Ababa, Ethiopia while collecting data, even though even while awareness of mortgage finance is limited in Addis Ababa, Ethiopia, there are real estate enterprises that use mortgage finance. It has been determined that mortgage financing has a positive impact on the of real estate firm performance.

In Addis Ababa, Ethiopia, price is the dominant element impacting a real estate firm's performance when considering other independent variables of the research. When the price of real estate rises, the acquisition of assets falls; and when the asset turnover ratio rises, the performance of real estate falls. The performance rises when the price of housing falls because it will be affordable to a larger number of people. Price reductions that are too drastic will have an impact on quality.

Another aspect that has an adverse relationship with real estate performance is location. Most potential purchasers prefer to buy real estate where access to commodities, transportation, and other amenities is easier.

Some real estate companies begin selling before the project is completed and they receive some portion of the sales the remaining to be paid at the end. Construction period may be delayed. This makes the asset turnover lower. Building of a project necessitates careful and quality management since as the construction time lengthens real estate firms' performance suffers as sales decline.

5.3 Recommendations

Based on the findings the following recommendations are drawn

- The researcher suggest for Mortgage financing to be used by real estate firms that do not utilize it because more individuals will be able to purchase housing if a portion of the cost is covered by financial institutions. Because it is a novel transaction, banking institutions will benefit as well.
- To shorten the construction time frame, real estate companies should concentrate on the construction process and take necessary measures within their company to finish their project. This will assist them in selling the residences early, which will improve their performance.

- Real estate companies should first identify where they want to build their properties based on their target customers. Lands near the city's core are more expensive than those on the city's edges which raising the price of real estate and decrease its performance.
- Before starting a project, real estate companies should have a target group because if it is a luxury property, the price will be greater, and only a few individuals will be able to buy it. If it is a regular house, most people will be able to afford it.
- As the result shows when the price of the housings decreases the inventory turnover will increase. But if the price of the housing becomes much lower the quality of the houses will also decrease. The measure used to increase the inventory turnover without the decrease price is mortgage financing.
- When building real estate, the firm should have a target group. If it is for the high-income group, then the location should be near to the center. If it's for the middle-income group, the location should not be that much far from the center then the price will be lower than that of the one build in the center which makes it affordable. If it is for low-income people, then the location should be far from the center so that they can get the lower price.

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Appendix

Survey Questionnaire

Addis Ababa University

College of Business and Economics

Questionnaire

Dear Respondents,

I am a graduate student at Addis Ababa University College of Business and Economics. I am undertaking a study on the determinants of performance of real estate firms in Addis Ababa, in partial fulfillment of the requirements for the Degree of Master in Business Administration. You are selected as a respondent considering your proficiency and experience, and I kindly request your willingness to participate in this study. The information you provide us will be treated with strict confidentiality and it will be only used for academic purposes. The questionnaire will take a maximum of 25 minutes. For any information about the study and the questionnaire, please contact me using my address provided below.

I would like to express my appreciation for your time and sincere responses.

Kindly regards,

Tigist Aberra
Tigist.aberra@aau.edu.et
Phone no: 0911726193

Instruction:

The questionnaire has three parts. The first part requires you to select from among the choices provided. In the second part, you are required to state the relevant information.

Part-I Biography

1. What is your highest academic qualification?

a) Diploma [ ]
b) Undergraduate [ ]
c) Postgraduate [ ]
d) Other, please specify [ ] _____

2. How long have you worked in a real estate firm?

A. Less than 1 year [ ]
B. 1-5 years [ ]
C. 6-10 years [ ]
D. Over 10 years [ ]

Part-II Please provide your level of agreement with each of the following statements by putting a checkmark (✓) in the appropriate box corresponding to your choice. (1) Strongly disagree, (2) Disagree, (3) Neutral, (4) Agree, and (**5**) Strongly agree.

Statements	**5**	**4**	**3**	**2**	**1**
3. My firm finishes construction of houses for sale on time.					
4. Our potential customers prefer mortgage financing to equity financing (using one's own money) when buying houses.					
5. Our potential customers consider location as a dominant factor when purchasing houses.					
6. Our potential customers consider price as a dominant factor when purchasing houses.					

Part-III Kindly provide the appropriate answer

1. When did the construction begin?

2. How long did it take to complete the construction?

3. Is your company able to help customers get a loan by connecting them with banks?

4. If you answered yes, please give the percentage?

5. Where is your site located?

6. The house's selling price is

7. How many houses/apartments are on the property?

8. How many apartments have you sold per year?

The end!!!

Thank you very much again for your time and indispensable cooperation in completing the questionnaire.