



COLLEGE OF BUSINESS AND ECONOMICS

**FACTORS AFFECTING PROFITABILITY OF REAL ESTATE
BUSSINESS IN ETHIOPIA: THE CASE OF PRIVATE REAL
ESTATE DEVELOPERS IN ADDIS ABABA.**

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DECLARATION

I, the undersigned, declared that this research project is my original work. It has not been submitted to none other than Addis Ababa University College of Business and Economics for partial fulfillment of the requirement for Degree of Masters in Business Administration

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Table of Contents

ACKNOWLEDGEMENT	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
ABSTRACT.....	viii
ABERIVATIONS AND ACRONYMS.....	ix
CHAPTER ONE 1.INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the problem.....	4
1.3 Objective the Research	6
1.3.1 General Objective	6
1.3.2. Specific Objectives	6
1.4 Research Hypothesis.....	7
1.5 Significance of the Study.....	7
1.6 Scope of the study.....	8
1.7 Limitation of the study.....	8
1.8 Organization of the study.....	8
CHAPTER TWO 2.LITERATURE REVIEW	10
2.1 Theoretical Review	10
2.1.1 Resource-Based View Theory	10
2.1.3 Market Power Theory	12
2.2 Determinates of Profitability.....	13
2.2.1 Macro-economic Factors	13
2.2.2 Firm Characteristics.....	15
2.2.3 Financial Performance	19
2.3. Empirical Review	20
2.3 Summary of Literature gap	24
2.4. Conceptual Framework.....	25
CHAPTER THREE 3.RESEARCH METHODOLOGY.....	26
3.1 Introduction.....	26
3.2. Research Design	26
3.3 Population of the Study.....	26

3.4 Data collection	27
3.5 Data Analysis	27
3.5.1 Analytical Model	28
Table 3.5 Measurement of Variables	29
3.5.2 Test of Significance	29
CHAPTER FOUR 4.DATA PRESENTATION, ANALYSIS AND DISCUSSION	30
4.1 Introduction.....	30
4.2 Diagnostic Tests.....	30
4.2.1 Normality Tests	30
4.2.2 Multicollinearity Tests.....	31
4.2.3 Heteroscedasticity Tests	32
4.3 Descriptive Analysis	33
4.4 Correlation Analysis	34
4.5 Hausmann Specification Tests	36
4.5 Panel Regression Analysis, Result and Discussion	36
CHAPTER FIVE SUMMURY, CONCLUSION, AND RECOMMENDATIONS	44
5.1 Introduction.....	44
5.2 Summary	44
5.3 Conclusions.....	45
5.4 Recommendations.....	46
5.4 Areas for future research.....	47
Reference	48
ANNEXES.....	53

LIST OF TABLES

Table 4.1 Normality Results	30
Table 4.2 Collinearity Results.....	32
Table 4.3 Heteroscedasticity Results	33
Table 4.4 Summary of Descriptive Statistics.....	33
Table 4.5 Correlation Results	35
Table 4.6 Hausmann Specification Results	36
Table 4.7 Panel Regression Results	37

LIST OF FIGURES

Figure 2.1 Conceptual Framework.....	24
Figure 4.2: Histogram plot indicating normality	31

ABSTRACT

Real Estate industry plays a vital role in the economic development where it paves the way to stabilize the economy through guarantying continuous capital flaws for financing .The study was based on the factors which affected the profitability of the private real estate industry in Addis Ababa. The sample in this study includes six private real estate companies panel data covering for five years period from 2018-2022. Secondary data that analyzed obtained from individual real estate companies annual report of financial statements (Balance sheet and Profit/Loss account) and Commercial Bank of Ethiopia data over the period from 2018 to 2022. The Panel Regression Analysis was employed to derive the impact of firm specific factors and macro-economic factors on the profitability of real estate industry in the countries. Firm size, Liquidity, Leverage and Age of the firm are used as the firm specific factors while GDP, Exchange rate and Inflation rate as macro-economic factors. The results indicate that, Exchange rate and Liquidity have a negative significant impact while, GDP, Inflation, Firm size, Leverage and Age of the firm have insignificant impact with the profitability (ROA) of real estate companies in Addis Ababa. The panel regression results also indicated that interest rates, inflation rates, GDP, leverage, liquidity, firm age, and size were responsible for 58.40% of the profitability of Real estate in Addis Ababa. The paper offers strong implications for the authorities, real estate firms as well as investors, researchers and regulators.

ABERIVATIONS AND ACRONYMS

ARDL	Autoregressive-distributed lag
CFROI	Cash Flow Return on Investment
CPI	Consumer Price Index
ECM	Error Correction Model
EIA	Ethiopian Investment Agency
EMH	Efficient Market Hypothesis
EVA	Economic value added
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
NPV	Net Present Value
OLS	Ordinary least squares
RBV	Resource-Based View
REITs	Real Estate Investment Trusts
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
VIF	Variance Inflation Factor

CHAPTER ONE

1.INTRODUCTION

1.1 Background of the Study

Real estate development is business process encompassing activities that range from the renovation and re-lease of existing buildings to the purchase of raw land and the sale of developed land or parcels to others (Clayton et al., 2007).

The development of the housing sector is widely recognized as an integral part of economic development. Real estate industry is the leading indicator of development in any economy and it is a measure of economic growth and wealth of a country (Carey, 2001).

The real estate market is one of the markets with an important position and role for the national economy, having direct relationships with the financial and monetary markets, the construction market and the material market, construction, labor market. Effective development and management of this market will make an important contribution to the process of promoting socio-economic development, creating the ability to attract investment capital for develop and make practical contributions to the process of sustainable urban and rural development towards industrialization and modernization of the country (Hoang & Linh, 2021).

Real estate business can be identified as a most profitable segment for both developing and developed nations. Because it led the countries to enhance the inbound infrastructure by pumping foreign direct investments to the economy. When considering about the benefits of investing in real estate sector, investors able to gain predictable cash flows, higher returns, tax advantages and hedge the inflation & diversify the risk of their portfolios (Kaluarachchi , 2020). If the factors affecting the growth in the investment are not well understood and managed by an investor, real estate becomes a risky investment (NZALU , 2012).

The real estate sector has been one of the fastest growing sectors of the Ethiopian economy and is contributing a large amount of the country's GDP. The growth of the Ethiopian real estate market is evidenced markedly in the past two decades more than any other sector in the economy. As the minster of construction real estate and other construction contributed 12.5

present of the country GDP (Growth Domestic Product). In this regard, real estate takes the lion's share about 60% within the 12.5% contribution (Deme, 2016). This sector has grown by a total of 25% in the last few years when compared to the overall GDP average growth of 10%. The real estate market has been heating up in the city, attracting capital from foreign and domestic investors because of rapid urbanization and high demand in the housing.

The population of rural-urban migrants in Addis Ababa boomed in a very short time. However, the cities' pace of growth in terms of different infrastructures such as shelter, water, electricity and communication facility, is not comparable with the speed of their population growth. Currently, the government builds houses mainly for the low income earners. This has created a fertile ground for the private sector to engage in the construction of real estate development which is supposed to be for middle and high income families (Miniyahile, 2016).

According to survey conducted by the Paris-based consulting firm Sagaci Research, which considered about 1,000 households in Addis Ababa, the middle income households in the city reached more than 20%; and the population of Addis Ababa estimated is become more than four million (Nation, 2017). So, to meet those increasing demand private investors become the major actors and entered in to this business. Investing in Ethiopian's real estate is not only profitable due to the rising population but it is also a way to help more people find shelter.

In recent years, private investors have significantly ramped up development, particularly in the more developed cities like Addis Ababa. The Addis Ababa city investment agency has given several licenses to real estate developers since its establishment. For the period of 2000- 2015, the total number of real estate developers licensed by EIA (Ethiopian Investment Agency) reached 1667 with a total capital of 31.9 billion (Eshete & Teshome, 2015). The agency also reported that the sector has been growing at an average of 12.3% in the past five years (Shelemew, 2016).

In today's world firms have to remain competitive for them to survive the very stiff competition in the market. One of the major ways of remaining competitive is by remaining profitable so as to have the resources to pursue any of the competitive strategies.

A company should gain profits in order to survive, maintain and grow over a long period of time. In case that the companies are not able to earn profit, capital invest will be eroded, which might lead to bankruptcy if this situation prolongs. Real estate profitability level and its drivers are key components of the stability of a financial system of a country (Vesala, 2010). If it is efficient enough then it should show profits, thus from the above we can see that, profitability of the firm is an indicator of the efficiency and wellness of an economy.

The center of discussion is about real estate profitability, this is due to the fact a sound profitable real estate firm must have an enhanced ability to overcome risks and positively impact the durability of the entire economy's system (Delis, 2009). Real estate profitability level and its drivers are key components of the stability of a financial system of a country (Vesala, 2010). If it is efficient enough then it should show profits, thus from the above we can see that, profitability of the firm is an indicator of the efficiency and wellness of an economy. The fast thriving real estate sector has attracted quite a number of investors both locally and internationally. The financial institutions have equally experienced a tremendous growth as the number has increased significantly.

In order to understand how businesses finance their operations, it is necessary to look at the factors that affect of profitability. A variety of elements influence an enterprise's profitability. Being aware of the aspects that affect profitability will help businesses by providing feedback.

In this study the factors that affect companies' profitability are divided as internal and external. The internal factors (variables) that are firm specific factors, whereas the external factors (variables) are that are expected to affect the profitability of real Estate companies that is macro-economic factors.

This study aimed to investigate the variables affecting the profitability of the real estate industry in the context of private real estate developers in Addis Ababa.

1.2 Statement of the problem

Profitability is a firm's ability to use its investment to generate earnings exceeding the cost of these investments' use (Nishanthini & Nimalathan, 2013). Firms consider profitability as a vital measure of success, efficiency, performance, and effectiveness, as it turns firms' available assets into profits (Devi & Devi, 2014). Profitability also indicates the company's ability to produce profits at an asset level, sales, and capital (Margaretha & Supartika, 2016). The determinants of firms' profitability and their improvement are critical. Real estate have become an important sector in contribute in the growth of their economy. According to Nimalathan , (2009), profit is the major objective of a business. In the accounting view, profit not only the success of the products but also the development of the market for the product. In other words, profit provides proofs about earnings potential of a firm and how efficiently a company is managed, so understanding factors affecting profitability is the key point that helps managers in developing an effective profitability strategy for their company.

Given the relation between the well-being of the real estate sector and the growth of the economy, it is vital to define and understand dynamics of well-being of real estate sector. If the factors affecting the growth in the investment are not well understood and managed by an investor, real estate becomes a risky investment. Flamini et al (2009) proposed that increased profitability level in a real estate sector, may imply increase in financial stability, hence wellness of the real estate sector. So Firms need to maximize their profitability efficiently and prevent huge loss as the main objective of firm to maximize their profit. Level of profitability is an important component of the health of real estate sectors.

One of the most important requirements for the long-term existence and success of businesses is profitability. There are a number of elements that have an impact on real estate business profitability. Even if some of those elements may have a detrimental impact on the profitability of construction enterprises, they are still important since they have an impact on economic growth, employment, innovation, and technological progress. Maximizing profitability is the main objective of the firm. Without profitability, a company would be unable to attract outside funding and ultimately fail.

The results of different empirical studies on the link between factors affecting real estate developers' profitability have been inconsistent. The outcome demonstrates that while some are

positively associated to profitability, other outcomes demonstrate both positive and negative relationships with profitability. The characteristics on the aforementioned lists are examined to establish enterprises in various nations. Therefore, the researchers look into what influences profitability for a few private real estate enterprises in Ethiopia.

The relationship between elements affecting the profitability of real estate enterprises in various nations throughout the world has been the subject of numerous studies. Like study done, Ouma (2015) in his study on the effect of macro-economic variables on real estate price demonstrated that high interest rate and inflation contribute to high real estate prices while high GDP leads to low house price. Ajide (2014) noted that government spending significantly impacts GDP growth which in turn has a direct impact on all sectors of the economy, including the real estate sector. Mohsin (2018) affirms that interest rate changes have a profound impact on individuals' and companies' saving and consumption behaviors. Mokhova & Zinecker (2014) noted that increased inflation negatively affects the profitability of investment projects, which simultaneously impacts stock market returns. There are also studies that shows inflation rate being one of the influential factors for real estate investment, Richard et al, 2019, Sunday S. Akpan, 2020, Jack Rubens, 1989 and Workie , 1966, but the results are contrary as supposed to show the effect inflation has on real estate performance on different study. Martinez-Solano (2007), the relationship between company size and profitability is positive. Chandrapala and Knápková (2013) found a significant relationship between the size of the firm and its profitability measures among Czech firms. However, several previous studies like Deloof (2003), Kebewar (2013), and Enqvist *et al.* (2014) showed a result of negative relationship between the size and profitability.

Because real estate businesses function locally, their financial performances are influenced by regional, national, and industry-specific issues. However, when we visit our nation, we are concerned that Ethiopian scholars will not be interested in the elements determining the profitability of real estate. Because the publications and journals directly connected to the study themes conducted in Ethiopia could not be found when the researcher searched the internet for information on this issue. Due to the lack of empirical research in Ethiopia, the researcher was motivated to make his own contribution about the elements affecting the profitability of real estate firms for private companies. Since the issue is relatively new, this shows that there is a lack of research in this field. In order to identify the variables determining the profitability of a few

1.3 Objective the Research

1.3.1 General Objective

The general objectives of the research were to investigate factors affecting profitability of real estate business in Ethiopia in the case of private real estate developers in Addis Ababa.

1.3.2. Specific Objectives

The study is guided by the following specific objectives;

- i. To establish the effect of exchange rate on profitability of private real estate firms in Addis Ababa.
- ii. To establish the effect of inflation rate on profitability of private real estate firms in Addis Ababa.
- iii. To establish the effect of gross domestic product (GDP) on profitability of private real estate firms in Addis Ababa.
- iv. To establish the effect of firm size on profitability of private real estate firms in Addis Ababa.
- v. To establish the effect of liquidity on profitability of private real estate firms in Addis Ababa.
- vi. To establish the effect of leverage on profitability of private real estate firms in Addis Ababa.
- vii. To establish the effect of age of the firm on profitability of private real estate firms in Addis Ababa.

1.4 Research Hypothesis

- i. **H₀₁**: Exchange rate has statistical significance on profitability of private real estate firms in Addis Ababa.
- ii. **H₀₂**: Inflation rate has statistical significance on profitability of private real estate firms in Addis Ababa.
- iii. **H₀₃**: GDP has statistical significance on profitability of private real estate firms in Addis Ababa.
- iv. **H₀₄**: Firm size has statistical significance on profitability of private real estate firms in Addis Ababa.
- v. **H₀₅**: liquidity has statistical significance on profitability of private real estate firms in Addis Ababa.
- vi. **H₀₆**: leverage has statistical significance on profitability of private real estate firms in Addis Ababa.
- vii. **H₀₇**: Age of the firm, have statistical significance on profitability of registered real estate firms in Ethiopia.

1.5 Significance of the Study

The study is primarily conducted for the purpose of academic reasons as part of partial fulfillment of Master of Business Administration in finance. Thus, the findings of this research will add to the relevant body of knowledge regarding the determinants of real estate in private residential housing developments in Addis Ababa.

This study is expected to provide property owners, investors, and construction companies with evidence on the factors that influence the performance of firms in the real estate industry. Such evidence is a crucial source of information that could be used to improve investment decisions. The results will also improve the decision-making within the firms by allowing the management teams to restructure their firm characteristics to stimulate better financial performance.

Further, government agencies can utilize the results of the study to develop requirements for the operational Real estate firms, which will ensure that they can sustain their performance. For the government policy makers and the business society: It will help serving as an input for policy

decisions about the sector. In addition, it can be used as base line information to interested researchers to acquire & enhance knowledge for further study on related issue.

1.6 Scope of the study

Since real estate activity covers much of the world and divers in idea and operation the scope of this study is limited to the boundary of Addis Ababa. It focused in the determinants of real estate in Ethiopia the case of real estate developers in Addis Ababa. Such topics have many real estate companies operating in the country; it needs a full investigation that requires too much time and resources above the researcher's capacity. The research will only cover the private residential real estate companies operating in Addis Ababa. Those real estate projects which are engaged in building complex buildings for commercial purposes have not been covered in the study. The contextual scope of the research focused on the macroeconomic factors (GDP growth rate, interest rate, inflation rate), firm characteristics (firm size, liquidity, age), and the financial performance (profitability metric).

1.7 Limitation of the study

In the study, the first limitation would be the availability of data. The data is secondary data which only obtained from the Real Estate firms. It was very difficult to get or access the information because an unwillingness of the companies to give the data's. Therefore, the sample size and panel observation were reduced. It affects the accuracy of the result in the study. The second limitation would be the sample size which was small due to the selected sample only covered 6 Real Estates out of a total number of more than 127 listed Real Estates in Addis Ababa. Therefore, it makes difficult to obtain the significant relationship from each variable. In addition to that, a total period of 6 years might not be sufficient to obtain more accurate result. A longer time frame of study would provide more accurate and relevant findings of this study. Lack of previous research in this title in bases of our country somehow makes it difficult to realize the effect of the determinants in our country context.

1.8 Organization of the study

This research work was organized in five chapters. The first chapter presents introduction of the research which includes background of the study, statement of the problem research questions and objectives of the study. In addition scope and limitation of the study, basic assumption and significance of the study will be discussed. The second chapter was concerned with review of

related theoretical and empirical literatures. The third chapter discusses the research methodology, research design, population and sampling, data collection tools and methods of analysis. In the fourth and fifth chapter, analysis and discussion of the data collected was presented. The finding of the study, conclusions and recommendations for possible solutions to the problem was being presented in the last chapter.

CHAPTER TWO

2.LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Resource-Based View Theory

The resource-based view theory by Barney (1991) explains how businesses can adapt and strategically position themselves in the competitive environment (Barney, 2001). This theory tries to explain how an organization can utilize the resources they have to gain a competitive advantage over the same players in the market (Lockett, Thompson, & Morgenstern, 2009). It continues to state that organizations should combine and align their resources accordingly to be able to derive the most out of the available resources and to be able to differentiate themselves from the rest (Barney & Mackey, 2005).

The central idea of the theory is that firms are unique in their package of resources, and they benefit from the same while exploiting the weaknesses of the other firms to achieve a competitive advantage (Arend & Lévesque, 2010). The resources-based view (RBV) has an ‘inside-out’ view of a firm. This view is described as firm-specific and attempts to explain why firms’ performances vary from one to the other (Foss & Ishikawa, 2007). The RBV theory argues that a firm’s performance is enhanced through the value it creates, the capabilities it has, and the core competencies present (Barney, 2001).

It advocates for the firm’s uniqueness in its resources, complexity in operations, specialty production, intangible skills, and dynamism in its operations (Masika & Simiyu, 2019). The theory also looks at how a firm can combine its resources to produce a unique set of capabilities and products that cannot be easily emulated, resulting in value creation and performance enhancement (Semuel & Teddy, 2014). The resource-based view also evaluates what a firm possesses, the potential for value generation, and finally defines a strategy that allows a firm to capture the maximum value in a sustainable way (Armstrong & Shimizu, 2007). For an organization to create a niche, they should do things in a unique way and in a way different from its competitors. This ensures that they gain customer loyalty and retain them since no organization is able to offer substitutes products or services close to theirs, thus leading to organizational success (Barney & Mackey, 2005).

The theory goes way beyond the traditional norm of just the ordinary provision in the surrounding environment and generates sustainable competitive advantage and outstanding performance. As such, this study relies on the theory as it can guide listed Real Estate firms to align their competencies and adaptability to achieve better performance. Through evaluation of their environment, Real Estate can be able to respond to changes in the macroeconomic factors and respond proportionally by utilizing their unique firm characteristics. This can be critical to achieving better financial performance within the firms.

2.1.2 Trade-Off Theory

Modigliani and Miller (1950) were the proponents of this theory that considered a balance between the deadweight costs of bankruptcy including the agency cost and the tax saving benefits of debt. This theory postulates that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. Interest expenses on debt are tax deductible and as such it may be used to reduce the taxable income which will consequently reduce tax liability.

The relevance of this theory to this study is that the use of debt financing also increases financial risk to a company which may consequently lead it to financial distress. Niu (2008) observes that managers of companies regard debt equity decisions as tradeoff between interest tax shield of debt and associated leverage costs such as bankruptcy, agency costs and loss of non-debt tax shield. This theory contends that the firm sets a target leverage ratio which it gradually moves towards it. Trade-off theory predicts that highly profitable firms that have more debt servicing capacity and more taxable income to shield will have higher debt ratios and firms that have high growth opportunities should have low debt ratios because they borrow less to avoid losing value in financial distress and will mostly rely on equity financing.

2.1.3 Market Power Theory

Market power theory emanated from Bain (1951). This theory stresses that an increase in market power results to a monopoly, profits (Athanasoglou, Brissimis & Delis, 2005). The theory is based on the premise that concentration of the market is a best measure for market power since more concentrated markets exhibit superior market imperfections facilitating various entities to set prices for their products and services at levels which is less favorable to their clients or customers (Punt & Rooij, 2001). The theory also affirms that companies with a large market share and sound differentiated products and services can easily earn monopolistic profits and succeed or win against their competitors (Nkegbe & Yazidu, 2015). The market power theory assumes that extra profits results from a higher market concentration which allows real estate firms to collude and earn supernormal profits which arise due to the firm's portfolio of differentiated products that also increases the market share and market power in determining prices for products (Mirzaei, 2012).

The market-power theory also affirms that market power is the major variable which makes profitability to change and concentrated markets frequently involve market imperfections which arise from collusion, made possible by market concentration, and by various legislative barriers to entry or exit (Punt & Rooij, 2001). Market power theory is applied in a real estate sector, to explain real estate profitability and how it is affected by its investment. The theory explains a positive relation between firm's size and financial performance. Market power theory suggests that real estate profitability is as a result of the industries market structure (Onuonga, 2014). In addition, this theory states that market structure of real estate sector influences the industry's profitability (Ntow & Laryea, 2012). According to Obumuyi (2013), this theory assumes that firms' profitability is a function of external market factors and the theory also assumes that the industry structure which is measured using market concentration in term of market share ratio effects the profitability of real estate firms (Fisseha, 2015).

2.2 Determinates of Profitability

A number of factors affect the profitability of an enterprise due to this it is necessary to examine the determinants of profitability. These factors may be good or negative in character. Wright (1970) stated that a company's profitability is determined by its sales volume (or amount of work completed), the margin made on that work, and the capital investment required to maintain those sales. Returns on capital employed are the commonly used metric for profitability. This is a commonly used accounting concept that compares the amount of long-term capital invested in the business to the degree of profit.

2.2.1 Macro-economic Factors

Macro-economic factors refer particularly to factors of overall importance to the positions of a country's economy both at regional and national face. According to Rodrik (2008), macroeconomic factors emerge from the study of microeconomics, which studies how a country's economy behaves as a single unit of total output, income, employment levels, and the interrelationship among diverse economic sectors (Rodrik, 2008). Macroeconomic variables are those factors that economists use to analyze an economy and can be looked at in terms of interest rates, inflation, and exchange rates (Du, et al., 2018). Most researchers identify the following variables as having the most influence on an economy; exchange rate, inflation, gross domestic product (GDP), interest rates, legal and regulatory framework, and market risk (Issah & Antwi, 2017).

Exchange Rate

Exchange rate often fluctuate and many times in a single day. Frequent travelers are well aware of this, how much they can afford to spend on a vacation depends on the how strong the local currency is and what is at the point of transaction. The watching and trading of currencies have even spurred at entire business; forex trading where people buy and sells currencies to make money. Currencies fluctuate because of supply and demand.

Exchange rate is an important link to connect domestic and international commodity markets and financial markets. Exchange rate movement leads to the price change of import and export

commodity, furthermore, influence their price level of entire real economy. It has significant impact in the real estate industry owing to its information content to the investors. It has an impact on how individuals who lived outside the country arrive at the decision to purchase the product or not. Exchange rate affects the purchasing power of a property abroad. The price of real estate is not affected by depreciation in currency of a nation's as long as the depreciation doesn't sustain as the price will become too dear for the customers. A nation spends more on imports due to depreciation of currency thus reducing disposable income and making house purchase more expensive (Gunjan 2013).

Inflation

Inflation is the persistent increase in overall price levels of goods and services in an economy over a span of time. Ha, Kose, & Ohnsorge (2019) define inflation as the constant increase in the average price of goods and services. The inflation rate is mainly evaluated in terms of the GDP Deflator or a CPI indicator. Increased inflation results in a weakening of the economy's ability to increase spending (Akers, 2014). According to Nduri (2013), inflation is among the most harmful phenomena that are present in all world economies. High inflation rates have been associated with higher cost of living, and this has a significant impact on credit and reinvestment measured (Ernayani et al, 2017).

Adamson (1996) defines it as the rate of increase in general price level in an economy. Nwankwo (1982) believes that inflation is an excess of demand over supply. Inflation could be creeping, galloping or hyper depending on the magnitude of its rate in a year. Generally, the rapidly fluctuating inflationary pattern creates high degree of instability in an economy. Where the structure of the economy is weak, the effect could be very devastating.

Economic Environment (GDP)

The literature defines economic environment as the milieu that comprises the basic macroeconomic values characterizing the economy in which an enterprise runs, institutions operating in given economy, together with specific legal system, technologies etc., Agnieszka Parkitna and Beata Sadowska (2011). Bień W (2008). defines GDP as the value of goods and services produced in a given time which are intended for final consumption and for investment, adjusted for import/export balance.

The Measurement of economic variables varies depending on the exact variable in question. Economic growth implies the increase in a nation's capacity in production and its measurement index is the gross domestic product rate. Ajide (2014) noted that government spending significantly impacts GDP growth which in turn has a direct impact on all sectors of the economy, including the real estate sector.

2.2.2 Firm Characteristics

One of the firm characteristic that is constantly associated to firm performance is firm size commonly measured by either natural logarithm of assets, or sales or employees. Larger firms are associated with having more diversification capabilities, ability to exploit economies of scale and scope and also being highly formalized in terms of procedures. One school of thought argues that there is a positive relationship between firm size and firm performance (Penrose, 1959, Majumdar, 1997). It argues that bigger firms have more competitive power and also have a bigger market share which positions them to profit more. Moreover, bigger firms can seize a profitable opportunity that comes in their way since they have bigger capital resources than smaller sized firms. Another school of thought argues that due to organizational rigidity brought about by bigger firm size and a lot of unnecessary bureaucracies, profitable opportunities that may want urgent attention will easily pass the firm and thus making them less profitable in relative terms and thus negatively impact on firm performance (Leibenstein, 1976; Shepherd, 1986; Banchuenvijit, 2012; Goddard 2005).

Internal factors, firm-specific factors, are financial indicators that contribute to evaluating the efficiency, performance, and profitability of firms (Ugwunta et al., 2012; Khan et al., 2018). Hansen & Wernerfelt (1989) revealed that firm-specific factors explain twice as much variance of profit rates as external economic factors. Many previous studies in developing and developed countries have investigated several internal factors as determinants of profitability for one industry or more, with mainly mixed results. Some indicated a positive effect for one or more of their tested internal factors, and others showed a negative effect for the same internal factor/s.

Lopez-Valeiras et al. (2016) revealed that the relationship between size and financial performance is negatively mediated by indebtedness. In the Nigerian agricultural sector, Lasisi, (2017) reported that leverage significantly reduces the firms' income while liquidity increases the firms' income. Among selected life insurance firms in Kenya, Kaguri (2013) determined that

firm size, leverage, and liquidity significantly impact returns. Firm size and leverage were also noted to be key factors predicting profitability in Ethiopia (Mehari, 2013) and in Pakistan (Sumaira, 2013). However, studies by Bist et al. (2017) in Nepal revealed that while leverage significantly improved returns, firm size and liquidity had insignificant impacts on profitability.

Firm Size

One of the firm characteristic that is constantly associated to firm performance is firm size commonly measured by either natural logarithm of assets, or sales or employees. Larger firms are associated with having more diversification capabilities, ability to exploit economies of scale and scope and also being highly formalized in terms of procedures. One school of thought argues that there is a positive relationship between firm size and firm performance (Penrose, 1959; Majumdar, 1997). It argues that bigger firms have more competitive power and also have a bigger market share which positions them to profit more. Moreover, bigger firms can seize a profitable opportunity that comes in their way since they have bigger capital resources than smaller sized firms. Another school of thought argues that due to organizational rigidity brought about by bigger firm size and a lot of unnecessary bureaucracies, profitable opportunities that may want urgent attention will easily pass the firm and thus making them less profitable in relative terms and thus negatively impact on firm performance (Leibenstein, 1976; Shepherd, 1986; Banchuenvijit, 2012; Goddard, 2005).

Financiers are not willing to offer small firms capital, or the price of the offered capital is too high for small firms (Ferri & Jones, 2009). Another reason, which makes small firms reluctant to use outside financing, is the market access limitations. In many cases, the minimum volume of capital is required in order to raise external fund (Cassar & Holmes, 2003). This idea is supported by empirical evidence that concludes SMEs are often forced to use internal source, and then short-term debt contracts due to the limited access to the long term financing (Osteryoung, 2002; Chittenden, 2006; Michaelas, 2009). Many authors have suggested a positive relationship between a firm leverage and its size (Fama & French, 2002). Warner (2007) and (Ang, 2012) stressed out, that when the value of the firm increases; the ratio of direct bankruptcy costs to the firm value would decrease. The effect of these expected bankruptcy costs might be little on large firms' borrowing decisions, which empower them to take on more leverage (Rajan

& Zingales, 2005). On the other side, smaller firms face a different reality in raising the long term debt.

Liquidity

Liquidity refers to investment in current assets and current liabilities which are liquidated within one year or less and is therefore crucial for firm's day to day operations (Kesimli & Gunay, 2011). It is usually measured by the current assets to current liabilities (current ratio). Liquidity is very closely related to working capital which is the money needed to finance the daily revenue generating activities of the firm. According to Vahid, Mohsen and Mohammadreza (2012) working capital management plays a significant role in determining success or failure of firm in business performance due to its effect on firm's profitability. Business success depends heavily on the ability of financial managers to effectively manage the components of working capital (Filbeck & Krueger, 2005). A firm may adopt an aggressive or a conservative working capital management policy to achieve this goal.

Liquidity reveals a firm's ability to meet its short-term obligations and quickness in converting an asset into cash at its fair market value (Scott, 1999). Good liquidity management can improve operating results and enhance firm performance, whereas poor liquidity management can lead to weak operating profits and hurt firm performance in the capital market (Moyer, McGuigan, & Kretlow 2001). Therefore, the objective of liquidity management is to find an optimal balance between liquid and illiquid assets to minimize operating costs and hence improve firm performance. Some empirical studies supported a positive relationship between liquidity and firm performance (Chathoth & Olsen, 2007; Opler, 1999); others revealed a negative correlation (Shin & Soenen, 1998).

A firm should balance the cost of liquidity and cost of illiquidity at equilibrium (Pandey, 2011). The mechanisms that explain why liquidity can suddenly evaporate operate through the interaction of funding illiquidity due to maturity mismatches and market illiquidity. As long as a financial institution's assets pay off whenever its debt is due, it cannot suffer from funding liquidity problems even if it is highly levered. However, nonfinancial firms typically have an asset-liability maturity mismatch and hence are exposed to funding liquidity risk. A funding shortage arises when it is prohibitively expensive both to borrow more funds (low funding

liquidity) and sell off its assets (low market liquidity). In short, problems only arise if both funding liquidity dries up (high margins/haircuts, restrained lending) and market liquidity evaporates (fire sale discounts) (Muganga, 2010). Another view on liquidity was explained by (Liargovas & Skandalis, 2008) argues that firm can use liquid assets to finance its activities and investments when external finance is not available. On the other hand, higher liquidity can allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low earnings. Almajali (2012) found that firm liquidity had significant effect on financial performance of insurance companies. The result suggested that the insurance companies should increase the current assets and decrease current liabilities because the positive relationship between the liquidity and financial performance.

Leverage

Leverage refers to the proportion of debt to equity in the capital structure of a firm. It is measured by the ratio of total debt to equity (debt/equity ratio). The financing or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm. The ratio of debt-equity has implications for the shareholders' dividends and risk, this affect the cost of capital and the market value of the firm (Tikkiwal & Pandey, 2007). Gupta and Zeithaml (2006) cited some studies showing contradictory results about the relationship between increased uses of debt and financial performance.

Financial leverage measures a firm's capital structure (debt versus equity) and reflects a firm's ability to meet its long-term obligations exposed to financial risk. According to Moyer, McGuigan, and Kretlow (2001) the optimal capital structure theory holds that an inverted U shape relationship exists between debt usage and firm value as reflected in the capital market. The optimal debt level is reached when the costs of debt just offset the benefits of debt. Research by Cheong (2009) studied the behavior of interest rates and stock market prices and examined their sensitivity and importance; their study found that interest rates and market changes drive property securities price movements. Generally, borrowing by companies gives a tax shelter for taxable income through the interest payment because the interest is paid and deducted from revenue before arriving at taxable income. It therefore reduces the tax burden of a company.

Zeitun and Tian (2010) found a significantly negative relationship between financial structure and corporate performance. In other words, firms can take advantage of debt to make a better return on equity and measure leverage by the debt ratio calculated by the total liabilities divided by total assets (Nazir & Afza, 2008; Chiou, Cheng & Wu, 2006). Apphumani (2008) measured leverage as total long-term debt capital divided by equity. In this study, debt level (DEBT) will be measured as long term debt divided by total assets.

2.2.3 Financial Performance

Financial performance is the ability of a firm to efficiently and effectively use its resources with the intention of achieving and accomplishing the firm's objectives and goals. It can also be defined as the firm's capacity to operate with minimal wastages, maximize profits, achieve growth and continue to exist in the long run. Financial performance is the process of determining the outcome of a firm's policies and operations in financial terms. It indicates the financial position of a firm by identifying relationships between the items of the financial position and income statement. Profitability, return on equity and liquidity ratios among others gives valuable tools to stakeholders to determine the past and present financial performance of a firm (Erasmus, 2008).

According to Barbosa and Louri (2005), the evaluation of financial performance of a firm is determined using the return on investment, residual income, earnings per share, dividend yield, price/earnings ratio, growth in sales and market capitalization. The assessment of performance is subject to the information introduced in the measurement system and the instruments operated. The long established types of indicators used in the process of financial analysis have been the return on investment, leverage, capital efficiency, liquidity, cash flow, inventory turnover and receivable turnover ratio. Over and above these factors are the modern value creation indicators as indicated by Vernimmen (2009), earnings per share, Return on Assets (ROA) and Return On Equity (ROE), economic value added (EVA), Cash Flow Return on Investment (CFROI) and Net Present Value (NPV).

Currently, performance is determined using value creation, clearly explained under the goal of sustainable development (Tudose, 2012). Aftab (2012) assert that a firm's performance can be measured in terms of its profitability and market performance. Typically, profitability is measured in terms of return on the capital invested in the business or return on the revenues

generated during a given period. On the other hand, market performance is measured in terms of market indicators such as share price and dividend yield ratio. There are various measures of financial performance. For example return on sales (ROS) explains how much a firm earns in relation to the sales its making, return on assets (ROA) shows the ability of a firm to efficiently use of the assets it has and return on equity (ROE) shows the return the investors will receive for their investments (Almajali, 2012) . A firm's performance can be measured in three aspects. The first aspect is a firm's ability to process inputs into outputs efficiently. The second aspect is the level of which a firm's earnings are greater than its costs. The third aspect is the level at which a firm's market value exceeds its book value (Walker, 2001).

There are several benefits that come with a firm determining its financial performance. These include assisting in development of a strategic plan, evaluating effectiveness of firm objectives, monitoring the overall growth and direction of a firm and many other (Yabs, 2015). Return on assets (ROA) is widely used by financial analysts to measure financial performance of a firm, as it measures the efficiency and effectiveness of assets in producing income. The most used accounting measures of financial performance are Return on Assets (ROA) (Clarkson, 2008), Return on Equity (ROE), and Return on Sales (ROS) (Omondi, 2013). Thus, the study will use return on assets (ROA) to measure financial performance. The advantages of financial measures are the easiness of calculation and that definitions are agreed worldwide (Tangen, 2003).

2.3. Empirical Review

Many empirical studies have been done on effect of macroeconomic and firm characteristics on development in real estate sector. However these studies findings are conflicting and carried in different contexts. The findings of the studies are discussed in this section.

Baum and Crosby (2012) did a study on the impact of macroeconomic variables in real estate return to examine whether asset returns are persistently affected by the factors. Their selections of macro-economic variables include Government policy, GDP, interest rates and levels of inflation. The study concluded that unexpected inflation, term structure of interest rates, real treasury bill rate and growth rate in real per capita consumption have a systematic influences on commercial real estate returns hence affecting the level of investment in the sector.

Kipkurui (2019) carried out a case study on Stanlib Fahari real estate investment trust with the aim of determining how selected macroeconomic variables impact stock returns. The variables selected include interest rates, inflation rates, and foreign exchange rates. The study was anchored on the efficient market hypothesis theory, the purchasing power parity theory, and the arbitrage pricing theory. A correlational research design was adopted, and data was collected from NSE, and Central Bank reports covering a four-year period between 2016 and 2018. Interest rates were determined to have a positive but insignificant effect. Inflation had a significant negative impact, while the exchange rate had a negative but insignificant impact on stock returns.

Olanrele et al. (2020) investigated the impact of macroeconomic predictors on the profitability of Nigerian Real estate investment trusts. The variables explored in the study include interest rate, inflation rate, exchange rate, market capitalization, and the all-share index. The study adopted a qualitative research design and obtained secondary data sourced from various financial statements published by official government institutions. The data collected was for the period 2008-2017. Data analysis involved the use of Autoregressive-distributed lag (ARDL) and Bound tests. It was determined that Interest rate and all share indexes have a long-term relationship with returns of Real Estate investment trusts. Market capitalization showed a negative relationship in the short run and an insignificant positive long-run relationship. The exchange rate had no significant impact both in the long-term and short-term, while inflation had a negative but insignificant impact.

Makau (2016) examined the relationship between selected macroeconomic variables on financial returns among Kenya's unit trust funds using a correlation research design approach. The research involved all 20-unit trusts operating in Kenya under the license of the Capital Markets Authority as of 2015. A multiple linear regression equation and Karl Pearson's coefficient of correlation were adopted to analyze the relationship between the variables and the performance of the unit trusts. The selected variables were interest rate, money supply, GDP, and inflation. The variables were determined to account for more than 90% of the financial outcomes of Kenyan unit trusts.

Bosco and Emerence (2016) analyzed the impact of GDP, inflation, and interest rate on investment among Rwandese private investment firms. The study applied econometrics methodology based on the co-integration and Error Correction Model (ECM) to analyze secondary data collected from reports sourced from the National Bank of Rwanda's Department of Statistics. The data collected was from the period between 1995 and 2019. From the findings, GDP was noted to significantly influence the rate of private investment both in the long-term and short-term. Empirical studies indicated a positive relationship between the rate of inflation and private investment. The study suggested that developing countries can indeed benefit from the cycle linking increased investment in the private sector since this leads to real GDP growth.

In Nigeria, a study was carried out to explore the relationship between macroeconomic factors, firm characteristics, and financial performance of selected manufacturers in Nigeria. The study, by Egbunike and Okerekeoti (2018), was anchored on the systems theory and the resource-based view theory, and adopted an ex-post facto research design. The analysis involved the use of multiple linear regression techniques. The macroeconomic variables assessed included the inflation rate, the interest rate, the GDP growth rate, and the exchange rate. The firm characteristics were size, leverage, and liquidity levels. Analysis revealed that the interest rate and the exchange rate had an insignificant impact on returns. The inflation rate and rate of GDP growth were noted to significantly impact the ROA of the manufacturers. The firm characteristics were all determined to significantly impact ROA.

The study conducted by Diaz & Hindro (2017) analyzed the small, medium and large scaled real estate companies in Indonesia by utilizing the ordinary least squares (OLS), fixed effect and random effect regressions over the period of 2010-2014 and clinched a positive relationship between the current ratio and profitability of the large firms while inverse relationship in small and medium scale companies. And they argued that, small and medium scale companies are experiencing a lower current asset base compared to large companies. Tongkong (2012) unveiled a negative relationship between profitability and leverage of listed real estate companies in Thailand stock exchange by using two-step Arellano and Bond GMM estimation method over the period of 2002 to 2009. Furthermore, it identified a positive relationship

between firm size & growth opportunities and leverage. Also, it argued that, when a firm earns a higher profit then they moved towards reduce the debt position of the entity.

Bhayami (2010) investigated the effect of some firm-specific variables on firm profitability in the context of India using backward regression analysis methods through the period 2001–2008. The findings show that inflation rate, operating profit ratio, liquidity, interest rate, and age are the most significant determinants of a firm's profitability. Vu Thi Hanh et al. (2019) also studied about the relationship between a firm's wage, firm size and firm age with firm profitability measured by ROA and ROE of 693 listed companies in 2015 by using both ordinary least square and quantile regression methods. The results showed that firm size had positive association with firm profitability while wage and firm age negatively impact on firm profitability. (Richard Ugochukwu Elile, et al., 2019) determines macroeconomic determinants of real estate investment performance i.e. effect of inflation, exchange rate, and per capita GDP. These factors are studied individually on the performance of real estate investment in terms of its contribution to the growth of gross domestic product in Nigeria. Using OLS regression taking 37 years of data, after analysis and regression of the data, it's found that Inflation, per capita GDP and exchange rate are important macroeconomic determinants for the real estate performance in Nigeria. Attaining higher real estate performance with an increase in inflation would be difficult and complex to deal with for growth to be achieved. So focusing on Policy toward improve GDP is appreciated.

Muli (2013) researched on what indicator affects Kenya's real estate investment expansion. His study examined the growth of domestic product, interest rates, populace growth and rates of inflation that affected results of real estate investment. Result showed Gross Domestic product had a higher figure of 83%, growth inflation 78% and 75% for interest rates. Populace growth put in least value 29%. The research was conducted based on secondary source of data which might be conflicting sometimes indicators touching the progress in real estate investment in Kenya.

Dioha, et al., (2018) looked into the effect of various firm characteristics on profitability among Nigeria's consumer goods firms. The variables selected include firm size, age, leverage, sales

growth, and liquidity. Reported data from the period 2011 to 2016 was collected from 18 firms. The analysis involved multiple regressions. Fixed and random-effects models were used to assess the panel data. It was determined that the size of the firm, leverage, and sales growth significantly influence firm returns. In contrast, the age of the firm and its liquidity levels had no significant relationship with the profitability of the firms. The study looked at consumer goods firms' returns, while the current looked at Real estate firms' returns.

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2.3 Summary of Literature gap

The empirical literatures that are discussed so far showed that, Real Estate profitability is determined by both internal and external factors. However, Most of the literatures that are discussed so far appeared to have focused on studies that were conducted in the real estate sector of different countries outside Ethiopia. Despite the fact that several studies were conducted by different researchers the literature review reveals the existence of controversial conclusions that results from different studies made so far.

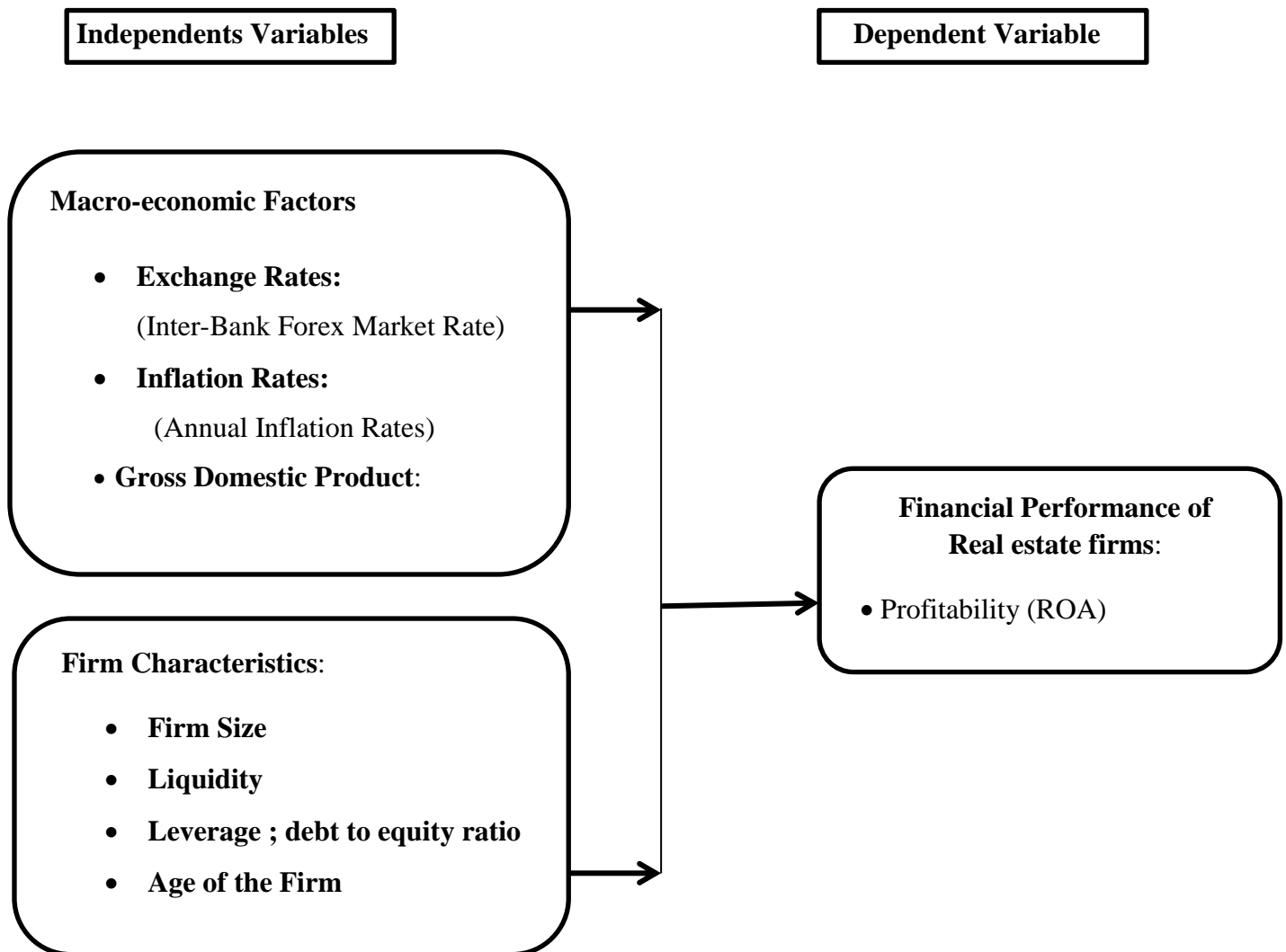
The literatures focus on factors affecting profitability of on other developed countries firms. This shows that the research conducted in the topic of factors affecting profitability on Real estate companies is very limited in Ethiopia, even though a lots of real estate companies are emerging continuously. Hence, this study is more focused towards fill the literature gap by compare the

sensitivity of that impact of both the firm’s specific factors and macro-economic factors towards profitability in context of Ethiopians’ real estate firms.

2.4. Conceptual Framework

The conceptual framework illustrates the association between the dependent and the independent variable. The conceptual framework of this study will be based to identify ratios as determinants of real estate profitability hence independent variables will include interest rate, inflation rate, gross domestic product, and firm characteristics. The dependent variable will be profitability (ROA).

Figure 2.1 Conceptual Framework



Source: Research Data (2023)

CHAPTER THREE

3.RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design adopted by this study, population of the study, data collection methods and procedures to be followed and data analysis to mainly discuss the procedure of analyzing data and findings.

3.2. Research Design

The research design is the overarching strategy that is adopted and utilized in the study and which integrates diverse aspects of the research in a systematic way and generates coherent and logical results (Flick, 2015). The study adopted descriptive correlational research design. Descriptive research design was utilized as the researcher is interested in finding out the state of affairs as they exist (khan, 2008). The design allowed for the implementation of quantitative techniques in establishing the relationship between macroeconomic factors, firm characteristics, and the financial performance, profitability, of Real estate firms in Ethiopia, Addis Ababa.

3.3 Population of the Study

Opoku, Ahmed, and Akotia (2016) conceive the population in statistics and research as the larger pool of items, events, and individuals upon which the researcher conducts the study and from which a representative sample for a study is obtained. The selection of a research approach was also based on the nature of the research problem, the objectives of the paper and the availability of relevant information. From the registered private Real Estate in Addis Ababa, the researchers select 6 private Real Estate companies for the study period from year 2018 to 2022. From this selection is based on systematically pointing out the listed real estate developers to be incorporated in the research. The population of the research was key to this study as it covers the listed Real estate firms, which allowed for ease of access to their financial data.

3.4 Data collection

The methods of data collection were by the researchers reviewed of individual company's annual audited financial statements of the selected private Real Estate companies in Addis Ababa based on purposive sampling techniques from 2018 up to 2022 five years coverage of annual data. Based on the data collected, the author calculated different variables. Also, data of gross domestic product (GDP) and inflation rate (INF) were collected from National Bank of Ethiopia. This research study was quantitative in nature and dominantly used secondary data. The utilization of secondary sources was selected due to the ease in the analysis of quantitative and minimized errors in the collected research data (Kumar, 2018).

3.5 Data Analysis

According to Kothari and Garg (2014), data analysis involves bringing order and meaning to the information assembled. The study utilized secondary quantitative data that was extracted from the audited financial statements of listed Real estate firms in Addis Ababa. As per the analysis, the data are analyzed using the software STATA and Microsoft Excel, for fast and accurate result. The study applied descriptive analysis techniques such as means, standard deviation, maximum and minimum in the analysis of the raw research data. Further, the study adopted correlation analysis to determine the relationship between the variables.

The research further employed panel data regression analysis techniques to determine the strength of the relationship between the variables. Panel data contain observations of multiple phenomena obtained over multiple time periods for the same firms or individuals (Hsiao, 2014). Hsiao further opined that panel data regression was selected since it allows for the control of individual heterogeneity, making it possible to exclude biases deriving from the existence of individual effects.

3.5.1 Analytical Model

The study estimated multiple regression models to examine the relationship between the variables. Two main variables which is dependent and independent variable were considered in this study.

The profitability of real estate firms is considered as dependent variable. Independent variables considered as Exchange rates, inflation rates, and GDP and Firm characteristics (Firm size, age and Liquidity).

This study adopted the following linear model.

$$Y_{it} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + u_{it}$$

Where, Y_{it} is the dependent variable profitability of the Real estate firms.

β_0 is intercept (constant), u is the random error while $(\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6)$ is the regression parameter and X is the independent variables

X_1 – Exchange Rate

X_2 – The inflation Rate

X_3 – GDP

X_4 – Firm size

X_5 – Firm Age

X_6 – Liquidity

X_7 – Leverage

. The subscript i denotes Cross-section Countries, t is Time series (years).

Table 3.5 Measurement of Variables

Variables	Notation	Measurement
<i>Dependent Variables</i>		
Firm profitability (ROA)	ROA	Net profit / Total assets
<i>Independent Variables</i>		
<i>Macroeconomic Factors</i>		
Interest rate	Interest	5 years interest rate lending rate
Inflation rate	Inflation	5 Years inflation rate
GDP	GDP	5 Years Real GDP rate
<i>Firm Characteristics</i>		
Firm size	Firm Size	Natural log of Total assets
Liquidity	CR	current Ratio = Current asset/Current Liabilities
Age of Firm	Age	The number of years since listing to time of the study
Leverage	leverage	Total debt / Total Equity

Source: Research Data (2023)

3.5.2 Test of Significance

The research used inferential statistics to conduct both descriptive and inferential analysis like mean, standard deviation, and graphical representation, t-test, Correlation, Multiple Regression Analysis, R-Square, F-statistics and Variance Inflation Factors (VIF) to determine the factors affecting real estate profitability.

CHAPTER FOUR

4.DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter is comprised of the presentation of the findings of the study. Using descriptive statistics, correlation statistics, the diagnostic analysis and panel regression analysis, the results of the study were presented in table forms as shown in the following sections, to determine the relationship between the predictor variables and the financial performance (profitability) of the listed private real estate developers in Addis Ababa.

4.2 Diagnostic Tests

4.2.1 Normality Tests

The research was checked if the data to be analyzed represented the symmetrical distribution or not before the application of any parametric test. The study employed the Kurtosis and Skewness normality tests. The test determined if the data were well modeled and normally distributed for the results to be generalized beyond the sample.

Table 4.1 Normality Results

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj_chi2(2)	Prob>chi2
residuals	30	0.932	0.570	0.330	0.848

Source: Research Data (2023)

According to the probability of the Kurtosis and Skewness test shows the number of observations (which is 30) and the probability of skewness which is 0.932 implying that skewness is asymptotically normally distributed (p-value of skewness > 0.05). Similarly, Pr (Kurtosis) indicates that kurtosis is also asymptotically distributed (p-value of Kurtosis > 0.05). Finally, chi2 (p-value) is 0.848 which is greater than 0.05 implying it is significant at 5% level. Therefore, according to skewness test for normality, residuals show normal distribution.

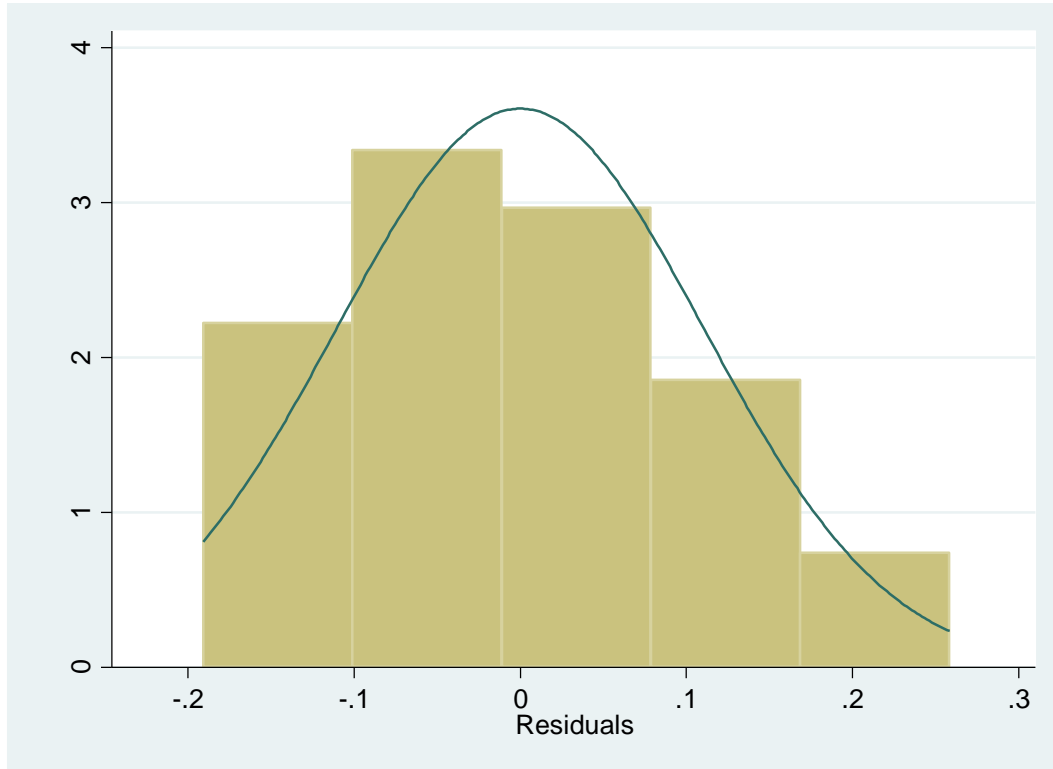


Figure 4.2: Histogram plot indicating normality

The figure above shows a bell-shaped distribution of the residuals. Thus this histogram plot confirms again the normality test results from two test results, the data are normally distributed.

4.2.2 Multicollinearity Tests

The study checked for the presence of multicollinearity in the regression model by running Variance Inflation Factor (VIF) and Tolerance analysis, which present a coefficient through which the decision of the presence or absence of multi-Collinearity can be determined (McManus, 2015).

Table 4.2 Collinearity Results

	VIF	1/VIF
Exchange rate	3.276	.305
GDP	2.815	.355
Inflation rate	2.536	.394
Age of Firm	2.483	.403
Firm size	1.951	.513
Leverage	1.401	.714
Liquidity	1.304	.767
Mean VIF	2.252	.

Source: Research Data (2023)

The findings of the collinearity tests above indicated that all the predictor variables had a variance inflation factor of less than 10, which was an indicator of no collinearity problems. The tests also showed that the tolerance values (1/VIF) were above 0.1, which was an affirmation of the lack of collinearity issues within the regression model.

4.2.3 Heteroscedasticity Tests

Heteroscedasticity could be a situation where the variance of the residual term varies with changes in explanatory variables (Westerlund, 2014). Heteroskedasticity is perceived as a selected feature of cross-sectional data, but that does not mean it cannot be related to time-series data (Hsiao, 2014). The study adopted the White's test statistic to check for the presence of Heteroscedasticity. As a standard, the p-value should be bigger than 0.05 to not reject the null of homoskedasticity at the 5% level, to ensure there is no heteroskedasticity problem.

Table 4.3 Heteroscedasticity Results

White's test for Ho: homoskedasticity against Ha: unrestricted heteroskedasticity chi2(29) = 30.00 Prob > chi2 = 0.4140	Df	P
Cameron & Trivedi's decomposition of IM-test chi2		
30.000	29	0.414
16.520	7	0.021
0.060	1	0.807
46.570	37	0.135

Source: Research Data (2023)

The tests results showed a Prob > chi2 = 0.4140 for model, which was greater than the critical value of 0.05, indicating that there is no heteroscedasticity problem in the model.

4.3 Descriptive Analysis

Descriptive statistics gives a presentation of the men, maximum and minimum values of the variables applied together with their standard deviations in the study. The table below shows the descriptive statistics for the variables applied in the study.

Table 4.4 Summary of Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ROA	30	.152	.168	-.077	.479
Exchange rate	30	37.366	9.467	27.26	51.99
Inflation rate	30	19.84	5.363	14.6	29.8
GDP	30	7.04	1.168	6.1	9
Firm size	30	8.999	.57	7.644	9.86
Liquidity	30	1.088	.579	.212	2.467
Leverage	30	5.613	4.689	.457	17.647
Age of Firm	30	6	2.421	1	10

Source: Research Data (2023)

The table of descriptive statistics shows that the sample has 30 observations and characteristics of variables are explained as follows:

The findings above indicate that, in general, the listed Real Estate developers within Addis Ababa had an average of 15.2% ROA within the study period, The minimum values of ROA are negative while the maximum values are very high, with the highest ROA registered at 47.9% and a minimum of -7.7% within the study period. This indicates that business of construction companies during the period from 2018 to 2022 vary considerably. The results also revealed that the selected had an average interest rate of 13.95%, with an inflation rate averaging around 19.84% annually within the selected countries. The analysis also noted that the GDP rate within the nations annually was averaged around 7.04% within the period 2018-2022.

The analysis of the firm characteristics pointed out that the firms had average leverage of 5.61% with minimum leverage of 0.457 and maximum 17.647%. The study also confirms firms average size of the listed Real Estate was 8.999 with a deviation of 0.57 from the mean log of firm size. The selected firms posted average liquidity of 1.088 within the study period and Firm age has a mean of 6 with a minimum value of 1 year and the maximum value of 10 years.

4.4 Correlation Analysis

The study employed correlation analysis to determine the direction of the relationship between the research variables. Pearson correlation was employed to analyze the level of association dependent variable and independent variables for this study. The Pearson correlation generates a coefficient called the Pearson correlation coefficient, denoted as r . A Pearson's correlation attempts to draw a line of best fit through the data of two variables, and the Pearson correlation coefficient, r , indicates how far away all these data points are to this line of best fit or how well the data points fit this new model. Its value can range from -1 for a perfect negative linear relationship to +1 for a perfect positive linear relationship. A value of 0 (zero) indicates no relationship between two variables.

Table 4.5 Correlation Results

Variables	ROA	Exchange rate	Inflation rate	GDP	Firm size	Liquidity	Leverage	Age of Firm
ROA	1.000							
Exchange rate	-0.610*	1.000						
	(0.000)							
Inflation rate	0.609*	-0.722*	1.000					
	(0.000)	(0.000)						
GDP	-0.538*	0.749*	-0.681*	1.000				
	(0.002)	(0.000)	(0.000)					
Firm size	-0.051	-0.419*	0.287	-0.287	1.000			
	(0.788)	(0.021)	(0.125)	(0.124)				
Liquidity	-0.208	-0.152	0.027	-0.265	0.352	1.000		
	(0.270)	(0.423)	(0.889)	(0.157)	(0.057)			
Leverage	-0.230	0.339	-0.368*	0.352	-0.131	-0.153	1.000	
	(0.222)	(0.067)	(0.045)	(0.056)	(0.491)	(0.420)		
Age of Firm	0.208	-0.580*	0.502*	-0.432*	0.625*	0.203	-0.448*	1.000
	(0.269)	(0.001)	(0.005)	(0.017)	(0.000)	(0.283)	(0.013)	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Research Data (2023)

As the correlation analysis result shows in table 4.5 the degree of relationship between dependent and independent variables. Based on the above of correlation analysis result, the relationship between dependent variable profitability (ROA) and Exchange rate is strong Negative and statistically significant relations on ROA ($r = -0.610$. Sig = $0.000 < 0.05$). The inflation rates have a strong positive and significant effect on the return on assets (ROA) of Real-estate in Addis Ababa ($r = 0.609$. Sig = $0.000 < 0.05$).

On the other hand that gross domestic product had a strong negative and significant effect on the return on assets (ROA) of Real-estate in Addis Ababa ($r = -0.538$. Sig= $0.002 > .05$).

On the other hand the table also indicated that firm size, had a very weak negative and insignificant effect ($r = -0.051$. Sig = $0.788 > .05$), liquidity had a weak negative and insignificant effect ($r = -0.208$. Sig = $0.270 > .05$) and also Leverage had a weak negative and insignificant effect ($r = -0.230$. Sig = $0.222 > .05$) while age of the firm had a weak positive and insignificant effect on the return on assets of Real-estate in Addis Ababa ($r = 0.208$. Sig = $0.269 > .05$).

As can be seen from above information, independent variables of interest rate and inflation rate have concurrent impact on ROA, and GDP have inverse impact on ROA. Meanwhile, other independent variables Age of the firm, Firm size, leverage and liquidity have positive and negative insignificant impact on ROA Respectively.

4.5 Hausmann Specification Tests

To determine which of these two models is appropriate, coefficients are estimated by both fixed and random effects. Hausmann's specification test was applied to determine the appropriate model for utilization in this research (Hsiao, 2014). The findings of the specification tests are presented in this section.

Table 4.6 Hausmann Specification Results

	Coef.
Chi-square test value	11.678
P-value	.02

Source: Research Data (2023)

The Hausman test is distributed as chi-square with 1 degree of freedom. From the results above, the probability of the cross-section effects was 0.02, which is less than 0.05, implying that it's, alternative hypothesis, appropriate to adopt the fix effects model. Use fixed-effects (FE) whenever you are only interested in analyzing the impact of variables that vary over time.

4.5 Panel Regression Analysis, Result and Discussion

The research further employed panel data regression analysis techniques to determine the strength of the relationship between the variables. Panel data contain observations of multiple phenomena obtained over multiple time periods for the same firms or individuals (Hsiao, 2014).

Table 4.7 Panel Regression Results

ROA	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Exchange rate	-.008	.004	-1.98	.048	-.017	0	**
Inflation rate	.008	.007	1.21	.226	-.005	.021	
GDP	-.023	.032	-0.74	.458	-.086	.039	
Firm size	-.067	.059	-1.12	.261	-.183	.049	
Liquidity	-.075	.044	-1.69	.091	-.161	.012	*
Leverage	-.002	.006	-0.39	.695	-.013	.009	
Age of Firm	-.007	.016	-0.43	.665	-.038	.024	
Constant	1.21	.572	2.12	.034	.089	2.331	**
Mean dependent var		0.152	SD dependent var			0.168	
Overall r-squared		0.584	Number of obs			30	
Chi-square		33.838	Prob > chi2			0.000	
R-squared within		0.717	R-squared between			0.181	

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Research Data (2023)

The results shown in Table 4.8 follow the empirical model outlined here under.

$$Y = \beta_0 + \beta_1 EXR + \beta_2 INFR + \beta_3 GDP + \beta_4 Firm\ size + \beta_5 Liquidity + \beta_6 Leverage + \beta_7 Age + \varepsilon$$

The results are interpreted as follows.

$$ROA = 1.21 - 0.08\beta_1 + 0.08\beta_2 - 0.023\beta_3 - 0.067\beta_4 - 0.075\beta_5 - 0.002\beta_6 - 0.07\beta_7 + \varepsilon$$

Interpretations from the equation

Profitability (ROA) will decrease in value by 0.08 units, or 8%, for every unit increase in the Exchange rate, assuming that all other predictor variables remain constant. When all other

predictor factors are held constant, the value of the Profitability (ROA) increases by 0.08 units or 8% for every unit increase in the Inflation rate.

When all other predictor factors are held constant, the value of the Profitability (ROA) decreases by 0.023 units, or 2.3% for every unit increase in the GDP.

Similarly Setting all other predictor variables at constant, the value of the Profitability (ROA) will decrease by 0.067 units or 6.7%, for every unit increase in the value of Fir size and also the value of the Profitability (ROA) will decrease by 0.075(7.5%), 0.002(0.2%) and 0.07(7%) by holding other variables constant, for every unit increase in the value of liquidity, Leverage and age of the firm respectively while holding other factors constant as reflected by 1.21.

The panel regression results above examined the relationship between macroeconomic factors, firm characteristics and profitability ROA of listed Real-estate in Addis Ababa. Based on the findings; $R^2 = 0.584$, $Prob > chi2 = 0.000$, reveals a positive and significant relationship. Thus, it was established that 58.40% of the profitability ROA of Real Estate in AA can be determined by the Exchange rates, inflation rates, GDP, liquidity, firm size, Leverage and firm age. It elaborate that 58.40% changes in profitability is explaining by the selected independent variables in this model.

The results state that variables of Exchange rate and Liquidity have inversely affect profitability (ROA) at 5% and 10% significant Level. Furthermore, the study finds out the positive relation of inflation (INF) on profitability (ROA) but not significant effect. Firm size, Leverage and Age of firm has no significant effect on profitability (ROA).

These results can be explained as follows:

Exchange Rates

Variable of Exchange rate has a concurrent relationship with profitability. The results showed a p-value = 0.048 < 0.05 thus The research concluded that interest rates do have a significant effect at 5% level on profitability ROA of listed Real-estate in Addis Ababa.

Accordingly, the first null hypothesis (H1) is accepted because there is a significant statistical effect of Exchange rate on Addis Ababa firms' ROA.

This finding was consistent with many previous studies, e.g. Aghion, Philippe, Romain and Kenneth (2009) found out that exchange rate volatility has a negative effect on economic growth. Peter, Warelia, Shan, Azin and Li (2004) also confirmed this finding by stating that currency crisis in emerging market economies are special examples of high exchange rate volatility. Bleaney and Greenaway (2001), Lastrapes and Koray (1990), Larraun and Vergara (1993) Cushman (1988) caballero and Corbo (1989) also found a negative effect of exchange rate on investment.

Zibuwski and Curicio (1991) Radcliffe (1994), Zibowski and Boyd (1991) Zibowski and Zibrurski (1999) Worzala (1995), Newell and Webb (1996) Udoh and Egwakhide (2008) found substantial effect of exchange rate volatility on investments. Fidora, Fratzscher and Thomas (2006) opined that the exchange rate of the currency in which a portfolio holds the bulk of its investments determines that portfolio's real return. Ogunleye (2008) observed that exchange rate volatility generates air of uncertainty as the variance of expected profits rises and its net present value falls. Zibrowski and Curicio (1991) identified extreme exchange rate volatility as being the major factor in the determination of real estate diversification benefit.

Inflation Rates

Variable of Inflation rate has a no concurrent significant impact on profitability. The results showed a $p\text{-value} = 0.226 > 0.05$ thus the research concluded that inflation rates do have a significant effect on profitability ROA of listed Real-estate in Addis Ababa.

Hence, the second Hypothesis (H2) is not accepted because there is insignificant statistical effect of inflation on ROA of Addis Ababa firms.

The study findings were able to establish the existence of a negative and insignificant effect of inflation rate on the financial performance of listed REITs in Africa. These findings are corroborated by Fang, Chang, Lee, and Chen (2016) in their study in China and Singapore, where they established that inflation rates had a negative effect on the REIT index. Similar results were noted by Yunita and Robiyanto (2018), who revealed that the inflation rate has an insignificant impact on the rate of return in listed firms in Indonesia. Locally, Otieno, Ngugi, and Muriu (2019) also found out that the inflation rate had a negative effect on the stock returns of

listed REITs in Kenya. In a study of banking industry firms, Kiganda (2014) also noted an insignificant effect of inflation rates on the profitability of the selected firms. However, the findings are not consistent with Mohd and Siddiqui (2020), who revealed the presence of a negative and significant effect of the inflation rate on the returns of firms listed in Pakistan.

Gross Domestic Product (GDP)

Variable Growth domestic product has no significant effect on the profitability of Real-estate. The results showed a p-value =0.458 >.05 thus; the study accepts the null hypotheses of the study. The research concluded that GDP do not have a significant effect on profitability ROA of listed Real-estate in Addis Ababa.

Based on this result, the third alternative hypothesis (H3) is rejected because GDP has insignificant statistical effect of GDP on ROA of Addis Ababa Real estate firms.

One would expect that the impact of GDP on profitability is positive and significant. However, it was not statistically significant even at 10% significance level (p-value = 0.458), insinuating that its influence is negligible. Moreover, the insignificant parameter indicates that the GDP does not affect Addis Ababa private Real estate company's profitability. Thus the hypothesis that states there is a significant relationship between GDP and profitability may be rejected or data did not support the hypothesis. Referring to previous studies, the results defies logic and does not conform with earlier findings by Obamuyi (2013) and Athanasoglou et.al, (2006) which agrees on the positive association between economic growth and the performance of the financial sector but it is consistent with the finding of Krakah et.al, (2010) and Frederick (2014) who found that there was no significant relationship between GDP and banks profitability.

Firm Size

Variable firm size has no significant effect on the profitability of Real-estate. The results showed a p-value =0.261>0.05 thus; the study accepts the null hypotheses of the study. The research concluded that firm size do not have a significant effect on profitability ROA of listed Real-estate in Addis Ababa.

Firm size is measured by natural logarithm of total asset. The results of the fixed effect regression of panel model the coefficient of the variable firm size coefficient -0.075, t statistics -1.12 and p-value 0.261. Based on these the result indicates that there is negative and no significance influences between firm sizes to the profitability. It means that whether small or big the size of firm does not affect to the level of profitability. The result of the study by Yee and Cheah (2006) found that there is no significant correlation between firm size and profitability.

This result was also consistent with the previous findings of the result corroborates the findings of Halil and Hasan (2012); Papadogonas (2007); Akinyomi and Oladguju (2012) and Velnampy and Nimalathan (2010) but deviates from those of Hall (1987); Evans (1987); Goddard, Tavakoli and Wilson (2005); Ammar (2005) and Burson (2007) who found negative relationship between firm size and profitability.

In line with the Gibrat (1931) proportionate growth hypothesis, Bharni (2007) investigated the relationship between size and profitability of 250 Icelandic firms from five years and found a weak and insignificant relationship between size and profitability. In the same vein, Molyneux and Wilson (2004) studied European banks and found a weak evidence of consistent size and profitability relationship. In addition, to the Hall (1987) and Evans (1987), decreasing relation between growth and size, Goddard, Tavakoli and Wilson (2005) studied 4 European countries from 1993-2004 and found a negative relationship between size and profitability. In the same vein, Ammar (2003) found a negative relationship between size and profitability for firms with a turnover of 50million dollars. Burson (2007) in a linear specification of the size – profit relationship, reported a negative influence of firm size on profitability.

Leverage

Variable Leverage has no significant effect on the profitability of Real-estate. The result showed a p-value =0.695>0.05 thus; the study accepts the null hypotheses of the study. The research concluded that firm size do not have a significant effect on profitability ROA of listed Real-estate in Addis Ababa

Leverage describes the company's ability to pay its long-term obligations or the obligations if the company is liquidated. According to pecking order theory, companies that have a high level of profitability actually have a low level of debt. According to Brigham and Houston (2013), Pecking Order Theory states that companies prefer internal funding over external funding. If external funding is needed, the company will issue debt securities, and if it is still not sufficient, then it will issue new shares. Previous research conducted by Matar and Eneizan (2018), Juwita (2018), Agiomirgianakis et.al. (2013) found that leverage has a negative and significant effect on profitability.

Liquidity

Variable of liquidity has inversely a significant impact on profitability. The results showed a p-value = $0.091 < 0.1$ thus the research concluded that liquidity do have a significant effect at 10% level on profitability ROA of listed Real-estate in Addis Ababa.

Liquidity is the only accepted hypothesis (H4) but the other firm characteristics factor, firm size, leverage and age of the firm has rejected because there is no significant effect on ROA of Addis Ababa Real estate firms. The result is in line with the findings of Marques and Braga (1995) confirmed this inverse relationship between liquidity and profitability for a sample of food companies. Blatt (2001), also called a negative relationship between liquidity and profitability, measured by Dynamic Model and profitability. Similarly Abuzar (2004), found that a significant negative relationship between profitability and liquidity. Also Eljelly (2004) examined the relation between profitability and liquidity measured by current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia using correlation and regression analysis and found a negative relationship between profitability and liquidity.

Age of the Firm

Variable firm size has no significant effect on the profitability of Real-estate. The results showed a p-value = $0.665 > 0.05$ thus; the study accepts the null hypotheses of the study. The research concluded that firm age does not have a significant effect on profitability ROA of listed Real-estate in Addis Ababa.

The result is consistent with the findings, the study found a negative relationship between age and profitability. Coad, Segarra and Teruel (2007) using a sample of Spanish firms from 1998 to 2006 found that firm performance improve with the age of the firm and that older firms have a lower level of productivity and profitability. The negative relationship between firm age and profitability may be ascribed to the Gardner (1965) organismic life cycle analogy that: “like people and plants, organizations have a life cycle...a time of flourishing strength and a gnarled old age when exit becomes almost inevitable”. Even though, Penrose (1952) warned against the rigid application of the organismic life cycle analogy since the life cycle of the organization cannot be predetermined or predicted with reasonable certainty.

CHAPTER FIVE

SUMMURY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

The fifth chapter of the study focused on the presentation of the summary of the results in relation to the empirical literature, the conclusions drawn from the results, and the recommendations drawn from the study findings. The chapter also presented suggestions for future research.

5.2 Summary

The study has examined factors influencing profitability of 6 real estate firms listed on Addis Ababa in the 2018-2022 periods. The analysis was based on secondary panel data that was gathered from listed Real Estates in Addis Ababa. Microsoft Excel was used to compile the research and export it to Stata 14 for further data analysis. Both descriptive and inferential analyses were used in the study. Fixed effects model (FEM) were employed in the research to assure strong and effective estimation. The study's findings were presented in accordance with its stated objectives and hypotheses in the research.

From data analysis, Addis Ababa private Real Estate company profitability is highly affected by variables. The findings of the study showed that Exchange rates and liquidity have statistically significant and negative relationship with private real estate company profitability in Addis Ababa. However, independent variables, firm size, liquidity and variables like GDP have negative and insignificant relationship with profitability while inflation (INF) has positive and insignificant effect on the profitability of Private real estate firms in Addis Ababa.

The Coefficient of determination R-square values was 0.584 which tell us 58.4% in our independent variable is explained by the model, indicates the power of the model is 58.4% explained by the variables, while 41.6% in the variation of profitability is associated with other factors not covered in this research.

5.3 Conclusions

The Real Estate sector contributes significantly to a nation's socioeconomic growth, and its significance is mostly due to the direct and indirect effects it has on all economic activity. The business owner can benefit from this in its effect by the owner of the business and other stakeholders can manage and adjust their operations performance and company profit can be maximized as well and provide value added to the shareholders of the company. Additionally, regulatory bodies like the government of the country may help for strategic planning and implementation towards the construction sector due to having highly regulated industries. Therefore, the nation, stakeholders, regulatory authorities, and Real Estate companies all place a high value on research into the elements that influence construction profitability. The goal of this study is to investigate the variables influencing Addis Ababa's private real estate companies' profitability as shown by ROA. Six chosen organizations' annual year audited financial statements from years 2018 to 2022 were utilized to gather data for five years of financial statements in order to achieve the goal. The fixed effect panel regression approach was used to evaluate the given data. To describe the profitability of private real estate companies among private enterprises in Addis Ababa, descriptive statistics, correlation analysis, and regression analysis were used.

The study investigates the impact of macro-economic factor and firm specific level characteristics on factors affecting private real estate profitability. For this purpose, Exchange rate, inflation, GDP, firm size, liquidity, Leverage and age of the firm are selected as explanatory variables while ROA is taken as dependent variable. The results of regression analysis reveal that Exchange rates and liquidity has a negative and significant effect on profitability of private real estates in Addis Ababa. They are most important factors affecting construction company profitability (ROA) whereas GDP and other variables firm size, leverage and age of the firm have negative and statistically insignificant relationship with private real estate company profitability (ROA). Based on the result inflation also indicates that there is positive relationship and no significance influences the profitability Private real estate.

5.4 Recommendations

Based on the findings of the study the following possible recommendations were forwarded:

- Because the Real Estate industry contributes significantly to national economic expansion and provides advantages to business owners, stakeholders, shareholders, and government regulatory agencies, those factors that negatively impact real estate companies (liquidity and exchange rates) have an impact on real estate profitability. Because they stand to gain from it and want to maintain its continuity, these parties will measure and discuss the aspects that have an impact on profitability, increasing those that have a positive impact and decreasing those that have a negative one.
- The sector was operating at a high liquidity position, which suggests that investing in additional short-term assets will have a negative influence on profitability or may result in low profitability.
- To sum up, before making an investment decision, real estate developers need to consider macroeconomic factors, Exchange rates, inflation rates, GDP and Firm Characteristics factor, Firm size, liquidity, leverage and age of the firm. This will help them make a wise choice on issues affecting the profitability of their business. Because these variables significantly determine how profitable building is, either favorably or unfavorably, for private construction firms operating in Ethiopia.

5.4 Areas for future research

- ❖ This research has used only five years data in order to keep the sampled real estate company representative as chance only 6 private real estate companies are included in this study. Therefore, future researches could this research as a starting point and replicate this study using multiple years' data and more number of companies.
- ❖ From the research 41.6% in the variation of profitability is associated with other factors, to obtain more precise results and findings to enhance the reliability of the research. So future studies should also include more variables to examine on factors affecting real estate company profitability. I hope the results of this study will be useful for and contribute to the further development of Ethiopian real estate industry
- ❖ The study was only limited to a single financial performance measure that is profitability (ROA). Hence a similar study could be conducted examining the effect of the selected factors on other measures of financial performance, such as ROE, ROI and ROS, within the real estate companies.

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ANNEXES

Company	year	ROA	Exchange rate	Inflation rate	GDP	Firm size	Liquidity	Leverage	Age of Firm
A	2010	0.03274	51.99	16.5	7.7	8.87907	0.69834	3.14771	5
A	2011	0.04766	43.69	14.6	9.0	9.02722	0.43005	5.13459	6
A	2012	0.01998	34.98	18.8	6.1	9.33348	1.74464	0.45741	7
A	2013	0.04582	28.91	19.5	6.3	9.50929	1.44667	0.71745	8
A	2014	0.09190	27.26	29.8	6.1	9.65875	1.12268	1.28870	9
B	2010	-0.00411	51.99	16.5	7.7	8.92897	0.61806	16.14341	4
B	2011	0.05462	43.69	14.6	9.0	9.09396	0.62160	17.64736	5
B	2012	0.47895	34.98	18.8	6.1	9.17045	0.71766	2.13737	6
B	2013	0.28985	28.91	19.5	6.3	9.26732	1.21924	2.75865	7
B	2014	0.30377	27.26	29.8	6.1	9.11067	1.57867	1.25194	8
C	2010	-0.06349	51.99	16.5	7.7	9.48417	2.01821	1.83102	6
C	2011	-0.07679	43.69	14.6	9.0	9.55744	1.56191	2.40662	7
C	2012	-0.07418	34.98	18.8	6.1	9.62202	1.91683	3.65832	8
C	2013	0.11993	28.91	19.5	6.3	9.71063	0.21183	5.47612	9
C	2014	0.27876	27.26	29.8	6.1	9.86009	0.26129	7.08701	10
D	2010	0.06168	51.99	16.5	7.7	7.98558	0.50702	8.77720	2
D	2011	0.07905	43.69	14.6	9.0	8.05959	0.29052	9.67072	3
D	2012	0.10699	34.98	18.8	6.1	8.13360	1.15701	5.40533	4
D	2013	0.26135	28.91	19.5	6.3	8.22973	0.91123	1.61400	5
D	2014	0.37808	27.26	29.8	6.1	8.22428	0.70050	2.39441	6
E	2010	0.25975	51.99	16.5	7.7	7.64400	0.24862	2.38095	6
E	2011	0.02125	43.69	14.6	9.0	8.76476	1.13572	2.38095	7
E	2012	0.14412	34.98	18.8	6.1	9.05727	2.46732	12.50000	8
E	2013	0.28710	28.91	19.5	6.3	9.24867	1.79090	6.25000	9
E	2014	0.38585	27.26	29.8	6.1	9.50041	1.23899	3.70370	10
F	2010	-0.00224	51.99	16.5	7.7	8.67037	1.41881	8.36278	1
F	2011	0.03987	43.69	14.6	9.0	8.81916	1.26447	12.47117	2
F	2012	0.07414	34.98	18.8	6.1	9.03224	1.27556	11.50986	3
F	2013	0.45139	28.91	19.5	6.3	9.26665	0.90016	8.13526	4
F	2014	0.47309	27.26	29.8	6.1	9.11000	1.16552	1.67529	5

NB: Company A: Noah Real Estate
 Company B: SNB Real Estate
 Company C: Sunshine Real Estate
 Company D: Trend Hope Real Estate
 Company E: Gift Real Estate
 Company F: Adey Abeba Real Estate

Company Name - SUNSHINE REAL ESTATE

Items	2014	2013	2012	2011	2010
Total Current Asset	280,047,690.00	197,198,145.00	1,549,953,234.00	1,220,842,465.00	992,083,367.00
Total Assets	7,245,814,613.00	5,136,014,792.00	4,188,153,734.00	3,609,477,575.00	3,049,085,509.00
Total Current Liabilities	1,071,769,496.00	930,931,934.00	808,601,354.00	781,634,754.00	491,565,927.00
Total liabilities	4,763,823,446.00	3,541,446,624.00	2,834,631,451.00	2,154,038,968.00	1,777,618,773.00
Total Equity	672,191,346.00	646,707,110.00	774,846,124.00	895,046,541.00	970,834,337.00
Profit/Loss before tax	2,019,829,625.00	615,967,211.00	-310,672,286.00	-277,157,377.00	-193,596,217.00

Variables/Years	2014	2013	2012	2011	2010
ROA	0.27876	0.11993	-0.07418	-0.07679	-0.06349
Liquidity	0.26129	0.21183	1.91683	1.56191	2.01821
Firm Size	9.86009	9.71063	9.62202	9.55744	9.48417
Age of firm	10	9	8	7	6
Leverage	7.08701	5.47612	3.65832	2.40662	1.83102

Company Name - SNB Real Estate

	2014	2013	2012	2011	2010
Total Current Asset	435,899,542.00	929,478,313.00	673,912,320.00	625,481,185.00	413,658,056.00
Total Assets	1,290,238,926.00	1,850,621,729.00	1,480,648,694.00	1,241,531,260.00	849,122,348.00
Total Current Liabilities	276,118,203.00	762,339,757.00	939,040,229.00	1,006,238,094.00	669,286,492.00
Total liabilities	276,118,203.00	762,339,757.00	673,912,320.00	1,006,238,094.00	669,286,492.00
Total Equity	220,552,412.00	276,345,210.00	315,299,518.00	57,019,193.00	41,458,811.00
Profit/Loss before tax	391,939,706.00	536,409,680.00	709,158,071.00	67,810,897.00	-3,492,483.00

Variables/Years	2014	2013	2012	2011	2010
ROA	0.30377	0.28985	0.47895	0.05462	-0.00411
Liquidity	1.57867	1.21924	0.71766	0.62160	0.61806
Firm Size	9.11067	9.26732	9.17045	9.09396	8.92897
Age of firm	8	7	6	5	4
Leverage	1.25194	2.75865	2.13737	17.64736	16.14341

Company Name - NOAH REAL ESTATE

	2014	2013	2012	2011	2010
Total Current Asset	3,693,252,126.00	2,600,637,291.00	1,999,548,971.0	325,798,965.0	295,217,526.00
Total Assets	4,557,709,718.00	3,230,618,747.00	2,155,172,907.0	1,064,688,203.0	756,953,438.00
Total Current Liabilities	3,289,684,378.00	1,797,672,564.00	1,146,111,112.0	757,592,136.00	422,743,922.00
Total liabilities	3,289,684,378.00	1,797,672,564.00	1,146,111,112.0	757,592,136.00	422,743,922.00
Total Equity	2,552,719,461.00	2,505,644,072.00	2,505,644,072.0	147,546,810.00	134,302,216.00
Profit/Loss before tax	418,853,806.00	148,015,837.00	43,058,351.0	50,738,649.00	24,779,649.00

Variables/Years	2014	2013	2012	2011	2010
ROA	0.09190	0.04582	0.01998	0.04766	0.03274
Liquidity	1.12268	1.44667	1.74464	0.43005	0.69834
Firm Size	9.65875	9.50929	9.33348	9.02722	8.87907
Age of firm	9	8	7	6	5
Leverage	1.28870	0.71745	0.45741	5.13459	3.14771

Company Name - Trend Hope Real Estate

	2014	2013	2012	2011	2010
Total Current Asset	69,875,779.00	57,183,762.00	74,443,389.00	29,514,058.00	25,345,430.00
Total Assets	167,600,894.00	169,720,311.00	136,018,747.00	114,706,852.00	96,734,180.00
Total Current Liabilities	99,751,783.00	62,754,202.00	64,341,253.00	101,589,869.00	49,989,456.00
Total liabilities	99,751,783.00	62,754,202.00	64,341,253.00	101,589,869.00	49,989,456.00
Total Equity	41,660,319.00	38,881,139.00	11,903,304.69	10,504,894.00	5,695,376.00
Profit/Loss before tax	63,366,389.00	44,356,200.00	14,552,460.00	9,067,275.00	5,966,404.00

Variables/Years	2014	2013	2012	2011	2010
ROA	0.37808	0.26135	0.10699	0.07905	0.06168
Liquidity	0.70050	0.91123	1.15701	0.29052	0.50702
Firm Size	8.22428	8.22973	8.13360	8.05959	7.98558
Age of firm	6	5	4	3	2
Leverage	2.39441	1.61400	5.40533	9.67072	8.77720

Company Name - Gift Real Estate

	2014	2013	2012	2011	2010
Total Current Asset	2,467,428,563.00	1,241,606,000.00	1,042,447,000.00	258,686,000.00	14,036,000.00
Total Assets	3,165,268,859.00	1,772,828,000.00	1,140,955,000.00	581,787,000.00	44,055,000.00
Total Current Liabilities	1,991,485,689.00	693,287,000.00	422,502,000.00	227,773,000.00	56,455,000.00
Total liabilities	2,722,131,219.00	1,646,957,212.00	1,059,947,195.00	500,336,820.00	33,041,250.00
Total Equity	734,975,429.00	263,513,154.00	84,795,775.00	210,141,464.00	13,877,325.00
Profit/Loss before tax	1,221,322,451.00	508,980,000.00	164,437,143.00	12,365,714.00	11,443,240.00

Variables/Years	2014	2013	2012	2011	2010
ROA	0.38585	0.28710	0.14412	0.02125	0.25975
Liquidity	1.23899	1.79090	2.46732	1.13572	0.24862
Firm Size	9.50041	9.24867	9.05727	8.76476	7.64400
Age of firm	10	9	8	7	6
Leverage	3.70370	6.25000	12.50000	2.38095	2.38095

Company Name - ADEY ABEBA REAL ESTATE

	2014	2013	2012	2011	2010
Total Current Asset	520,058,223.00	1,108,931,746.00	1,074,676,482.0	657,082,709.00	467,763,876.00
Total Assets	1,288,251,827.00	1,847,771,584.00	1,077,056,076.0	659,422,904.00	468,139,076.00
Total Current Liabilities	446,201,193.00	1,231,924,969.00	842,513,019.00	519,650,136.00	329,687,646.00
Total liabilities	446,201,193.00	1,231,924,969.00	990,959,525.00	610,472,232.00	418,139,073.00
Total Equity	266,342,178.00	151,430,324.00	86,096,551.00	48,950,672.00	50,000,000.00
Profit/Loss before tax	609,455,763.00	834,064,797.00	79,847,711.00	26,289,545.00	-1,049,328.00

Variables/Years	2014	2013	2012	2011	2010
ROA	0.47309	0.45139	0.07414	0.03987	-0.00224
Liquidity	1.16552	0.90016	1.27556	1.26447	1.41881
Firm Size	9.11000	9.26665	9.03224	8.81916	8.67037
Age of firm	5	4	3	2	1
Leverage	1.67529	8.13526	11.50986	12.47117	8.36278