The Performance of Private Residential Real Estate Developers in Ethiopia: The Case of Addis Ababa

Selam Yohannes[1,*] and Abebe Dinku[1]

[1]School of Civil and Environmental Engineering, Addis Ababa Institute of Technology, Addis Ababa University, Addis Ababa, Ethiopia
*Corresponding author's Email address: seleyoh@gmail.com

ABSTRACT

The issue of providing adequate housing to the general public is critical in both developed and developing nations. This requires continuous monitoring of performance in the provision of housing as a fundamental approach to enhance efficiency and establish a strategic framework for achieving better productivity. This study focuses on the performance evaluation of real estate firms in Addis Ababa and identifies the obstacles encountered that would influence their construction operations and management. The primary goal of this research is to introduce the concept of project performance, identify the factors influencing performance and propose strategies for enhancing performance in real estate firms. The qualitative research methodology employed involved non-random sampling. The methodology involved preliminary investigation and a pilot study, to refine and explore the research areas. Through the data analysis process; the study underscored the significance of focusing on customer satisfaction, cost overruns and other financial aspects when considering performance metrics. Furthermore, among the factors impacting performance; material price fluctuations, exchange rate variations and construction material shortages ranked highest in their order of appearance.

The study's findings culminate in essential recommendations for improvement strategies. In conclusion, it emphasizes the necessity of a collaborative effort among all stakeholders to notably elevate the real estate sector.

1. INTRODUCTION

It is estimated that Africa could potentially have up to 1.2 billion urban residents by the year 2050, with 4.5 million new inhabitants settling in informal areas annually. The majority of these individuals are unable to afford basic formal housing or secure mortgage loans [1]. The rise in population leads to an increased demand for various resources, such as natural resources, job opportunities and housing. The growth in population can create challenges to development; hence, many of the world's most populous nations have endeavored to regulate their annual population growth rates.

The concept of housing, when viewed in the context of services and community, can be described as the provision of living spaces and associated amenities that enhance the well-being and stability of individuals and families within a community. It encompasses not only the physical structures like houses, apartments or shelters but also the array of supportive services and infrastructure that ensures residents have access to secure, affordable and adequate housing. This definition underscores housing as a crucial social service necessary for promoting community unity, economic prospects and the overall quality of life for all community members [2].

Residential real estate developers are expected to play a crucial role in providing housing for the community. To maximize the output from real estate developers, organizations need to be effectively managed. However, the performance and delivery of housing units have been unsatisfactory so far. According to the master plan of Addis Ababa (2003-2010), the actual delivery of residential real estate developers amounts to only 25 % of the promised quantity.

Performance measurement is defined as "the process of quantifying the efficiency and effectiveness of past actions." Performance management holds significance in the construction industry as it enables managers to assess how (and if) employees are contributing to the overall business strategy and project success [3].

The performance of housing developers is multifaceted, covering their responsibilities in supply, quality, affordability, innovation, project management, community influence and financial sustainability within the broader housing market framework. Their choices and activities not only influence the physical environment but also the socio-economic dynamics of the communities they cater for. To accomplish these objectives and ensure that construction work is carried out in the most efficient and organized manner, companies must establish and uphold robust teams, monitor and evaluate progress, and guarantee the smooth execution of construction projects.

To date, there are studies done on real estate's regarding the failure and institutional issues faced by real estate developers but not on performance related matters. This study thus focuses on the factors influencing real estate performance derived from literature reviews and personal interviews. The chosen methodology for exploring performance influencing factors

entails conducting a preliminary study as a pilot survey. Based on the findings, a list of parameters for further evaluation was outlined. This evaluation was carried out by formulating a questionnaire aimed at real estate staff, with a few customers consulted to validate the findings. The assessment and rating of performance influencing factors were executed using Minitab to steer the focus of real estate entities, initiate improvement strategies and evaluate the performance index considerations.

Overview on Private Real Estate Developers

Project Life Cycle: The project lifecycle of private real estate developers typically adheres to a structured process from inception to completion and beyond. Here is an outline of the standard stages involved [3]:

i. *Identification and Feasibility Study:* Developers pinpoint potential development opportunities based on market demand, location appeal and zoning regulations.

ii. *Acquisition of Land:* Upon confirming feasibility, developers engage in negotiations and secure the necessary land for the project.

iii. *Planning and Design:* Developers collaborate with architects, engineers and planners to craft the project's design.

iv. *Financing and Investment:* Developers secure funding through a combination of equity investment, loans and potentially government incentives or subsidies.

v. *Pre-Construction Phase:* Preparing the construction site, this may involve demolishing existing structures, clearing the site, securing essential utilities and infrastructure connections.

vi. *Construction:* includes the physical construction of the project involving

coordinating labor, procuring materials, adhering to construction schedules and budgets.

vii. *Marketing and Sales:* As construction progresses, developers launch marketing and sales campaigns to pre-sell or lease units.

viii. *Occupancy and Operation:* Upon completion of construction and obtaining regulatory approvals, units are handed over to buyers or tenants. Developers may oversee property management directly or through property management firms to ensure smooth operation and maintenance.

ix. *Post-Construction Evaluation:* Developers assess the project's performance against initial projections, including financial returns, market reception and operational efficiencies. Insights gained during this phase inform future development strategies.

x. *Asset Management or Disposition:* Depending on the developer's approach, they may retain the property as part of their investment portfolio for long-term income generation (asset management). Alternatively, they may opt to sell the property to realize profits or reinvest capital in new projects.

Real Estate Housing Supply Process: The real estate housing supply process encompasses several fundamental elements that collectively impact the availability, affordability and quality of housing in any given market. Here is an overview of these elements [5]:

i. *Land Availability and Zoning:* The availability of suitable land for development and the zoning regulations governing its use are pivotal factors. Zoning laws dictate the permissible structures in specific areas, influencing the type and density of available housing.

ii. *Development and Construction:* The housing development process involves planning, obtaining permits, construction and infrastructure development. This phase is influenced by factors such as construction costs, labor availability and regulatory compliance.

iii. *Housing Finance and Investment:* Financing plays a crucial role in housing development. Developers secure funding through loans, equity investments or government subsidies. The availability of financing options impacts the feasibility and scale of housing projects.

iv. *Market Demand and Trends:* Housing supply is closely linked to market demand, influenced by demographic trends, economic conditions and consumer preferences.

v. *Government Policies and Regulations:* Government policies, including tax incentives, subsidies and housing regulations, significantly impact housing supply. Policies aimed at promoting affordable housing or sustainable development shape market dynamics.

vi. *Infrastructure and Utilities:* Access to infrastructure such as roads, water supply, sewer systems, and utilities (electricity and internet) is vital for housing development. The adequacy and reliability of infrastructure affect the desirability and feasibility of new housing projects.

vii. *Environmental and Sustainability Factors:* Environmental considerations and sustainability standards increasingly influence housing development. Regulations on energy efficiency, green building practices and environmental impact assessments shape housing supply decisions.

viii. *Community and Stakeholder Engagement:* Local communities and stakeholders, including residents, neighborhood associations and support groups, often influence housing development through public hearings and zoning meetings.

ix. *Market Dynamics and Price Movements:* Housing supply and demand dynamics determine price fluctuations and affordability. Imbalances in supply can lead to price fluctuations, impacting housing affordability and market stability.

x. *Urban Planning and Design:* Urban planning principles influence the layout, density and design of housing developments. Well-designed neighborhoods consider factors such as public spaces and amenities to create livable communities.

In summary, understanding these elements is essential for stakeholders, including developers, policymakers, investors and residents to effectively navigate and influence the housing market.

Construction Performance Measurement

The construction industry has frequently faced criticism for its underperformance attributed to its unique characteristics. Traditional performance evaluation metrics typically encompass cost, time, and quality. In 2010, a research initiative was undertaken to introduce a comprehensive performance measurement model incorporating prioritized BSC (Balanced Scorecard) perspectives and key building project performance indicators (KBPPIs) to assess construction project performance utilizing a multi-criteria decision-making tool like AHP (Analytic Hierarchy Process) [6].

Specifically, within construction projects, real estate performance can be gauged through financial, business and customer perspectives. The financial aspect hinges on stakeholders' perceptions regarding the project's financial aspects, encompassing cash flow projections and cost-benefit analyses. The internal business process perspective concentrates on pivotal process activities, while the customer perspective emphasizes potential customer contentment [6]. Customer satisfaction significantly influences the performance of real estate developers. Three factors from the customer perspective act as performance indicators (housing unit quantity, sales volume impact and occupancy rate impact). Research done in Kenya revealed that an increase in housing unit quantity and occupancy rate impact tends to positively influence performance [7].

A prevalent issue among real estate firms is the delay in delivering housing according to the original contract timeline. The primary causes of delays documented were price hikes, construction material shortages and insufficient financial resources [8].

The theory of real options explains why developers opt to keep land undeveloped for extended periods and how market conditions evolve. There was a remedy proposed for the Real estate developers who were advised to establish a group that enables collaboration agreements endorsed by each developer and by the city [9].

Swedish housing development practices and monitoring lean towards daily planning rather than strict adherence to zoning plans, indicating a swift plan implementation process [10]. It is concurred that a robust political emphasis is necessary to formulate detailed development schemes, ensure efficient coordination to meet milestones and offer incentives to developers for timely project completion.

Regarding institutional enhancement, in Addis Ababa, there are eight primary issues that could boost the construction industry.

By prioritizing and ranking these issues, it was discerned that three of the matters received minimal attention from governmental bodies, thereby contributing to real estate developers' underperformance. These issues encompass land lease allocation, compensation and valuation regulations. The study also highlighted the lack of government oversight or enforceable penalties for real estate companies failing to adhere to customer contracts and granting these companies excessive autonomy. The study further cited data from 2015/16, indicating that out of the total 550ha of leased land given to 120 real estate projects, 119.7 ha remains undeveloped [11]. The prevalent critical failure issues primarily revolve around inadequate feasibility studies, challenges with cost estimation during tendering and construction phases.

Review on Public Sector Housing Strategies, Regulatory and Enabling roles in Addis Ababa

Addis Ababa, the capital city of Ethiopia, is confronted with significant housing challenges attributed to rapid urbanization, population growth and economic advancement. The public sector assumes a pivotal role in shaping housing strategies, regulations and fostering conducive environments to tackle these challenges.

In Addis Ababa, housing strategies encompass affordable housing initiatives, integrated urban development plans, slum upgrades, urban renewal and land use regulations through master plans. The government has initiated various affordable housing programs with the aim of offering housing solutions to low and middle-income households. These programs frequently entail public-private partnerships (PPPs) to expedite housing provision. Efforts are underway to enhance informal settlements and slums, enhancing living conditions and integrating these areas into the formal urban landscape. Urban renewal projects also strive to revitalize older or deteriorated areas [12].

The regulatory frameworks primarily revolve around land tenure and property rights to formalize land ownership, ensuring property rights that influence investment, building codes, safety standards governing construction practices, environmental and sustainability criteria that may involve waste management prerequisites, financial mechanisms and subsidy schemes to facilitate access to mortgage finance that support infrastructure development at reduced construction costs.

Enabling roles encompass enhanced infrastructure development, collaboration between the public and private sectors, community involvement and stakeholder engagement.

Challenges encountered in public sector housing development include addressing informal settlements, land availability, costs in urban areas affecting housing affordability, project feasibility and necessitating effective land management policies. Thus, strengthening institutional capacity and governance frameworks is essential for effective implementation of housing strategies and regulations. Continued efforts in policy innovation, infrastructure investment and community engagement are crucial for achieving sustainable urban development and housing security in the city.

Experience of Different Countries

In the United Kingdom, key performance indicators (KPIs) were programmed for construction projects as early as 1999. These KPIs give information on the range of performance being achieved on all construction activities and they include client satisfaction on the product and service, defects, predictability on cost and

time, profitability, productivity, safety, construction cost and time. On the study done in the United Kingdom; procurement components were challenging the project performance. That is mainly during; building team selection, payment procedures, legal framework, overlap of the building phases and building team organization [13].

In Kuwait, the current market valuation provides strong incentives for private sector developers to expand the supply of dwellings. However, private sector incentives are distorted by the regulatory and tax treatment of real estate due to their high prices on new preconstruction apartment sales and excess capital gains on redevelopment projects [14].

In the United States, local land use regulations have played role in constraining housing supply. While some local regulations have been changed to allow more housing construction in high demand areas, the effects will take time and it remains to be seen whether the increase in supply created by these regulatory changes will be enough to satisfy local demand [15].

South Korea used different procedures and strategies in order to facilitate the housing development. Having a clear policy, signing of collaboration agreement with well-documented strategy between private developers and government projects, having a nationally accepted standard/ legal framework and supervision, having a strong commitment and cooperation by the government are some of the strategies.

India used different housing development strategies. Such as; provision of land as an incentive from the government, government and private developers working together on residential and commercial projects, long term mortgage loan to be arranged, paying half the price of a housing upon purchase and the other half on long term arrangement,

developers and end users working cooperatively [16, 17].

The construction industry in Nigeria encounters challenges when it comes to delivering housing efficiently and effectively. There are often reports of inadequate project management, rushed project execution, poor service delivery and instances where facilities are left abandoned or non-operational. It is common to see cost, quality and time overruns in numerous construction projects in Nigeria. These issues could be addressed through careful planning, policy implementation and thorough industry monitoring and supervision [18].

The main strategies used in Vietnam was mainly focused on the project delivery method which is build operate transfer. On those methods, there was a lot of effort regarding the finance as there were initiatives for developer built affordable housing and also conducting a regular audit helped in reforming the standard of housing supply. The audits mainly base on the cost, schedule and delivery of the housing. In addition, the involvement of Public Private Partnership for affordable housing, provident funds and different supporting programs have also contributed positively to the provision of housing in the country [19].

2. METHODOLOGY

In this study, qualitative and quantitative induction methods were employed based on the collected data. Qualitative induction was utilized to generate new ideas regarding subjective experiences and concepts, while quantitative induction was employed to test fixed (deductive) variables.

To pretest certain variables, a pilot study was conducted as an initial investigation. The pilot survey was executed through the utilization of a research instrument, mainly using interviews.

The researchers planned to adopt a non-probabilistic sampling approach, with a preference for the purposive sampling technique based on the results of the pilot study. Given the research's focus on a specific sample, descriptive analysis was applied to the qualitative data produced.

The detailed methodology procedure and sampling technique utilized in this study are outlined in the following section.

2.1. Operational Active Private Residential Real Estate Developers in Addis Ababa

Real estate developers are officially registered by the Ethiopian Investment Commission (EIC) at the Federal level and by the Addis Ababa Investment Agency (AAIA) at the city level. Those registered with the EIC include investors who are either wholly foreign or engaged in a joint venture with domestic investors (Ethiopian and foreign investors as PLC). The primary motivation for investors to undergo registration with the EIC is to establish a legitimate entity within the country for operational purposes. Conversely, individuals registered with the AAIA seek to secure access or priority in acquiring loans from financial institutions and benefit from a 1 % interest rate discount, as revealed in an interview conducted by the EIC. Presently, real estate developers do not receive any incentive in comparison to the manufacturing sector.

In terms of the renewal of investment permits, as stipulated in Proclamation No. 769, Article 17 of 2012, investors who fail to commence the implementation of their project within two years from the date of the investment permit registration risks having their permit revoked unconditionally [20]. Nevertheless, the consistent enforcement of this regulation is not always observed in practice.

The total counts of real estate developers registered with the EIC at the federal level, the AAIA, and through trade license registration and issuing offices is given in Table 1.

Table 1 Real Estate Developers in Ethiopia

Governmental offices approached	Registered Real estate developers' status		Potential Population	
	Real estate developers' stages	Number of real estate Developers		
Ethiopia Investment Commission (EIC)-Invested in Addis Ababa	Pre-implementation	84	**18**	**231**
	Implementation	28		
	Operational	**18**		
AAIA	Implementation	181	**23**	
	Operational	190 totals in RE and other business where 70 are purely working on real estate development but **23 are with 'Real estate' extended naming**		
Business/ trade license office	**Operational on their system/ database**	540 totals in RE but **190 are with 'Real estate' extended naming**	**190**	

The recorded total population of registered real estates is 628; however, only 231 of them bear the specific designation 'real estate' across all offices. For the purpose of this study, the focus was on real estates with the extended designation 'real estate', as those identified by 'individual names' lack organizational structure or a formal company setup that would allow for the application of performance measurement metrics. These entities primarily operate for profit, with half of them having ceased real estate operations.

Analysis of Table 1 reveals inconsistencies in the total count of operational real estates across different offices, casting doubt on the reliability of the compiled list of real estate data sourced from the aforementioned investment and licensing offices.

Moreover, upon closer examination, it was discovered that some of the contacts listed under real estate developers were actually investors not directly engaged in real estate development, many of whom had incorrect or missing contact information. This discrepancy has hindered the feasibility of conducting random sampling. To address this challenge, the researchers conducted a pilot test to validate the chosen sampling methodology and carried out a preliminary investigation to establish the appropriate research procedures.

2.2. Population and Sampling for the Pilot Survey

A pilot study was carried out to examine the critical issues impacting real estate developers in a professional manner. The study involved a set of interview questions for an initial small-scale evaluation of the research. Its purpose was to provide a rationale for the researcher's various decisions and approaches to the main research questions. Furthermore, it would justify the sampling technique employed, identify key factors influencing real estate developers' performance and establish a clear research focus.

The pilot study was conducted in Addis Ababa and deliberately selected only 11 real estate developers. This insightful study was aimed at elevating the research quality by focusing on a limited group of real estate developers, thereby ensuring the viability of the main research. These preliminary investigations delineated and reinforced the objectives, directed the analytical strategy, and gauged the research's effectiveness. The pilot study was structured around specific targeted inquiries to efficiently extract valuable insights. Moreover, the choice of a small sample of real estate developers was intended to streamline the data collection process, avoid redundant efforts and assess the research's feasibility.

The flow chart in Figure 1 illustrates the various stages involved in carrying out the pilot study. The pilot study, as previously mentioned, was conducted as a qualitative inquiry in preparation for the main study.

Data for the pilot study was collected using an interview protocol consisting of both open and closed-ended questions focusing on performance measurement within the real estate development sector. The findings from the pilot study are detailed below:

i. Participants and Setting: Real estate entities were purposefully selected based on their level of experience categorized into High-level Real Estates, Mid-level Real Estates and New/Minimally Experienced Real Estates in which their corresponding selected samples were 3, 5 and 3 respectively. The classification was primarily based on the longevity of the real estate entities. In total, 11 samples were included, with input from industry professionals to ensure the selection process was robust.
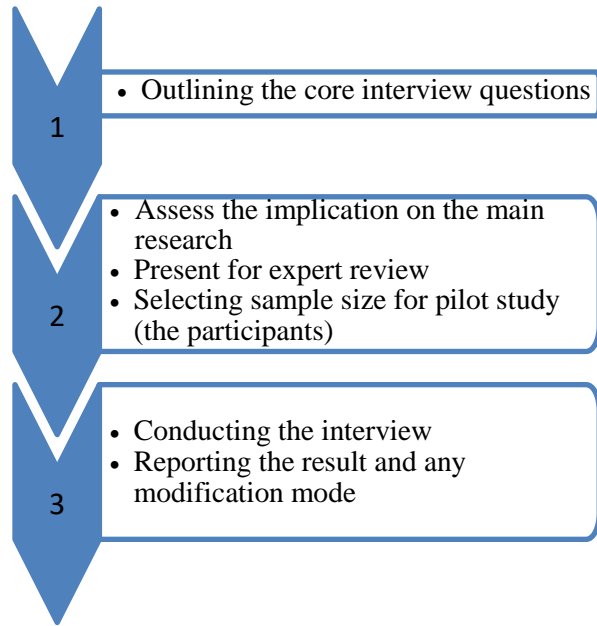
1
- Outlining the core interview questions

2
- Assess the implication on the main research
- Present for expert review
- Selecting sample size for pilot study (the participants)

3
- Conducting the interview
- Reporting the result and any modification mode

Figure 1 Flow Chart for Pilot Study

*ii. **Purpose of the Pilot Study**:* The pilot study was aimed at validating the chosen sampling method by further exploring Registered and Unregistered Real Estate Developers (REDs), provide insights for the main research design, identify key performance indicators (KPIs) influencing real estate developers' performance, align the research title with its objectives, explore international software technologies for performance management and benchmarking.

2.3. Population and Sampling: for the Main Research Survey

The data obtained shown in Table 1 were obtained from EIC, AAIA and the Trade License Office. It is important to note that, the real estate properties acquired from the Trade License Office are not individually registered under real estate developers but are rather encompassed within other business registries on their roster. This consolidation of data points towards a population size that may exhibit bias.

In the preliminary research evaluation, the population data from EIC was thoroughly analyzed. Conversely, for AAIA and business license offices, only entities explicitly denoted with 'real estate' extension in their company name were selected for further scrutiny, as detailed in Table 2.

The telephone survey was carried out, yielding the subsequent key points identified during the sample screening process.

i. Approximately, 25% of the properties listed were designated for rental purposes.

ii. Close to 50% of the real estate developers included in the list had either ceased operations or have inactive offices, yet remain on the official registry, posing a significant challenge to the sampling procedure.

iii. The presence of duplicate entries of developers on the list was attributed to their involvement in multiple business entities under a single developer.

iv. Some real estate developers featured on the Addis Ababa investment agency's list were actually located in other cities of Ethiopia.

v. A notable portion of the listed real estate properties had inaccurate contact numbers, rendering them untraceable even through online searches.

While there is no specific figure for purposive sampling, a general guideline exists for determining the sample size, suggesting that a sample size exceeding 30 but less than 500 is suitable for most research endeavors [21]. Subsequent to the telephone survey and a thorough examination of their locations, a total of 36 residential real estate developers have been meticulously screened and identified as the final sample size eligible for inclusion in the main questionnaire survey

Table 2 Real estate sample screening

Population from registry	Population size	Real estate with ''naming'' for sample	Sample size after willingness check through phone survey
From EIC	18	18	5
From AAIA	70	23	10
From Trade license office	540	190	12
Others- which are not registered but operational in the real estate sector			9
Total	**628**	**231**	**36**

3. RESULTS AND DISCUSSION

3.1. Findings of the Preliminary/ Pilot Study

The majority of real estate developers surveyed favored traditional performance monitoring methods like reports and scheduling. Three out of the eleven sampled entities employed collaborative tools during the design phase, showcasing effective communication practices.

A significant finding revealed that 70% of the pilot study participants initially operated as contractors before transitioning to real estate developers, making it challenging to establish the total population for random sampling in the main survey. Consequently, purposive sampling will be adopted for the main research. Based on the pilot study, an array of performance affecting factors were identified as detailed in Table 3. The study also highlighted the absence of software applications or benchmarking tools for management purposes.

3.2. Identification of Variables for Further Investigation and Analytical Framework for the Performance Gaps in the Addis Ababa Context

An analytical framework summary based on the performance gaps identified and to be investigated on the upcoming sections are represented in Figure 2.
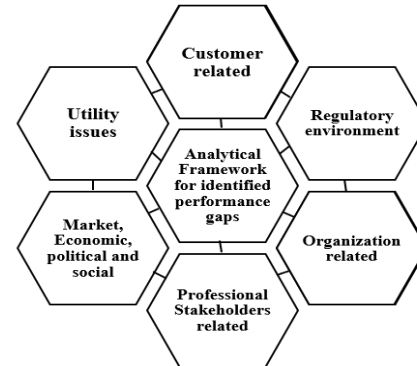

Figure 2 Analytical frameworks for Performance gaps

The items presented in Table 3 have undergone a thorough review based on the pilot study and existing literature. The pilot study encompassed personal interviews aimed at eliciting specific research insights from respondents. The data obtained, categorized as qualitative data were gathered from a deliberately chosen group of real estate developers central to the primary research investigation.

3.3. Findings of the Main Research

As shown on Table 4; among the 36 sample sizes analyzed, 23 demonstrated full responsiveness by providing all the necessary information, while only 1 partially supplied the requested data. Consequently, the response rate stands at 63.9 %.

Following a comprehensive assessment of real estate developers, specific inquiries were raised during the survey. The findings have been meticulously documented in Table 5, revealing that 39.1% of the participants initially commenced their

professional journey in the realm of real estate development. Interestingly, a significant portion transitioned from other organizational backgrounds to eventually establish them within the real estate industry.

Based on the feedback received, 86.4 % of real estate developers engage in conducting feasibility studies prior to initiating any concept design. The survey results indicate that these developers perceive their performance as moderate, with an approximate 47.8 % likelihood of successfully completing their projects within the scheduled timeframe.

The vast majority of real estate developers did not utilize international benchmarks for performance management; instead, they focused on drawing inspiration from other countries solely in the areas of design and finishing work methodologies. A comprehensive overview of housing delivery is provided in Table 6.

Table 3 Factors affecting performance and measuring indices and representation on analytical framework (Source: literature and interview session during pilot study)

Factors Affecting Performance	Performance Measuring Indices
a. Fluctuation of material price	a. Timely completion
b. Exchange rate fluctuation	b. Client satisfaction
c. Shortage of construction materials esp. Cement & Finishing	c. Financial perspectives
d. Lack of adequate finance	d. Overruns
e. Lack of supervision from government institutions	e. Customer satisfaction
f. Technical issue	f. Business perspective
• Improper planning and design	• Number of housings delivered
• Administration and Organization culture	• Impact of sales volume
• Infrastructure	• Impact of occupancy rates
• Project management factors and environment factors	g. Delay in handing over housing
g. Unnecessary rush in project execution	h. Community satisfaction
h. Policy implementation issue and monitoring	i. Interdepartmental coordination
i. Delay in acquiring land	j. Collaboration with developers
j. Lack of foreign exchange	k. Parallel processing of plans/ permits
k. Absence of proclamation and regulatory organ	
l. Lack of completeness of regulatory organ	
m. Lack of completeness of the contract agreement	
n. Lack of skilled manpower	
o. Political instability	
p. Lack of properly planned schedule and inventory	
q. Lack of coordination between project stakeholders	
r. Delayed payment from client	
s. Lack of incentives on land issues	
t. Lack of experienced person on the design review at municipality or sub city and permit issue	
u. Fluctuation on labor price and absence of labor index	
v. Lack of feasibility study before project starts	
w. Inadequate specification and procurement issues	

Table 4 Respondent's profile

Role in the RE	Count	%	Experience Years (General)	Count	%	Qualification	Count	%
Project manager	8	40	>10 years	11	45.8	BSc.	9	39.1
Office engineer	4	20	6-10 years	9	37.5	MSc.	13	56.5
Site engineer	1	5	2-5 years	4	16.7	Adv. Dipl.	1	4.3
			Total	24		**Total**	23	
Support service director	1	5	**Years (In RE)**	**Count**	**%**			
Design supervision and contract admin	2	10	>10 years	1	4.3			
Engineering department head	1	5	6-10 years	13	56.5			
Project coordinator	2	10	2-5 years	8	34.8			
Construction department head	1	5	< 2 years	1	4.3			
Total	23		**Total**	23				

Table 5 Responses on questionnaire survey

Initial category of the Real estates			Rating the performance of the real estate company			Real estate performance monitoring		
Category	**Count**	**(%)**	**Range**	**Count**	**(%)**	**Duration**	**Count**	**(%)**
Contractor	6	26.1	>90%	7	30.4	Daily	4	16.7
Real estate	9	39.1	90-60%	8	34.8	Weekly	11	45.8
Both	4	17.4	60-30%	5	21.7	Monthly	7	29.2
Share company	3	13.04	<30%	3	13.1	Quarterly	0	0
Other	1	4.36				Annually	2	8.3
Any support/ monitoring by governmental authorities			**How likely the chance of finalizing as per original schedule**			**Is feasibility study conducted before any concept design**		
Response	**Count**	**(%)**	**Response**	**Count**	**(%)**	**Response**	**Count**	**(%)**
Yes	10	43.5	Likely	5	21.7	Yes	19	86.4
No	13	56.5	Average	11	47.8	No	3	13.6
			Less likely	7	30.5			
			Not at all	0	0			

.

Table 6 Responses on Questionnaire survey – Housing delivery

Type of housing constructed			Apartment housing delivery to date			Apartment blocks delivered		
Villa	**Count**	**(%)**	**Range**	**Count**	**(%)**	**Duration**	**Count**	**(%)**
Yes	4	16	Delivered	10	41.7	<5	4	16.7
No	20	83	Not- delivered	14	58.3	20-50	3	12.5
For yes, Villa count						50-100	3	12.5
>1000	1	4.2				Not yet	14	58.3
50-100	1	4.2						
20-25	2	8.3						

Factors affecting the performance: Within the realm of performance influencers, the effects of these factors and their outcomes were analyzed. Subsequently, the data collected was organized and depicted graphically. Figure 3 demonstrates a deeper understanding of the significance of the factors that shaped the real estate industry according to the participants. It is apparent that the subsequent factors, stand as the primary five influencers of real estate performance in their respective order of importance.

1st- Material price fluctuation
2nd- Exchange rate fluctuation
3rd- Shortage of construction materials
4th- Shortage of foreign currency
5th- Political instability
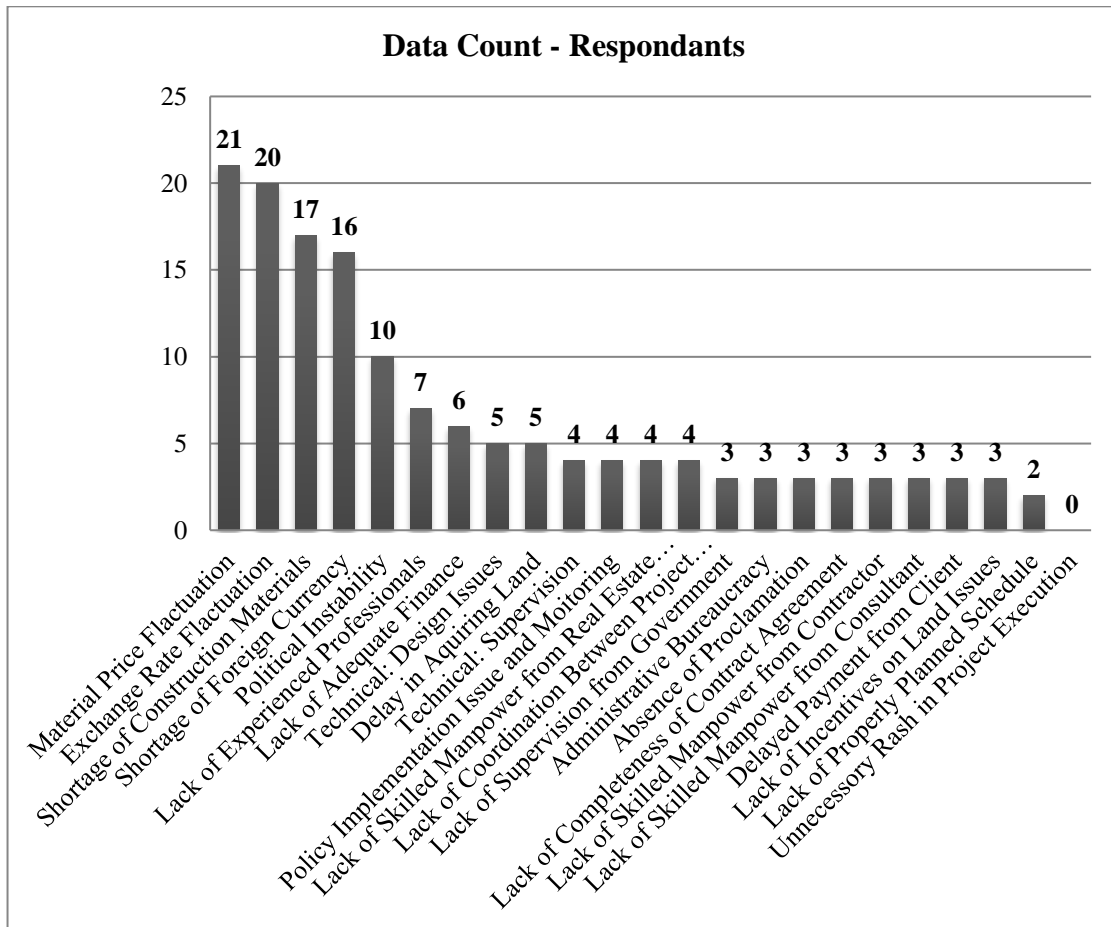
Figure 3 Factors affecting performance of residential real estate developers

Therefore, the factors identified as highly significant should be carefully addressed to prevent any obstacles to the success of the private residential real estate sector.

Performance measuring indices: The description of performance indices, their significance in performance monitoring and their prioritization based on questionnaire response data are detailed. The data is systematically organized utilizing a tally table, as depicted in Figure 4. The figure visually represents the importance of performance measuring indices and their

ranking according to the feedback received. Below are the top five performance index considerations that residential real estate developers should concentrate on based on the data count obtained.

1st - Customer satisfaction
2nd - Cost overruns
3rd - Financial perspectives
4th - Timely completion
5th - Community satisfaction

Generally, the current assessment indicates that the average project performance levels under inspection are substandard. There is a noticeable delay in project completion, with instances where projects scheduled for a 3-year duration extended to 5 years or more before handover. This evaluation specifically concerns residential real estate properties in Addis Ababa and is based on first hand observations and feedback from customers.
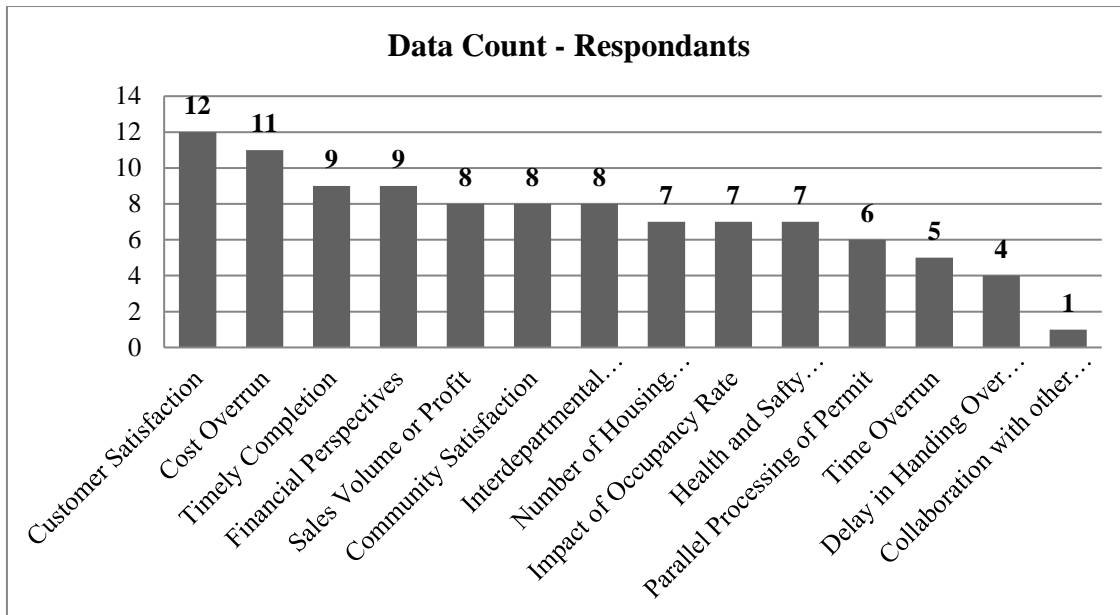

Figure 4 Rating performance index consideration

3.4. Discussion on Improvement Strategy to Boost the Real Estate Industry

Real estate developers have identified various factors that are impeding their performance. To enhance their effectiveness, it is crucial to establish a comprehensive strategy and policy tailored not only from developed nations but also through conducting specific studies pertinent to the country. An argument concerning policies highlights that, on average, the informal sector's relative size in developing countries significantly surpasses that in developed nations [22]. Consequently, this disparity has implications on housing policies that have succeeded in developed countries but

may not yield the same success in developing nations.

The research has collated valuable insights from developers, categorizing them as strategic enhancements. These enhancements address multiple areas of improvement required by all stakeholders involved in the construction sector to varying degrees, mainly indicating the necessity of collaboration among the government, real estate developers, consultant firms and financial institutions. Collaboration between the real estate sector and the government, potentially through a joint venture, could foster growth in the real estate industry and alleviate housing

shortages. Implementing Public-Private Partnerships in the housing sector can unlock the government's potential and bolster the private sector's capacity, including developers, financiers and suppliers. Engaging in open dialogues with stakeholders to resolve industry challenges is imperative. Offering special incentives and subsidy processes to real estate developers could help alleviate the acute housing shortage in conjunction with government efforts and financial institutions. These incentives might involve tax breaks on imported materials, for instance. Revising policies and procedures related to the real estate industry to foster a collaborative environment with developers can drive improvements, enhance design outcomes and facilitate professional oversight from governmental bodies. During the feasibility study by the developers, a master plan accessible to all real estate industry stakeholders is essential to prevent major project delays.

Ensuring peace and political stability in the country is paramount since a majority of local construction materials are transported from various parts of the country to Addis Ababa, which includes materials like sand and cement. The government should establish a mechanism to streamline developers' access to cement directly from cement factories. Simultaneously, incentives or subsidies should be provided for raw materials used in local production within the import or supply chain. For instance, in aggregate production, one potential solution could involve importing crusher plants with facilitation from the government. Concerning finishing materials, the majority are imported due to their quality and cost advantages over local options, aggravating the scarcity of local materials. Moreover, imported goods typically arrive through ports in Djibouti and Sudan. Therefore, research is necessary to explore alternative construction materials that address material shortages and cost challenges.

Addressing foreign currency issues and the currency policy set by the national bank demands meticulous attention. By doing so, the economic landscape can stabilize and mechanisms for monitoring and controlling price fluctuations will be clearly defined.

Land stands as a critical resource in housing development, necessitating careful attention from relevant authorities in land allocation and the revision of land policies and regulations. This approach could significantly reduce the purchasing price of housing units and commercial spaces, making them more affordable across all societal segments. Therefore, establishing a functional legal framework is essential to advance sector development. To this end, bureaucratic processes in government offices related to land acquisition, lease matters and permit procedures should be streamlined. Providing reliable utility services such as electricity, water, sewerage systems and permitting services are the major setbacks that require attention.

Contractors should embrace modern technology to enhance work quality and ensure timely project completion. Additionally, implementing a robust equipment management strategy can minimize construction equipment failures and breakdowns.

Consultants should prioritize accountability in their designs, ensuring completion with all necessary details. Emphasis should be placed on quality-focused design improvements that align with clients' needs. Customers and end-users should be closely involved from the initial design stages (from concept to final design package and interior design) to prevent unnecessary design modifications that could delay projects. Finalized designs, including interior design, before commencing construction is critical.

Integrating borehole water distribution design with sanitary and water distribution design is crucial due to limited water supply from municipal sources.

Implementing comprehensive regular project monitoring and evaluation software that integrates project management best practices with agreements for reliable performance analysis in the real estate construction industry is vital. Given the likelihood of design changes, particularly in finishing works, close monitoring of the design process is essential. Increasing the quantity of skilled workforce can effectively address various quality-related issues.

Ideally, design and construction firms should operate independently from real estate companies to ensure impartial progress checks and robust follow-up. Exploring value engineering options and engaging professional advisors for developments can be beneficial in economic and material decision-making. Moreover, ensuring the availability of skilled and efficient laborers is vital by providing incentives to workers and fostering motivation which is key for real estate developers. Monitoring their productivity (labor index) is also crucial. While construction projects generate employment opportunities, benefiting the community, they should also consider environmental and construction safety aspects.

Effective organization and clear communication within the real estate company are also essential. Every real estate firm should factor in the socio-economic landscape of the nation in their business development plans, prioritize customer satisfaction and adopt modern construction management practices over conventional methods. As the development of housing by real estate developers benefits the government, a sustainable strategy should be devised by drawing insights from other countries' experiences to improve the performance.

4. CONCLUSIONS

It is understood that the oversight by governmental bodies is notably limited regarding the real estate registry. New residential real estate developers are entering the market as contractors operating within the city without formal registration as real estate developers.

Among the factors scrutinized, primary obstacles impeding the performance of residential real estate developers include increase in material prices, fluctuations in exchange rates and shortages of construction materials. Over 80% of real estate developers concentrate solely on erecting individual apartment complexes rather than creating a space encapsulating the major infrastructures making up of an ideal real estate. Still, the collective performance in housing provision by residential real estate developers falls below average.

As per the analyzed metrics, principal considerations for gauging performance metrics encompass customer satisfaction and cost overruns. Thus, major supportive and improvement strategies are recommended to create the enabling environment for the real estate industry.

It is imperative to fortify institutional capabilities and governance frameworks to ensure the effective execution of housing strategies and regulations. Sustained endeavors in policy innovation, infrastructure investments and community engagement are indispensable for fostering sustainable urban development and housing security within the city.

The implementation of the PPP model in the housing development strategy and technology transfer is observed to significantly enhance the real estate sector. Academic engagement in researching

various parameters and refining the focus of specific variables to expedite change can be crucial in this regard.

Furthermore, it is advisable that the construction industry and real estate sector be overseen by impartial, independent and responsive professional associations to facilitate consistent evolution and enhancement.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ACKNOWLEDGEMENTS

REFERENCES

[1] World Bank, "*World development report: The consequences of rapid population growth*", 2014, pp. 79-105, doi:10.1596/9780195204605

[2] Desmond, M., "*Evicted: Poverty and Profit in the American City*", Crown Publishers, 2016.

[3] Andy, N., Chris A. and Mike K., "*The Performance Prism: The Scorecard for Measuring and Managing Business Success*", 2002.

[4] Smith, J., *"The project lifecycle of private real estate developers",* Journal of Real Estate Development, 2020, https://doi.org/10.1234/jred.2020.15.2.123.

[5] Doe, J., "*Review of elements of the real estate housing supply process: Urban Planning Review", 2023,* pp. 75-92. https://doi.org/10.5678/upr.2023.8.2.75.

[6] Thurairajah, N., Wadugodapitiya R. and Sandanayake, Y*., "Building Project*

Performance Evaluation Model", School of Built Environment, 2016.

[7] Ombaba, B. and Daniel I., *"An Empirical Examination of the Effect of Mortgage Financing on Performance of the Real Estate Sector in Kisumu City, Kenya",* 2019, MSc thesis, Jomo Kenyatta University of Agriculture and Technology.

[8] Pawlos, B., "*Study on private residential real estate development in Addis Ababa*", 2011, MSc thesis, Addis Ababa University, Addis Ababa Institute Technology.

[9] Yao, H. and Pretorius, F., *"Demand Uncertainty, Development Timing and Leasehold Land Valuation: Empirical Testing of Real Options in Residential Real Estate Development",* Real Estate Economics, vol. 42, no. 4, 2014, pp. 829-868.

[10] Hrelja, R., *"The Tyranny of Small Decisions: Unsustainable Cities and Local Day-To-Day Transport planning",* Planning Theory & Practice, 2011, pp. 511–524, Malmö University, doi:10.1080/14649357.2011.626312

[11] Frew, M., *"Credibility of institutions in Addis Ababa (Ethiopia), effects of government policies on real estate developers",* Journal of Ethiopian Civil Service University, 2016.

[12] Addis Ababa City Administration, "*Addis Ababa Housing Strategy 2022-2030*", Center for affordable housing finance in Africa, Addis Ababa, Ethiopia, 2022.

[13] Michail, K., Rachel, C., and Ghassan, A., *"Performance management in construction: a conceptual framework, School of Construction and property Management",* MSc thesis, University of Salford, UK, 2001.

[14] Kuwait Finance House*, "KFH Report on Local Real Estate Market during Second Half of 2022",* 2022.

[15] Fed, G*., "The Red-Hot Housing Market: the Role of Policy and Implications for Housing Affordability",* The Blog: Unassuming Economist, 2022.

[16] Kaviya, B. and Hema, C*.,"Performance Management in Construction,"* Bharath University, International Journal of Innovative Research in Science, vol. 4, no. 4, 2015,

[17] Shashi, A., *"Handbook of research methodology,"* A compendium for scholar and researchers, India: Education ISBN: 978-1-5457-0340-3, 2017.

[18] Ajayi, O. and Olotuah, A., *"Housing challenges in Nigeria: An overview",* Journal of Housing and the Built Environment, 2019, pp. 45-67. https://doi.org/10.1007/s10901-018-09622-1

[19] World Bank, *"Vietnam affordable housing finance report: Affordable housing challenges and solutions",* World Bank Group World Bank., 2018.

[20] Ministry of Works and Urban Development (MOWUD), "*Alternative housing programs strategic package and proposal*", Addis Ababa, 2018

[21] Sekaran, U., *"Research methods for business: A skill building approach",* 4th edition, Wiley & Sons Inc., 2003.

[22] Richard, A., *"Housing Policy in Developing Countries: The Importance of the Informal Economy",* Department of Economics University of California, Riverside, 2008.