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A STUDY ON THE PROSPECTS TO SUSTAINABLE URBAN REAL ESTATE DEVELOPMENT IN FREETOWN, SIERRA LEONE

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ABSTRACT

This research addressed the prospects to sustainable urban real estate developmentin Freetown, Sierra Leone. The study primarily focused on the following objectives: To identify the sources of accessing finance for real estate development by real estate firms. To learn how the land code of practice and population affect real estate development and to investigate technical constraints in providing real estate projects in Freetown. Data for this study were collected using a primary source, from which a semi-structured questionnaire was used for collecting the quantitative data. The study uses a case study design to achieve the study objectives. A non-probability purposively sampling was used to identify the respondents based on their experience aftera line listing process of real estate firms and their employees in Freetown. For the quantitative data, a sample frame of 130 participants was drawn, of which 100 were chosenpurposively based on their experience and understanding of real estate development, and 98participated in the study. Data analysis for this study was done using descriptive (percentage, mean, and standard deviation) and inferential (Pearson correlation and regression analysis) statistical analyticalmethods.

The study established that sources of finance, population impact, and technical constraints in real estate delivery have a positive significant association with urban real estate development, while land code of practice has a positive insignificant association with urban real estate development. The study recommends that, the country's financial institutions popularize a scheme that is of low interest to real estate firms so as to increase the source of income for real estate firms to expand their business; that the national land policy should be reviewed so as to create an avenue for access to land for real estate firms who are willing to provide affordable housing to the country; both the government and realestate firms should work accordingly in order to provide affordable housing for thepopulation, and effective institutional capacity strengthening and enhanced collaboration between government parastatals and private real estate firms should be popularized and implemented. For further research, it is recommended that similar wider study should bedone, which will be used for a broader generalization.

1.0 INTRODUCTION

Real estate development is a commercial activity including renovating and releasing existing structures in purchasing raw property and selling developed land or lots to others (Muiruri 2018). The socio-spatial implications of real estate development are an important way to understand the many externality effects of development activities on neighborhood and city scale real estate markets. Prompt spatial investments and reshape people'sperceptions of space, for example. In this context, it is crucial to comprehend the positivegains real estate entails in terms of social, spatial, and economic values (Squires and Heurkens, 2015). These emerging real estate markets are becoming increasingly important globally as urbanization and economic growth expand. In the Asia-pacific region, real estateis expected to grow as predicted from 10% ($2.6 trillion) in 2011 to 23% (12.8 trillion) in 2021 (Pramerica REI, 2012 cited in Newell et al. 2017). Housing has enhanced nationalcohesion and economic improvement in most parts of the developing world. Enhancing the supply of affordable housing has been a key policy priority for policymakers and has been delayed due to the presence of structured and sustainable housing finance markets. Butachieving this has been a setback due to non-functional housing finance markets, but othermodalities of financing the housing sector have been put in place to keep it going. (World Economic Forum, 2010).

Notably, the provision of commercial, retail, hotel, industrial and residential real estateas the development aspect of real estate development has served as motivation the economicexpansion. Similarly, the Kingdom of Bahrain, like other Gulf nations, has seen enormous development in its real estate over the last decade, with multibillion dollar investments in residential complexes, business centres, and retail malls (Mouzughi, 2014). In China, the real estate market is growing healthily and consistently. As a result of increased urbanization, improved housing affordability, and many prospective new home buyers, this emerging market has significant growth potential. However, this industry has substantial obstacles that provide foreigners with opportunities in areas including professional service, housing industrialization, and real estate financing innovation (Hongyu et al. 2004). Housing finance is one of the priority areas that support households' needs because it plays an important role in social stability. As it was mentioned by IFC, household wealth for personal housing in the developing world accounts for between 75% and 90%, whilst it also affects monthly expenditure by 15%–40%. This showed that to promote social stability, the housing sector has been promoting

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family self-sufficiency and community development immensely. Housing finance has been an instrumental development in regulating the country's economic growth and stability. Therefore, the IFC stated that investment in the housing sector accounts for 15–30% of the total investment in the whole world. As such, the housing sector boosts the sector and its affiliated entities, which account for 9% of all jobs in the world (World Economic Forum, 2010).

Real Estate 2020: Building the future report examines the worldwide trends and forecasts the real estate market through the year 2020. While some of these worldwide trends are already noticeable in the African real estate market, others won't be seen until later. Following are the six forecasts given by Real Estate 2020: Building the future for 2020 and beyond are: The world's pool of investable real estate will grow significantly, creating enormous new opportunities, particularly in emerging economies; Cities with rapidpopulation growth will provide more options for risk and reward; Value will be driven mostly by technological innovation and sustainability; Government cooperation will become more crucial; A wide range of dangers, including new threats, will develop as the competition for premium assets increases.

Therefore, real estate development is an investment that can take place in both the developed and developing world. Hence, in any country, it operates differently based on the existing regulations for its practice. These regulations mostly attract investors to invest in the real estate market. Kazimoto (2016) added that real estate is utilized to diversify investment portfolios in developed countries and has a strong link with where investors in the sector meet and closely collaborate on similar investments based on the information required. These emerging investments play a very vital role in any country’s economic growth. It is a fascinating area of research at a smaller or broader level. As this is closely linked with both the financial and economic sectors, (Wang, 2003). Due to its importance to the national economy, real estate is a component of economic development. Strong real estate development will therefore support the economy's long-term expansion (Liu, et al., 2019), and Investment in real estate development has a big influence on economic development. Confirming the relationship between real estate development spending and economic expansion (Shen, 2021). A key challenge identified by Kazimoto (2016) highlighted that as a result of accessibility; land in Kenya for real estate is undervalued, posing challenges for surveyors to determine their value for real estate purposes.

Even though the real estate development process is complex, the difficulties (and obstacles) differ from one country to the next. It has been approached easily by some countries, while others have moved away from examining it critically. Several presenters at the ARES conference underlined that comprehending the real estate landscape throughout the African continent necessitates taking into account the region's different political, legal, and cultural frameworks. The objective for many African countries should not be to replicate the investment conditions and arrangements prevalent in more industrialized countries, but to develop an investment environment that is competitive with Asia and LatinAmerica. When an investor decides to invest in developing markets, the difficulty is to findmarkets that provide a reasonable balance of risk and reward (ARES conference, 2012).

In Sierra Leone, the real estate sector is still in its beginning. The market is led by both Government and private-owned housing firms, with little or no foreign participation in the industry to speak of Sierra Leone, just like other African countries, many institutional real estate investors in Western nations still regard African countries as a high-risk investment location, as this has posed challenged over the years for its growth. In the revised Sierra Leone Housing policy of 2006, it was mentioned that until after 2005 when a real estate development company was established, before then, there were no such companies in Sierra Leone. The need for such Firms for the vibrant growth of the housing sector cannot be over-emphasized. Investment in housing creates jobs and has a multiplier effect in associated sectors such as manufacturing. This will enable them to produce houses in a more efficientmanner and better residential areas. If Sierra Leone's government can design and implementa policy initiative that will encourage international and domestic investment in the real estatesector, it will provide significant investment opportunities that will improve GDP (African Housing year Book CAHF 2020). Despite, recent economic progress, Sierra Leone continues to struggle to meet fundamental requirements such as shelter. Housing investment in the form of updating or renovating existing homes, development of local and low-cost housing, and construction of modern homes is critical (Kargbo, 2020). As a result, the government of Sierra Leone invites investors to engage in the country's housing development. SALHOC is in charge of providing homes for the poor and vulnerable. SALHOC advocates judicious expenditure on low-cost housing to address the issue and make human settlement and cities in the country more sustainable (Kargbo 2020).

In Sierra Leone providing affordable housing is a crucial area considered and prioritized by both private and public sectors. If this is addressed, it will assist in providing dignified accommodation to the poorest in the country (Sierra Leone revised Housing policy, 2006). Although, the Government does not look to address this issue for the growing population. It is because the country cannot provide the data, finances, materials, and expertise in addressing this issue amidst the poor economy.

As a whole, there is little documented work on real estate development in Sierra Leone, let alone on the prospects to sustainable urban real estate development. The reason for this could be; the various state-owned or private Firms and expertise to research this topic may see this area as insignificant. However, understanding the prospects to sustainable urban real estate development, in general, is of great interest to the Government, private companies, and possibly to the broader public.
In view of this background, this paper will assess the prospects to sustainable urban real estate development in Freetown, Sierra Leone.

Statement of the problem

When there is a supporting operation situation among real estate developers, financialinstitutions, and land regulatory firms in

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Freetown, sustainable real estate development may continue. Sierra Leone's real estate business is a growing socioeconomic force. Despite many government transitions, Sierra Leone had no real estate development businesses until 2005, when one was founded. It is impossible to overstate the importance of such firms in ensuring the housing sector's vigorous expansion. Their operations result inimproved design of residential areas and create large numbers of dwellings more effectively.However, these businesses must have simple access to land and auxiliary services and finance at acceptable rates and conditions.

In a study on the importance of real estate in emerging countries' long-term growth, Mouzughi et al. (2014) discovered that public-private partnerships (PPPs) are very appropriate. Such collaborations are beneficial for attracting private sector investment intospecific development initiatives and ensuring that such development is carried out creatively, effectively, and sustainably. However, because the research was qualitative, no empirical findings are available. The study was also examined in the context of a 20-year vision and plan for the country. Similarly, a prospect of real estate markets in China-Challenges and Opportunities, Hongyu et al. (2004) focused on housing supply and housing conditions, development investment, prices, real estate finance, and opportunities. However, the study was a desk review. It did not focus on the sustainability aspect in termsof access to finance, land code of practice, population impacts, and critical technical constraints in the field of real estate.

In a research about developing real estate markets in Sub-Saharan Africa, Odame, W.K.A (2016) states that real estate markets in Sub-Saharan Africa (with the exception of South Africa) share developing market features such as inadequate transaction data, poor data quality, transparency difficulties, valuation norms, and the absence of active international market intermediaries.

Real estate developers' lack of awareness and access to these crucial aspects has harmed their capacity to provide a sustainable and cheap real estate market for the general public.

Simultaneously, from its establishment in 2005 in Sierra Leone, the central Government has given little attention to conducting a broader review of the circumstances of real estate development. As a result, a lack of information has enabled these firms and other development partners not to make educated judgments, and has posed a danger to thereal estate market in the capital city and beyond. Although, governments in other developing countries and realtors have been pushed to consider methods to meet the demand for real estate properties due to a rise in the number of new houses, fast expansion, expanding fast population expansion, movement of people from rural regions, and industrialization (Kenya National Housing Survey, 2011).

Additionally, most of the real estate is provided by the private sector. Still, there are also some constructed by NASSIT through the Government of Sierra Leone. These sectors, however, have catered mainly for the upper-middle and high-income households within Freetown. This point out the need to put mechanisms in place by understanding the real estate prospects in detail, which will allow specific and carefully targeted interventions by investors with the view of speeding up sustainable real-estate delivery, mainly for the urban poor. However, the sector continues to encounter obstacles such as high-interest rates, technical constraints, unfavourable land regulations, rapid population growth in the city, and little know-how of the current state of real estate in the country.

Against this backdrop, this study will be done, focusing on assessing the prospects to sustainable urban real estate development in Freetown, Sierra Leone. The study further provides information on the subject content by answering the central questions of the research.

Objectives of the study

This study aims to assess key prospects to sustainable urban real estate developmentin Freetown, Sierra Leone.
The specific objectives include

- To determine the sources of accessing finance for real estate development.
- To learn how the land code of practice and population influence real estatedevelopment.
- To investigate technical constraints in providing real estate projects in Freetown.
- To make recommendations based on findings.

2.0 LITERATURE REVIEW

Sources of access to finance

One of the most important inputs in the construction of houses is finance. Access to finance is the ability to obtain financial services, which include; insurance, credit, deposit, and payment (Kunt, Beck, & Honohan, 2008). The capital necessary to carry out real estatedevelopment and related operations is known as real estate finance. It's an essential part of modern real estate development, and most large-scale projects would be impossible to complete without it. As a result, real estate development and financing are inextricably linked .It is known that proper housing in any country is due to the systems put in place by instituting a well-functional housing finance system in place will enhance a sustainable real estate in a country(Okonkwo, 2017). Emirkadi (2017) argued that financial sustainability implies that financial policies would still be relevant in the future for this reason. Generally speaking, a company is deemed to be unsustainable if it cannot fund itself over the long run. According to Ibrahim Can (2019), who has a similar perspective, financial sustainability is the long-term financial performance that gives a corporation the capacity to value each stakeholder more than its financial resources and the assurance to ward off potential financial issues.

Zhu (2016) argues that the operation of the housing market in any country will be inadequate if there is no proper housing finance in place in that country. This means that allocation-wise and operationally efficient housing finance systems are needed to ensure sustainability. According to the AfRES 2012 conference, property traders, investors, and practitioners are increasingly interested in investing in Africa in search of higher yields. Nonetheless, as described in the preceding paragraphs, problems such as; access to financeand other emerging markets will be challenges to providing sustainable investment in the real estate sector.

Joint Venture, Equity and Debt Financing, Sale-Lease Back Financing, Advance Payment of Key Money, and Sale of Securities are six significant real estate financing strategies utilized across the world, according to Hines (1995). Due to the significant financial expenditure required for real estate development, developers frequently seek outside funding to supplement their equity capital. Large developers are likely to have many financial relationships with various financial institutions (Ogedengbe 2016).

According to CAHF (2013), there are two big stories in the housing finance picture. First, policymakers and practitioners' attention should cut across Africa, since it deserves attention, as the prospective opportunity is relevant. Africa developing mortgage market work hard to expand the reach of Africa's developing mortgage markets. The potential for growth in this sector is substantial, and it merits further attention. Second, mortgage markets have continued to serve the poorer population. Suppose this issue of affordability is not keenly looked at. In that case, the demand for housing in Africa will continue to increase as fewer and fewer people can afford mortgages. If investors do not address the reality of affordability throughout the continent and build their goods appropriately, they will missout on the market. Additionally, Tanzania's housing and mortgage credit markets were bothvery resilient, though the impact of earlier shocks lingered longer in the mortgage lendingprocess. These findings indicate that the sharp rise in housing prices may be a significantconcern for policymakers in particular because it portends a mortgage crisis. (Mushi, 2020). The financial Firms in Kenya fund approximately 20 percent of the country's housing needs and focus mainly on urban areas. In terms of access to finance, the only segment that can benefit is the middle-to-high income earners, which account for about 17,000 mortgages in the country. This demonstrates that the mortgage market is still tiny and out of reach forthe most populace (CAHF, 2012). The developer faces a significant challenge in obtainingfinancing to develop real estate. This is primarily due to economic volatility and thetightening of financial regulations enforced by the majority of banking institutions. This ismade worse because the interest rate structure has made it challenging to fund real estatedevelopment. Because real estate development is a continuing endeavour, it necessitates a sky-rocketing rate on the cash supplied for such reasons (Ezimuo et al., 2014).

Mwathi and Karanja (2017) investigated the impact of different financing sources on real estate development in Kenya and found that mortgage financing is the most widely used source of financing in Kenya. Equity and venture capital were found to be the least used. The data also revealed that mortgage finance and home development had a considerable favorable link. Additionally, a study conducted by Muiruri (2018) indicated mortgage financing and real estate development have a strong favorable association. According to Noppen (2012), mortgage loans and real estate finance are critical in most situations of home investment. Because they ensure transactions are feasible and profitable.

Ogedengbe et al (2016) in their investigation of the issues of funding real estate development in Nigeria discovered that real estate developers in Nigeria use a variety of financing sources. Equity capital, commercial bank loans, merchant bank loans, insurance firms, pension funds, government bonds, and accountancy are examples of these. Equity capital, often known as self-fund, is the most popular, accounting for 40.7 percent of all responses. The importance of real estate finance, particularly home financing, in the real estate industry is growing. In recent years, commercial banks have contributed around 60% of the investment in real estate development. The construction loan accounts for 25% of the total, while the mortgage loan for the forward sale of residential structures accounts for 35% (Hongyu et al., 2004).

A study conducted by NKYI (2012) in Nigeria found out that company age, yearly mean expenditures, and firm size are all positively associated to residential homes built for sale by developers in Nigeria. There are also persistent financial issues, primarily in the medium to long term, that influence developer credit. Barrell and Davis (2006) looked at the circumstance where the credit market isn't ideal because lenders and borrowers don't have enough information. Their models reveal that the property's worth ultimately determines the terms imposed on borrowers. When property values decline, real estate valuefalls in a negative spiral; therefore, lending institutions limit and ration mortgages. However, when land prices rise, majority of the population demand for mortgage and this create the demand for real estate to increase.

In Sierra Leone, before 2006, no specific housing finance institution was in place. Those established to mobilize savings and provide loans such as Sierra Leone Housing Cooperation (SALHOC) saving and loan facility have not taken off. Housing finance has primarily come from households' resources and other informal sources. Government attempts at the construction of housing have not been sustainable nor affordable (Sierra Leone revised Housing policy, 2006). Despite effort by the government to shorten the gap among financial institution and the interest for house loans by families, Sierra Leoneans continue to struggle to access the financial sector. As of 2018, the banking and non-bankingsectors of the country's financial service providers include; 68 exchange bureaus, 25 creditonly microfinance institutions, 95 financial service associations, 14 commercial banks, 17 community banks, 11 insurance companies, and two mobile financial service providers. (Sierra Leone's Central Bank (2020) Financial Services Report).
Commercial banks alone account for about 24.4 percent of Sierra Leone's GDP with ashare of Le 8.5 trillion and it is regarded as the leading financial sector in Sierra Leone, the microfinance industry grew significantly, becoming a key source of financing for low- income people. This was mostly due to the government's attempts to encourage financial inclusion as a vehicle for promoting growth and sustainability in the housing and banking industries (African Housing Finance year book CAHF 2020). In Sierra Leone, data for housing development and finance are unavailable sometimes and are very difficult to access.As a result, investors and decision-makers are unable to offer a housing stock for the most vulnerable people

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(African Housing Finance yearbook CAHF 2020). According to the same research, First Bank of Nigeria, Access Bank, and Commerce and Mortgage Bank Sierra Leone Limited offer mortgage loans to anyone looking to buy a home in the Western Area, but these banks mostly caters to high-net-worth individuals.

Land code of practice and population impacts

Land code of practice

According to the Scottish land commission, land code of practice cover issues such late rent payments, rights, and consenting to and recording tenant developments are all examples. They give a framework of processes and behavioural expectations that serve as afoundation for productive discourse. Land purchase is frequently the first substantial investment made by a real estate developer in a project. The character of a project is influenced by site selection, which is critical to success. However, the site acquisition process may be frustrating and unexpected since numerous circumstances, many of which are outside the control of the real estate developer, can impact its achievement. However, putting a well-researched land acquisition strategy is as a result of number of factors that'sneeds to be put in practice, and many of these factors are beyond the developer's control, and it is there that the process different, a lot relies on the possibilities available. (Adtokunboh et al. 2013).

The political economics of land in Africa is complicated because it includes emotionaland cultural bases in addition to institutional, financial, and economic ones. In reality, poor urban planning and strategy has made the land problem worse by upsetting the harmony between the urban and rural landscapes. The majority of urban growth in Africa is the result of the quick, haphazard, and low-density colonization of peri-urban and rural territory (Bahet al, 2018).

A study carried out by Kazimoto (2016) focused on challenges facing real estate investment and economic growth in Arusha. The study uses a purposive sampling and gathered data from 87 people. It recommends that reforms and improvements on land laws for requisition, registration, and communication infrastructure are key to solving the land code of practice challenges. Similar view was also noted by Muiruri (2018) that reforming and improving land laws for requisition, registration, and communication infrastructure are vital to the land code of practice.

Hesse (2014) study examined on Land for logistics: locational dynamics, real estate markets, and political regulation of regional distribution complexes. Rising locational rivalry leads to faster land consumption and dispersal, according to the study. Not only arecommodities flows being 'mobilized,' but also logistical infrastructure. Meanwhile, studieshave shown that land scarcity, regulatory hurdles, season, and regulatory processes relatedto planning, property development, and the construction process can all impact housing supply responsiveness. (Grimes, Hyland, Coleman, Kerr & Kerr, Collier, 2013). Another study conducted by Kazimoto (2016) found out that that accessibility and communication, pricing variance, land value and taxation policies, bureaucratic interest rates, government policies, economic growth, improved rent value, and consumer choice have all beenobstacles to real estate investment. However, they have also led to many challenges, such as ownership claims that aren't documented are also suspect (Fekade 2000).

Informal land markets can assist in the provision of low-cost land. The market, on the other hand, is marked by high transaction costs and property rights are also flawed in other cases. Other issues include ineffective information about accessible land; this pushes peopleto communicate by word-of-mouth, increasing the danger of fraud. (Kironde et al., 2003). As a result of these challenges, the majority of land in nations is unsuitable for real estate investment since they are inaccessible. Developers choose the optimal time because land isa desirable option for conversion or reconstruction rather than an asset that could be built on at any point in the future (Brown and Opong, 2012). Bah et al. (2018) further stated thatthe insufficient capacity present in both central and local governments—including weak land administration systems, dysfunctional cadaster systems, outdated equipment to map available land for urban development and housing, outdated land registries, and a lack of computerized land titling systems—prevents governments from having a good idea and measurement of the amount of land available for various purposes. Blockchain use in land administration might aid in addressing problems like inefficiency, fraud and corruption, and trust difficulties. There are several ways that inefficiencies appear. Due to the apparent inefficiency of the land and title registers' covering (Sarri et al, 2022).

According to Satsangi et al. (2006), landowners' desire to develop affordable housing on their land exists, but not uniformly. Planning rules or zoning, at 41%, lack of appropriate funds, at 25%, lack of suitable service supply, at 18%, and the remaining percentage a conglomeration of lesser variables is some of the key causes that hinder or prohibit propertyowners from developing their excess properties.

Sierra Leone revised housing policy act of 2006 explained that Land delivery for housing in Sierra Leone has legal, administrative, technical, and capacity elements that constrain the speedy delivery of land for housing and the overall development of the country. According to this statutory document, the main land delivery issues are; There is alack of measures which are aimed at controlling the way title to land is established which will also make land registration mandatory, the formal and informal land markets in Freetown in particular, and in the province, in general, are disorganized and are plagued bya dearth of information, there is an over-centralization of land administration procedures in Freetown leading to inefficient management and a slow adjustment of supply to demand in the land market, the existing policy for the allocation of State lands in Freetown isinequitable. This makes State lands accessible mainly to the rich and influential in society and largely excludes the poor, and also varies in prices per location within the Western Area.In addition, land management in Sierra Leone is difficult, according to the World Bank's Doing Business report for 2020. Colonial or freehold land and customary or leasehold landare the two types of land tenure in Sierra Leone. Foreigners are not allowed to possess landin either of these systems, although they are able to lease it for up to 99 years. Obtaining leasing rights is challenging because there is no structure in place to establish ownership. Inthe World Bank's 2020 Doing Business index, Sierra Leone is placed 163rd out of 190 countries. It takes 56 days to register a property in the United States, compared to 51.6 daysin Sub-Saharan Africa. Property registration costs 10.6% of the property value in Sierra Leone, compared to 7.3 percent in Sub-Saharan Africa.

Population Impacts

The housing sector of a country may enhance public health, spur economic growth, and have far-reaching social implications. The greatest housing sectors should be able to provide enough shelter to people from all walks of life. Slums are home to one billion people or one-third of the world's metropolitan population. (Warnock, 2014). Therefore, changes inpopulation size have resulted in rapid increases in the number of households, the basic unitfor which shelter is provided and has affected the prospects to sustainable urban real estate development when the demand for the population is not met.

The relationship between population size and wealth creation is the focus of Edwin Cannan's 1924 theory of the optimal population. The ideal population is the one that, whencombined with the nation's other resources or means of production, will result in the highestreturns or revenue per capita. In light of these presumptions, the ideal population size is one at which the highest income per person is achieved. Income per capita will decrease with every increase or decrease in population size above or below the optimal level. There is a certain population size that corresponds to the highest per capita income given the stock ofnatural resources, the method of production, and the stock of capital in a nation. This theoryapplies to this research since it examines how a country's economic circumstances relate to its demographic concerns. Affordable housing is a financial issue for the population in the study area, but supplying it through responsible urban real estate development would ease the strain on household income.

The population of Africa has increased significantly in recent decades, growing by anaverage of 2.53 percent year between 1950 and 2015. (UN Population world prospects, 2015). In the ensuing forty years, it is anticipated that this tremendous increase would persist. Africa's population is expected to increase from 1.18 billion in 2015 to 2.44 billion in 2050, according to the most recent estimates. Despite the fact that 60% of Africans live in rural regions, the rate at which rural residents are moving to urban areas is concerning. The world's highest rate of urbanization occurred from 2000 and 2015, when it averaged 3.5percent. By 2037, it's anticipated that more than half of Africans would live in urban areas (UN Population world prospects, 2014). Similarly, the Real Estate 2020: Building report viewed that the demand for real estate and other sorts of real estate will be fueled by Africa'syouthful population. Urbanization will continue to be formed; existing cities will expand, and recent ones will be formed as well.

According to the 2015 Census, the population of Sierra Leone has increased from 4,976,871 to 7,092,113; 1.6 households per house have been recorded in Sierra Leone basedon the report, and it showed a vast difference from the south to the western area of about 1.4 and 1.5, respectively. (SLPHC, 2015). Similarly, Rajwayi (2016) asserted that the demographic profile predicts available possibilities in emerging nations. Because each home or family has an average of four or more people, there is more attraction for the development of more shelter to accommodate the population, and because most economiesare capitalist, there are more individuals staying in apartment units than there used to be when whole families stayed together in the early modern era. Thus, the worsening global economic situation, increased poverty, and rise in unemployment have urged people to go in for any type of shelter without considering the basics of an apartment. The situation alsoresulted in the rise in the price of land for housing. Overcrowding is an even greater problemwith significant increases in persons per dwelling unit and per room (Rajwayi, 2016). Another key driver supporting the future expansion of the housing market, according to Hongyu et al. (2004), is the present floating population in metropolitan areas, which includes migrant workers and seasonal employees. Nonetheless, policymakers and developers continue to overlook housing issues for this group of people.

Rajwayi (2015) discovered that increasing demand for real estate in a given location leads to more excellent construction activity, which is often expedited, resulting in an increase in property supply in that area. However, when real estate is affected by a disaster, it disturbs the spatial dimension of metropolitan areas due to important factors like land loss,societal collapse, and changes in population distribution brought on by refugee movements. These factors then have an impact on properties and cause a change in equality. In this light,accurate spatial imbalance monitoring is a crucial tool for establishing socio-spatial sustainability through recovery initiatives. (Azzam et al, 2022).
Approximately 70% of the population lacks access to basic human necessities, while 26% are poor, according to the Sierra Leone Poverty Reduction Strategy Paper (PRSP). The proportion increases when non-food basic needs are taken into account. These include access to schools, health facilities, markets, and public transport.

In place of the aforementioned, the Real Estate 2020: Building the future report said that demographic changes will profoundly influence the demand for real estate. Urban middle-class populations are expanding in Asia, Africa, and South America, and they will require a lot more housing. Ageing populations in industrialized economies will need specialized real estate, but their needs for single-family dwellings will decline.

Technical Constraints

Howick et al. (2009) noted that most disruptions can be foreseen and efficiently planned for during the project's planning stages in delivering real estate projects. A few examples include defects and liabilities, normal errors in calculation by the project teams, monitoring team oversight issues, especially if the project is in a far-off jurisdiction, and many others. McMullen (1998) cited in Lau et al. (2006) constraints were divided into twogroups: those having a lower impact and those with a higher result. He claimed that there are numerous lower impact limitations in every circumstance but just one or a few more significant affect constraints. The restrictions with the greatest influence are referred to as core difficulties or fundamental causes. He claimed that because time

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is everyone's primary limitation, keeping an individual's or management's attention on recognizing and acting onthe more significant impact restrictions will help them make better use of their limited time. In research on the role of development financial firms in real estate in Kenya, Ngumi (2015) found out that key constraints in delivering real estate projects are mobilization, delayed approval and disbursement, poor sales, cost escalation, and inefficient professionalteam. His study also points out that, only a few (33%) identified that they can mitigate theseconstraints and therefore requested external support in key areas which are; to offer aprequalified list of employees, reduce conditions precedent (CP), join in as an equity partner, capacity building and Improve access to SMEs. These constraints are due to cost overruns, inflation, inaccurate material estimation, and degree of complexity, according toa study by Kaming, Olomolaiye, Holt, and Harris, (1997). Other obstacles identified in this study were financial and payment issues, inadequate planning, bad site administration, and insufficient experience.

Al-Kharashi and Skitmore (2009) noted that unskilled labor for skilled roles could delay building projects. Delays in attaining building permits, changes in scope, and poor implementation can all cause delays in project implementation. Bhavsar et al. (2020), in their research, identified key technical constraints in a construction project which are: practicability of completing the projects in a given duration, delays in solving designs problems, inappropriate project cost estimation, imperfect drawing and details, inappropriate power delegations, unavailability of skilled engineers and program managers, established labs for materials testing (present or not at the place of execution), unavailabilityof storage space, restricted site area, poor coordination between different agencies, improperresource levelling, and poor planning and design.

According to Lau et al. (2006), coordination of service activities is a technicalconstraint in construction. Following up on the conversation, they indicated that technical constraints had the lowest grade among the economic, social, and legal restrictions. If technical obstacles can be overcome during the design phase, they won't be a problem during construction; however, this type of technical constraint can consume a significant amount of design engineers' time before the start of construction, and new technical limitations may emerge from the actual working environment (Lau et al, 2006).

Dullisear (2001) and Newell and Steglick (2006) highlight**ed** a few constraints associated with the real estate development process as follows:

Pre-construction Constraints: the major Constraint is the experience of the developer and builder; so, a developer with a track record of successful constructions will be in a better position. Assess the project's location and variables, as well as the timing of its presentationto the market, to determine market Constraints. The most essential Constraint in the development process is feasibility Constraints; it is used to analyze project feasibility and determine whether they should be rejected or accepted.

Financial Constraints, Building Contract Constraints, Acquisition and Land Cost Constraints are all part of the contract-negotiation phase. Measures must be taken throughout the contract negotiating phase to ensure that contractual responsibilities are understood and followed.

Constraints of Formal Commitment: This is an important stage in the development process. At this point, all contracts have been signed. For example, all renters' leases have been signed, and they know when they will be able to move in.

Construction Constraints: one of the most difficult stages to complete, it is linked to cost overruns, scheduling delays, and project management constraints. The work may fail if these constraints are not properly mitigated.

Post-construction Constraints: are concerned with delivery time constraints, and the development must be sold at a profit if it is to be sold. The constraints connected with formalcommitment, construction, and post-construction phases are more important to real estate property developers' start-ups. Banks need to know about the constraints that come with constructing a property in order to price it and reduce them. As a result, borrowing costs aretypically high Goldratt's (1990) approached the Theory of Constraints (TOC) which is a method for identifying and reducing limitations in organizational processes that are impeding the achievement of organizational objectives. Anything that prevents an organization or institution from progressing toward or attaining its goal is referred to as a limitation. TOC logic is an important part of the organization's continuous improvement philosophy. It's used to figure out what's preventing an organization from reaching its objectives, come up with a solution, and get people involved in the process to invent the necessary adjustments for themselves. The TOC application process is broken down into five phases (Goldratt, 1990).Finally, Goldratt’s theory of constraints outlines a five-step technique for finding and reducing conditions, known as the five focusing steps. These include the steps of identifying, exploiting, subordinating, elevating, and repeating. See as outline in the figure below;

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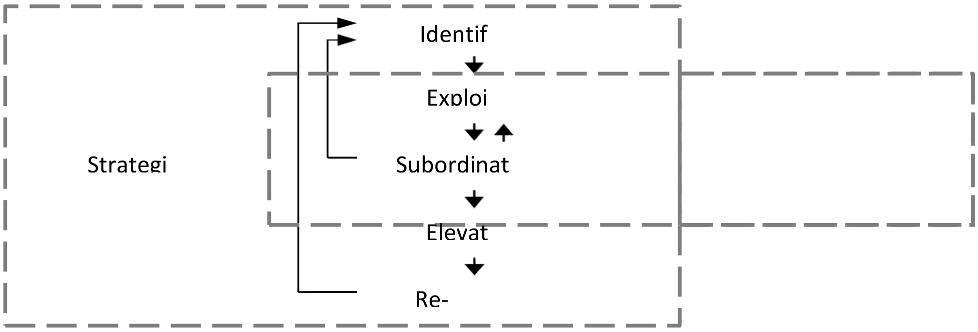
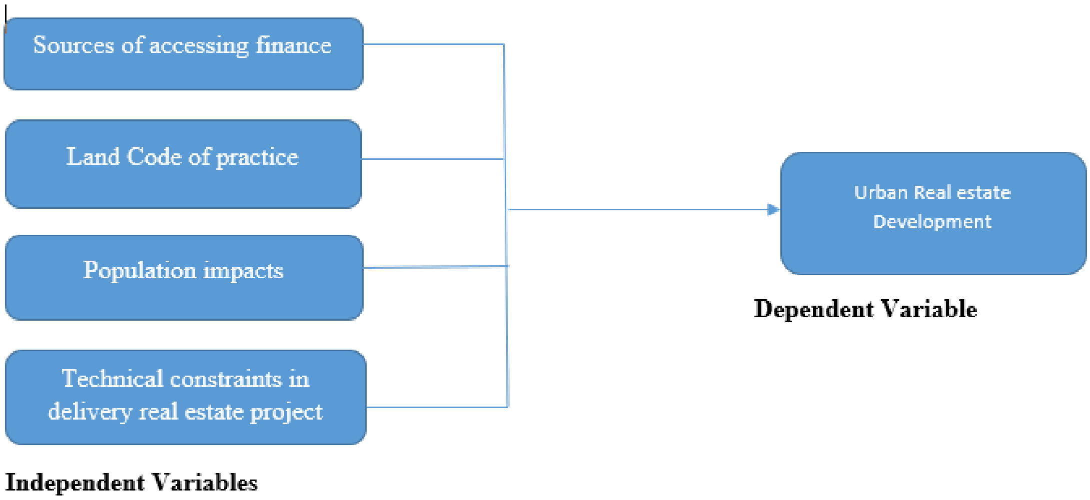


Source: Five Steps of Theory of Constraints (TOC) (Goldratt 1990)

Figure 1: Five steps theory of constraints



Conceptual Framework

(Source: Author, 2022)

Figure 2: Conceptual Framework

The dependent variable, urban real estate development will be determined by how these firms have access to finance, influenced by land code of practice and population impact, and the technical constraints face in delivery real estate project. All of these will be from the independent variables, for instance access to finance and land due to favourable land regulations within the country will ultimately provide affordable housings and will keep the real estate industry sustainable in a country

3.0 METHODOLOGY

Research Design

This research utilized a case study design, used quantitative data to collect data on sustainable urban real estate development in Freetown, Sierra Leone. The study collected detailed information from respondents through purposive non-probability sampling at firm levels to assess the prospects for sustainable development. Quantitative research strategies was employed to understand the sources of accessing finance for real estate development, land code of practice and population influence, technical constraints in real estate project delivery, and the state of urban real estate development in the country. A semi-structured questionnaire was administered to respondents in different real estate firms. The data collected was coded and analyzed using descriptive and inferential statistics using statistical packages for social science (SPSS 20.0) and Microsoft Excel 2017.

Data Collections

According to Leedy and Ormrod (2001), data collection is the act of acquiring research information regarding a certain study to determine the truth. Any form of research project relies heavily on data collection. Inaccurate data collection might skew the outcomes of an inquiry and lead to incorrect conclusions. Primary data was collected through the administering of semi-structured questionnaires. For this research, 130 employees from 11 private and government real estate firms who were identified through the listing process across different real estate firms in the city for the quantitative study. Out of the 130, a minimum sample size of 100 respondents overall was selected purposefully based on their experience and position held in their firms. This makes a total of 76.92% of the sample frame used for administering the quantitative questionnaire. For each firm, a letter was written to the authorities about the data collection exercise, and the purpose of the research was clearly clarified. After confirmation from the sources, the researcher makes a familiarization visit to all the firms and begins the proper data collection process for the semi-structured questionnaire through Google Forms, which was shared directly with the respondents.

Data Analysis

LeCompte and Schensul (1999) define qualitative research as the process of reducing and interpreting data to understand a story. This study utilized quantitative methodologies, including

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interviews and questionnaires, to collect data. The data was then analyzed using statistical tools, edited, coded, categorized, and tabulated to ensure its accuracy and usefulness.

The data was quantitatively analyzed using descriptive and inferential statistical analysis. For the descriptive analysis, mean, standard deviation, and percentage were used and were presented in the form of tables, frequencies, graphs, and charts. This was done through the use of Excel 2017 and the Statistical Package for Social Science Research (SPSS 20.0) computer software to analyze and evaluate data in order to conclude.

The inferential analysis includes a correlation coefficient and multiple regressions to determine the strength between independent variables and the dependent variable. The correlation coefficient (r) denotes the strength and direction of the association. SPSS 20.0 was used to determine the association.

The multiple regression model mentioned below was used to determine the relationships between these variables.

$Y = \beta0 + \beta1G1 + \beta2G2 + \beta3G3 + \beta4G4 + \varepsilon$

Y = Real Estate Developmentβ0=Constant

G1=Access to finance

G2=Land code of practiceG3=Population Impacts

G4=Constraints in delivering real estate projectsβ1, β2, β3, β4 = Coefficient of determination

ε=Standard error

4.0 RESULTS AND DISCUSSIONS

Socio-demographic Characteristics of Respondents

Socio-demographic characteristics here mean the different variables that make up the respondents and the firm. It covers sex, age, marital status, levels of formal education attained, employee duration in the firm, institutional category, and firm units of housing. These variables are presented below in table 1 with their findings.

Table 1: Socio-Demographic Characteristics of Respondents

Variables		Frequency	Percentage (%)
Gender	Male	68	69.4
	Female	30	30.6
	Total	**98**	**100**
Age	21-30	42	42.9
	31-40	42	42.9
	41-50	7	7.1
	Above 50	7	7.1
	Total	**98**	**100**
Level of Education	Senior Secondary School	17	17.3
	Undergraduate	70	71.4
	Masters	11	11.2
	Total	**98**	**100**
Firm Category	Privately Owned	84	85.7
	Government Owned	14	14.3
	Total	98	100
Employee Duration	1-2 years	30	30.6
	3-4 Years	46	46.9
	5-6 Years	13	13.3
	Above 6 Years	9	9.2
	Total	**98**	**100**
Units of housing constructed	Less than 100 units	86	87.8
	More than 100 units	12	12.2
	Total	**98**	**100**

Field survey data, 2022

Firstly, table 2 above indicates that 69.4% of male respondents were interviewed, while 30.6% were females. This finding concludes that there are likely more male employees employed in real estate firms than females.

Secondly, 42.9 percent are within the age bracket of 21–30 years, and 42.9 percent are between the ages of 31 and 40, respectively, while only 7.1 percent are between the ages of 41 and 50, and only 7.1 percent are beyond 50. This indicates that the vast majority of those questioned were adults.

In view of the respondent level of education, 71.4 percent of respondents interviewed have attained an undergraduate level of education, while 17.3% have attained senior secondary school and 11.2% have attained only a master’s degree level. These findings showed that respondents interviewed have attained a sufficient education level that will likely provide sufficient information for this study.

Morever, 85.7% of respondents interviewed are employees of privately owned real estate firms, while 14.3% are employees of government-owned real estate firms. According to the data,

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there are likely more privately owned real estate firms in Freetown than government-owned real estate firms.

Findings from this study indicated that 46.9% of respondents interviewed have spent between 3 and 4 years in the firm, while 30.6% have spent 1-2 years. Others include 5–6 years, 13.3%, and above 6 years, 9.2%. According to these findings, the majority of the respondents interviewed have been with the firm for more than two years and are likely capable of providing sufficient and accurate information on real estate in the city.

Finally, a majority (87.8%) mentioned that their firm has fewer than 100 units of housing, while only 12.2% indicated that their firm has more than 100 units of housing. This finding simply states that real estate firms in Freetown have a limited number of housing units and are likely the reason for real estate not solving the housing challenge in the city

Sources of finance

In this research, sources of finance refer to where a business gets money to fund its real estate firm. Respondents were asked to state their level of agreement with statements on the sources of finance for real estate development, and their responses are explained in table 2 below.

Table 2: Sources of finance

Source	N	Mean (M)	Std. Deviation (S.D)
Equity/Self-fund	98	2.30	1.007
Commercial Bank Loan	98	3.68	1.011
Pension Fund	98	3.92	0.858
Government bonds	98	3.26	1.303
Joint venture	98	3.83	0.885
Mortgage loans	98	3.90	1.030
Merchants bank loans	98	4.00	0.812
Valid N (listwise)	98		
Cumulative Score		3.56	0.99

Field survey data, 2022

Table 2 above indicated that respondents disagreed with the different sources of finance for real estate development, with a cumulative score of M=3.56 and S. D=0.99. Respondents are neutral to the statements of government bonds, with a score of (M = 3.26,

S.D = 1.303). The respondents disagreed with the statements that firms are using merchant bank loans, mortgage loans, pension funds, joint ventures, and commercial bank loans as sources of income, as shown by a Mean (M) score of 4.00, 3.90, 3.92, 3.83, and 3.68, respectively, and a Standard Deviation (S.D) of 0.812, 1.030, 0.858, 0.885, and 1.011, respectively. Furthermore, respondents strongly agreed that equity capital (self-fund) is themost common source of finance for real estate development. This is shown by a score of (M=2.30, S. D=1.007). This finding indicate that equity capital, or self-fund, is the mostcommonly used source of finance, and it is likely to be the case because most of these firmsare owned by private individuals with little or no support from the government. These findings also agree with Ogedengbe et al. (2016) in their investigation of the issues of funding real estate development in Nigeria that equity capital, often known as self-fund, is the most commonly used.

Obstacles to access finance for a real estate development

Obstacles to access finance refer to the various means by which firms cannot access finance to expand their firms. Respondents were asked to state their level of agreement withstatements on the obstacles to accessing finance for real estate development. Their responsesare explained in table 3. Table 3 below reveals that respondents strongly agreed with the statement on the obstacles to accessing finance for real estate development, with a cumulative score of (M=2.42, S. D= 1.193). Respondents agreed to the following statements as obstacles to accessing finance for real estate development: company age (M = 1.70, S.D= 1.047) and strongly agreed to the following statements: insufficient financial statements (M = 2.46, S.D = 1.228), company size (M = 2.05, S.D = 1.228), and short track record (M= 1.97, S.D = 1.296). Also, respondents were neutral to the following statements: lack of experience, higher financing costs, and lack of collateral, with a mean score of 3.03, 2.93, and 2.74, respectively, and a S.D of 1.107, 1.067, and 1.096, respectively. This study found that real estate firms face numerous challenges, which has likely resulted in a lack of financing or loans to expand their businesses and meet the growing demand for housing in the city overtime. This study supported the view by NKYI (2012) in Nigeria which found out that company age, yearly mean expenditures, and firm size can all contribute to residential homes built for sale by developers.

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Table 3: Obstacles to access finance for a real estate development

Obstacles	N	Mean (M)	Std. Deviation (S.D)
The Company Size	98	2.05	1.342
Finance statement that is insufficient	98	2.46	1.228
Short track record	98	1.97	1.296
The company Age	98	1.76	1.158
Lack of experience	98	3.03	1.107
Lack of collateral	98	2.74	1.096
Higher financing costs	98	2.93	1.067
Valid N (listwise)	98		
Cumulative Score		2.42	1.193

Field survey data, 2022

Land Code of practice and population impacts

Land code of practice

This sub-section provides a detailed explanation of how the land code of practice influences real estate development in the City of Freetown. Additionally, this subsection explains the land acquisition challenges faced by real estate firms. The land code of practice in this research is the framework of procedures and proscribed behaviour which provide a basis for constructive dialogue on land issues by real estate firms.

Land Code of practice influence on real estate development

Respondents were asked to state their level of agreement with statements on land code of practice influence on real estate development. Their responses are explained in table 4 below.

Table 4: land code of practice influence on real estate development

Statements	N	Mean (M)	Std. Deviation (S.D)
land code of practice influence real estate development	98	1.52	0.578
The current National Land policy for the allocation of land does not influence realestate development	98	3.69	1.549
lack of awareness about land code of practice procedures influences real estate development	98	1.41	0.623
The no- decentralization of land administration in Freetown influenced real estate development	98	1.60	0.570
State lands are very difficult to access and therefore have an influence on realestate development	98	1.74	0.562
Valid N (listwise)	98		
Cumulative Score		1.99	0.660

Field survey data, 2022

Table 4 above shows that respondents strongly agreed with the statements that land code of practice influences real estate development, with a cumulative score of (M= 1.99, S.D=0.660) In viewing these statements, respondents are neutral that the current national land policy for the allocation of land does not influence real developments of about (M=3.69, S.D=1.544). Furthermore, respondents agreed that the lack of decentralization ofland administration in Freetown influences real estate development. State lands are very difficult to access and have an influence on real estate development. Land code of

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practice influences real estate development and lack of awareness about land code of practice procedures influences real estate development, as identified by mean scores of 1.74, 1.1.60, 1.52, and 1.41, respectively, and standard deviations of 0.562, 0.557, 0.578, and 0.623. Thisresearch suggests that the city's land code has a significant impact on real estate development. Therefore, this finding is in line with the Sierra Leone revised housing policyof 2006 that stipulates that land delivery for housing in Sierra Leone has legal, administrative, and technical elements that constrain the speedy delivery of land. This could have been as a result of the many measures which are aimed at how land is controlled and owned in the city due to the different land tenure systems in the country.

Land Acquisition Challenges

Respondents were asked to state their level of agreement on land acquisition challenges faced by real estate firms in real estate development. Their responses are indicated in Table15 below.

Table 5: Land Acquisition Challenges

Statements	N	Mean (M)	Std. Deviation (S.D)
Lack of adequate and reliable data	98	1.74	0.483
No fixed land prices	98	1.84	0.398
Difficult procedures in registering land	98	1.77	0.450
Land owned by the extended family is very difficult to acquire	98	1.61	0.586
Conflict over land	98	2.18	0.912
Valid N (listwise)	98		
Cumulative Score			1.820.565

Field survey data, 2022

Findings from respondents in table 5 above showed that respondents strongly agreed that real estate firms faced land acquisition challenges in real estate development, with a Cumulative score of (M=1.82, S. D=0565). Furthermore, respondents strongly agreed that there is conflict over land (M = 2.18, S.D = 0.912), that there are no fixed land prices (M = 1.84, S.D = 0.39), and that land owned by extended family is extremely difficult to acquire (M = 1.61, S.D = 0.586). This finding suggests that respondents believe that land acquisition challenges, in general, have a significant impact on real estate development in the City of Freetown. This could have been a result of the land tenure systems and security in the city.This research is in line with the World Bank's (2020) doing business report that says land administration in Sierra Leone is challenging.

Populations Influence

This sub-question explains how population influences real estate development in the city. Respondents were asked to state their level of agreement with the statements providedin the table below on how population has influenced real estate development in the city.

Table 6: Population influence on real estate development

Statements	N	Mean (M)	Std. Deviation (S.D)
The increase in population influences real estate development in Freetown	98	2.33	0.822
The demand for housing in the city influences real estate development	98	1.93	0.853
The Household size influence real estate development	98	2.22	0.880
The Population age structure influence real estate development	98	1.59	0.800
Valid N (listwise)	98		
Cumulative Score		2.01	0.838

Field survey data, 2022

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Table 6 above indicated that respondents strongly agreed that population influence real estate developments, with a cumulative score of (M=2.01, S. D=0.838). These were followed by the statements: the increase in population influences real estate development in Freetown (M = 2.33, S.D = 0.822), the household size influences real estate development (M = 1.93, S.D = 0.853), and the demand for housing in the city influences real estate development (M = 2.02, S.D). Respondents agreed that population age structure influences real estate development (M = 1.59, S.D 0.800). This finding is in line with Rajwayi (2016) that the demographic profile predicts available possibilities in an emerging nation. Because each family or home has an average of four or more people, there will be a greater demand for more dwellings to house the population. This could have been as a result of widespread poverty, which has incurred greater desperation for affordable shelter for the growing population which has not been sustainably met over the years.

Technical Constraints

This section collects information from respondents on technical constraints in the delivery of real estate projects. Respondents were asked to state their level of agreement with the statements on technical constraints identified in project delivery and real estate development. To further understand this section, they were further asked to comply with the statements in which phase of the real estate development cycle did the real estate firm face more technical constraints. Their responses are presented in the sub-sections below.

Constraints in real estate delivery

Respondents were asked to state their level of agreement on constraints in real estate delivery. Their responses are indicated in Table 7 below.

Table 7: Constraints in real estate delivery

Statements	N	Mean (M)	Std. Deviation (S.D)
Poor coordination between different Agencies	98	1.85	0.484
Delayed approval and disbursement	98	1.85	0.615
Poor sales	98	1.93	0.677
Inefficient professional team	98	3.14	1.324
Poor site management	98	2.96	1.300
Improper planning and design	98	3.01	1.373
Estimation of project costs that is incorrect	98	3.01	1.089
Fluctuation in prices of building materials	98	1.80	0.453
Valid N (listwise)	98		
Cumulative Score		2.07	0.857

Field survey data, 2022

Table 7 above indicated that respondents strongly agreed to the statements' technical constraints in real estate delivery with a cumulative score of (M=2.07, S. D=0.857). Respondents strongly agreed that poor sales, with a (M=1.93, S. D=0.677), poor coordination between different agencies, delayed approval, and disbursement of budget are key technical constraints in real estate delivery, with a score of (M=1.85, S. D=0.484 and 0.615). Furthermore, with a score of (M=3.14, 3.01, and 3.01, and S. D= 0.677, 1.373, and1.089), respondents are neutral to the statements; inefficient professional team, improper planning and design, poor site management, and incorrect project cost estimation. This finding is in agreement with Ngumi (2015) that poor sales, delayed approval and disbursement are among the key constraints faced in real estate development projects. These constraints could have likely resulted for the real estate sector not to meet the standard that will provide sustainable real estate for the growing population.

Constraints in real estate development phases

Respondents in table 8 below strongly agreed with the statement on the phases in which they face constraints in real estate development with a cumulative score of (M=1.99 and S. D=0872). The respondents strongly agreed to the statements; constraints in the contract negotiation phase(M = 2.46, S.D = 1.057), constraints in the pre-construction phase (M = 2.01, S.D = 1.126), construction phase (M = 1.83, S.D = 0.477), constraints in the formal commitment phase (M = 1.69, S.D = 0.830) and These findings show that in real estate development, technicalconstraints are faced in all the phases of the real estate development phase.

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Table 8: Constraints in real estate development phases

Phases	N	Mean (M)	Std. Deviation (S.D)
Pre-Construction Phases	98	2.01	1.126
Contract Negotiation Phase	98	2.46	1.057
Formal Commitment Phase	98	1.69	0.830
Construction Phase	98	1.83	0.477
Valid N (list wise)	98		
Cumulative Score		1.99	0.872

Field survey data, 2022

State of Real Estate Development

These sections provide information from respondents' statements about the state of real estate in the city. Their responses are indicated in Table 9 below.

Table 9: State of Real Estate Development in the City

Statements	N	Mean (M)	Std. Deviation (S.D)
Real estate contributes to the increased income of real estate firm in the country	98	1.89	1.183
Real estate contributes to the country's National Economy	98	1.50	0.865
Real estate is only provided for the rich and affluence in the city	98	1.74	0.803
Real estate provides job opportunities to citizens in Freetown	98	1.55	0.863
The Government is closely working with real estate firms in the city	98	3.78	1.240
The know-how to construct modern and affordable housing by real estate firms is Limited	98	3.17	1.103
Valid N (listwise)	98		
Cumulative Score		2.27	1.009

Field survey data, 2022

Table 9 above indicated that respondents strongly agreed on the state of real estate in the city, with a cumulative score of (M=2.27, S. D= 1.009). Respondents disagreed with the statements that the government is closely working with real estate firms, with a score of (M=3.78, S. D=1.240). The statements about how to construct modern and affordable housing by real estate firm respondents were neutral, with a score of (M=3.17, S. D=1.103).Finally, respondents agreed with the statements that real estate is only provided for the richand affluent in the city, real estate provides job opportunities to citizens in Freetown, and real estate contributes to the country's national economy with a score of (M=1.74, 1.55,1.50 and S. D=0.803, 0.863, and 0.865). Respondents strongly agreed with the statements that real estate contributes to the increased income of real estate firms, with a score of (M=1.89, S. D=1.183). This finding shows that despite real estate being an emerging socio-economic force in the city, it has really been challenged in providing sustainable and affordable real estates for the vulnerable poor, and government efforts towards enhancing cordial relationships between real estate firms are very limited.

Inferential Analysis

This study used inferential analysis, which includes correlation coefficient and multiple regressions to determine the strength of correlation between independent variablesand the dependent variable.

Karl Pearson's Correlation Coefficients

The Karl Pearson correlation coefficient was used to determine the association, strength and nature between the dependent variable and independent variables. Table 10 provides details analysis of this.

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Table 10: Karl Pearson's correlation coefficients

		Sources of finance	Land code of practice	Population Impact	Technical Constraints	Urban Real Estate Development t
Sources of finance	Pearson Correlation	1	.231*	.164	.260**	.227*
	Sig. (2-tailed)		.022	.107	.010	.025
	N	98	98	98	98	98
Land code of practice	Pearson Correlation	.231*	1	.564**	.493**	.096
	Sig. (2-tailed)	.022		<.001	<.001	.347
	N	98	98	98	98	98
Population Impact	Pearson Correlation	.164	.564**	1	.695**	.248*
	Sig. (2-tailed)	.107	<.001		<.001	.014
	N	98	98	98	98	98
Technical Constraints	Pearson Correlation	.260**	.493**	.695**	1	.422**
	Sig. (2-tailed)	.010	<.001	<.001		<.001
	N	98	98	98	98	98
Urban Real Estate Development	Pearson Correlation	.227*	.096	.248*	.422**	1
	Sig. (2-tailed)	.025	.347	.014	<.001	
	N	98	98	98	98	98

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

As indicated in table 10 above, the study computed the association between the variables using Karl Pearson's coefficient of correlation (r). The correlation index, when determined to understand the dependent and independent variables' association, showed that sources of finance, population impact, and land code of practice have a weak positive association withurban real estate development. This is shown by a correlation coefficient of 0.227, 0.248 and 0.096. Technical constraints showed a moderate positive association with urban real estate development with a correlation coefficient of 0.422.

These findings from the correlation coefficient suggest that sources of finance, population impact and technical constraints are statistically significant because the sig- value; sources of finance (0.025), population impact (0.014), and constraints in real estate delivery (0.001) are less than 0.05 ($P<0.05$) whiles land code of practice (0.347) in statistically insignificant ($P>0.05$). This view is similar to Mururui 2013 that access to finance, land regulations are key players in the real estate sector.

Multiple Regression

The multiple regression analysis was used to determine the strength of the associationbetween the dependent variable and several other predictor variables. Table 17 provides details information on this analysis.

Considering the equation $Y = \beta0 + \beta1G1 + \beta2G2 + \beta3G3 + \beta4G4 + \varepsilon Y=1.593+0.126+0.009+0.096+0.007+ \varepsilon$

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Table 17: Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.593	.660		.1512.414	.021
Sources of Finance	.126	.145		.151.873	.039
Land code of practice	.009	.220		.008.041	.968
Population Impact	.096	.201		.099.479	.634
Technical constraints	.007	.254		.005.028	.048

a. Dependent Variable: Urban Real Estate Development

However, all the independent variables are considered in this regression equation. If all four independent variables (Sources of finance, land code of practice, population impact, and technical constraints in real estate delivery) are at zero, urban real estate development will be 1.593. Source of finance was found to be a positive predictor. This implies that for every 1 unit rise in sources of finance, an increase of 0.126 is projected. Land Code of Practice was also found to be a positive predictor of urban real estate development. This suggests that for every 1 unit rise in land code of practice, an increase of 0.009 in urban real estate development is projected. The population impact has also been found to be a positivepredictor of urban real estate development. This means that for every one-unit increase in population impact, an anticipated rise in urban real estate development of 0.096 is expected. Urban real estate development was also predicted by technical constraints in real estate delivery. This means that for every one-unit rise in technical constraints of real estate delivery, a forecasted increase of 0.007 at a higher level is expected. Furthermore, sources of access to finance and technical constraints in real estate delivery are found to be statistically significant. This is because their sig values, 0.039 and 0.048, are less than 0.05($P < 0.05$), while land code of practice and population impact are statically insignificant because their sig values, 0.968 and 0.634, are greater than 0.05 ($P > 0.05$). This finding demonstrates that a very low percentage is influenced by the dependent variable as one of the independent variables increases. This could have been a result of the challenges faced by these real estate firms to sustainably have access to finance, land regulations, and key technical constraints. This could have also created room for the real estate firms to primarily focus their market on the affluent rather than the urban poor.

Conclusions

The study concludes that sources of accessing finance have a positive and significant association with urban real estate developments. This was mostly due to the country's various financial institutions' failure to collaborate closely with real estate enterprises in providing loans and financing for real estate development. This was supported by the challenges they experienced in obtaining these loans, such as excessive collateral, a limitedtrack record, and a small business.

Urban real estate developments have a positive but not significant association with theland code of practice. This might be owing to the city's real estate enterprises' multiple property acquisition issues, such as a lack of appropriate and trustworthy data, no set land pricing, onerous land registration procedures, and so on.

Urban real estate development has a positive and significant association with population impact. Increased housing demand due to population expansion, household size,and population age structure might all contribute to this.

Technical constraints have a positive and significant association with urban real estatedevelopment. This link might be ascribed to a number of factors that hampered thepromotion of real estate development, including low sales, permission delays, inadequate coordination between enterprises and authorities, and price fluctuations in building supplies.

Recommendations

The following recommendations were made for practical action and future research based on the findings.

Recommendations for Practical Action

On sources of finance, it is recommended that the country's financial institutions popularize a scheme that is of low interest to real estate firms so as to increase the source ofincome for real estate firms to expand their business.

On land code practice, it is recommended that the national land policy should be reviewed so as to create an avenue for access to land for real estate firms who are willing toprovide affordable housing to the country. Additionally, data about land should be providedthrough a proper land management system that will reduce the bureaucracy of land issues.

For population impacts, it is recommended that both the government and real estate firms should work accordingly in order to provide affordable housing for the population. This will help curtail the impact of housing problems faced by the growing population.

For technical constraints, effective institutional capacity strengthening and enhanced collaboration between government parastatals and private real estate firms should bepopularized and implemented.

Recommendation for Future Research

From the findings and conclusions made from the research, there is a need to embark on further research;

This study is not representative of the whole country. Any area of Sierra Leone with real estate firms could be looked at to see if similar or different ideas will be identified. Therefore, it is recommended that, for a greater generality of the results, studies on the same path but with a broader sample be conducted. Considering the wider population and real estate firms, this kind of approach will give more representative results of the interaction between the population and real estate firms.

REFERENCES

1. *Adtokunboh, O., Aibinu, I and Agbato, S (2013) corporate real estate in development inNigeria: Issues and challenges of site acquisitions, pp. 1.*
2. *Afres conference (2012) unlocking the African real estate potential*
3. *Al-Kharashi, A., and Skitmore, M. (2009). Causes of Delays in Saudi Arabian Public Sector Construction Projects. Journal of Construction Management and Economics, pp. 23.*
4. *Azzam, M.; Graw, V.; and Rienow, A. (2022) Challenges and Innovations of Real Estatefor Achieving Spatial Balance in Post-Disaster Countries, pp. 1.*
5. *Bank of Sierra Leone (2020). Financial Service Report, pp. 13.*
6. *Barrell, R & Davis, E.P (2004). "**Consumption, Financial and Real Wealth in the G-5 (revised December 2004)**," National Institute of Economic and Social Research (NIESR) Discussion Papers 232, National Institute of Economic and Social Research.*
7. *Brown, A. and Oppong, R. A. (2012). Teardowns, Upgrading and An Emerging Paradigm of Building Property Finance in Kumasi, Ghana, Journal of African Real Estate Research, Vol.2.N0.1, 2012, pp. 24.*
8. *Bryman, A. (2001) Social Research Methods.*
9. *Centre for Affordable Housing Finance in Africa. (2012). Year Book 2012. HousingFinance in Africa- a Review of some of Africa's Housing Finance Markets.*
10. *Centre for Affordable Housing Finance in Africa. (2020). Africa Housing Finance YearBook, Sierra Leone report.*
11. *Clauretie T.M., and Sirman G.S. (2014), Real Estate Finance: Theory and Practice,Seventh Edition, Mason.*
12. *Creswell, J.W (2009) Research Design: Qualitative, Quantitative and mixed methodsapproach (3rd edition).*
13. *Demirgüç-Kunt, A., Beck, T., and Honohan, P. (2008). Finance for All? Policies and Pitfalls in Expanding Access. Washington, D.C.: The World Bank.*
14. *Emirkadi, D. (2017). Financial Sustainability in the Turkish Economy: Theory and Practice. Research Gate.*
15. *Ezimuo, P.N., Onyejika, C. J and Emoh, F. I (2014) Sources of real estate finance and their impact on property development in Nigeria: A case study of mortgage institutions in lagos metropolis, pp. 35.*
16. *Giovannoni, E., and Fabietti, G. (2013). What Is Sustainability? A Review of the Concept and Its Applications. Springer International Publishing Switzerland.*
17. *Goldratt, E. (1999). Theory of constraints.*
18. *Grimes, Arthur and Hyland, Sean and Coleman, Andrew and Kerr, James and Collier,Alex, A New Zealand Regional Housing Model (2013). Motu Economic and Public Policy Research Working Paper No. 13-02.*
19. *Hongyu, L., Ying, H (2004) Prospects of Real estate markets in China-challenges andopportunities, pp 5.*
20. *Howick, S., Ackermann, E. F., and Williams, T. (2009). Understanding the Courses and Consequences of Disruption and Delay in Complex Projects.*
21. *John, I. (2019). Financial sustainability indicators and their evaluation: a study on the sustainability index companies of Borsa Istanbul. Marmara University, Istanbul.*
22. *Kaming, P. F., Olomolaiye, P. O., Holt, G. D., and Harris, F. C. (1997). Factors Influencing Construction Time and Cost Overruns on High Rise Projects in Indonesia. Construction Management Economics, pp 83-94.*
23. *Kargbo, R.A. (2017). Reducing poverty: The Role of Housing in Sierra Leone-2017, pp. 2-4.*
24. *Kazimoto, P. (2016). Challenges facing real estate investment and economic growth. International Journal of Research in IT, Management and Engineering, pp 1-18.*
25. *Kironde, L. M. J., Mabere, R., and Mutagwaba, H. (2003). Re-Establishing Effective Housing Finance Mechanisms in Tanzania: Potentials and Bottlenecks. Nairobi: UN-Habitat.*
26. *Lau, E and Kong, J (2006) Identification of constraints in constructions projects to improve performance division of science and technology in city university of Honk Kong. pp 656-657.*
27. *Le Compte, M. D., and Schensul, J. (1999). Analyzing and interpreting ethnographic data.*
28. *Leedy, P & Omrod, J (2001) Practical Research: Planning and Design. 7th edition.*
29. *Liu, X., Zhou, Q., and Wang, C. A. (2019). Spatial spill over effects of the real estateindustry on economic development- from destocking perspective. Journal of Physics.*
30. *Mouzughi, Y., Bryde., D and Al-Shaer (2014) The role of real estate in sustainable development in developing country: The case of the kingdom of Bahrain.*
31. *Muiruri, C.W. (2018) critical factors and real estate development by private developersin Kiambu county, Kenya, pp 1-41.*
32. *Mushi, V.J. (2020). Housing Finance and Market Dynamics in Tanzania: An Analysisof Cross Sector Linkages. Journal of African Real Estate Research, pp.1.*
33. *Newell, G and McGreal, S (2017) The significance of development sites in global realestate transactions, pp. 1.*
34. *Ngumi, G, A (2015) the role of development financial institutions in real estate in Kenya: A case of shelter Afrique, pp. 40.*
35. *Ogedengbe, P.S., and Adesopo, A.A (2016) Problems of Financing Real EstateDevelopment in Nigeria, pp. 427-428.*
36. *Rajwayi, O.J.K (2016) Factors influencing demand and supply of real estate propertyin Nairobi County, kenya: A case of Erdemann property limited, pp. 63.*
37. *Saari, A.; Junnila, S.; and Vimpari, J. (2022) Blockchain's Grand Promise for the Real Estate Sector: A Systematic Review, pp. 8.*
38. *Satsangi, M., Branley, G and Storey (2008) Selling and developing land and building for rent and low-cost homeownership.*
39. *Shen, S. (2021). Empirical Research on the Impact of Real Estate on Economic Development. Journal of*

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Mathematical Finance
40. *Sierra Leone revised Housing policy (2006) Government of Sierra Leone. pp. 11-30Squires, Heurkins and Parker (2015) Real Estate Development and Overview, pp. 2.*
41. *Statistics Sierra Leone report (2015).*
42. *Titman (1985) Urban Land Prices under Uncertainty. The American EconomicReview.*
43. *Ustav, M., Bhavsar., and Solanki F (2020). Identification of constraints in aconstruction project, pp. 6303.*
44. *World Bank Doing Business report in Sierra Leone (2020).*
45. *World Economic Forum (2010) Drivers of the Global Real Estate Financial Markets: Thought Pieces of the Real Estate & Urban Development Industry Agenda Council.*
46. *Yılmaz, G., and Nuriİnel, M. (2018). Assessment of sustainability performances of banks by TOPSIS method and balanced scorecard approach. International Journal of Business and Applied Social Science, pp.77.*
47. *Zhu, H. (2016). The structure of housing finance markets and house prices in Asia.*
48. *Zou, P., Zhang, G., and Wang, J. (2007). Understanding the Key Constraints in Construction Projects in China. International Journal of Project Management, pp. 601-614.*