UNIVERSITY OF NAIROBI

THE DETERMINANTS OF OFFICE RENTS IN NAIROBI CENTRAL BUSINESS DISTRICT

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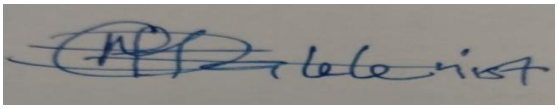
A Research Project Submitted in Partial Fulfilment of the Requirements for the Award of Master of Arts Degree in Valuation and Property management, Department of Real Estate, School of the Built Environment, University of Nairobi, Kenya.

JUNE, 2021

DECLARATION

I, MATETE STEPHEN hereby declare that this research is my original work and has not been presented for the award of a degree in any other university.



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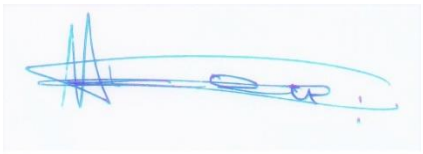
MATETE STEPHEN

B92/7180/2017

DECLARATION OF THE SUPERVISOR

This research project has been submitted for examination with my approval as university supervisor.



Signature……. Date…28th June, 2021

RAPHAEL M. KIETI

DEDICATION

The work is devoted to my family, friends, classmates and lecturers who have unwearyingly tolerated and applauded me during the long period it has taken me to finish the project. I have no words to share my feelings for them for the sacrifice they have made, but this token gesture is the least I can do. May God bless them and help them to grow to achieve all their desires and goals in life.

.

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ABBREVIATIONS & ACRONYMS

CBD - Central Business District

GDP - Gross Domestic Product

MRA - Multiple Regression Analysis

SPSS - Statistical Package for Social Sciences

HPM - Hedonic Pricing Method

FRI – Full Repairing and Insuring Lease

IRI - Internal Repairing and Insuring lease

RICS-Royal Institution of Chartered Surveyors

ABSTRACT

Investment in commercial real estate offers immense opportunities for investors in both the public and private sectors. The commercial real estate which includes office properties generally has higher returns compared to other forms of real estate investments. Prudent investment in office properties, therefore, requires that investors have knowledge about the office market, and are fully aware of the factors that drive rental returns in the sector. This study sought to examine the office market in Nairobi Central Business District (CBD) and analyse factors that influence office rents. Specifically, the study objectives were to identify significant factors that influence office rents, determine the influence of the significant factors and rank them with respect to contribution to the office rental levels in Nairobi Central Business District (CBD).

The study population comprised of all commercial office buildings in Nairobi Central Business District (CBD). Nairobi CBD was chosen as the case study area because it has more commercial office space and most of them are in the same locality. The data for the analysis were obtained from a sample of one hundred and fifty-six (156) commercial office space randomly selected from practicing registered real estate firms in Nairobi City. The methodology of data collection was through a literature review of texts, journal articles and published secondary documents. Field survey and observation were done to appreciate the physical and locational attributes that influence office rental value in the case study area. Questionnaires and oral interviews were conducted with real estate professionals (Valuers, property managers and estate agents) who are actively engaged in valuation, property management and estate agency practice in Nairobi to get their views on the office market and factors affecting office rents. Descriptive statistics and inferential statistics involving Multiple Regression Analysis (MRA) procedures were used in data analysis. The analysed data was presented in tables, graphs and charts.

The study findings revealed three (3) office categories in Nairobi Central Business District, namely Class A, B and C. However, most offices were of Classes B and C whereas Class A office category was rare. Ranked in descending order of importance/significance, the study identified nine (9) critical determinants of office rents in Kenya, namely; Internal Circulation, Age, Service Charge, Size, Floor Number, Services, Finishes, Management and Parking slot. The study recommends that prospective investors in the office market should consider these factors in the design and investment in the office sector in Kenya. There is a need for more investment in office Class A category to meet the supply gap in this office category and achieve higher returns.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

An investment constitutes an effort that is undertaken by investors to invest money to make a profit in the future. Investors may put their money into many instruments such as a stock, bond, mutual fund, gold, real estate and bank deposit. Investment in real estate is considered as a long term investment (fixed asset) compared to other types of investments. Investors may invest in income-producing property and non-income producing property.

When investing in returns generating property, financiers anticipate the return from the revenue stream revealed in cash flow during the holding times or ownership, mainly in the form of rent. Investors must know the worth of the assets acquired and regulate how much return generated.

In defining the follow of revenue, financiers must recognize rental levels or rents. Financiers in the commercial office market anticipate a revenue on their investments in rent method. (Barlowe, 1986; Hargitay and Yu, 1993; Boon and Higgins, 2007). Landed properties ought to create revenue which regularly comes as rents. Failure to regulate rent as revenue will end in a substantial loss for the financiers. Therefore, in the start, investors should appreciate factors donate to rental levels. In determining the selling price and leasing rate, investors should know factors influence or affect property price.

Rental value is a vital constraint for calculating real property performance, Higgins and Boon (2007). Rent is high expense for occupants and an crucial basis of revenue for the property-owner. Investors in landed asset often use rental levels as an pointer to evaluate the capability of their investments. Therefore, accepting the nature and rudimentary features of rental activities provides a better consideration of the dynamics of the properties rent value. Therefore, rental growth indices are often combined into discounted cash flow analysis to evaluate real assets/property investments (Higgins and Boon, 2007). Thus, experts and stockholders in landed industry need improved information on rental increases statistics and the key factors that influence properties rental value.

In the property sector, the market investigation is an result of the study and documentation regarding the some factors that regulate the demand for a specific type of property, the number of deals and the borders of the geography of the trade area (Thrall, 2002). Thus, essential to realize the several characteristics existing for different landed property.

Some study done concerning the contributing factor in both of the rental rates of office space can be branded into macroeconomic and microeconomic (Slade, 2000). Extra research in this area have a practical choice for variable supply and demand as a substitution to forecast the performance of the office space in the market. Office rental rates can develop a model by using the outline of the concept of demand and supply.

Demand as factor of macroeconomic entail of economic taxation, interest rates, growth (GDP), unemployment , employment, income, inflation, population, , Etc. In contrast, the microeconomic factors comprise vacancy rates, office space absorption rate, inventory (Stock), physical characteristics of the premise, occupancy rate, and the cost of construction. The supply factors and demand forces will finally influence the rental levels for the office space market.

Voigtlander (2011) in Germany, office employee is the greatest forecaster to decide the regular rental levels compared to the general level of occupation. Brounen and Jennen (2009) shows rental rates in all 15 cities in the United States replied on the rise in office workers. The growth in employment sector is completely related with office rental rates.

Offiice rate in Hong Kong has been different which caused by the town to be known as an international financial city, hence considered by various foreign companies' entrances for big industry. Therefore, the Hong Kong economy is intensely swayed by globalization and macroeconomic features. Prudence (2007) showed that in overall, the rental market for office space of class A and B were expressively prejudiced by globalization, including foreign direct investment and total exports, while C class is more prejudiced by the indigenous economy such as GDP.

Understanding the determinants of office rents is quite critical for investors, but there appears to be a dearth of such research in Africa and Kenya. The present study is important because it highlights factors that tenants, property managers and investors should consider when making

investment and occupancy decisions. The study is also important to landlords who hope to get good returns from their investment properties especially in the office rental sector in Kenya

1.2 Statement of the Problem

Determinants of the rental value of different types of real estate properties are nearly related regardless of the heterogeneous nature of the real property. Rental rate is a measure that investors will use to evaluate the performance of the real property investment. Rent is crucial for the profitability of the investment and should be reason enough for the tenants who will let the commercial office space.

Investment in commercial office properties involves momentous capital outlay. Potential investors in the sector need to be adequately guided to make sensible investment decisions concerning locality and property traits that will affect the rental rate of the commercial office properties. Real estate consultants, including valuers, property managers, estate agents and prospective occupiers in the office sector, need guidance on which property characteristics maximise the investment worth of office property investments.

When rental rates are appropriately determined through proper identification of their determining factors, there is improved resource allocation in the office market and this is vital for the overall wellbeing of the property market and the economy. There is also increased returns to investors and landlords, more opportunity for real estate professional practice, increase in rental income tax to the government, reduction in vacancy rate in the industry and increase in business (service) industry as rents can be manageable or achieved for businesses to afford to pay their rental obligation.

In an ideal market situation, rental rates/levels of office property are determined by the forces of demand and supply. An understanding of demand and supply-side variables and factors that influence the rent formation of office properties is therefore important. While several studies, for example, Eda (2003), Dunse and Jones (1998) and Pekdemir (2009), among others, have analysed rent determinants in the developed markets of the world including the United States, Canada, Europe and Asia, there is little or no empirical research on office rent determinants in Africa and

Kenya in particular, yet most cities and towns in the region are expanding with intense developments of office properties.

In Kenya, the Nairobi Central Business District (CBD) is the most intensely developed of the other centres of the City, yet casual observation and analysis of rents in the CBD reveal comparatively lower rents, higher rents variability and lower rental growth rates compared to the other neighbouring centres in the Upperhill area (range from Kshs.90 to 110) and Westlands (range from Kshs.95 to 110). This necessitates the need to study the critical rent determinants in the CBD to guide investors, occupiers and other market participants in their investment and occupancy decisions.

1.3.1 General Objective

The general objective of the study is to investigate the determinants of office rents in Nairobi Central Business District (CBD).

1.3.2 The Specific Objectives

1. To examine the commercial office market in Nairobi Central Business District (CBD)
2. To identify significant factors that affect office rents in Nairobi Central Business District (CBD)
3. To determine the influence of the significant factors and rank them with respect to contribution to the office rental levels.

1.4 Research Questions

1. What are the categories of commercial office space in Nairobi Central Business District (CBD)?
2. What are the determinants of office rental levels?
3. What is the contribution of the factors to office rental rate?

1.5 Scope and Area of Study

The study was limited to the Nairobi Central Business District (CBD). Thus, the rental value determinant factors discussed were only those that were affecting the commercial office space in

the CBD. The Nairobi CBD was chosen for the study due to various services and high density of commercial office building it offers to the built environment. It is also located in a prime location and central to Capital City and Headquarters of the County Administration Offices. It has most services required for other lucrative land uses thus would suit other purposes like shops, retails and restaurants use. Therefore, Nairobi CBD served as an appropriate case study.

1.6 Justification and Significance of the Study

The study findings are relevant to tenants, investors, valuers, designers/architects, developers and researchers to know how determinants of rental rates affect the design, marketing, return on investment and how much it cost to lease commercial space office in Kenya.

1.8 Limitations of the Study

The limitation of this study arises from the following: first, financial problem to collect data, secondly limited time of data collection and lack of collaboration from respondents.

1.9 Study Assumptions

The study assumes that property investors, professionals in the real estate industry and other market participants have nearly perfect knowledge and information about the office market in Nairobi.

1.10 Organization of the Study

This study is organized into five main chapters outlined as follows: -

Chapter One: Presents the study background, statement of the problem, objectives of the study, scope, justification and significance of the study, methodology intended to carry out the research as well as the definition of key terms.

Chapter Two: Reviews the literature from previous studies undertaken by different scholars about the office market and determinants of commercial office space rate or levels.

Chapter Three: Presents the research methodology. It covers methodology relevance employed in conducting the study. It comprises of the research design, target population, samples, data requirements, collection tools, criteria for measurements and their variables, procedures for data analysis and employed methods.

Chapter Four: Presents data analysis, presentations and discussion on findings.

Chapter Five: Cover discussions, conclusions, recommendations and suggested areas for further research.

1.11 Definition of Terms

Investment: This is an asset acquired to generate revenue/capital obligation. In an economic sense, an asset is the acquisition of goods that are not utilized today but can be used in the forthcoming days to generate wealth.

Commercial Property: is landed property that is utilized for business activities. It also refers to structures that house businesses, but it can also refer to land projected to generate a profit that comprises shopping mall, office buildings and much more.

Office Space: A room or other area for which individual work, and may show a station in an organisation with specific duties attached to it. It is an architectural and design phenomenon.

Rental fee: Refers to the definite payments leaseholders make for the usage of the properties. The amount of these rental payments is usually agreed by the landlord and tenant in advance of property use and thus emanate from the mutual contractual arrangement. Rent is a yield on the investment worth of landed property savings, and landlords and property owners usually compare this yield with those they could obtain from substitute assets reserves (Barlowe, 1986).

Commercial Rent: Rent is arrived by the relationship between supply and demand force in the property market without any government interference. (Jowsey & Harvey, 2003).

Rental Value: This is the fair market price of the real property leased out in a tenancy. Generally, it can be considered paid under the lease for the right to the royalties or return acknowledged by a lessor (landlord).

Rental Rate: The charge per unit periodic for the use of the real property. The rental rate may be any amount per square foot per year, per square foot per month, per room, per apartment, or any number of other variations.

Market Values: This is the rate an asset would get in the open market or the value that the asset community gives to particular equity or business.

Model: A model is a resemblance of something. It is a simplification of the natural world to work out, understand and provide solutions to problems. Models are empirical and testable.

Unit Analysis: An entity that mounts what is being analysed in a study or is the unit being studied as a whole, within which most elements of destiny and change exist.

Measurement Unit: This is a definite degree of a quantity, demarcated and adopted by the agreement, used as a standard in measuring the same kind of quantity.

Hedonic Pricing Model: This is a revealed preference method of approximating the rate or demand of a composite asset. It breaks down the element being examined into its essential features and gets appraisals of the causative value of each specific feature. This requires that the compound good be appraised to be reduced to its constituent parts for market values to those assigned.

Multiple Regression Analysis (MRA): This is a statistical method used to forecast the rate of the dependent variables established on the standards of two or more variables which are independent.

Regression: This is a statistical measurement used in investing,finance and other disciplines that attempt to regulate the power of the connection among one dependent variable (Y) and the sequences of any other varying variables (independent).

Correlation: This is the unit and type of connection between any two more measures (variables) that vary together over a period.

Variable: This is a computable feature that adopts different values among the subjects or cases being studied. The two forms of variables commonly used in research studies are independent and dependent variables. An independent variable is one that a investigator manipulates to regulate its outcome on another variable. Independent variables are also called predictor variables because they forecast the difference in another variable.

Full Repair and Insuring Lease: When the tenant has responsibility for all external and internal repairs and decorations, and all the obligation in the building. In an FRI lease, the property-owner has no obligation on refurbishing or insuring liability.

Internal Repair Insuring Lease: It is when the tenant will have a narrower liability for decorations, repairs, conservation and insurance confined to the internal parts of the property occupied

1.11 Summary

Commercial office space is an investment for investors where the return is realised on the rent charged to the occupier of the space. The section has emphasized the following areas to lay the foundation of the study, which includes an introduction, problem statement, objectives & research questions, study area & scope, significance, limitations, assumptions and study organisation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

It shows a brief background on literature review on the commercial properties, classification of office space, the office market globally and in Kenya, demand & supply of the office space, determination of office rents, types of commercial rent, factors affecting office rents, a conceptual model of factors influencing office rents and the summary of the chapter.

2.2 Commercial Properties

There are various properties to be considered as commercial building properties such as shops, offices, retails, leisure, restaurants and conference halls. An office is a area where people work but may also show a position with specific duties within an organization. It is an architectural and design phenomenon. The main tenacity of a commercial office is to offer the workplace with an office setting to support its occupants primarily attached for administrative and managerial functions in executing their work, preferably at lowest cost and to maximum fulfilment (Cambridge English Dictionary). An office includes a premises/building that has a main sitting room that is particularly planned for the office's use (Bird, 1996).

Property market comprises a large number of types of properties where ownership and occupation are separated. There is an occupier for each property. However, in many instances, commercial office spaces are occupied by tenants under a contract/ lease agreement (head and terms of the lease) where the occupier pays a sum of money to the owner/ landlord/agent, which generally is termed as rental, in reappearance for the right to inhabit. This creates an investment opportunity for investors/landlord who wish to invest their capital in real estate properties and obtain a return thereon.

The value of a property is defined under the market situation as the value in exchange or market value. Therefore, the market value of a specific interest in the property may be definite as the sum of money gained from from persons capable and ready to buying it or lease it. Hence it is clear that what is valued is not the physical property but the property interest and privileges, which gives

legal rights of use or enjoyment of the land or buildings. Therefore, the valuer or real estate appraiser is frequently called upon to value different interests attached with real estate properties, where the value is the amount of capital required to purchase or lease a particular interest. The value of property's interest relies on the amount of rent that an occupier would be ready to pay for the right to occupy and the level of return which an investor would require on his capital.

2.3 Classifications of Commercial Office Properties

When looking for a new commercial office building to let, an occupant will quickly understand most buildings are classified in different categories namely Class A, B and C. The office space vary from one market to another due to their factors, so a Class A office building in a major urban city will be much different than a Class A office building in a small rural town of lower population. There are no standard methods used to categorize an office block but an overall classification for classes.

2.3.1 Class A Office

The most high-status commercial office facilities in the best localities in town. Have gorgeous commercial premises constructed by the highest end excellence provisions and modern edifice techniques. Furthermore, commercial office have a expert managing agent, decent accessibility and are normally situated in very highly visible areas/location on high traffic streets or avenue. Due to their outstanding excellence premise, Class A premises rent out to reliable occupants at the maximum rental rates in the market.

The Class A office buildings have the following measures: Multistory building in the major CBD;A modern computerized building in its market; High quality architectural design; Relatively new structure, which are also recently renovated commercial office; They are intended well and good-sized arrangement to put up one or numerous occupants; Well recognizable locality- Suitable admittance (passage, etc.); Managed by a expert companies; Leading leaseholders; Maximum leasing charges; Resilient marketplace; High-tech industry criteria system; High capability backup power system; Lifts that are enough for building population; Environmental -certification (BOMA BESt, LEED and NEMA); Camera censored and security-controlled entree system.

Minor buildings that situated in an remote area, system entrance control in place and off-site alarm system; Built by a respectable contractor; they have Car parks - Adequate private and public parking to accommodate occupants and guests. Good access for office block occupants with controlled security measures. Stands for Bike and stations for electric vehicle charging for the commercial office block; Occupant services - Skilled and managing professionals and amenities with walkway weather protected connection, building include conference Centre, food court type restaurants. The buildings situated city center, coffee shops provide above-average services to tenant's cafeteria, food court restaurants.(Napic, 1994).

2.3.2 Class B Office

These structures are lower grade A. Slightly older constructions with good administration and quality occupants in general. Investors to target these type of office block for renovation to Grade A offices. Offices under these class are well maintained overall, quite functional and generally have a fine finish wall for average market rental rates.

The glass features include: A grade below Class A; Slightly older buildings– Good management, Can be targeted by investors planning renovations to restore them to Class A ;quality tenants; Building finishes– Fair to good; Good quality systems but not at Class A level and Well Functional maintained.

2.3.3 Class C Office

This is the lowest grade for useable office space. Generally older and situated on fewer desirable streets of undesirable city sections. These commercial premises frequently have greater than average marker vacancy rates. The less suitable architecture, imperfect substructure and outdated technology define these premises. They are challenging to lease and lower rental rates. Investors target these commercial buildings for redevelopment to improve their value. Their quality of wall finish both interior and exterior are often lower Class B and A. These premises entice short term tenancies lower leasing rates

2.4 The Office Market

2.4.1 The Office Market Globally

In the USA and Britain, the office market gradually expanded during the agrarian revolution in the 18th Century when industrialization started. Industrialization necessitates manufacturing companies to have the site offices and create another office for subordinate staff like lawyers, engineers and finance departments. Thus creating supply and demand of commercial office market in the world.

Manchester City UK, Office development have a significant economic and fiscal impact on the community, thus creates revenue for development. These and other economic development benefits can accrue from policy decisions, positioning, and promotion strategically oriented to growing this office market sector.

Commercial office space demand has reformed over the era. With the progress of the suburban area, many companies are moving from inner city locality to the fringe of town to take benefit of lesser rentals rate, less lavish parking fees, and closeness to worker's apartment. Lately, the Great Depression has many companies forced to rationalize, causing vacancy rates high. Regardless of that, office space remains essential element in the economy of the country.

The Purpose-Built Office (PBO) in Malaysia market had revealed a optimistic growth since the 1990s. Report based on the National Property Information Centre (NAPIC), firmness of the monetary condition has a vital effect office market (Napic, 1994). Due to its growth, PBO has played an essential character in donating to the assets venture set in the Malaysian work place property market. For instance, green technology had been concentrated on energy saving while innovation was the key distinctive of sustainable development.

In Africa, Nigeria has taken a more significant position in the office market. Therefore, the large population assists in economic growth, creating a different pool of business that needs an office to operate. The origin of development in urban areas is found in the sociable nature of humankind, economic cultural and administrative advantages from the accumulation of grouping. In urban areas, where the CBD has earmarked appealing, capability economic strength and, the CBD was

originate in core of the city's transportation system on both accessibility locations and suitable to high population.

2.4.2 Office Space Trends Globally.

Demand and supply for commercial office space have changed over some time. Through the development of the peripheral areas, many companies moved from inner city locations to the margin of the town advantageous to lesser rentals rate, less posh car parks levies, and nearness to employee's apartment. Lately, slow development in the economy has subjected many companies to rationalize and lead to high vacancy rates in commercial office. Regardless of above situation, commercial office space endures to be an essential constituent numerous city and towns. Law firms and oher monetary consultants are located in inner city due to its key appearance and since they want to be so near to the judiciary system and extra public organizations or offices from entice a share of their business to make income. The lower part of the city might have few, if any, code-compliant, affordable, and appropriately sized office spaces for the types of users attracted to downtown locations.

Other trends shaping the market for commercial office space include an increase in telecommuting (that is, working from home through the use of improved technology) and changes in work preferences among young professionals due to emerging trends.

Co-Working space is regularly a cooperative space in an office-like setting. Thus succinct office tenancies, fluctuating from a day to a week and extended, and space can be used freely, collaboratively or in selected teams. The determined of co-working spaces is abundant, including a logic of community location, inspiring greater yield, providing access for mobile and self-employed workers, and an reasonable solution to start-ups who are on a limited budget and unable to enter into long term rental obligations. Many lessors are confronted by upward call for elastic, walkable, common spaces with small tenancies term. The three main chances for lessors to capture the co-working include: first, letting office to co-working employees; furthermore increasing their co-working stands and finally associating with co-working workers to develop co-working office spaces; united with two main challenges related with the operation of co-working hubs – the reliance on co-working survival operators with varying marketplace circumstances, and altering

office traditional formart into appealing co-working effervescent centers. Reuschl,R.B. and A.J.Bouncken, (2016) and Brodel, D., Disho, S., Pibal, F.(2015)

2.4.3 The Office Market in Kenya

The Kenyan commercial office segment has gradually proliferated over the past span, gradually with the increasing economic growth, as companies operations expands whereas international organization constantly establishe their base offices in the country.

As the sector grows, perceiving new clientele trends changing its favorite and global companies generating plea for outstanding standards. Popularity is being gained in serviced commercial offices due to the growing Small and Medium Enterprises. As the diminuendos of commercial office space have design and demands continue to unfold, more developers are offering semi-fitted commercial offices by providing more facilities such as partitions and kitchen cabinets in the office. To reduce operating costs and provide a safe and healthy working environment for all workers, developers have increasingly employing green building technology in the construction industry as established to escale worker efficiency.

2.5 Demand and Supply of Commercial Office Properties

2.5.1 Demand for Office Properties in Kenya

Overall demand for office space is indicated by the vacancy rate, rental growth and occupancy rate. According to Okoth (2008), occupancy involves posing a property; carrying out an analysis to determine the proportion of a premise leased or bought. High occupancy rates indicate that the property is on-demand while lower rates imply that it is less attractive in the market. It is also used to determining the profitability of a property, the vacancy rate indicates the proportion of unoccupied space in relation to the total space. It is expressed in a percentage form. High vacancy rate indicates a low demand for office space.

2.5.2 Factors that Affect Demand for Office Properties

Office space is an essential input in the service industry. Overall demand for office space depends on various factors. They include the following:

a) Variation in the Number of Prospective Tenants

Appeal for workplace space is affected by variation in the number of prospective tenants. Economic and population growth affect demand for office. Economic growth leads to an rise in the number of industries and more office space. Analysts have shown that office employment levels and growth rates directly correlate with demand for office and rental levels. Sivitanidou (2002) argues that provision for tenant search processes is determined by the variety of the resident office occupant base and spatial spreading of the existing office space. Pressure on the available office space pushes rental rates up and reduces the number of vacancies. A fall in demand leads to a lower rental level.

b) Changes in Operational Expense Levels

Changes in operational expense levels affect the request for workplace space. An increase in the operating expenses leads to a fall in the profit of the business enterprises, thus discouraging them from renting the space. They maximize the use of available office space when operational expense increases.

c) Employment Level

It is also affected by office employment. Primary office utilising the sectors include finance, real estate, insurance, governmental public services, advertising, legal and social services, engineering services, computer and data processing, credit reporting companies, membership organisations and management services. Corporate headquarters of manufacturing is also known to have office-related employees. Number of increase industrial office related occupation outcomes in rise in request for office space.

d) Technological Changes

Changes in technology can alter the demand curve for office accommodation. Okoth (2008) argues that technology has changed the management thirst for reports by reducing the time and the cost of generating business information. The technology employed in a firm determines the office space required. Valuation, Law, and Insurance firms are computers in handling information. This reduces space requirements since information is handled electronically.

e) Change in Taste

Furthermore, demand for office space is affected by changes in taste; request for services and goods made by the companies renting the space can be influenced by alteration in taste. If the demand for commodities falls because of a change in taste, the space requirement of the firm reduces the result of a reduced number of workers. Variation in workplace space required per member of staff affects the overall demand for office accommodation. Rise in the floor space per member of staff ratio increases office space demand.

f) Office Location

The rental cost of office space accommodation is higher in prime locations where traffic is low. High rental level discourages office users from taking up more space. Demand for office space is high where there is a need for professional and financial services.

g) Internal Layout of the Office

Office space organisation is based on a detailed analysis of human factors. Integrated layout call for open general office areas with a minimum partitioning of either fixed or movable type. The open-plan office layout is popular because of its merits, such as more flexibility, the economy of space, easier worker supervision and equality of facilities for all parts of the office. Large companies use open-plan layout, especially ones with large numbers of staff. In enclosed office layout, as opposed to the intrinsic worth of privacy and comfort associated with this layout, their limitation such as high cost of construction and lack of flexibility among workers in different departments (Joedicke, 1962). The enclosed office layout utilised more space than an open plan.

h) Rent for Office Space

The essential law of demand suggests that all factors kept constant; increasing workplace rents exerts descending weight on workplace space absorption while falling rates are likely to sway workplace space demand positively. Evidence presented by Dipasquale & Wheaton (1996) suggests that for agreed workplace employment levels, office space concentration and square feet per worker vary inversely with rental rates. The average square feet per employee rises if actual rent starts to decline. When rent reduces, office space per user reduces. The possible

encouragement of rental rates on space per user requirements is significant since it is used for forecasting office space demand.

i) Expectations

Expectation may impact the request for office space per user at given time. Rental growth prospects lead to the absorption of less office space. Office employment growth expectations encourage workplace interest, as the firm is probable to let more commercial space than they presently need in expectation of their increasing labour force. When firms expect slow employment growth in the future, the absorption of office space reduces. The use of technology by office users such as a bank is expected to increase, leading to less demand.

2.5.3 Supply of Commercial Office Properties in Kenya

Office supply mean production and readiness of workplace (The Appraisal of Real Estate, Third Edition 2010). The office property supply consists of the stock of existing units, office property under construction and projects in the planning stage, office space lost to demolition and the size of office properties added or removed through conversion. Information on the supply of office space can be gathered from field inspection by reviewing buildings permits, plan maps, surveys of competitive sites, and interviews with developers and city planners. When analysing supply, it is prudent to consider the adequate supply of a given price in the market, not the total supply, as Mayabi (2004) suggested.

According to Cytonn Real Estate, Commercial Office Report – 2019 based on research conducted on nine nodes: Westlands, CBD and covering environs including Thika Road, Upperhill, Karen, Gigiri, Riverside, Parklands, Mombasa Road and Kilimani, which includes offices in Kilimani, Kileleshwa and Lavington, indications workplace supply has been rising at a 23.6% in 2015 and 2019, 8.1% high rental yields driven, equated to7.4% for the real estate market and request from growing small business companies and transnationals settling set-ups in Nairobi.

According to Knight Frank Ltd 2019 report, the office segment noted a 9.0 million square feet of supply, contrary to 3.8 million square feet of the demand and 5.2 million square feet oversupply, ensuing in an upsurge of 10.4 percent to 35.5 million square feet cumulative office stock in 2018

equate to 31.5 million square feet in 2017. Requesting rentals in 2019 augmented slightly by 1.6 percent to an regular of Kshs 103 per square feet, from Kshs 101 per square feet in 2017, for asking prices increased by 0.6 percent to Kshs 12,719 in 2019, from Kshs 12,649 in 2017. The deliberate upsurge in rents was accredited to the surplus of 5.2 million square feet of commercial space as of 2019, forming a negotiating mark for probable occupants, compelling lessors to decrease or uphold rents/prices command to keep on economical and appeal the residents to their workplaces.

Commercial Nodes	Price Kshs/ SQFT FY 2018	Rent Kshs/SQFT FY 2018	Occupancy FY 2018(%)	Rental Yield (%) FY 2018	Price Kshs/ SQFT FY 2017	Rent Kshs/SQFT FY 2017	Occupancy FY 2017(%)	Restated Rental Yield (%) FY 2017	Δ Rent Y/Y	Δ Occupancy Y/Y (% points)	Δ Rental Yields Y/Y (% points)
Gigiri	13,833	141	88.3%	10.5%	13,750	138	81.4%	9.8%	1.9%	6.9%	0.7%
Karen	13,666	118	88.6%	9.2%	13,167	113	89.2%	9.2%	4.7%	(0.6%)	0.0%
Westlands	12,050	110	82.1%	9.0%	12,872	103	88.5%	8.5%	6.5%	(6.4%)	0.5%
Parklands	12,494	102	86.0%	8.4%	12,729	103	85.7%	8.3%	(0.9%)	0.3%	0.1%
Kilimani	13,525	99	88.3%	8.0%	12,995	99	82.0%	7.5%	(0.1%)	6.3%	0.5%
Upperhill	12,560	100	80.7%	7.9%	12,901	101	84.5%	7.9%	(1.2%)	(3.8%)	(0.1%)
Nairobi CBD	12,425	89	88.3%	7.6%	12,286	88	84.1%	7.2%	0.9%	4.2%	0.4%
Thika Road	12,517	86	81.5%	6.7%	11,500	82	73.6%	6.3%	5.3%	7.9%	0.4%
Msa Road	11,400	79	65.6%	5.8%	11,641	82	74.2%	6.3%	(4.0%)	(8.6%)	(0.5%)
Average	12,719	103	83.3%	8.1%	12,649	101	82.6%	7.9%	1.6%	0.7%	0.2%

Author 2020

2.5.4 Factors Affecting Supply of Commercial Office Properties

i) The supply of commercial office space is affected by rental values. Fraser (1993) defines rental rate as the annual market price of live in a property. Rental rate is determined by the collaboration of request and the adequate source of office space. Kinyanjui (1991)

ii) Observed that when the rental values for office floor space are high, the developer will be willing to provide more space because of the attractive gain, a fall in the rental values leads to a reduced source of workplace. The following factors can affect the source of commercial workplace space;

iii) The government can restrict approvals of commercial office building plans to discourage the development of offices. To encourage the establishment of offices in a particular area, the government can give subsidies on land required for the development. Availing construction loans and financial office buildings will encourage investors.

iv) Economic performance affects the supply of office space. A high inflation rate reflects less purchasing power for money; therefore, developers pay more money to purchase building materials. The supply tends to be low when inflation is high. The high exchange rate makes imported inputs of construction more expensive hence reducing the supply of office space.

v) Conversions from alternative use to office space affects the supply curve. There has been an increase in conversions from residential units to office space in the recent past, especially in the areas with high demand for office space, such as Westlands and Upperhill. This ends up increasing the available space for office use.

vi) A high occupancy rate will encourage the developers to supply more office units since they are assured that the property will be occupied. A low occupancy rate discourages the development of office units.

vii) Low vacancy reflects that the space users are willing to take the available space at the prevailing price; high vacancy reduces the supply by discouraging the developers.

viii) Costs of construction inputs, such as labour, materials and land, are high, developers will avoid setting up office buildings. High charges levied on building permit discourage property development by reducing net profit.

2.6 Office Rents

2.6.1 Types of Office Rents

Rental price is a rate of live in the property, and the dealings of request and supply determines market prices. So rental price is resolute by demand and supply. Rental price at time is determined by demand from occupants actively looking for accommodation and source of floor space being vacant to let on the market. , which is "an annual or periodic payment for the use of land or land

and buildings". In fixing the rental price of a particular property, the valuer is influenced mainly by the rental evidence, reflecting the amount of money paid for comparable properties as rent in the same locality. At the same, we recognise the value of economic factors which govern those rents. Hence, identifying rent determinants and quantifying them would make the way of working out a rent model and the results of which would lessen the subjective factors of personal opinions' effect on rent. In previous studies, different kinds of rents have been analysed by the authors.

Table 2.1: Office Rent Types

Rent Type	Description
Asking/Enquiring	The publicized negotiations starting amount
Headline	Rental value per meter square per month itemized in the tenancy contract. This is further divided into two types. The nominal value without alteration for inflation and the real rent adjusted for inflation.
Consideration Rent	Headline rent adjusted for inflation and also for enticements in the agreement contracts.
Effective Rent	Consideration rent intended as discounted cash flow.

Source: Royal Institution of Chartered Surveyors (RICS), 2013.

1) Asking Rent

Many studies analysed asking rent as it is readily available. This is the advertised rental value in public and social media. The asking rent is fixed at a level that will attract tenants, and it may fairly reflect the quality and location of the property. However, Webb and Fisher (1996) argued that the asking rent is essentially supply-side information that does not necessarily reflect specific transactions between a lessor and lessee. Thus, it may reflect more about landlords' hopes and negotiation strategies than the price that tenants are prepared to pay. However, to some extent, asking rent is expected to correlate with achieved rents; several preceding studies have used the data as a substitution for attained rent.

2) Headline Rent

This is defined as the actual rental price included in the lease agreement once consultations between landlord and lessee have been magnificently concluded. These figures are much difficult to obtain since they are confidential and extremely sensitive data. The inclusion of rent-free periods and other incentives will solve actual rent as a dependent variable for analysis. Therefore, much consideration has been given to leasing terms. Jake Desyllas (1998) stated the striving of finding such delicate data as "it is usually only property agents and property consulting companies that have enough contact with the market through their intermediary role to gather databases of headline rents effectively. Larger property agents publish some of these data in anonymous form as reports for their clients and general marketing purposes". Actual rent or agreed rent or contracted/covenanted rent should be used as a dependent variable and not asking rent.

3) Contemplation Rent and Effective Rent

These types of rent price reflect the real cost of a lease to the tenant by adjusting for incentives in a lease. Consideration rent is the essential modification for the outcome of motivations on the occupant's cost and the average rent rate per annum of the gross revenue flow of a tenancy with its motivations. (Weaton and Torto, 1994 as cited in Desyllas, 1998). Though the rent calculation regarding consideration rent does not consider the time feature of money, motivations have a conflicting impact depending on the year that they are executed because of depreciation. Motivations at the beginning of a contract are worth significantly more, especially in terms of cash flow advantage to the tenant. Therefore, a discounted cash flow (DCF) procedure is necessary to calculate effective rents, but there is no agreement on how the incentives should be discounted. Rent that is adjusted for incentives and treated as a discounted cash flow is known as the 'effective rent' (Desyllas, 1998).

2.6.2 Methods of Determining Office Rent

Rent is determined in different ways depending on the nature of the building and business operated. Most investors focus on the ways to get their returns from the investments. There are about four (4) approaches that can be employed to estimate rents on real estate properties, including office properties, as follows:

a) Analysis of Rents of Comparable Premises/Properties

This is the most popular method of rental valuation. This is like the sales comparison method. The method derives property rental values by analysing rents currently paid on similar/comparable properties in the same location/neighbourhood of the subject premises. For shop premises, the method uses the zoning/halving or stepping principle where a full rate (Kshs. per sqft) is applied on the area of the front shop, which is considered more valuable because it enjoys direct street frontage, then the rate is lowered to say ¾ or ½ or even ¼ for rear spaces, e.g. stores, kitchens, guards room or open yard at the rear which is considered less valuable. The applicable full rate is obtained from the analysis of rental evidence/comparable of shop premises along the same street as the one being valued. This technique is also applicable for office premises where apart from the front ground floor office space, there are other inferior spaces like the upper mezzanine floor and stores. In residential and other categories of properties, you analyse rents of similar rented properties and apply the rate obtained on the lettable area of the subject property. The rental evidence/comparable should be recent rents, and the dates the leases started should be captured, and all relevant information on the rental comparable of office space must be obtained to facilitate the analysis and comparison with the subject property.

b) Rent as a Percentage of Profits Made by the Business in the Premises

Where you analyse using financial records of a similar business in the same neighbourhood as subject premises, the proportion of gross profit the business operator pays as rent after taking into account all other expenses, e.g. salaries, overheads, and net profit operator. Such a per cent of gross profit applicable on similar premises, businesses can be applied to the gross profit of the subject business to indicate the property's rental value.

c) Rent as Yield on the Property/Market Worth

Where you determine the capital value of the subject land/building and see what rate of return you would get by investing the money (the equivalent of the capital value of the subject property) in an alternative investment, e.g. bank accounts, government bonds etc., then by adjusting for differences in risk between subject property investment and selected alternative investment, you

can obtain a reasonable indication of annual return of subject property which may also be a rough indication of the annual rental value of the subject investment.

d) Rent as Annual Equivalent of Capital Value/Market Value of Land and Building

Where you get the capital value/ capital cost of the subject property, you obtain the annual equivalent of the capital sum for the specified lease period/term at an appropriate rate of return.

2.6.3 Factors Influencing Commercial Office Rents

Commercial office rents are usually analysed to a price per square meter per month or per annum, and the basis of measurement is the net internal area (usable floor area). Factors which influence the value of office accommodation are (i) External factors such as geographical location, namely central to the perceived office location core; proximity to transport connections; proximity to staff facilities and (ii) Internal factors such as feature reception area, lifts, air conditioning, raised floors, double glazing etc. Macroeconomic associated articles usually emphasis on replicas of the office segment that control office rents, whereas microeconomic associated courses usually emphasis on property features or tenancy concerns that control office rents. Oven and Pekdenir (2005) explained the parameters used in the previous researches under four categories. They are econometric, building, location and contract parameters.

2.6.3.1 Physical Characteristics

a) Size

The building has a floor area with common areas such as a lobby, staircase etc., that serve all tenants. Net usable floor area or rentable area calculated by deducting the common area from the gross floor area. It is the actual space occupied by tenants. While some studies considered the entire office building as the unit of observation with the dependable variable as the average rent for the entire office building, others are based on individual units considering rental prices fixed for each unit separately. The rent determinants of individual units expressed the influence of rents' influence more accurately than as applied for the entire building.

b) Vertical Location of Commercial Office Space

The vertical location of the office unit within the building is vital in the sense that it is related to the unit's prestige and accessibility (Bemane et al. 1984 as cited in Eda, 2003). Natural lighting and the desirable view will affect units' prestige, while units' vertical location, availability and quality of a lift will affect its accessibility (Eda, 2003). Fuerst (2004) mentioned that the number of stories of a building represents more sophisticated elevator systems in tall buildings, the availability of panoramic views and a potential landmarks status for very tall buildings. Although adding floors to office structures may increase the marginal cost of construction, that could be justified from higher expected rent demanded increased vicinity, recognition and prestige of the taller building. Bollinger et al. (1998) examined the story height variable in office rent models and found an open relationship between office rent and the number of floors.

c) Building Age

Building location and efficient design may of advantage but older or worn-out properties generally do not produce incomes equal to those of new buildings. (Fisher and Robert, 1994). As a result of physical depreciation due to ageing and wear and tear, the physical structure of the building is affected and therefore, high repair and maintenance expenditures are needed for older buildings to keep them in good status and condition. However, extra disbursements have negatively influenced on rental income of the property. Slade (2000) stated that the office rental amount is likely to deterioration at a declining rate concerning age, allows variable for a vintage premium in older properties.

d) Physical Structure

Construction quality and type, architectural design and extra structural fundamentals connected right to the physical construction of the premises. The covering and standard of the exterior and structure of commercial office space are essential both to the occupier's image and to consequent repair and maintenance spending (Dunse and Jones, 1998). The excellence of the fundamentals of the physical structure and the extra elements touch construction cost, which increases rental price of the property.

e) Internal Accessibility of the Premise

The office floor suite significance locations to exaggerated by the accessibility and the excellence lift. Basements may also not be popular because of natural lighting difficulties.

f) Internal Services

There is a significant range of possible interior facilities that have diverse degrees of value addition. These comprises air habituation, space heating, safety system, igniting, interior sound lining and laundry amenities, raised floors to permit telephone cables to be fixed (Dunse and Jones, 1998). Furest (2004) in his study included numerious premises have many services and on-site facility management and results of which confirmed the anticipation that occupants pay a premium for the readiness of such various kinds of building amenities.

2.6.3.2 Locational Characteristics

Location is a key factor in determining rent level and the asset price of office properties. The office organisation's choose influence the profitability services, resulting high readiness to compense, articulated in rent levels and charges, for site with favorite features (Koppels et al., 2009). Moreover, office locations were prejudiced by factor prices, passage and communication cost, the excellence of the urban environment and collection economies (Dunse et al. 2000). The office building's location is critical from the asset opinion, and locational determinants of office rents must be taken into account. Furthermore, the significance of spatial variables is collectively recognized in the literature. Eda (2003) has explained locational attributes under three specifications based on the literature hence links, location access and transportation designs, and neighbourhood guidance.

a) **Links**

The standard theory of office location hypothesizes that each office companies reliant on daily expression and interaction amongst its administrators /colleagues in other firms. Linkages between firms for supporting services such as marketting, legal , accouonting, business and financial need numerous portable by most important executives whose period brings momentous opportunity cost will lessen through face to face contacts despite transportation and telecommunication advances.

b) Adjacency or Proximity

The principles of Land value by, Hurd R. M., In 1903, made a statement about urban land values, "since value depends on economic rent, and rent on location, and location on convenience, and convenience on nearness, we may eliminate the intermediate steps and say that value depends on nearness" As described by him, the value depends on nearness implies accessibility. Measurement of accessibility in terms of distance or time to travel (Premathilaka, 1998). This emphasized the fact that the importance of proximity effects on determining the values of real estate properties. Physical entree is a major element of all premises that have yield, and excellence of momentous entree result on the property prices.

c) Built Environment or Neighbourhood Effects

Built environment refers to the environment characteristics surrounding the office location, which affect site value. The natural surroundings of the physical atmosphere is challenging to formalize subject to the universal state of indigenous constructions, the concentration of buildings, and the reality of green space (Dunse and Jones, 1998). In broad-spectrum, the built environment regulates the standing for the area finished graphical imitations. Furthermore, "the neighbouring property uses together with its favourable influence create an environment that enhances profit potentials". (Fisher and Robert 1994 as cited by Eda, 2003). Furest (2004) has stated that neighbourhood effects that are separate apparent or noticeable features of an area also influence premise rate. There may be positive and negative neighbourhood attributes related to a specific location of office property as it has a long life and is physically immobile similar to other real estate properties.

d) Building Characteristics

Frew and Jud (1988), Wheaton (1984), and Clapp (1980) showed that commercial office premise features; floor rentable area, the part shared services accessible in the office building affect rent in office space.

2.6.3.3 Lease or Contract Characteristics

The amount of rent that a tenant will prepare to offer will be influenced by other lease terms. If a landlord wishes to make a tenant responsible for all outgoings regarding a property, he cannot

expect the rent offered by the tenant to be the same as where the landlord bears responsibility for some of them. The considerations under contract determinants are premises tax rate, amount and time of rent escalations, operating cost (outgoings), Consumer Price Index (CPI) escalation etc. In addition to the cost of repairs, maintenance of staircases, lifts, and other parts in common use in the building let in suites will be recovered by a separate service charge. The rental value will reflect the lease terms and cannot be considered in isolation. Therefore, careful examination of the terms of tenancy for each letting is necessary.

2.6.3.3.1 Full Repairing and Insuring Lease

A tenancy where the costs of all repairs and insurance are borne by the tenant notwithstanding that: The landlord will almost invariably take out the insurance itself; and in the case of a multi-let building, the landlord will carry out the repairs to the common parts. The insurance costs would be recovered by insurance rent and the costs of repairs to common parts would be recovered through a service charge. Nase, I., Berry, J., & Adair, A. (2013)

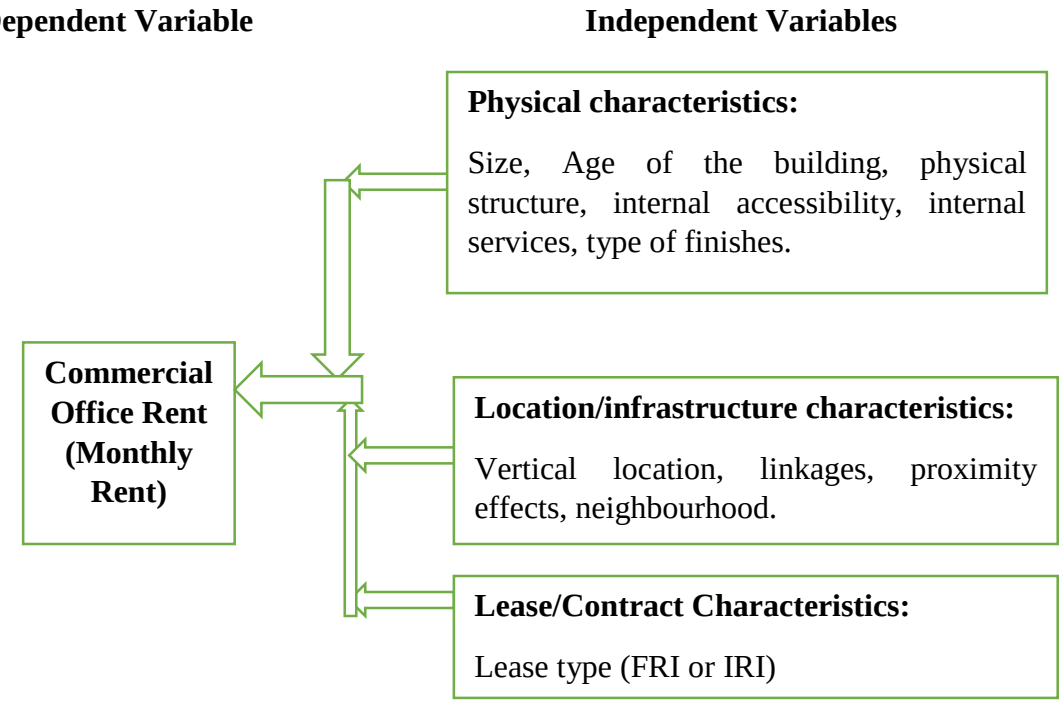
2.6.3.3.2 Internal Repairing Insuring Lease (IRI)

Internal Repairing Insuring lease where the tenant will have a narrower liability for maintenance, decorations, repairs and insurance confined to the internal parts of the property occupied by him/her. In such cases, it is wise to check that the landlord is liable for the repair and maintenance and insurance of the common parts and exterior of the building. In some cases, the landlord may insure the whole of the building. The landlord's costs, e.g. for insurance or maintenance may well be recoverable from the occupiers through a service charge and the arrangements will be contained in the lease, Nase, I., Berry, J., & Adair, A. (2013)

2.7 Conceptual Model of Determinants of Commercial Office Rents

A model is a construct or diagram which explain the underpinnings of a theory base, (Akinwunmi, 2009). Daresh and Playko (1995) describe a model as interrelationships of variables or factors in a theoretical statement depicted graphically. Therefore, a model is a description used to show complex relationships in an easy to understand the term (Lunenburg and Irby, 2008). Models are empirical and testable. A model of the determinants of office rents relates rent, the dependent variable, as a function of factors affecting office rents (independent variables), as shown in Figure 2.1

Figure 2.1: Conceptual Framework: Factors determining commercial office rent



Sources: Author 2020.

2.8 Summary

The commercial office rental level is important for investors to know their investment return trends. The determinant attributes as discussed above contribute differently to the final rental level. Other researchers show they used office units as their unit of observation and some used rental levels as a unit of observation. They argued that using the rental level of individual commercial office units could explain the rent variations effectively as it gave chance to expose the rental variations of each commercial office spaces within a building related to their specific attributes in the buildings.

The following was discussed, introduction, commercial property and its classification, the office market globally, and trends in Kenya, demand & supply of commercial office properties, factors for demand and supply of commercial office properties, office rent and methods of analysing it, factors determining office rent and conceptual framework model of office rent determining factors.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

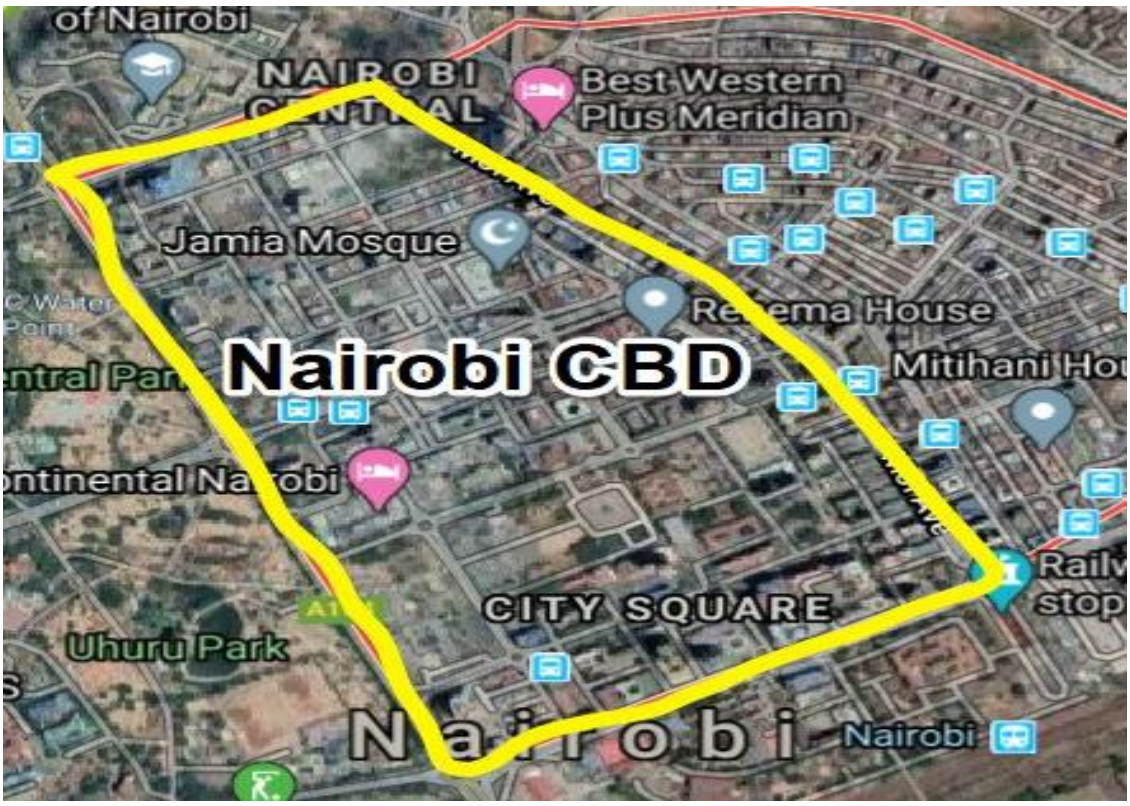
3.1 Introduction

This chapter describes the methods and procedures adopted to achieve the research observations in this research. The following topics are discussed; introduction, the background of the area of study, research design, methods of data collection, population & sampling, data processing, analysis & presentation, measurement of variables, data coding & entry, statistical analysis and ranking.

3.2 Background of the Case Study Area

The Nairobi CBD is highly concentrated with commercial buildings making it a suitable research area.

Map 3.1: Study Area: Nairobi CBD - Kenya



Source: Google Map, 2020

3.3 Research Design

The research employed survey design administering structured questionnaires, direct observations and verbal interviews to property managers, agents, tenants, Valuers and Landlords whom we got their information from Valuers Registration Board, Estate Agent Registration Board and Kenya Property Developers Association. The data collected from surveys is statistically analysed to draw meaningful research conclusions. A investigation was carried out to regulate the factors that determine the commercial office space rental levels and the analytical techniques adopted, and how they relate to the factors affecting rental levels, which have been reviewed in the literature.

Nairobi Central Business District (CBD) is selected as the case study area to provide an in-depth investigation of the factors affecting office rents. Nairobi CBD (see Figure 3.1) extends through University way, Uhuru Highway, Haile Selassie Avenue and Moi Avenue.

The researcher selected Nairobi CBD because it has more commercial office space, and most of them are in the same locality to reduces the cost of data collection and minimise the time used. The data for the investigation is obtained from a section of 156 rented office space obtained from the database of practising property managers and estate agents in the CBD.

3.4 Population and Sampling

A population comprises all the set of objects, events, or people with the characteristics to be studied. The population in this study comprises all commercial office space located in CBD in Nairobi City County. The process of selecting the sub-groups to symbolize the inhabitants from which implications are drawn about the entire population (commercial office space) is called Sampling. According to (emporis.com), there are approximately 200 commercial buildings in the CBD. The researcher sampled 156 commercial office spaces through random Sampling regarding the following factors; Office Classes (A, B & C), commercial building with more than three floors, security and certain streets.

3.5 Methods of Data Collection

Data sources were from both primary and secondary. The main data were collected through direct observations, structured inquiry form administered to property managers/agents/tenants/valuers.

The direct observation method entails viewing or listening to the research subjects without asking specific questions or manipulating any variables. The secondary data was collected from texts; journal articles published online research, and other secondary documents on commercial office investment in Kenya and other countries.

3.6 Data Processing, Analysis and Presentation

The study sought to classify critical factors manipulating office space rental rate/levels. The numerical trials were executed on the variable data traits to achieve these objectives, hence, descriptive statistics, correlation analysis, and regression. Mean, Median,Standard Deviation, Mode, Kurtosis and Skewness were checked as relevant descriptive statistics. For descriptive statistics aimed on completeness of the data sets and normal distribution hence understanding and consumption of the variable facts. Normal distribution is essential to check for fulfilment of regression assumption that statistics sets should obey the regular symmetric spreading. Application of Correlation scrutiny was done to identify the degree of association between office rate and other variables and identification of multi-collinearity. Determine the correlation coefficients to degree the strength of connotation between the variables was done under the bivariate correlation

For regression on the variable, the Multiple Regression Analysis (MRA) was rummage-sale to measure the influence and effect of the features on office space rate/levels. MRA clarifies the regression of one feature, the dependent flexible, over other factors, the independent variables, thus suitable for examination and identification of critical office rent determinants. (Kieti, 2005), on regression methods identify the enter regression method is preferred, therefore applied in this study. Enter regression shows how every factor performed in the analysis through SPSS software version 23.0.

The general multiple regression analysis (MRA) equation takes the form of:

$Y=A0+BlX1 +B2X2, +\ldots\ldots\ldots B_nX_n+ \grave{E}$

WHERE,

Y= represent the dependent variable, thus the office rent

A0=is the regression constant, which is the y-intercept showing the contribution to office rent (*Y*) by other factors not considered in the MRA equation

B1 - Bn are the regression coefficients showing the variation in *Y* owing to a one-unit variation in independent variable *X*. They indicate the value of each independent variable (factors affecting office rents)

X_1-X_n= are the independent variables, which are the features affecting office rents

È = the error item, which is a degree of the accuracy of the MRA equation

From the reviewed literature, the determinants of office rents (independent variables) are: size, condition of the building, age of the building, number of Parking, Floor Level, Service charge, Lease type, Finishes, Circulation, and Services, whose descriptions are summarised as follows:

SIZE - the lettable area of workplace in square feet

AGE - age of commercial office building in years

PARKING BAYS - number of parking slots allocated to an office unit

AVAILABILITY OF SERVICES - includes water & electricity in the facilities, backup generator, Data Network cabling, security and cleaning.

INTERNAL ACCESS & CIRCULATIONS - lift performance, internal access, lift design & speed.

FLOOR LEVEL/FLOOR NUMBER – is the vertical location or the floor on which workplace is situated in the commercial premises.

FINISHES - the quality of floor finishes

LEASE CHARACTERISTICS - the type of lease: FRI- where tenants have responsibility for all external and internal maintenance, including insurance liability, while IRL, where tenants have narrower liability in maintenance, decorations and repair.

In the next chapter, the identified factors (from literature and field survey) are analysed to identify the factors which have a critical and significant influence on office rents in Kenya, using Nairobi CBD as the case study.

3.9 Summary

The source of meaningful study be governed by the methods and measures employed in data gathering and a clear definition of the target group of respondents. The segment outlines the procedure used. The captured data was coded to help make promising finding hence give a better understanding of the determinant factors of rents in Nairobi CBD. From the literature review, the factors of office rents are Size of lettable space, Age of the building, service charge, parking bays, availability of services (security, data cabling network, cleaning), internal accessibility & circulations, vertical location/floor number, quality of finishes, building condition, and lease characteristics.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The objectives of this study were to analyse the commercial office market in Nairobi Central Business District (CBD), it identifies significant factors that affect office rents in Nairobi CBD and determines their influence on rental levels. The study ranks the significant factors with respect to contribution to the office rental levels in Nairobi CBD. Multiple regression is employed to model the relationship between office rents and the office attributes and makes it possible the identification and contribution of the attributes to the overall rental levels.

4.2 Fieldwork and survey results

The study involved collecting information on the rental levels per square feet of commercial office space and detailed characteristics/attributes of the office space. The various variables selected were obtained from the literature review, interviews with professionals in the real estate sector and other related stakeholders in the commercial property office market. The professionals included property Valuers, Tenants, Property Managers and Estate Agents.

4.2.1 Field work

Fieldwork was conducted at various times between November and December 2019 and January to February 2020. The field survey aimed to analyse the office market and establish factors that influence the rents of office spaces in Nairobi City Centre. This was achieved by administering questionnaires to selected property managers and some real estate professionals in Nairobi City Centre known to be actively engaged in property valuation, management and estate agency. The survey was also done to identify factors that influence buyers' renting decisions in the commercial office market. This was achieved through oral interviews conducted with prospective owners and tenants of specific buildings.

A sample of one hundred and fifty-six (156) commercial office spaces was surveyed and their property managers interviewed. The selection of commercial office spaces was done through random sampling with regards to the following factors; Office Classes (A, B & C), commercial building with more than 3 floors, security and certain streets. Sample data of the properties and

their attributes were collected and analysed to develop the multiple regression model. Each sample unit was inspected to obtain information on its actual monthly rent per square feet, its size, floor numbers, building condition, age, parking lot number per office, lease type, type of management whether internal or outsourced, internal circulation in the building among others. Oral interviews were conducted with the building managers, estate agents and property valuers to determine the considerations of the tenants when deciding on rent.

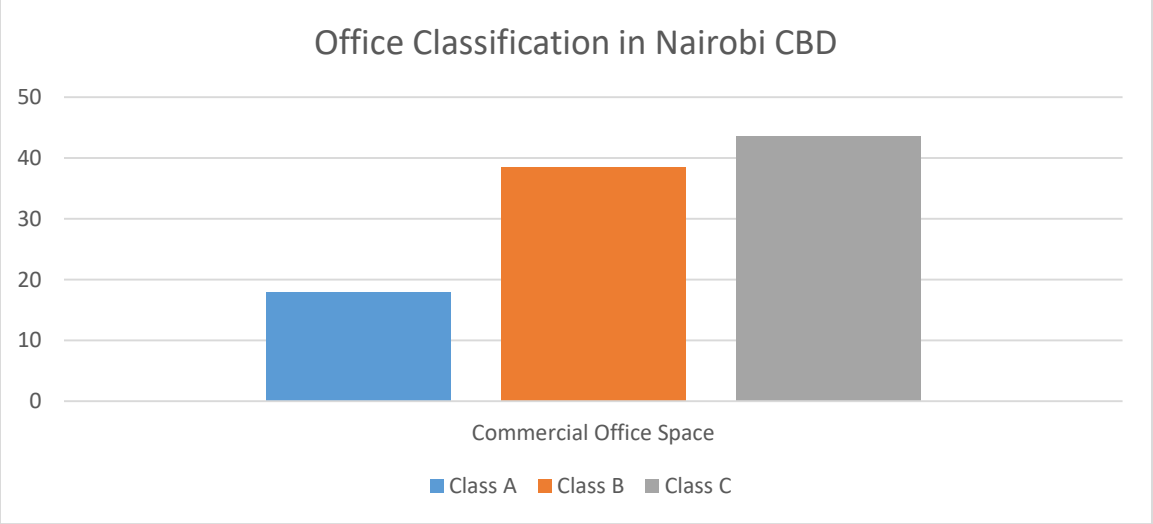
4.2.2 Survey Results

The results of the field survey based on the study objectives were as follows:

4.2.2.1 Objective Number 1: To analyse the commercial office market in Nairobi in Kenya; Classifications of Commercial Office in Kenya

The research through observation and questionnaires show that class C and B were most prevalent at 43% and 40% respectively unlike Class A at 17% as per bar graph below**.**

Figure 4.1: Bar graph showing classification of office space.



Source: Author, 2020

4.2.2.2 Objective Number 2 & 3: To identify significant of office rent determinants and rank them with respect to contribution to the office rental level in Nairobi Central Business District.

Before going to the field several attributes influencing levels of rent had been determined through literature review/research and local knowledge of the researcher. However, after going to the field, interviews and questionnaires conducted with valuers, property managers and estate agents revealed other factors that the researcher had not considered. For this study, the factors considered are as follows:

a) Size of the office (Square Feet (ft.))
b) Monthly rent (Kshs)
c) Condition of the building
d) Age of the Building
e) Number of parking lots allocated per office
f) Vertical location of the office (Floor Number)
g) Monthly Service charge
h) Lease type (FRI or IRI)
i) Type of management (outsourced or internal)
j) Finishes
k) Internal circulation/ accessibility
l) Availability of services in the building

4.3 Measurement of Variables

Measurement is a procedure in which one assigns numerals to things according to some rules. These things could be objects, events, characteristics or responses. According to Mutai (2000), measurement is the process through which observations are translated into numbers or symbols. Measurement of data is important as it facilitates analysis of the data to obtain statistical results capable of' interpretation.

The variable data to be measured are, mainly; the dependent variable and the independent variables. A variable is a measurable characteristic that takes different values among the cases under investigation. Dependent variables is rental rate/levels, while independent variables are size

of the office (Square Feet (sqft.)), monthly rent (Kshs), condition of the building, age of the building, number of parking lots allocated per office, vertical location of the office (Floor Number), service charge, lease type (FRI or IRI), type of management (outsourced or internal), finishes, internal circulation/ accessibility and services offered.

4.3.1 Measurement of the Dependent Variable

Identified and defined as the office rent. Data on office rents were collected and measured quantitatively in the local currency (Kenya Shillings).

4.3.2 Measurement of the Independent Variables

Have been identified as: Size of the office, Condition of the building, Age, Number of parking lots allocated per office unit, Vertical location of the office (floor number), Service charge, Lease type, Type of management (outsourced or internal), Finishes, Internal circulation and Availability of building services in the study. The data measurement is summarized in the table 4.2 below:

Table 4.2: Data Measurement Procedure

S/No.	VARIABLE CODE	VARIABLE NAME	MEASUREMENT	VALUE
1	Office Rent	Monthly office rent	Kenya Shillings	Quantitative
2	Size	Size of the office in square feet	Square feet	Quantitative
3	Condition	Condition of the building	Scale (1,2,3)	Qualitative (1-Good, 2-Fair, 3-Poor)
4	Age	Age of the building	Number of years	Quantitative
5	No Parking	Number of parking lots allocated per office unit	Number of parking	Quantitative
6	Floor Number	Vertical location of the office (floor number)	Floor level	Quantitative
7	Service charge	Service charge	Kenya Shillings	Quantitative

S/No.	VARIABLE CODE	VARIABLE NAME	MEASUREMENT	VALUE
8	Lease type	Lease characteristics	Scale (1,2)	Qualitative (1-FRI, 2-IRI)
9	Management	Type of management (outsourced or internal)	Scale (1,2)	Qualitative (1-Outsourced, 2-Inhouse/internal)
10	Finishes	Type of finishes	Scale (1,2,3)	Qualitative (1-Wood Parquet, 2-Ceramic, 3-Otherwise)
11	Circulation	Internal Access & Circulations	Scale (1,2)	Qualitative (1–Good, 2-Poor)
12	Services	Availability Of Services(Security/Data Network Cabling/Security)	Scale (1,2,3)	Qualitative (1-All Available, 2-Partialy Available, 3-None Available)

Source: Author, 2020

4.4 The Multiple Regression Equation

From the literature review in the previous chapter we noted that the multiple regression equation is written as:

$Y=A_0+B_lX_1, +B_2X_2, +…….B_nX_n+E$

Where,

Y= is the dependent variable

A_0=is the regression constant

X_1-Xn= are the independent variables

B_n=are the regression coefficients

E= is the error item

Now, using variables identified in this study, our multiple regression equation can be hypothesized to be:

Office Rent = A_0 + B_1(Size) + B_2(Condition) + B_3(Age) + B_4(No Parking) + B_5(Floor No) + B_6(Service charge) + B_7(Lease type) + B_8(Management) + B_9(Finishes) + B_{10}(Circulation)+ B_{11}(Services)

Where,

Office Rent – Monthly rent (Dependent variable)

Size – Size of the office (sq. ft.)

Condition – Building Condition

Age –Building Age

No parking –Parking lots number per office

Floor No. – Vertical location

Service charge – Monthly service charge

Lease type – Lease characteristics

Management – Type of management (outsourced of internal)

Finishes – Type of finishes
Circulation - Internal Access & Circulations
Services - Availability of Services (Security/Data Network Cabling/Security)

4.6 Statistical Analysis and Interpretation of Results

Statistical analysis of the data was done using the computer software SPSS version 23.0. Three types of analysis were performed. These were: Descriptive statistical analysis, Correlation analysis, Regression analysis and multi-collinearity.

4.7 Descriptive Statistics

Descriptive statistical analysis was done on the dependent and independent variables. Descriptive statistics considered relevant for this study were, mainly; the mean, median, mode, standard deviation and skewness. The aim was to check for frequencies, completeness of the data and normal distribution. It was important to check for normal distribution because many statistical tests assume data are normally distributed. The results of the analysis are displayed in the tables below.

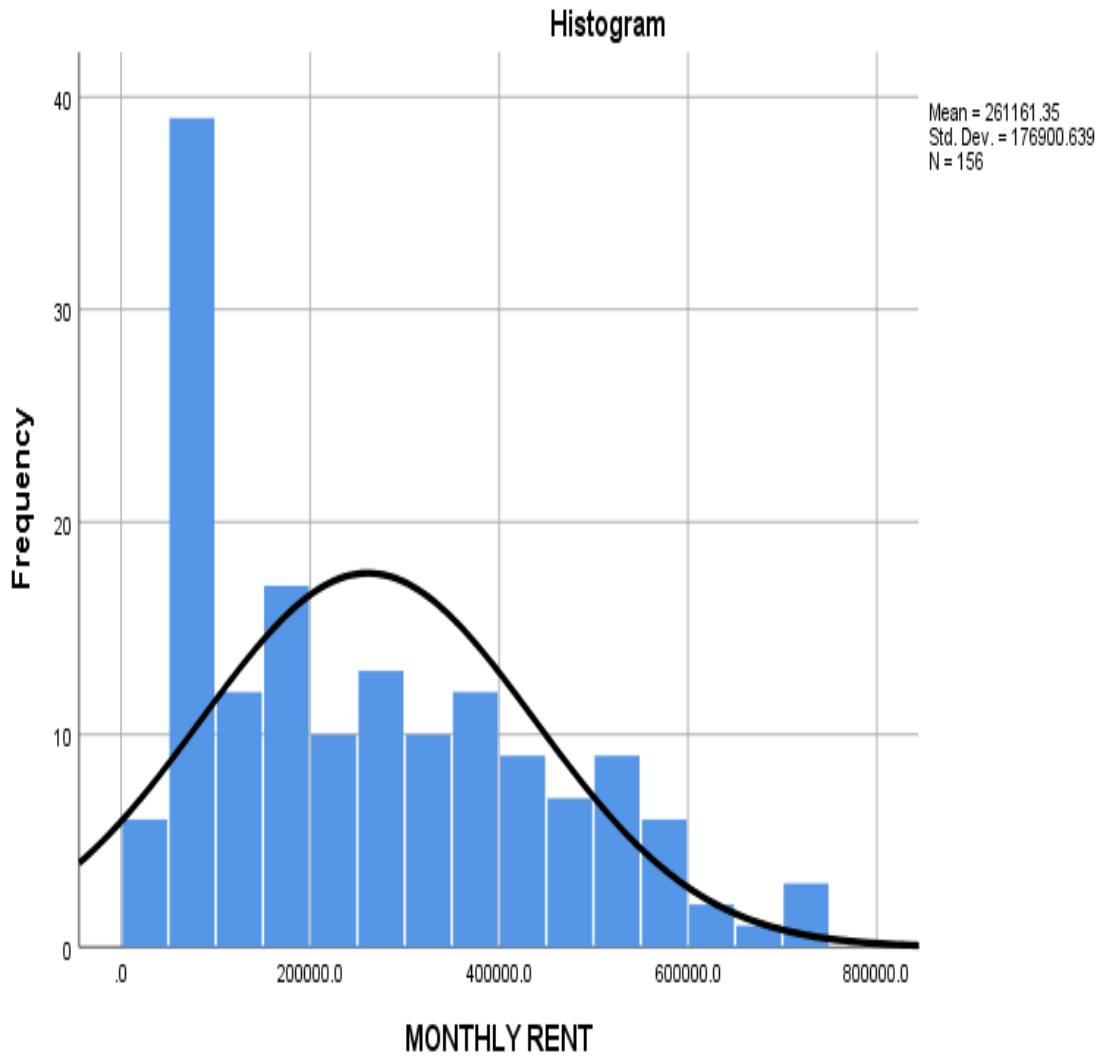
Table 4.3: Descriptive Statistics for the dependent variable: Office Rent

N	Valid	156
	Missing	0
Mean		261,161.346
Median		225,875.000
Mode		63,350.0[a]
Std. Deviation		176,900.6387
Variance		31,293,835,983.273
Skewness		.664
Std. Error of Skewness		.194
Range		711,190.0

Source: Field Survey, 2020

The results indicate that the distribution of office rents is close to normal distribution. This is because the values for the mean and median are close. The value for skewness also indicates close to normal distribution. In general, a skewness value greater than one indicates a distribution that differs significantly from normal, symmetric distribution. In our case, the skewness value is 0.664 which is less than one indicating close to normal distribution. The shape of the normal curve is shown in the graph in Figure 4.2 below.

Figure 4.2: Histogram and Normal Distribution Curve for monthly rent Price



Source: Field Survey, 2020

The shape of the curve almost bell shaped showing close to normal, symmetric distribution.

Table 4.4: Descriptive Statistics for the Independent Variables

	SIZE/AREA (SQ. FT)	Floor No.	Service Charge	Lease Type	Age	Parking per office	Services	Management	Internal Circulation	Finishes	Condition of Building
N Valid	156	156	156	156	156	156	155	156	155	156	156
Missing	0	0	0	0	0	0	1	0	1	0	0
Mean	3210.494	2.28	104334.8061	1.15	3.03	1.35	1.86	1.37	1.41	1.97	1.63
Median	2454.500	2.00	81662.0000	1.00	3.00	1.00	2.00	1.00	1.00	2.00	2.00
Mode	3216.0	2	20000.00[a]	1	3	1	2	1	1	2	1
Std. Deviation	2083.0916	1.051	72659.00984	.362	.757	.477	.725	.485	.494	.753	.655
Variance	4339270.497	1.104	5279331711.121	.131	.573	.228	.525	.235	.244	.567	.429
Skewness	.590	.305	.669	1.937	.398	.653	.223	.536	.357	.042	.562
Std. Error of Skewness	.194	.194	.194	.194	.194	.194	.195	.194	.195	.194	.194
Range	8837.0	3	301625.00	1	3	1	2	1	1	2	2

Source: Field Survey, 2020

The mean, standard deviation and skewness of each independent variable were checked. The mean of a variable indicates the percentage of offices possessing that characteristic. The standard deviations show how the observed cases for each variable for the research, in comparison to the dependent variable.

Table 4.5: Correlation Analysis

Correlations

		MONTHLY RENT	SIZE/AREA (SQ. FT)	Floor No.	Service Charge	Lease Type	Age	Parking per office	Services	Management	Internal Circulation	Finishes	Condition
Pearson Correlation	MONTHLY RENT	1.000	.321	-.191	.289	-.238	-.005	-.355	-.363	-.444	-.066	-.469	-.306
	SIZE/AREA (SQ. FT)	.321	1.000	.335	.365	-.179	-.190	-.406	-.469	-.216	-.398	-.176	-.475
	Floor No.	-.191	.335	1.000	.270	-.063	-.181	-.282	-.247	.001	-.335	.001	-.235
	Service Charge	.289	.365	.270	1.000	-.146	-.210	-.533	-.604	-.145	-.564	-.160	-.553
	Lease Type	-.238	-.179	-.063	-.146	1.000	.080	.034	.258	.375	.116	.087	.165
	Age	-.005	-.190	-.181	-.210	.080	1.000	.030	.185		-.046	.024	.059
	Parking per office	-.355	-.406	-.282	-.533	.034	.030	1.000	.596	.249	.663	.172	.662

	Services	-.363	-.469	-.247	-.604	.258	.185	.596	1.000	.151	.601	.185	.598
	Management	-.444	-.216	.001	-.145	.375	.223	.249	.151	1.000	.019	.207	.297
	Internal Circulation	-.066	-.398	-.335	-.564	.116	-.046	.663	.601	.019	1.000	.082	.639
	Finishes	-.469	-.176	.001	-.160	.087	.024	.172	.185	.207	.082	1.000	.179
	Condition	-.306	-.475	-.235	-.553	.165	.059	.662	.598	.297	.639	.179	1.000
Sig. (1-tailed)	MONTHLY RENT	.	.000	.009	.000	.001	.474	.000	.000	.000	.208	.000	.000
	SIZE/AREA (SQ. FT)	.000	.	.000	.000	.013	.009	.000	.000	.004	.000	.014	.000
	Floor No.	.009	.000	.	.000	.218	.012	.000	.001	.495	.000	.495	.002
	Service Charge	.000	.000	.000	.	.036	.004	.000	.000	.036	.000	.024	.000
	Lease Type	.001	.013	.218	.036	.	.162	.338	.001	.000	.076	.142	.020
	Age	.474	.009	.012	.004	.162	.	.356	.011	.003	.285	.383	.233
	Parking per office	.000	.000	.000	.000	.338	.356	.	.000	.001	.000	.017	.000
	Services	.000	.000	.001	.000	.001	.011	.000	.	.031	.000	.011	.000
	Management	.000	.004	.495	.036	.000	.003	.001	.031	.	.409	.005	.000

	Internal Circulation	.208	.000	.000	.000	.076	.285	.000	.000	.409	.	.156	.000
	Finishes	.000	.014	.495	.024	.142	.383	.017	.011	.005	.156	.	.013
	Condition	.000	.000	.002	.000	.020	.233	.000	.000	.000	.000	.013	.
N	MONTHLY RENT	154	154	154	154	154	154	154	154	154	154	154	154
	SIZE/AREA (SQ. FT)	154	154	154	154	154	154	154	154	154	154	154	154
	Floor No.	154	154	154	154	154	154	154	154	154	154	154	154
	Service Charge	154	154	154	154	154	154	154	154	154	154	154	154
	Lease Type	154	154	154	154	154	154	154	154	154	154	154	154
	Age	154	154	154	154	154	154	154	154	154	154	154	154
	Parking per office	154	154	154	154	154	154	154	154	154	154	154	154
	Services	154	154	154	154	154	154	154	154	154	154	154	154
	Management	154	154	154	154	154	154	154	154	154	154	154	154
	Internal Circulation	154	154	154	154	154	154	154	154	154	154	154	154
	Finishes	154	154	154	154	154	154	154	154	154	154	154	154
	Condition	154	154	154	154	154	154	154	154	154	154	154	154

Source: Field Survey, 2020

The correlation analysis table, shows the determinants were ranked as follows from most affecting to the least; Size, floor number, service charge, lease types, age of the building, parking per office, services, management, internal circulation finishes and condition.

Table 4.6: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.759[a]	.576	.544	4.9325	.576	17.567	11	142	.000	1.638

a. Predictors: (Constant), Condition, Age, Lease Type, Finishes, Floor No., Management, SIZE/AREA (SQ. FT), Service Charge, Parking per office, Services, Internal Circulation/accessibility.

b. Dependent Variable: MONTHLY RENT

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t-statistic	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	83.384	6.509		12.811	.000	70.518	96.251		
	SIZE/AREA (SQ. FT)	.001	.000	.209	3.099	.002	.000	.001	.658	1.520
	Floor No.	-2.019	.425	-.291	-4.745	.000	-2.860	-1.178	.795	1.257
	Service Charge	.277	.128	.164	2.163	.032	.024	.530	.521	1.920
	Age	1.384	.587	.144	2.358	.020	.224	2.543	.804	1.244
	Parking per office	-4.374	1.347	-.284	-3.247	.001	-7.037	-1.711	.389	2.569
	Services	-2.200	.844	-.219	-2.605	.010	-3.869	-.531	.422	2.370
	Management	-3.448	1.025	-.229	-3.366	.001	-5.474	-1.423	.646	1.549
	Internal Circulation	5.257	1.312	.355	4.006	.000	2.663	7.852	.379	2.636
	Finishes	-2.934	.557	-.301	-5.269	.000	-4.035	-1.833	.914	1.095

Source: Field Survey, 2020

a. Dependent Variable: MONTHLY RENT

From the above confidents' table, the following determinants affected commercial office rent positively as compared to their counter parts. These determinants included; Internal Circulation (+5.257), Age (+1.384), Service Charge (+0.277) and Size (+0.01). On the other hand, the following office rent determinants affected the office rent negatively. These factors included; Floor Number (-2.019), Services (- 2.20), Finishes (-2.934), Management (-3.448) and Parking Lot (-4.374). A constant of Kshs. 83.384 per square foot per month for the office rent was achieved representing other factors or determinants of office rent which were not exploited in this study.

Therefore, the equation achieved was as follows:

Office Rent = 83.384 + 0.01 (Size) + 1.384 (Age) – 4.374 (No Parking) – 2.019 (Floor No) + 0.277 (Service charge) - 3.448 (Management) – 2. 934 (Finishes) + 5.257 (Circulation) – 2.20 (Services).

Table 4.7: Model Summary

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	Floor No.	.797	1.255
	Service Charge	.037	26.982
	Lease Type	.747	1.338
	Age	.835	1.198
	Parking per office	.392	2.551
	SIZE/AREA (SQ. FT)	.042	23.702
	Services	.419	2.385
	Management	.632	1.582
	Internal Circulation	.389	2.571
	Finishes	.917	1.091
	Condition	.400	2.501

a. Dependent Variable: MONTHLY RENT

VIFs start at one and have no upper limit. A value of one indicates that there is no correlation between this independent variable and any others. VIFs between one and five suggest that there is a moderate correlation, but it is not severe enough to warrant corrective measures. VIFs greater than five represent critical levels of multi-collinearity where the coefficients are poorly estimated, and the p-values are questionable. For the results above, the VIFs for Floor Number, Lease Type, Age, Parking per Office, Services, Management, Internal Circulation, Finishes and Condition of the building fall between one and five, suggest that there is a moderate correlation. But Size and Service Charge is above one therefore, there is a need for further investigation.

Collinearity Diagnostics

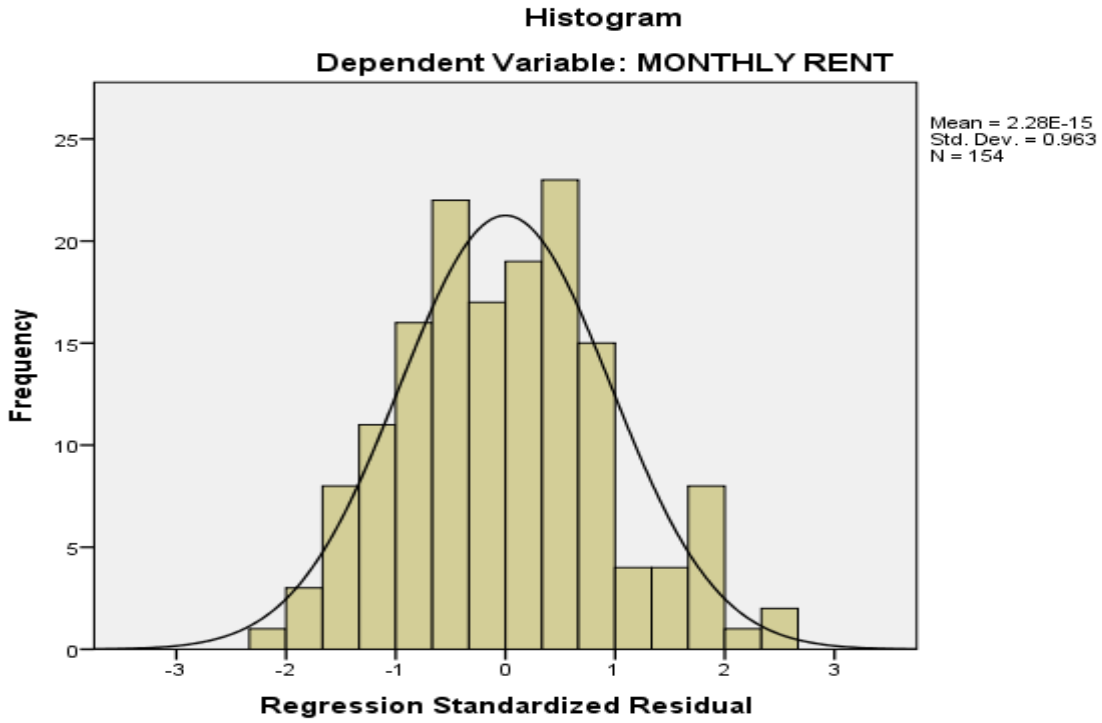
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions											
				(Constant)	Floor No.	Service Charge	Lease Type	Age	Parking per office	SIZE/AREA (SQ. FT)	Services	Management	Internal Circulation	Finishes	Condition
1	1	10.483	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.821	3.574	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.01
	3	.178	7.682	.00	.28	.00	.01	.00	.02	.01	.01	.04	.03	.05	.01

4	.128	9.047	.00	.52	.00	.06	.03	.01	.00	.01	.09	.02	.02	.01
5	.109	9.829	.00	.03	.00	.07	.01	.00	.00	.00	.03	.00	.83	.00
6	.081	11.411	.00	.00	.00	.10	.06	.05	.00	.12	.32	.00	.00	.09
7	.069	12.305	.00	.00	.00	.36	.38	.01	.00	.00	.00	.01	.03	.01
8	.046	15.143	.01	.00	.00	.03	.05	.01	.00	.69	.09	.18	.00	.03
9	.042	15.778	.00	.01	.00	.00	.02	.27	.00	.01	.04	.09	.00	.76
10	.027	19.545	.00	.00	.00	.24	.01	.58	.00	.06	.37	.51	.00	.04
11	.011	30.541	.84	.14	.02	.10	.42	.04	.06	.04	.00	.12	.06	.00
12	.006	42.143	.13	.01	.97	.01	.02	.00	.92	.05	.03	.03	.00	.03

Dependent Variable: MONTHLY RENT

Source: Field Survey, 2020

Figure 4.3: Histogram Presentation



Source: Field Survey, 2020

Source: Field Survey, 2020

From the field survey, it was noted that the commercial office rent determinants are directly proportional to the monthly rent paid by a tenant. However, other factors or determinants of commercial office rent, not covered in the study, contributed to the commercial offices and amounted to Kshs. 83.384 per square foot per month and hence the constant.

4.8 Summary

The chapter covers introduction, fieldwork and survey results, measurement of variables (dependent and independent), the multiple regression equation and classification of commercial office, statistical analysis and interpretation of results, descriptive statistics and multi-collinearity. The chapter shares the finding and analysis of the data collected.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis in the previous Chapter, key findings of the study have been identified which informs the conclusions and the recommendations of the study. The study on **"The Determinants of Office Rents in Nairobi Central Business District"** set out to:

1. To analyse the commercial office market in Nairobi CBD
2. To identify significant determinants that affect commercial office rents in Nairobi CBD
3. To determine the influence of the significant determinants and rank them with respective to contribution to the commercial office rental levels in Nairobi CBD.

5.2 Summary of Findings

The study found that there are three kinds or classes of commercial offices in Nairobi CBD, namely; Class A, B and C. However, in Nairobi CBD, most offices were of Classes B and C whereas Class A was rare. Furthermore, the concept of furnished offices was booming and thus the new trend. This trend led to the establishment of short contracts or agreements for tenants who operated for a specific period and area for a predetermined point of view. This was a prevalent varied to the normalcy of determinants or factors of office rent within the Nairobi CBD.

From the literature review and field survey, the study established that the following determinants had affected the commercial office rent per square foot per month positively. They included; Internal Circulation (+5.257), Age (+1.384), Service Charge (+0.277) and Size (+0.01). On the other hand, the following commercial office rent determinants affected the office rent negatively. These factors included; Floor Number (-2.019), Services (- 2.20), Finishes (-2.934), Management (-3.448) and Parking Lot (-4.374).

The study found out that the factors or determinants of office rent were ranked as follows in descending order; Internal Circulation, Age, Service Charge, Size, Floor Number, Services, Finishes, Management and Parking slot.

5.3 Conclusions of the Study

The study concludes that Nairobi CBD was characterised by Class B and Class C type of commercial offices. However, in the recent times, Class A offices were coming to replace the Classes B and C due to the pressure imposed from the neighbouring areas of Upperhill, Westlands, Kilimani, Parklands and Lavington which are developing Class A offices to suit the unending demand of up to Class type offices by clients and tenants. This has prompted the Nairobi CBD property owners to develop Class A office or either improve the existing Class B and Class C to match the Class A type of commercial office standards.

The study established the extent to which commercial office rent is determined and discovered that Internal Circulation, Age, Service Charge and Size are the factors which highly commercial office rent in Nairobi CBD. In comparison, the following determinants negatively affected commercial office rent in Nairobi CBD. They included; Type of Lease, Floor Number, Services, Finishes, Management and Parking Lot. Hence ranking them as follows in descending order; Internal Circulation, Age, Condition, Service Charge, Size, Floor Number, Services, Finishes, Management and Parking Lot.

5.4 Recommendations of the Study

The study established that;

1. The following determinants of commercial office rents are paramount to both the property owner and clients or tenants. They include; Internal Circulation, Age, Service Charge, Size, Floor Number, Services, Finishes, Management and Parking Lot. Investors in the office market in Kenya should therefore consider these factors when making their investment decisions in the office sector to get good returns from their investments
2. Class A type of office was the most sought out of type office in the current market and therefore developers or investors should invest in Class A type of office as seen in the neighbourhood of Nairobi CBD.

5.5 Areas of Further Study

The following are the proposed areas of further research;

1. The role of non-governmental entities in the provision of commercial office space.
2. Effect of co-working operation in Kenya on commercial office space.
3. Exploration of the integration of office rent components into low-cost office space projects
4. How advanced technology has affected the normalcy of commercial office space occupation.

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Appendix I: Letter of introduction

UNIVERSITY OF NAIROBI

Letter of introduction

To Respondent,

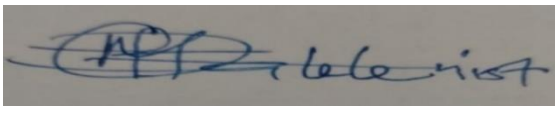
I am a student in the Real Estate Department, Built Environment School, University of Nairobi, collecting data on a study project titled "The Determinants of office Rents in Nairobi Central Business District" as partial implementation for the award of Master degree in Valuation and Property management requirements.

DECLARATION.

The information collected through this questionnaire and interview shall be preserved with privacy for study purposes use.

Your assistance in the completion of this questionnaire will highly be appreciated.

Yours Faithfully



MATETE STEPHEN

B92/7180/2017

Appendix II: Project Questionnaire

QUESTIONNAIRE TO PROPERTY MANAGERS/VALUERS/ ESTATE AGENTS AND PROSPECTIVE TENANTS IN NAIROBI CBD.

SECTION A:

1. Name of the Building…….
2. Respondent Position…….
3. Office Size (sqft)……
4. Letting rate Kenya Shillings Per sqft: Rent……. Service charge……..
5. Type of lease agreement (tick one)

   FRI (Tenant is responsible for all external and internal insurance liability) [ ]

   IRI (Tenant is responsible for internal insurance and repair liability) [ ]
6. Type of management agent in the building (tick one)

   Internal [ ]

   Outsourced [ ]
7. Type of floor finishes (tick one)

   Wood parquet [ ]

   Ceramic [ ]

   Other types [ ]
8. The building condition (textures, decoration and aesthetic) [tick one]

   Good [ ]

   Fair [ ]

9. Availability of building services (security, data network cabling, good drainage, back-up generator etc.) [tick one]

   All available [ ]

   Partially available [ ]

   Not available [ ]

10. Commercial office space classification (tick one) Class: A { } B { } C { }

    Class A (Concrete and steel construction, attractive look, superior exterior wall finishes, High-tech programs for industry standards qualification - automated mechanical, electrical; safety & security alarm systems; great bulk backup power system; Sufficient Lift for premise population; Environmental - Certification (BOMA BESt, LEED).

    Class B (A little older premises– Respectable managing agency, excellence occupants; Fair Building finishes; Decent eminence systems lower Class A level; Well preserved – Serviceable and Average rental rates.

    Class C (Older office premises; Lower grade for useable office premises; Situated on lower needed roads of the town; Fewer inspiring architecture; Imperfect substructure and renovations needed.

SECTION B

11. The following listed below are important in determinant office rent. Please rank them in order in which you consider them important. For example rank by (1-most vital, 2-very vital 3-vitalimportant and 4-less considered vital)

Determinants	1	2	3	4
Size of office				
Monthly Rent				
Floor level/ vertical location				
Age of the building				
Number of parking slot allocated per office space				
Type of lease agreement				
Type of management agent				
Internal circulation				
Building condition				
Service charge				
Finishes				
Availability of services in the building				

Thank you.

Appendix III: Research Budget

S. No	Description	Cost (Kshs)	Cost (cts)
1	Stationeries	15,000	00
2	Transport	18,430	00
3	Typing of the research proposal	20,000	00
4	Photocopying of Questionnaires	12,000	00
5	Internet surfing	7,500	00
6	Binding (3 copies)	17,000	00
7	Breakfast and Lunch	34,540	00
	Subtotals	**124,470**	**00**
	Add Contingencies (10% of the sub totals)	**12,447**	**00**
	Grand Totals	**136,917**	**00**