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SPATIAL ANALYISIS OF COMMERCIAL REAL ESTATE INVESTMENT PERFORMANCE IN AN EMERGING CITY: PERSPECTIVE OF HOTELS IN WA.

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SPATIAL ANALYISIS OF COMMERCIAL REAL ESTATE INVESTMENT PERFORMANCE IN AN EMERGING CITY: PERSPECTIVE OF HOTELS IN WA.

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BY

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(M.Phil. Development Management) (UDS/MDM/0033/18)

A THESIS SUBMITTED TO THE DEPARTMENT OF GOVERNANCE AND DEVELOPMENT MANAGEMENT OF THE FACULTY OF PLANNING AND LAND MANAGEMENT OF THE UNIVERSITY FOR DEVELOPMENT STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF PHILOSOPHY DEGREE IN DEVELOPMENT MANAGEMENT

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DECLARATION

I hereby declare that, with the exception of references cited from other literature, which have been duly acknowledged, the research is my own construct towards the Master of Philosophy Degree in Development Management. I also state that this piece of work has not been presented in part or whole elsewhere for the award of any degree.

Candidates Signature……. Date…….

APPAU WILLIAMS MILLER

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Supervisor's Declaration

I hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines of supervision of thesis laid down by the University for Development Studies.

Supervisor"s Signature……..….. Date…….

First supervisor: Elvis Attakora-Amaniampong

Supervisor"s Signature…….... Date……

Second supervisor: Prof. Emmanuel K. Derbile

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ABSTRACT

In the global South, within the process of emerging cities are the developments of hotels. Hotel investment and performance constitute pertinent issues to investors, end-users, and city planners alike. However, the performance of these hotels in emerging cities has received less academic attention as research gap. In bridging this gap, the study assessed the spatial effects of urban infrastructure services to hotels, determines the indigenous drivers of hotel supply, and conducted investment returns assessment of hotels from the perspective of an emerging city, Wa based on the neoclassical theory of Tobin. The study used the exploratory case study research with mixed method. Based on a Stratified random sampling, 33 registered hotels were selected constituting 4 Grade 1, 7 Grade 2, and 22 Budget Grade hotels from the Ghana Tourist Authority, Wa. Based on proximity test, the study uncovered negative and weak effects of urban infrastructure services with hotel investment, which mirrored in low clients turn-out in Wa. The study's factor analysis revealed that location, noise, and crime were the highest indigenous drivers of hotel investment. Again, it was revealed that Budget hotels have been increasing over the years with promising returns of GH₵6,000.00 to GH₵10,000.00 over the past 14 years. Grade two hotels made a stable growth of GH₵6,000.00 to GH₵9,000.00 and GH₵9,000.00 to GH₵10,000.00 between the period of 2005 to 2019. Grade one hotels are not many, but have experience a rise in average returns of (GH₵13,000.00+) between 2015 to 2019. Also, the results revealed Budget hotels' underperformance. The growth of the city vis-à-vis hotel investments require that development planners adopt development-based infrastructure provision strategy that captures hotel investment. New hotel investors require a market study to examine the nature of Wa hotel market before entering the market. Security should be increased in busy neighbourhoods closer to hotels to avoid crime. Originally, this study has integrated spatial analytical approach with hotel investment and performance in an emerging city.

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DEDICATION

I dedicate this work to my Wife for her prayers and encouragement over my study period

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

TABLE OF CONTENTS

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

LIST OF FIGURES

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

LIST OF TABLES

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

List of Acronyms

ATM	Automated Teller Machine
CBD	Central Business District
GIS	Geo Information System
GSA	General Services Administration
LUPSA	Land Use and Spatial Planning Authority
PPM	Productivity payback model
ROE	Return on Equity
ROI	Return on Income
SDG	Sustainable Development Goal

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Urbanisation especially in Sub-Saharan Africa has posed both sustainable development challenges and potential prospects of evolution towards more resilient and inclusive cities (Levy, Marx, & Satterthwaite, 2015; D'Alessandro & Zulu, 2017; Valencia et al., 2019). At the business investment aspect, urban growth open opportunities for firms to access bigger and improved variety of shared services and infrastructure, such as more regular transport networks to clients and suppliers (Onjala & K'Akumu, 2016; Wilson, 2017). This implies that a study in hotel investment is relevant to contributing to the achievement of Sustainable Development Goals. For instance, Sustainable Development Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; Sustainable Development Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; and Sustainable Development Goal 11: Make cities and Human Settlements inclusive, Safe, resilient and sustainable.

UNIVERSITY FOR DEVELOPMENT STUDIES

However, over the years, cities have seen rapid growth in population and economic activities which has also caused deficiency in housing, infrastructure services, and other urban imbalances (Smit, 2014). Spatiotemporal and demographic studies in Ghana confirmed that increased urban sizes have brought vigorous changes to large cities in developing countries (Firman, Kombaitan, & Pradono, 2007; Afriyie, Abass, & Adomako, 2014; Firman, 2017; Cardoso, 2018). Ghana Statistical Service (2012) and Yachori (2017) affirm that, the city of Wa has increased in population size by 34% between the period of 1986 and 2011 resulting to land use changes. Evidence from globalization theory shows that when cities grow, cultural, and social relations of markets are intensified (Reyes, 2001). This includes integration of

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business sectors and production sectors; human mobility, products and services, and the drive of real estate to support these developments is key. This implies that as cities emerge, they attracts more people, continues increase in rent and value of prime urban real estate per square metre, and fall in affordability of spaces due result to high urban density with smaller spaces of real estate assets (French, 2015).

Real estate is defined as "land and its improvements related with it," which includes buildings, mineral right and even crops (Shaukat, 2011). Real estate is a vehicle which forms part of the investment class called "real assets" which include residential and commercial assets such as office, retail, hotel, resort, industrial and multifamily housing (Shaukat, 2011). Among these classes, commercial real estate such as hotels has been classified by many investors especially institutional investors, as one of the few non-commodity vehicles possible to provide an appropriate hedge against inflation (Wpsz, Zhao, & Michael, 2016; Agboola & Scofield, 2018). At the same time, it has often been characterised with higher investment returns with comparatively less risk and as effective source of investment diversification aside residential investments (Fernández & Becerra, 2015; Fogler, R.Granito, & Smith, 2018).

UNIVERSITY FOR DEVELOPMENT STUDIES

On the flip side, several cross-sectional studies hints that fluctuation in investment returns of hotel prices create ripples such as asset illiquidity, opacity of rent and network effects, capital and supply-side effects, leverage and the link to crises in the commercial real estate market results in decline in investment performance especially in the developed real estate markets in Europe, Asia and US (Crowe, Ariccia, & Igan, 2011; Beracha, Downs, & MacKinnon, 2017; Zhang, Cai, Liu, & Kutan, 2018; Kołodziejczyk, Mielcarz, & Osiichuk, 2019).

With these investment fluctuations and returns, it is essential for a concrete and well-informed foundation prior to investing in commercial properties. These could be that existing

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studies are yet to single out influencing factors that affect supply of commercial properties in emerging cities, the spatial extent and the ability to develop a systematic approach for assessing its performance.

For the spatial influence of hotel investments, recent debates on spatial physiognomies on investment have gained fresh prominence (Tsai, Chen, & Quek, 2012; Pow, 2017; Liu, Ren, & Liu, 2019). Liu, Ren, and Liu (2019) and Newell, Seabrook, Newell and Seabrook (2006) submit that a city site qualities such as the profile of the location, transport, visibility, age of the facility, instability of demand for rooms, number of domestic and international visitors influence investment choices in this sector.

UNIVERSITY FOR DEVELOPMENT STUDIES

The economic and financial factors includes interest rate, pattern on tourist investment spending, historic rate of investment returns, economies of scale and the extent of locational economic growth. They further found that: (1) increase trading volatility of hotel space for example, has resulted in unstable cash flows, (2) poor liquidity and lack of exit strategies, (3) insight of hotel investments are over-priced and over-valued, (4) overall lack of understanding about hotels amongst investors affects commercial investors choice in investing.

Existing study by Willie, Pirani, Jayawardena, Sovani and Davoodi (2013) supports for efficient and effective performance assessment of hotel investment, there should be strong financial management. Findings suggest that, profit sensitivity analysis, tactical revenue management and embracing historically interest rates at a low pace are the measure of hotel investment performance. Xiao, Neill and Mattila (2015) attributes variety, location, operator and segment are critical to hotel unit financial performance.

Most hotels are driven by the influx of foreign diplomats, institutions, multi-national, and local private businesses in Africa (French, 2015). Sometimes, the job social connection with

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others institutional managerial role, organisational structure, indoor climate, workplace, and indoor air quality determine the size of returns of hotel spaces (Haynes, 2015). These are measured by using the General Services Administration (GSA) cost per person model, Employee satisfaction approach and the Productivity payback model (PPM) (Haynes, 2015).

In Ghana, most commercial real estate investments are centred in Accra, Tema, Kumasi and Takoradi. The choice of these locations is purely based on high demand of space for investments, influx of foreign direct investments, and the increase in economic activities in these cities. The demand for hotels in Accra, Tema and Takoradi are driven by surges in the telecommunication industry, oil and gas exploration, banking and other institutions (Karley, 2016). According to Karley (2016), this led to a substantial growth in the demand and supply for high class hotel accommodation. Therefore, landowners are demanding exceeding land values and feeling reluctant to release land for development with the hope of value appreciation in future.

UNIVERSITY FOR DEVELOPMENT STUDIES

Another study in Kumasi shows that, investors choice for hotel is based on the proximity of clients, level of crime rate and noise in the location, good neighbourhood sanitation and drainage systems, nearness to the central business district, land size and the future expandability of the hotel (Adam & Amuquandoh, 2013). Mensah (2014) also assessed the performance of hotels in Accra by examining the influence of stakeholders on the environmental performance of hotel investments.

Following the above arguments, it is obviously clear that in this new global economy, studies in the real estate discipline has over the years failed to conduct performance assessment of hotel investments amidst these challenges in the developed cities. Even, the limited ones discussed in developed cities seems unsatisfactory and inconsistent. More recently, this lapses have led to seeing most hotel spaces converted to other investment assets in

Johannesburg and Cape town (Akinsomi, Mkhabela, & Taderera, 2018). Most commercial real estate investment research in Ghana are deeply rooted in residential rental housing determination and land values. A limited number of qualitative research concentrates on hotels management and office rent (Carlson & Pressnail, 2018; Jia & Lee, 2018; Aduda, Labeodan, Zeiler, & Boxem, 2017; Kontokosta, 2016; Isa, Mohamed, Megat, Rahman, & Sipan, 2013; Kok & Jennen, 2012). This implies that there is a clear need for a research to examine the performance of commercial real estate particularly hotel, in detail, drawing on the growing body of finance and investment research works on the performance of commercial real estate in developed cities. A deeper understanding of this study will create opportunity for commercial real estate investment researchers to develop interest in this area to avoid the shocks of commercial real estate investment in the developed cities like Accra, Kumasi and Takoradi.

UNIVERSITY FOR DEVELOPMENT STUDIES

1.2 Research problem statement

The development of cities has tremendous impact on commercial real estate investments. The deep linkages between urban change and real estate can be clearly evident when there is a strong connexion between population levels and demand for real estate assets. Emerging cities are characterised by dysfunctional urban systems, Jam or gridlock, power outages due to pressure on power supply and insecure water supply surges business costs, and diminishes investment returns (Turok & Mcgranahan, 2013) . When cities grow, real estate developers are confronted with redeveloping residual land with existing real estate when possible, problem of walkable place, and difficulty in making land use choices, transportation and traffic delays in identifying locations. This can be said to have a ripple effect on the costs for land, infrastructure redevelopment and financing.

In the global view, problems facing commercial real estate investment in developed cities include: lenders are faced with fall in mortgage underwriting standards which is manifested

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at the altitude of economic boom, not rising investment cash flows, obliteration of household income and wealth, de-leveraging of clients household balance statements, credit shrinkage and a fall in velocity of money, and long-term unemployment (Burger & Carpenter, 2015). That implies that the ability to borrow more and constantly finance and re-finance growing debt at steadily low interest rates fuels investors spending.

In sub-Sahara Africa, inadequate commercial real estate transaction data, low quality of data, lack of transparency among real estate and land authorities, low valuation standards and the inactive contribution of international real estate middlemen affect the investment of commercial properties (Anim-odame, 2016).

Also, it is possible that land values will not be perpetually remained constant, neither will it rise over time. This may stem from the fact that changes in investments may determine the equivalent changes in the patterns of land use (Manganelli, 2015). That is why it is common to discover the uncertainty in determining the true owner of a given parcel of land, dishonest and corrupt land deals, lack of agent trust, and delays in formalising property and land right as a distortion to the real estate sector in Ghana (Boamah, 2013a). It is equally common to find several land disputes in Wa Municipality among connecting communities (Mangu and Kambali, Kambali and Nakore), families (Danaayiri clans and Kabanye), and even within nuclear and extended families (Boamah, 2013a).

In Accra for instance, high land acquisition and operational costs, represents 15% of the total real estate development costs, insufficient land at prime locations increases value for land, complex land tenure systems and litigations, increase in cost of borrowing (19%-35% per annum on the Cedi) and a lack of centralized waste management system affect commercial real estate investment (Anim-odame, 2016). These affect all investor in the commercial real estate investment market.

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

Following the aforementioned issues, it can be drawn that despite the good business atmosphere in developed markets, hotels are confronted with financial, investment, and regulatory problems. The Sub-Saharan African market have shown similar features, but are further confronted with land disputes, location, and environmental problems. Aside that, there have been increasingly low interest in research in hotel investments. The little ones focus more on tourism and hospitality management (I. Mensah, 2014; Rogerson, 2014; Ward, 2016).

UNIVERSITY FOR DEVELOPMENT STUDIES

Also, developed Commercial real estate market shows dwindle in investment growth rates. *Developing markets are faced with; location, Administrative burdens and regulatory limitations, land disputes, poor urban planning, lack of investors protection, lack of up-to-date data, and poverty* (Anim-odame, 2016; Burger & Carpenter, 2015; Fabozzi & Xiao, 2017; Wang, Dai, & Xu, 2018). These problems have effects on hotel growth across developing markets.

Following the arguments carefully, it is clear that the performance of commercial real estate investments specifically hotels are on a decline in some developed cities. It should be noted that researchers have given limited attention to examining the performance of hotel investments in Ghana. This knowledge gap, raises the question of, how has/would these investments survive in emerging cities like Wa? Therefore, it is necessary to have a better understanding of the spatial extent of hotel investment, determine the indigenous supply drivers of the investments, and access pattern of investment returns as a gross performance of hotel investment in Wa. Based on this, this study seeks to answer these questions.

1.3 Research Questions

1 How is the spatial effects of urban infrastructure service on hotel investments in Wa?

2 What are the key drivers of hotel investments in Wa?

3 What is the nature of investment returns of hotel been over the past years?

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1.4Research Objectives

The primary aim of the study is to examine the performance of hotel investments in Wa. To achieve this aim, the study seeks to

- Assess the spatial effects of urban infrastructure service on hotel investments in Wa.
- Examine the indigenous drivers of hotel investment in Wa.
- Conduct returns assessment on hotel investment in Wa.

1.5 Hypothesis

This research is based on the hypothesis that:

H1: There is a surge in investment returns amidst low investment supply.

H2: Locational attributes of hotel investment are the key drivers of investment performance.

H3**:** Spatial effects of urban infrastructure has a positive impact on hotel performance.

1.6 Significance of the study

In recent times, investment in commercial properties has been on increase, because it creates employment and increase investor wealth when investors return supersedes the equity. Sometimes ownership and control of these investments become fundamental source of investors life. However, changes in the investment markets have significant effects on investments and expected returns. Some may be due to improper investments spatial analysis at the onset, lack of longitudinal study on investment return, failure to conduct a space market study and the influencing factors of these investments. Besides, changes in socio-economic, political, environmental, and cultural practices are usually the fundamental factors of city growth on investments.

For example, the high demand of residential and retail properties in developed cities like Accra, Kumasi and Takoradi has drawn the attention of many commercial real estate researchers to find out influencing factors of the demand and supply of residential and retail

UNIVERSITY FOR DEVELOPMENT STUDIES

www.udsspace.uds.edu.gh

properties, risk in investment in retail properties and the assessment of facility services of retail properties (Grant, 2005; Obeng-Odoom, 2010; Gholipour, Al-mulali, & Mohammed, 2014). The search for information regarding the performance of hotel investment in emerging cities are normally left out of research books. When performance of hotel investments is known, investors will be able to assess the drive or choice of space, quality, location and the possible price to charge for room and assess the linkages of employee's productivity to returns. Investors will equally be able to determine inflows of rental space, increase in bed supply, employment and the supply of another hotel space. All these are dependent on the level of economic inflows of Wa, increase in social life, and development of social infrastructure to support these investments. Based on the change in the urban certain of Wa, it is necessary for researchers to assess the performance of hotel investment and predict the future of these investment on a macro scale.

UNIVERSITY FOR DEVELOPMENT STUDIES

1.7 Research Scope

Geographically, the research concentrates on Wa Municipality. The Municipality is selected because it has increased in infrastructure size and population as indicated in the background of the study. Preliminary investigation shows that the presence of educational facilities such as University for Development Studies, Jahan College of Education, and other missionary schools has led to demand for hotels.

The Municipality is the political and sports hub of the region where most political shows are organised and Division One league games hosted as such the demand and supply of more hotel facilities. The specific scope of the research is centred on only hotel commercial investments. The researcher selected this commercial real estate investment because, investment in hotel spaces have increased and it's easy to assess its returns, spatial extent, and make prediction for its future market in the Municipality. The research analysed their average cash flow returns over the past twenty-five years to determine their sustainability,

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indigenous determinants of these investments, spatial extent of these investment for informed investment decision making.

1.8 Research limitation

1 Data acquisition on the components of hotel developers net returns was a challenge. This is because hotel developers do not have records of accounts over the past years. That is why the study resorted to using average returns as an estimate.

2 Inadequate records of all Wa hotels from the Ghana Tourist Authority. This is because the hotel market is not formalised and so most hotels are not registered. This affected the estimated larger sample. For ethical reasons, the study ignored the 'illegal' hotel investment because it will affect investors decision.

3 Most hotel developers do not undertake market study as their entry tool. Therefore, it was difficult to understand their entry mode.

UNIVERSITY FOR DEVELOPMENT STUDIES

1.9 Structure of Thesis

The thesis involved six chapters. Chapter One presents the general background of the study and indicate why the need for research on hotel investments. It further, explains the research objectives, motivation, scope and structure of the thesis. Chapter Two explores the theoretical concepts and methods applied in assessing the performance of commercial real estate in develop and emerging cities. The next chapter presents the methods, philosophical underpinnings, research matrix, mode of data collection and data analysis approaches. Chapter four presents and discusses results from data collection. Chapter Five finally presents major research findings, conclude and provide recommendations for policy action

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter reviews the theoretical scope, concept of emerging city development and real estate investment, the spatial extent of commercial real estate investments as a performance index of commercial real estate investments, the drivers of commercial real estate investments, and assessment of investment returns of commercial real estate investment around the globe.

UNIVERSITY FOR DEVELOPMENT STUDIES

2.1 Theoretical scope of study

Investment in real estateis a significantly dynamic issue that require investors to use sophisticated approaches in maximising returns, key issues of investment returns and its derivatives. The neoclassical investment theory of Tobin and Jorgensen (Tobin, 1966) was adopted for this study.

2.1.1 Neoclassical theory of investment

This theory was first propounded by John Maynard Keynes in 1964. Neoclassical investment theory explains the mechanisms of a market system that provides a logical reasoning for organizing activity that provide returns to private property market (Peterson, 2019). The theory is based on the principle that a firm undertake only those investment with very high expected investment profit by improving their activities instantaneously. But, as the firm considers the investment with a fall in projected profits and increasing risk, the higher predicted growth that improved investment promises will be accompanying with greater financial burdens (Crotty, 2019). The neoclassical theory has been applied in the fields of business, economics, health, and government. More applicably, business and economics. The neoclassical ideologies offer extensive insights into the real estate market based on the assumptions of maximising satisfaction of individuals and the output of equilibrium price and

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which are attained from the interaction of demand and supply forces (Agboola, 2015; Styhre, 2015). One empirical evidence revealed that a firm's aim is to maximize its market value, meaning that investment fluctuates considering only with those variables that carry information on profitability (Chamberlain & Gordon, 2016; Chamberlain, 2016). This implies, neoclassical approaches have often gained much understanding in property market studies.

However, Kaldor (1972) argues that the neoclassical economics assumption of consumption and equal production of supply and demand in equilibrium situations does not give reflection of how markets respond to uncertainties. Other researchers criticised the theory based on the fact that the real estate sector is subject to location inefficiency and market imperfection (Guntermann and Smith, 1987; Evans 1995). Also, Keogh and D'Arcy (1999) adds that the theory is limited to commercial investment because Tobin (1966) failed to consider location factors, illiquidity, and heterogeneity of real estate. It also includes lack of property data, and institutional limitations on supply and demand for real property.

UNIVERSITY FOR DEVELOPMENT STUDIES

Based on the loopholes of the neoclassical theory, further reviews of neoclassical theory of Tobin q and Dale Jorgensen user cost model of investment (1967) put much emphasis on commercial real estate investment. According to Jorgensen model of investment, the rental value of a given space serves as a measure of profitability when cost of capital is subtracted (Parker, 2010). Several systematic reviews described operating profit as means of measuring investment performance (Geda, 2014; Chong Wang, Wang, & Yang, 2013). Tobin (1966) argues to determine whether investment will or will not perform is when there is "well organized and efficient" markets. He further argues that, an efficient and stable financial market will provide "a continuing market valuation of the enterprise. Crotty (2016) and Funke (2006) concisely reviews Tobin (1966) theory in a simple quotation: property investment should be commenced if and only if it increases the market value of the firm. .

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Publications that frequently cites Dale Jorgenson, describe the cost of service capital as the rental rate of capital. On the other hand, if commercial investment suppliers say hotel and investors are price takers with constant returns to scale, then the marginal Q must be equal to average Q when determining investment performance. He based his argument on the fact that investment decisions are myopically resolute since commercial real estate investors rely on current rental values with current marginal cost of production.

His model shows that maximizing investment returns involves setting derivatives with volume of capital input equal to zero. Based on that, competitive investment firms can maximize investment returns when marginal product of capital is equivalent to the rental cost of capital and marginal product factor (Jud & Winkler, 2003). This implies that the present value of the investment as at time (t) of the pattern of real profits per unit of investment capital is expected to be earned from time (t) into the immeasurable future.

UNIVERSITY FOR DEVELOPMENT STUDIES

Over the past ten years, the theory has shown much prominence in real estate investment research. Notable empirical investigations include; determinants of investment (Mizobata, 2014), performance of real estate firms (Wei Huang & Boateng, 2013; Taylor, Cajias, Fuerst, Mcallister, & Nanda, 2014; Beatson & Chen, 2017); growth of investment cashflow (Bernardo et al., 2016; X. Zhang, Xue, Zhang, & Ding, 2019), investment success and instability (B. Xu & Xu, 2009; Crotty, 2016); investment opportunity (S. Kim & Kim, 2018; Fried, 2016; Espallier & Guariglia, 2013) , investment returns (Semnarayan, Ward, Muller, Semnarayan, & Ward, 2018); real estate development (Wang, Ran, Wang, & Ran, 2019; Mcdonald & Mcdonald, 2010). Most recent one experiment hotel value performance (Dogru & Sirakaya-turk, 2017). Following the analysis, it could be concluded that the theory sees commercial real estate investors as "myopically resolute" who see Commercial real estate investments as highly correlated with the business cycle and a lot more volatile than output. This implies that the theory is situated in a broad contour of this study. Following the

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Neoclassical theory of investment, the key issues can be summarised in figure 1. This covers the broader scope of the study.

2.1.2 Overview of emerging city development

According to Mboup and Oyelaran-oyeyinka (2019), a city can grow beyond its prior urban spatial and demographic extent in a contiguous way. A city can also grow through ‘’inclusion’’ that involves all rural, suburban, urban and peri-urban built-up pixels that were located outside the urban area in the prior period and have now expanded to meet the current urban area (Mboup & Oyelaran-oyeyinka, 2019). For example, Kasoa in Central region and Bamahu in Wa Municipality (Boamah, 2014; Danso & Barry, 2012; Kuusaana & Eledi 2014). A longitudinal study of Taipale and Blanc (2019) found that cities keep emerging. For instance, in 1995, 28 cities across the world had populations beyond one million, by 2005, cities have increased to 43, and in 2015, 59 African cities have increase in populations beyond one million. Statistics show that among 12 African cities, land value increases with change in land use connected to urban extension can be seen in countries like Kigali, Accra, Ibadan, Arusha, Marrakech, Luanda, Lagos, Khartoum, Bamako, Alexandria, Kampala, Lubumbashi, and Kinshasa (Mboup & Oyelaran-oyeyinka, 2019).

UNIVERSITY FOR DEVELOPMENT STUDIES

In Accra, a large body of studies have confirmed that Accra is characterised by urban growth, slum proliferation, and land expansion (Asamoah, 2010; Bobo, 2000; UN-Habibat, 2003; Owusu-ansah et al., 2016). This has conclusively been shown in Mboup and Oyelaran-oyeyinka (2019) that the growth of demand for land is linked to urban growth with a urban filling of 14%, demand for land shared value of 62%, 13% for urban inclusion, and 11% for urban leapfrog. They further stressed that at most municipal level, the emergence of a city is based on the fact that one city is not recognised as the only centre that grows itself, but, many more several sub-centres collectively develop a networked urban system, with sub-centres performing different functions. Independent of the growth of the city, Taipale and Blanc

(2019) opines that the Municipal centre may have a small share in income tax and population and will offer important social services for the whole city region

Taken together, several lines of the argument above implies that during the processes of change, new properties will emerge and interact with existing ones, diverse spatial forms will persist, and reinforce compatible commercial real estate market. The question will be; how will the emerging trend open possibilities for sustainable commercial real estate investment in emerging commercial real estate market?

UNIVERSITY FOR DEVELOPMENT STUDIES

2.1.3 Urban development

Urban development constitutes a major component of emerging city and has often been defined in social theory as a passive component of our social well-being, which reflects present and past socio-economic, cultural and environmental conditions of urban areas (Stanilov, 2007). As Boamah's (2013) indicated, when urban areas are planned well, it will ensure proper allocation of land and improve the land market. Unlike Boamah (2013) study, studies on urban development and its implications on neighbourhoods show that neighbourhoods with well-planned layouts to meet urban development is likely to withstand urban shocks such as pollution, waste management, slum development and flooding (Abu-Salia, Osumanu, & Ahmed, 2015; Baah-Ennumh, Adom, & Owusu, 2012; Boamah, 2014; Myers, Cavill, Musyoki, Pasteur, & Stevens, 2018).

A significant input by other studies also revealed similarly that, urban spaces planned has a strong influence not necessarily on urban problems associated to quality of life and resource allocation, however, it is a significant component for the economic wellbeing of the emerging cities as well (Stanilov, 2007; Edith van Ewijk, 2016; Marques, Ferreira, Meidut, & Banaitis, 2018; Wu, 2016). A detail examination by Gozgor and Kablamaci (2015) related the causes of urban development challenges to natural growth in population, migration, and the

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presence of socio-economic activities influence the development of emerging cites. Overall, there seems to be some key evidence to show that the transition of cities influence the level of urban development as espoused by Shaw and Hagemans (2015) in their paper "Gentrification Without Displacement".

2.1.4 Emerging city development characteristices and real estate investment

City expansion is an important feature of socio-economic development. Cities in which economic events are concerted creates competitive advantages for manufacturers and consumers through economies of scale in commercialisation, infrastructure development, and industry, which overshadow the negative impacts of city congestion and environmental mismanagement (Mimi, Fang, Huang, & Goh, 2015). Economically, the expansion of a city is largely affected by inequalities in trade or investment policy, sectoral productivity, and price policy of goods and services (Wpeg & Gilles, 2015). A comprehensive study conducted by Stanilov (2007) on post world war II in eastern and central Europe presents four phases growth of commercial real estate investment. The first phase of the involves non-activity. That is cities like Prague and Warsaw faced issues of rigid control of real estate ownership of the state, investors wait for the rise in the real estate market, and allocation of resources after decades of state ownership. This stage is characterized by data undependability, low management skills, few wages for administrative personnel, high rent to construction cost, and high-risk due lack of market information (Stanilov, 2007).

Also, there was cautious beginnings. International corporations discover opportunities in the real estate markets. The steady removal of legislative barriers influences some commercial investors that their investment returns worth the substantial risks that will be taken.

Again, there was Strong growth. Many recently developed buildings became more attractive and lucrative to investors, fetching them substantial returns (Stanilov, 2007). An

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increasing supply of quality spaces permits real estate firms to became very competitive and selective. Based on that, rents in buildings and spatial organization with obsolete design in unsuitable location attracted low rent and even high vacancy.

Finally, investors looked for market equilibrium. The real estate market matured because the capitalization rate was stabilized. That is at that time construction activities decreased and only buildings with high design qualities and at good locations obtained new rental contracts and construction funding in advance.

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Emerging city is also characterised by rise in urban population and housing due to rural–urban migration. This shows the movement of labour from the agricultural to the industrial and commercial sectors which is also connected to relative price changes (Gozgor & Kablamaci, 2015). Scott and Taylor (2016) emphasis that when city emerge as a result of increasing urban population, agricultural production steadily moved further and further away from the city to the outskirt, even at some point it becomes difficult to transport food to the city. A follow-up study of Lui, He, and Wu (2016) and Beatley (2016) have also associated urban expansion problems to residential and commercial segregation, spatial disparity and mismatch, job-housing imbalance. According to them, it is significant to observe that adults living in expansive metropolitan areas are more obese because they tend to walk less within the city.

Meanwhile, a broader perspective of Bencardino and Nestic (2017) in Nepal argues that it is difficult to predict the emerging time of the economic and socio-demographic variables of an extended metropolitan area. They based their argument on the fact that the market value of urban real estate can create the effects of the transformation of a city, urban real estate values climax the centres of the city with low values at the oldest buildings in the city, and the distribution of property values tend to increasingly cluster from the old centre of the city to the outskirt. Conversely, It is also not surprising to observe that populations located at

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peripheral locations of a growing city often have a high struggle to moving to central locations closer to the busy areas of the city despite the core opportunity cost of commuting long distance (Pardo-garcía & Mérida-rodríguez, 2018; Jr, Geyer, Plessis, & Eeden, 2012). A ripple effect will be social embeddedness and the cost of social networks when moving to such areas.

In so doing, the spatial circulation drive of industrial developments will show continued concentrations at locations closer to the traditional core city nodes; however, most new commercial investment will regionalized to fringe subcentres because commercial development shows a strong growth in fringe subcentres in South Africa (Jr et al., 2012). Where there are crowded physical urban agglomeration erections, the probability of finding suitable commercial investments are higher than the outskirts. In the same vein, commercial real estate investment surges when the housing market shrinks because commercial investors are able to buy cheaply when demand for housing markets fall as such convert the residential to commercial (Lieser & Groh, 2014). Lamin and Livanis (2013) complemented that there is also higher likelihood of other investments selecting that same location which has the effects on existing investment on their location strategy. Despite that Balchin, Bull, and Kieve (1995) years back adds that this adjusts not only the pattern of land use change and land values, but also the intensity of site use for investment.

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As the supply of land in the area is fixed in the short term, it will create land scarcity. Therefore, commercial investors will double-up and may operate less effectively and proficiently, households may have to live in shared housing unit, rising rents will increase the struggle for sites within the prevailing built-up area and even if accessibility begins to diminish when overcrowding in the city centre increases to higher levels, land values and property rents may continue to rise if sites benefit the investors. Woetzel, Bouton, and

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Lindsay (2013) sets a standard for sustainable development of emerging cities in support of investment.

Table 1 Necessary indicators of sustainable emerging city development for investment

Categories	Indicators	Description of indicators
Basic needs	• Education • Water supply • Health • Housing	• Teacher-student ratio • Water access rate • Doctor per patient • Living area (square meter per capita)
Resource efficiency	• Water demand • Power • Waste recycles	• Water consumption level • Total electricity consumption • Ratio of industrial waste
Environmental cleanliness	• Waste management • Air pollution • Water pollution • Waste water treatment	• Domestic waste collected and transported • Concentration of NOx • Waste water treatment rate
Built environment	• Mass transit usage • Building efficiency • Urban density • Public green space	• Passengers using mass transit • Building heating efficiency • Persons per square kilometre of space • Public green space sq/km
Commitment to future sustainability	• Investment in environmental protection	• Amount of environmental sanitation fund • Number of environmental

UNIVERSITY FOR DEVELOPMENT STUDIES

	• Green jobs	professionals per square metre

(Woetzel et al., 2013)

2.2 Spatial extent as a performance index of commercial real estate investments.

The performance of commercial real estate investments are connected to the spatial attributes of the investments (Korea, Noor, Asmawi, & Abdullah, 2015;Gargallo, Miguel, & Salvador, 2017. Spatial attributes are linked to geographic location, that is longitude and latitude as well multiple quality attributes such as price and rent of the property.

UNIVERSITY FOR DEVELOPMENT STUDIES

Some key studies have shown that spatial extent of a property are retrieved by spatial queries that select property based on the location and its relevant distance (Jiang & Yao, 2006 ; Priya & Kalpana, 2018 ; Lu, Lung, & Xie, 2018). Aside that, some recent research have proved that spatial attributes influences an investors choice of location selection and market search, and how investments differ from different locations (Kolpan & Warren, 2017 ; Zhen, Du, Cao, & Mokhtarian, 2018. Neighbourhood attributes include the availability of schools, population density of the neighbourhood and their income levels, location of the investments and nearness to central business districts.

Empirical evidence confirms the effectiveness of spatial attributes that rental values of neighbouring houses to the commercial investment tend to be similar because they share common local physical physiognomies such as size, age, the interior and exterior of the building, socio-economically, access to social amenities, employment and shopping centres influences investors decision (Gargallo et al., 2017 ; Huang, 2018). Others also reported environmental quality, characteristics of the transportation network and good site for spatial safety (Chiarazzo, Coppola, Dell, Ibeas, & Ottomanelli, 2014; Kumar & Bansal, 2016). However, it has been demonstrated by Zhang, Du, Geng, Liu, and Huang (2015) that the spatial correlation of commercial real estate investments has more complex features. That is

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to say the distance to the commercial investment cannot fully reflect the variances among different properties within the neighbourhood, when more than one property exists in the same building of the commercial investment- the distances between the two properties become very slight. Drawing insight from hotel investment for example, the walking distance to a resort centre, site free from flooding, suitable site for on-site wastewater disposal, suitable building sites, access to roads, located in an environmentally sensitive area, access to site for deliveries, employees, and guests area determine the spatial extent of the investment and the effect of noise (Joeyev, Degloria, Noden, & Locke, 1999; Bovkir & Aydinoglu, 2018). Newell et al. (2006) predicts the consequences as high economic burden on the investor as it increases the investors cost and burden on the client.

Following this section, one relevant theme can be drawn from the studies reviewed so far. Thus, the extent of urban infrastructure linkages of an investment property determines how an investment property will perform. However, the mode of drawing the spatial relationship of urban infrastructure and impacts on investment is reviewed in the next section.

UNIVERSITY FOR DEVELOPMENT STUDIES

2.3 Drivers of commercial Real Estate Investment Returns in Developed Cities

1. Economic factors

Investors drive to investment is determined by the economic factors of the neighbourhood and the nation in general. Chen, Zhao, Wang and Lv (2018); and Grum and Kobe (2016) studies revealed that economic indicators such as the amount of money supply, domestic consumption of investment good and inflation determines an investors choice. That is changes in investment yield, growth rate of production and lag variations in discount rate significantly determine investments returns, hence the drive to invest. Similar authors such as Wpsz, Zhao and Michael, (2016) and Chen et al. (2018) test shows that changes in monetary

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condition affects office and hotel investments. For example, hotel investments were found to accomplish better in extensive monetary settings than office space.

However, some authors caution that changes in discount rate and monetary policy significantly have a negative impact on the performance of hotel investments. This is dependent on the stage of the business cycle, economy and conditions in the credit market (Blal, Singal, & Templin, 2018). A follow-up argument by Casidy, Wymer, and Cass (2018) shows that when there are economic contraction, it will affect clients sentiments because, clients would limit and delay their vacation and traveling periods or even gamble which can affect sales revenue and investment performance of hotel.

UNIVERSITY FOR DEVELOPMENT STUDIES

2. Size of the market

Investors must study the size of the local market before investing. In Beijing for instance, investors invest based on the size of the market, quest for hotel space by clients, local financial condition and the existence of large commercial investments and activities in the cities (Alon, Ni, & Wang, 2012).

Also some investors study and decide on the entry mode of the local market so that the investors will know the amount of money supply to commit (Andreu, Claver, & Quer, 2017). In addition, it is significant for investors to study the demand trend of the investor's choice. For example, the high demand of rental accommodation in China increased the financial expectations of housing developers and producers of building materials (Brzezicka, Wisniewski, & Figurska, 2018). Earlier authors have predicted the ripple effect of demand trend that there will be increase in prices of building materials and even the time lag and increase in rent or value of apartment. Ken, Tipplea, Korboeb and David (1999) ; Mooya (2011); Kok and Jennen (2012); Karley (2016) suggest that investors must understand that participants of the market and understand their common values. That is shared understanding

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and market trust. These helps to reduce investment decision costs, supervision, bargain and enforcement costs. Going forward, Ã, Sim and Zhang (2006) admit that understanding the market is based on several indicators such as the knowledge and potential of the local market, investment positioning (location of the project), gaining a vantage positioning, accumulated experience in the market, importation of material and equipment's, tax incentives given to new investors, quality of human resource in the market and the ability to diversify the investment in the long run

UNIVERSITY FOR DEVELOPMENT STUDIES

3. Location

Location of the investment forms an inherent drive in investors choice (Oliveira, Pedro, & Marques, 2013; Hilmi & Hadi, 2016). The concepts of location is very significant since it encompasses the neighbourhood of the investment, the distance towards central business district (CBD), recreation centres, educational, transportation and health facilities (Qi, Xia, Zhang and Miao, 2017). As highlighted by some authors ; potential locations serve as the buying power of demand point by clients, Euclidean distance between investment facility and demand point of clients, and the Euclidean distance between the potential location of the investment and the quality of existing facility of the investment for demand point (Neves, Gonçalves, Morais, & De, 2014; Xie, Zhou, Xiao, Kulturel-konak, & Konak, 2018). Distance in locations affect the entry mode of the investment market because it augment transport cost (Santos, Brochado, & Esperança, 2016).

However, it is important to determine the location of an investment because similar locations are seen as the forefront in influencing suitable rent or price for office and hotel space. Empirical research conducted by Lado-sestayo, Vivel-búa and Otero-González (2017) shows that seasonality, competition and demand aspects measure investments locational advantage, hence its profitability. For example, their research revealed that hotel developed between the

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period 2005–2011 in Barcelona could demonstrate higher intensity in locations with higher profit margins. It later turns out that decrease in the number of hotels facilities in the sun and beach tourist destinations such as Canary Island and Balearic displayed an increase in market concentration.

4. Locational attributes

Locational attributes determine client's choice of rent and the investors choice of investing. Dissatisfaction with location will affect investment returns because clients will not be willing to live in the area. This can be determined by the convenience of facilities and the proximity to facility (Radojevic, Stanisic, Stanic, & Davidson, 2018). For example in Fang, Li, and Li (2019), population density and accessibility were found to have a positive influences and relationship in all the regions of Hong Kong regarding location choices. Despite these revelations, locations of hotel space should be free from the fear of crime. (Breetzke & Pearson, 2015; Montolio, 2018; Liberty & Fabusuyi, 2018; Marques, Ferreira, Meidut, & Banaitis, 2018).That is if the investment location is a new area, investors must ask the neighbourhood about the perception of crime (Glasson & Cozens, 2011; Eeden, Poot, & Koppen, 2016).

UNIVERSITY FOR DEVELOPMENT STUDIES

Al et al., 2016; Mao, Yang, and Wang (2018) shared another view that noise and acoustics can determine the locational choice of an investment. Their research shows that bad noise and acoustic can lead to dissatisfaction with the hotel location which can affect workers and the investment performance. They indicated that noise from machinery, co-worker conversation, public, telephones and equipment's, and traffic, the public, air traffic, machinery. Relevant investigations by some authors concluded that noise and acoustic levels can affect hotel occupants performance, affect hotel clients sleep and productivity of the investment in the short run (Shoval & Mckercher, 2011; Hongisto, Haapakangas, Varjo, Helenius, & Koskela, 2016). Generally, it appears from the aforementioned investigation above that location

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attributes such as noise, crime, acoustics have impacts on investment. In a different study, the concept of location as a drive to investment performance has been described by Puciato (2016) in the table below.

Table 2 Variables of locational attributes

Locational factors	**Variable**
Access to qualified labour force	Accessibility of secondary and higher education offering and training investment professions
Labour costs	Average monthly gross salary
Availability of investment land	Total municipal surface land area
Land value	Average transaction price of land allotted for investments per square metre
Level of economic development	Income of the municipality per capita
Urbanization	Number of business entities registered in the region, population density
Availability of means of transport	Local public transport, Long-distance bus or train public transport, The distance from the nearest exit from a motorway or expressway
Number of business entities active in sports and recreation sector	
The size of local demand	Hotel current price
Fiscal incentives	The rate of property tax (buildings used for business purposes) is lower than the maximum rate 2. Functioning system of

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www.udsspace.uds.edu.gh

	incentives for investors (e.g. tax credits and tax exemptions)
Planning and administrative incentives	1. Owning own strategy or development plan regarding tourism industry 2. Provision of area spatial development plan 3. Number of towns and municipalities having foreign partnership agreements
Information incentives	1. The amount of expenditure on tourism per capita 2. Eligibility of business entities to benefit from free consulting services

(Puciato, 2016)

UNIVERSITY FOR DEVELOPMENT STUDIES

5. Environmental service quality

Environmental quality influences commercial real estate decision to invest on real estatetheir optimal level of decision making is not exogenous and rest on the steadiness between the positive output gained from both physical and market environmental sustainability for example; new market opportunities and performance, cost and efficient resource allocation (Pekovic, Grolleau, & Mzoughi, 2018; Eichholtz, Holtermans, Kok, & Yönder, 2019; Liao & Roc, 2020). Physically, Alejandra, Alberto, Marino and Rodriguez (2018) are of the view that socioeconomic circumstances of the environment are highly correlated, which implies that the environmental quality relies on the urban design and income generation capacity of the investors. Others environmental quality researchers also relates environmental quality to pollution and energy emission (Sham, Zaly, & Muhamad, 2013; Foster, Knuiman, Wood, &

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Giles-corti, 2013), fear of crime (Breetzke & Pearson, 2015; Sohn, 2016; M.T Costa-Campi, J. Garcia-Quevedo, 2017; Kang, Xie, Wang, & Wang, 2018; Liu & Lin, 2019; Zhongshan Yang & Wei 2019). Also, responsible conduct also has a positive implications on environmental quality which leads to more consumption of environmental services provided (Hamilton & Requate, 2012; Streimikiene, 2015; Hamdoun, Jose, Jabbour, & Ben, 2018). Based on that other researchers have cautioned that environmental quality should always be a significant factor in development planning (Thurman, 2010; Amoako & Cobbinah, 2011; Abu-Salia et al., 2015; Mensah, Brandful, & Aboagye, 2018). Other studies share the same view but further iterates that development approaches and infrastructure building must constitute benefit-cost analysis of the investment which include distributional impact on the investor and the local people in the environment and the nonmarket values connected to environmental impacts, the quality of physical environment and the physical conditions of hotels drives both clients and investors (Cox & Vieth, 2003; Pakhtigian & Jeuland, 2019).

UNIVERSITY FOR DEVELOPMENT STUDIES

Hsiao, Chuang and Huang (2018) inspires that good environmental performance is connected with efficient resource utilization and a decrease of environmental effects. Because when the environmental quality is known, it will reduced cost of production, attraction of conscious environmental clients and increase productivity (Chiarazzo, Coppola, et al., 2014; Mensah, 2014). Environmental quality should include; ability to reduce sewage and solid waste in the environment, hazardous and toxic substance, and exhaust emission (Cox & Vieth, 2003; Mensah, 2014). It can also be derived from the unrestricted and disposed consumption of nondurable items and products such as food, paper, water, energy, followed by emissions of pollutants to the environment (Aboelmaged, 2018). For hotel investments, it will affect the clients average length of stay, the number of tourist that visit the hotel (Lado-sestayo et al., 2017). Employees in the hotels will reduce their working time for health care and work less (Hsiao et al., 2018). Where the physical environment of the workplace is not quality, it

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influences the retention, recruitment, and productivity of the hotels (Stazi, Naspi, & Orazio, 2017).

For investors choice of the environment, investors share technical knowledge and environmental information by identifying and evaluating environmental risks areas, activities of the location, and services that have a negative impact on the environment (Toivonen & Viitanen, 2015). Internally, sustainable living in a quality environment of the investment property must consider the thermal comfort, visual quality, and indoor quality (Mujan, C, Mun, & Kljaji, 2019).

UNIVERSITY FOR DEVELOPMENT STUDIES

1. **Thermal Comfort**

Thermal comfort represents an important factor in ensuring indoor environmental quality. The question that arises, when people feel thermally comfortable, can their activities yield full capacity? Thermal comfort forms a significant part of ensuring productivity. Mujan et al., (2019) is of the view that a steady temperature of 21e25 OC forms the finest conditions for any working environment and living buildings. They further explained that if the upper limit surpassed by 10 degree Celsius more, then work productivity may decline by 2%. Thermal comfort is largely influenced by several factors. Kwok et al. (2017) is of different view that energy consumption in the rooms and building influences the level of clients and workers comfort. They re-iterated that even when energy consumptions are low, it cannot be predictable that the reduction in energy consumption as a result of thermal insulation will suit to pawn an increase in rent because of renovation of the building. This implies that residents of such buildings cannot recompense high rents as a results of low electricity bills even when they restrict their energy consumption. Ren and Chen (2018) support earlier findings but, further express that to reduce energy consumption in buildings, it may require to lessen the installation of superfluous air conditioning. Their justifications were that air conditioning designers fail to consider the climatic condition when designing the product. However, they

suggested that likely energy productive know-hows for designing new air conditioners must consider future climates under changing climatic areas.

Patiño, Vakalis, Touchie, Tzekova, and Siegel (2018), and, Ioannou, Itard, and Agarwal (2018) supports that recommendations. However, they further reinforce that, during high temperatures, residences are exposed to heat waves, thereby increasing the room temperature of buildings. Room temperature is usually caused by ineffectiveness of roof insulation systems and lack of enhancements of external wall insulation, for example brick walls. Ormandy (2012); Hashemi (2017); Pérez-fargallo, Pulido-arcas, Rubio-bellido, Trebilcock and Piderit (2018) do not support earlier claim on the fact that high temperatures are not only related to lack of room insulation systems but high temperatures are closely associated to energy inefficiency and fuel poverty. Nonetheless, influencing factors of thermal comfort are associated to the building design optimisation, location and its internal arrangements. Adekunle and Nikolopoulou (2016); Medrano-Gomez & Izuierdo (2017) ; Xu, Huang, & Zhang (2018); Escandón et al. (2019) supports that, but, re-emphasize that it is important to pay special attention to the architectural design of the buildings with suitable plans for internal heat in the building to be discharged efficiently. In effect, it will reduce the discomfort. Muhsin, Fatimah, Yusoff, and Farid (2017) supports that claim. A little addition to that support was that building designers must provide better designs choice to augment natural ventilation performance.

In Nadji, Mokhtari and Slimani (2019) the design should incorporate the mask, floor, and orientation. Also, the building solar orientation, geometry, ventilation systems, and lighting and equipment (Diniz et al., 2015; Curado & Freitas, 2019). Following the discussion, it has been realised that aside the installation of thermal equipment's and making provision for natural ventilation in building deigns, building instructors avoid to investigate whether property managers provide the level of comfort needed. It is also important to understand

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that, when residents are adaptive to a constant internal thermal comfort, residents will face problem when exposed to inconsistent temperature outside the room or building

2. Indoor air quality

Indoor air quality in buildings have a strong significance on the quality of living in a building, and has a strong impact on the productivity. Studies conducted on commercial real estate properties show that clients are dissatisfied with the level of indoor air quality. For example, Vasile, Petran, Dima, and Petcu (2016), presents that inadequate ventilation spaces in buildings causes poor air quality, which is demonstrated by affecting the well-being and comfort of the living in the building. Maybe the modification an on-going faults of the system such as noise due to higher settings, uncertainty of maintenance responsibilities, and lack of skilled engineers contribute to indoor air quality (Mcgill, Qin, & Oyedele, 2016).

Other studies are of the view that, Indoor air concentrations are influenced by the building type, ventilation systems, location, and age (Langer & Bekö, 2013; Burgos, Ruiz, & Koifman, 2013). Externally, excessively exposure to increasing levels pollutants such as dampness and formaldehyde affects indoor air quality. (Diaz, Patino, & Siegel, 2018).

UNIVERSITY FOR DEVELOPMENT STUDIES

Also, improper room organisation (Sun, Cheng, Hou, Song, & Luo, 2017) , rehabilitation using smelly paints and equipment's (Ramos et al., 2018), presence of dust and chemicals (Lucattini et al., 2018), higher occupancy in rooms (Escobedo, Champion, Li, & Montoya, 2014; Medrano-Gomez & Izuierdo, 2017), and inter-suite leakage (Oyedele & Mcallister, 2015; Levesque, Huppe, Dube, & Fachehoun, 2018; Guyot, Sherman, & Walker, 2018; Vakalis, Touchie, Tzekova, Maclean, & Siegel, 2019) affect the quality of air in rooms and buildings. Some authors are of the view that, occupants behaviour and life style in buildings affects the indoor quality (Bloom, Widheden, Ekberg, Langer, & Bek, 2015; Brown et al., 2015; Schieweck, Uhde, Salthammer, Salthammer, & Morawska, 2018)

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Other factors influencing hotel space investment are summarised on table 3

Table 3 Other factors influencing commercial real estate investment drive

Investment type	**Investment drive**
Hotel	Economic cycle, government policies, business strategies, served population, household income, spending on free time. For rental, quality of supply, cost of money, customer response (Wpeg and Gilles, 2015), level of rentals, seasonal flow, Quality of supply, cost of money, level of rentals. Occupancy rate (Manganelli, 2015).
Hotel	**Investor Protection and Legal Framework:** Investor Protection, Disclosure Index, Director Liability Index, Shareholder Suits Index, Security of Property Rights, Legal Rights Index, Property Rights, Quality of Legal Enforcement, Judicial Independence, Integrity of the Legal System, Rule of Law, Regulatory Quality. (Lieser & Groh, 2014) (Mauck & Price, 2017)
Hotel	**Administrative Burdens and Regulatory Limitations**: Taxation (Falk, 2016), Marginal Corporate Tax Rate, Profit and Capital Gains Tax, Burden of Obtaining a

UNIVERSITY FOR DEVELOPMENT STUDIES

UNIVERSITY FOR DEVELOPMENT STUDIES

	Construction Permit, Costs, Number of Procedures, Duration, Ease of Registering Property, Costs (incl. Transfer Taxes), Number of Procedures, Duration, Ease of Starting a Business, Number of Procedures to Start a Business (Falk, 2016), Time needed to Start a Business, Cost of Business Start-Up Procedures, Min. Capital, Ease of Closing a Business, Time (Benoit & Clarke, 1997; Groh & Lieser, 2011)
	Depth and Sophistication of Capital Markets: Market Volume, Ease of Access to Loan, Access to Private Capital (Groh & Lieser, 2011; Lieser & Groh, 2014)
Hotel	**Economic activity:** Institutional Property Estimation, Degree of Urbanization, Agglomeration Poles, Dropped, Housing Stock, Urban Population, Degree of Urban Population, Urban Population Growth, Quality of Infrastructure (Zhenshan Yang & Cai, 2016), Density of Road Network, Quality of Road Infrastructure, Quality of Railroad Infrastructure, Quality of Air Transport Infrastructure, Quality of Electricity Supply, Telecommunications,

	Services Total Output (Lieser & Groh, 2014)

Source: Authors construct from literature in table 3

2.4 Investment returns as an indicator for assessing Commercial Real Estate Performance

2.4.1 Real estate investment

Commercial real estate investment involves an investment capital aimed to obtain an indeterminate future gain. i.e. its costs are one-time funds for the huge accrual of capital, and its extensive time period makes it more uncertain than other investments (Ml, Minli, Wp, & Wenpo, 2012). According to Joachim, Uche, Shahril, and Rahman (2018), the major aim of prospective Commercial investors is to recuperate their investment capital through a good expected rate of returns from their returns or profit.

However, the quantum of the anticipated rate of return depends, largely on the motivations of such investment (Almond & Xia, 2017). This results seem true, but, it is because the growing volatility of commercial investment has a positive and negative impact on the returns due to the increasing demand for hospitable and rentable space (Fan, Pu, Deng, & Eng, 2018). A rational investor selects to place his capital in a venture when there is strong promise to recover or regain his investment capital at an adequate rate of return. This means that where the chances of getting a slim expected return, then the investment may be well thought-out as insecure and inadequate. The reverse is true (Drobetz, El, Guedhami, & Janzen, 2018; Goldbach, Nagengast, Steinmüller, & Wamser, 2019)

2.4.2 Measuring investment returns on a macro scale

The commercial real estate market is characterized by inelastic supply and profit constraints (Zheng, Chau, & Hui, 2015). More significantly, hotel investments are mostly non-

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diversifiable and amount to a greater percentage of commercial financial risk (Vivel-búa, Lado-sestayo, & Otero-González, 2018). This means the greater the sensitive of a commercial property's return in response to the financial risk, the greater must be the investments expected rate of return, and vice-versa. At a macro scale, Al-aomar and Hussain, (2018) and Sainaghi, Phillips, and Corti (2013) presents that hotel investors can increase returns by lessening delays of services and transportation costs, efficiency in operations and controlling of management cost, increase in guest satisfaction, and environmental and waste control.

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3. Expected rate of returns

Real estate returns differ significantly across different periods. According to research conducted by Chang, Chen, Ka, and Leung (2012), returns on investments performance are categorised into the boom and burst periods. It is recognized that during the boom and bust period, investment returns respond to exchange rate growth. These can be interpreted that during the boom period, the exchange rate will stimulate the current period of hotel returns more than the previous periods of their returns, which will lean towards reduction in investment returns. One probable explanation from Kwoun, Lee, Kim, and Kim, (2013) is that during such returns stages, investment supply is fixed and the current period of rent and price for hotel tends to respond suddenly. It is also possible to discover that a sharp rise in rent and price will stimulate the hotel supply in subsequent periods which may be disposed to clampdowns of future growth in returns.

For example, Mattila, (1988); Xiao, Neill, and Mattila (2015) studies in North America and Asia show that when snag rates of investments between North America and Asia are examines on a risk-free basis, the Asian investment yields become less good-looking for investment because treasury-bill rates in the developing markets looks higher than North America. According to them, snag rate for hotel investments in the Philippines as at 2015 was

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18 percent but the Treasury bill rate was as high as 15.5 percent. This implies that providing hotel investors with a comparatively low investment risk premium. Therefore, investors may earn a respectable rate of return by investing in safe Treasury bills relative to higher-risk hotel investments. Similarly, some investors in china invest in commercial real estate because some noneconomic assistances drive up prices for hotels and office space which makes it possible to accept comparatively low investment yields in compared to others real estate markets elsewhere (Zhenshan Yang & Cai, 2016).

UNIVERSITY FOR DEVELOPMENT STUDIES

4. Mobility of commercial investment

The location and distance to hotel forms part of the investment returns of a commercial property. According to research done by Deng, Mcmillen, and Foo (2014), a neighbourhood distance of 0.3km radius gives a positive result to office and negative results to hotel investments. This means, hotel users value proximity to CBD because of network effects with business associates and clients. Therefore, investment prices are higher in offices located in 0.3km than hotels. Mayock and Spritzer (2018) Supports that, sometimes the socio-economic features and the demographic characteristic such as the income of the people influences client's choice to an office of hotel space. Their works shows that there were high investments returns on clients who fall within the top income quintiles distribution. The impact is that higher-income neighbourhoods reduce surrounding rental values, hence implication on investment returns (Eriksen & Lang, 2018).

5. Market behaviour

The commercial real estate market serves as a reference point for setting hotel and office rental space. When the market perception that hotel and office rent and prices will not decrease within an anticipated time may have a substantial positive influence on demand of space which will further increasing returns (Cagli, 2018).

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Nevertheless, investment returns cannot surge persistently, but can certainly become unstable for some time (J. Li, Long, & Chen, 2015). Most often, volatility in investment returns are associated with rise and fall in investment period based on weak market analysis (J. Li & Mei, 2014; Heer, Maußner, & Süssmuth, 2018). For example, in X. Luo and Zhang (2017) there was the relevance of optimistic slope coefficient 6-month onward variance on increase in returns of hotel investment and negative slope optimism 9-month onward variance respectively. This implies that the 6 onward variances are possible representations for future investment prospects.

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6. Characteristics of hotel market behaviour

Entering into the hotel investment requires market information. The Bulgarian hoteliers search for well-known hotel brands with strong positive outcome which offer flexible contract terms and fees (Ivanova & Ivanov, 2015). This implies that during negotiations process, prospective investors' representatives should stress on the brand value, transparency, contract fees, and its ability to generate extra demand to the investment. Market behaviour in UK for instance hotel sector for example observed that market concentration negatively has impact hotels' profitability (Pan, 2005).

The market competition can occur in two forms, leisure and individual customers of the low-scale hotels like Budget hotels will trade "up" to complex scales when their revenue increase and vice versa (Graf, 2011). The successes can be that, new hotel entrants should have tactics to handle possible collusive market behaviour among existing hotels. This could ensure survival approaches to cope with market competition, like ability to cope with new technology (Pan, 2005; Assaf & Tsionas, 2018). Certain structures of the hotel market behaviour can twist anticipated prices. This includes, the spatial concentration, information asymmetric, and variances in hotel classification (Sánchesz-pérez, Illescas-manzano, & Martínez-puertas, 2019). Considering the price of hotel space, the amount of hotel

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participants in the commercial real estate market share disparity in price. Fairly surprisingly, surge increase in the number of hotel competitors enhance commercial real estate investments such as its profitability; the likely explanation is that further commercial investment choices such as hotel may upshot to higher product search costs because of variations and deficient market information. The disparity may have a negative influence on the profit (Luis & Santa-maría, 2013); Zhenshan Yang, Xia, and Cheng (2017) and Sut, Lei, Nicolau, and Wang (2019) provides a vivid example of such case in china, according to them such result shows a unique features of Budget hotels in the Chinese hotel market. This is because Budget hotel clienteles require less conservative hotel services.

In the Caribbean, Hotel prices charged for Budget hotels are influenced by the availability of free breakfast, hotel market accessibility, quality of online signal factors, availability of swimming pool (Yang, Mueller, & Croes, 2016). This result looks quite strange because Budget hotels are less resourced, and equipped in an emerging hotel market. It is undoubtedly clear that, market behaviour of hotel is regional specific. Elsewhere in an emerging hotel market in china, the attractiveness of the hotel market, cultural distance influences customers choice to acquire an accommodation (Ivanov & Ivanova, 2016; Andreu et al., 2017).

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7. Tax

Tax forms a major component of measuring commercial investment returns. For example tax on property's decreases the annual growth rate on their investment returns and affect the annual growth rate of property rent and prices (Du & Zhang, 2015).

According to Lang (2015), taxes are inclined by the size of the commercial property and its location. The implication is that it could results to high tax which may affects cost of running the commercial investment. Lang (2015) further argues that taxes could be subsidized for low rental location with diminutive balanced returns. In Schmidheiny and Slotwinski (2018)

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view, when taxes are reduced for properties in low income neighbourhoods, it increase attractiveness. However, they further stressed that increase in attractiveness to clients does not necessarily results to increase in the probability client choice because some high tax locations may have become even more good-looking (Mortal & Schill, 2018; Schmidheiny & Slotwinski, 2018). Pour and Lasfer, (2018), and Alm and Leguizamon (2018) are of the view that when investors are protected, real estate firms have a tendency to have optimum debt maturities to help capitalize on their gains from tax buffers and lessen the cost of tax on their equity. It is also interesting to understand that investors in low income neighbourhoods incur small investment cost, therefore able to manipulate their investment earnings following a tax change (Waseem, 2018).

By contrast, uncertainty in tax policy level affects the after tax returns of commercial real estate investments (Wei-ling Huang, Lin, & Ning, 2018). Therefore, investors would want not to invest in commercial real estate investment portfolios that carefully tie with their preference (Hilber & Lyytikäinen, 2017)

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2.4.3 Models of assessing the spatial extent of real estate investments

Spatial extent of the investment has an influence on investment returns and client satisfaction. A in-depth study conducted by Mingzhao Li, Bao, Sellis, Yan, and Zhang (2018) determined the spatial extent of a commercial real estate investment by examining the transportation profile of the location of the investments. Here, the researchers calculated the walking distance and the travel time of the investments to the nearest train station. This enabled them to compute efficiently how long it takes user's from the investments to the workplaces at a run-time.

Also, they estimated nearest geo-locations of the investments with other facilities such as hospital, supermarkets and recreational centres using network analysis in Arcgis 10.2. The

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research revealed that presence of the facility has two investment imapcts. First, the returns of the investment increase because the distance from the bus stop to the train stations to the facilities are not far. Second, the presence of the investment has also influenced shopping activities and the income of the nearest facilities. Kim, Jang, Kang, and James (2018) and Hilmi and Hadi (2016) conducted a similar studies using spatial analysis approach of investment location. They used the autoregressive-first order spatial model including autoregressive errors and found that the investment externalities and factors of neighbourhood can be delineated. This type of modelling is grounded on the observation and comparable features a location has vis-a-vis their spatial differences.

However, the model has a problem when it becomes too large and broad, the dataset obtained from observation in larger space will have fewer accuracies related to other geo-spatial locational dimension methods such as the use of Geo-Informational System (GIS) tools. Mundell, Taff, Kilgore, and Snyder (2010) used the spatial econometric models to determine the easy accessibility to a hotel. The model used variables such as land use categories in the neighbourhood, time and distance attributes, access to social amenities and the economic activities in the neighbourhood. ArcGIS 10.3 network extension, SPSS multiple regression, bi-kernel function was used to calculate and investigate the nearest distance, relationship between hotel locations and other locational variables and the locations that maximise model fit.

Suárez-vega, Santos-peñate, Dorta-gonzález, and Rodríguez-díaz (2011) argues that the use of network analysis as a measure of distance muddles the problem of resolution since the minimum cost path sandwiched between every pair of network point is not in a straight line solved by the ArcGis tools.

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Also, Multiple regression used by Chiarazzo, Ibeas, and Ottomanelli (2014) shows that there is positive gains when the commercial investment is located at least 500 meters away from a bus stop and train station. There was also a positive sign when the investment is located with a distance less than 500m from a suburban train station, the distance in kilometres from the commercial investment to the central business district using road network, less time in minutes which it takes at morning rush hour to reach city centre by car considering congestion and employment active accessibility. Shen (2005) argues that the mean distance seems to be a more useful measure of the spatial extent of commercial real estate investment since it characterises the aggregated proximity of the investment type to a facility type. His analysis involved the collection of the reports of all the mean distances from the investment to the facilities. Facilities used include schools, shopping malls, hospitals and churches. From their analysis, it was observed that there are lower mean values for accessibility to hospitals and schools. While average mean distances to shopping centres are high. In his model, accessibility is quantified using distance-oriented assignment model, where the aggregated mean distances, the shortest distances and appropriate descriptive statistics of distances from facilities to the investment are analysed.

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His model denotes Aggregate average distance as

$$= \ T^{kl} = C^{lk} / \sum_{j} X_{ij}^{*lk}$$

where, I denote the facility say $i = \{1,2,3,4\}$,

j as the investment unit say investment

$j = \{1,2,3\}$, and

C^{lk} = distance to the facility.

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T= Average distance

That is to measure the direct shortest possible distance between i and j in the actual transportation network. This can further be analysed using standard deviation ellipse by the translating mean centre. That is an average location of a hotel or office space and the standard distance. i.e. the standard deviation of the distance of the hotel or office space to the mean centre to visualise and determine the spatial distribution in ArcGIS tool (Luo & Yang, 2016). Chiarazzo, Ibeas, et al. (2014) are of the view that though measuring the distance to the facility is important, but it necessary to determine the active accessible time such as the travel cost and the shortest time in minutes to the facility. They used the multiple regression model;

$$\text{Acc\_active}(0)=\sum_{\alpha} W(d)^{\alpha_2}.\exp(\alpha_2.c(o,d),$$

where W(d) is the number of services in the neighbourhood,

C(o,d) is the general travel cost between location and the facility,

$\alpha 1$ and $\alpha 2$ are estimated parameters correspondingly equal to 0.85 and 1.25. The distance is calculated in kilometres bearing in mind the route length from the facility using the road network. Their results showed that the transport conditions showed positive signs if the facility were located at least 500 meters away from a bus stop and train station, showed a higher real return. This finding looks consistent with earlier findings of past studies of North and Miller (2017). North and Miller (2017) opined in their work that the configured coverage maximum travel time and number of facilities closer to the hotel should not be more than 1hr. However, the above finding contradicts with Mimi Li et al. (2015) idea of distance. According to them determining the distance to commercial facilities does not only ensure

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significant investment performance but the relationship between land use mix around the investment. They however, used the sensitivity linear regression model

$\sum \frac{(ni(ni-1)}{N(N-1)}$ to evaluates number of land use mix within the investment neighbourhood. Their categories include; cultural attractions, shopping attractions, other commercial use land area, number of natural attractions, traffic land area, number of bust stops and number of man-made attractions. Their sensitivity analysis revealed that a buffer of 1000, 2000 and 5000m buffer radii gives a negative relationship of investments such as hotels closer to attractions. However, interestingly, this is contrary to a research by (Ahmad, Elsamen, & Ibrahim, 2017). They analysed their data using a circular buffer in the catchment area based on distance to the facility into uniform concentric circles (Ahmad et al., 2017). The authors concluded that the short Euclidian distance to the city and the accessibility of shopping centres suggest a good relation.

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Zhou and Clapp (2015) also building on earlier findings experiment the distance to facilities by using the conditional logit model to examine facility locations, and selections near limited-access highways to determine omitted variables. It was observed that there is high accessibility to the facility if it has a good high way access from the buffer. This implies that the above findings of Ahmad, Elsamen, and Ibrahim (2017) seems relevant to examining the distance of facilities to hotels.

Despite prior relevance of location in distance measurement, clients are the main focus. Earlier studies by Roig-tierno, Baviera-puig, Buitrago-vera, & Mas-verdu (2013) suggest that we match the information resulting from the joint analysis of the demand of client to the location and use the kernel density analysis to examine higher concentrations of likely clients visit.

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So far, the litereature review on these models have too much attention on location and distnce of urban facilities to hotels. The models showed three key dimensions of meaurement which are cloely related in terms of distance and its influence on hotel prices. This include; the use of buffer, mean distance and conditional logit model. The next section, reviews the drivers of commercial real estate investment.

2.4.4 Approaches to analysing commercial real estate investment returns

2.4.4.1 Profitability test

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Profitability test approaches are used to examine investment returns based on the availability of investment variables such as the cost of the investment and the future expenditure (Fama & French, 2006). Increase in returns are normally used in part to restructure cash balances of the investment but not to re-invest in capital (Danis, Rettl, & Whited, 2014). For example according to a research conducted by Nichol and Dowling (2014) of profitability on investment projects, it was revealed that profitability method show substantial positive returns and certainly higher mean returns. This means that investments with higher profitability or return on assets produce superior returns and vice versa. In their test they used the Fama-MacBeth model $R_{it} - R_{ft} = a_i + b_i(R_{mt} - R_{ft}) + s_i INV_t + h_i ROA_t + e_{it}$

Where return on the investment at time t minus Risk free rate (R_{ft}), R_{mt} = return on market indexes, a_i and b_i are variables of investment returns,

ROA_t = investment with highest returns at time t,

INV = portfolio with lower investment minus higher investment. However, their test did not consider to pass a chi-square test on profitability gave rise to just 10% consequence in the property market. In Li (2018) view, because investment is measured by the increase in total investment asset for the fiscal year over the overall asset at the end of the investment year,

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profitability is estimated by subtracting the annual investment from the administrative expenses, cost of sales, interest expenditure divided by book equity of the investment. Deng and Parajuli (2016) supports Li (2018) idea. They further their study by conducting a preliminary market analysis on the basis of total revenue, total operating cost, net revenue, and total capital cost. Based on their argument on a micro scale a rise in the cost of production for example say income tax and fees, and other production expenses will lead to fall in production, increase in selling price, and smaller return on investment (ROI).

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On other hand, F. Jiang, Qi, and Tang (2018) admonishes that, estimation overall profitability of an investment should be analysed around the return on equity ratio, asset and the gross profitability ratio. However, they did not demonstrate the justification of these analogy.

Going forward, some researchers have used the q-theory investment friction to improve on the ideas of profitability as argued by the authors above (Li & Mei, 2014; Santos et al., 2016; F. Jiang et al., 2018) . Q theory generate a realistic correlation between the investment and cashflow (Cao, Lorenzoni, & Walentin, 2018).

According to the authors, the q -theory offers a conceivably coherent clarification for the profitability effect of commercial investment assets. Following the arguments above, Caylor, Cecchini, and Winchel (2017) suggest that, the fundamental analysis of the profitability suggest that evidence in financial statements can be used to predict long-term shrinkages in returns and the strategies to improve on profitability. This implies that expected investment returns are equal to the marginal profitability of investments divided by the marginal cost of investments. Therefore, with the same level of marginal cost of investment, investments with high profitability should earn higher expected returns than investments with low profitability (Wahal, 2018). Moreover, after controlling for the positive investment rate, expected returns

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should be more sensitive to expected profitability among firms that are less subject to investment frictions. F. Jiang, Qi, and Tang (2018) computed their returns by considering most recent data on quarterly gross profit.

$$GP_t = \frac{OR_t - COGS_t}{r(AT_{t-1} + AT_t)}, \quad ROE_t = \frac{NI_t}{r(SE_{t-1} + SE_t)}, \quad ROA_t = \frac{Op_t}{r(AT_{t-1} + AT_t)}$$

These methods helped to discover that firms with higher profitability receives higher future investment returns. However, this approach is highly significant for firms with large capitalization and higher investment growth drive. Their method also showed that there is a positive relationship between expected profitability and expected returns is much stronger in firms with much friction in lower investments than among those with higher friction

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2.5 Conclusion

The chapter has revealed that during this processes of urban transformation, new properties will emerge and interact with existing ones, diverse spatial forms will persist, and reinforce compatible commercial real estate market. Neighbourhoods with well-planned layouts to meet urban development are likely to withstand urban shocks such as pollution, waste management, slum development and flooding.

Urban spaces planned will have a strong influence not necessarily on urban problems associated to quality of life, however, it is a significant component for the commercial real estate investment. The question is; how will the emerging trend open possibilities for sustainable commercial real estate investment in emerging commercial real estate market? For example, following the spatial extent as an attribute to commercial real estate investment performance on developed cities, it was realised that extent of urban infrastructure linkages of an investment property determines how an investment property will perform. For example Bovkir and Aydinoglu (2018) indicated that these urban improvement becomes an economic

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cost to the investor which is indirectly shifted to clients. This assertion seems quite applicable to developed cities.

Even though some emerging cities commercial real estate investment such as hotels may apply that approach of investment gains, but the level of such hotels counts. Delving deep into the spatial impact of urban infrastructure on commercial real estate investment on the investor's perspective will add more to literature. The review has also revealed that, distance estimation to the investment property has a spatial influence on the investment performance. Some researchers indicated the use of network analysis, spatial autoregression, multiple regression, buffer and bi-kernel function to determine the distance and time impact on the spatial extent of the investment property. Their research used data from clients and data from well-resourced transport companies.

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However, considering emerging cities in developing countries, transport data on least cost and time to reach a facility are not available. Though this can be estimated, but it falls outside the scope of this study where the commercial real estate market is emerging, but, the sophisticated model that will help estimate whether the investment property's spatial physiognomies has a relation to the investment property's performance will be the use of buffer model used by Roig-tierno, Baviera-puig, Buitrago-Vera, & Mas-Verdu (2013); Zhou and Clapp (2015); and Ahmad, Elsamen, & Ibrahim (2017). This can be accompanied with sensitivity model of 500m,1000m, and 2000m to determine the closest facility of the investment.

With reference to the investment drivers, the review revealed that, economic information such as interest rate and local knowledge were seen as a significant factors that investor consider when entering the commercial real estate market.

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However, for emerging cities, access to market information seems difficult because there is lack of data. This calls for the need to examine the main factors that influences investors decision. Well, it could be factors such as locational advantage, level of local development, demand, and availability of land. For hotel investment some researchers revealed that seasonality influences hotels location and its profitability (Lado-sestayo, Vivel-búa and Otero-González, 2017). If that's so, then the study must consider seasonality as an attribute to locational advantage.

Also, environmental quality has been recognized as an important factor to investment performance. It was realised from literature that when the environment is physically free from pollution, crime and noise, it increases investment profit. This revelation seems true for developed cities where planning meets urban change as indicated by Mboup and Oyelaran-oyeyinka (2019).

Even though, Accra seems to be a developed city, however, studies have confirmed that Accra is characterised by urban growth, slum proliferation, and land expansion (Asamoah, 2010; Bobo, 2000; UN-Habibat, 2003; Owusu-Ansah et al., 2016). Then, the question is "is there a positive or negative impact of this claim on investment performance"? This gives an indication that researchers must find out whether investors consider urban planning as a major contributory factor to pollution, crime and noise in their decision. Internally, thermal comfort and indoor air quality have also been realised as inherent factors that influences client's choice to rent a commercial property. For the investor's perspective, it is very necessary to investigate the thermal comfort and indoor air quality of Budget hotels of emerging cities as compared to developed cities where there a lot of Grade 1 and 2 hotels.

Finally, the literature revealed that, investment profitability serves as the main expectations of potential investors. The Return on equity, gross profit and return on income were used to

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determine investors returns. However, for lack of data on investors equity, this study will consider the return on income as the profitability measure.

2.6 Conceptual framework

The conceptual framework shows the system of facts, overview and direction of the study. The literature of the study has shown the need to assess the performance of commercial real estate investment on emerging cities. For this research gap to be filled, concepts such as the spatial extent, the investment returns and the determinants of commercial real estate investment have been reviewed.

The spatial extent maps the location, mobility and the presence of social amenities within the spatial environment of the commercial property. The spatial approaches used in theory has helped to identify how the spatial physiognomies of locations of an investment has on its performance. The final indigenous determinants of commercial real estate investment on developed cities was reviewed. These factors included; location, environmental quality, economic condition, and market behaviour. The indicators serve as the basis for the study to search for influencing factor for the supply of commercial real estate investments (hotel investments). The literature revealed the need to discover how an investor and users consider urban planning, thermal comfort and indoor air quality in their decision.

The concept of investment returns determines the longitudinal pattern of cash flows of hotel investment. Based on the above, the study is based on the concept below.

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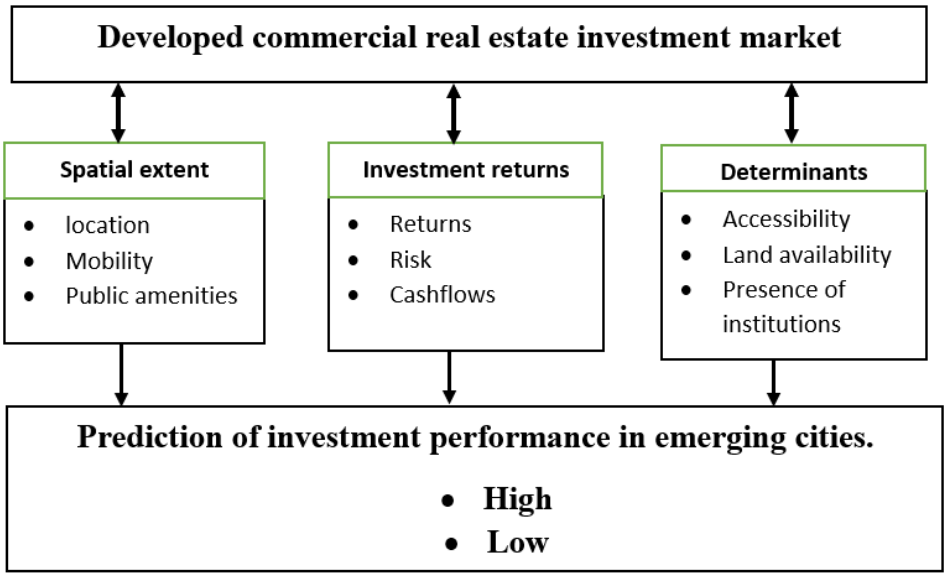

Figure 1 Conceptual framework

Source: Authors construct

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter focuses on the methodology used in collecting and analysing data from the field. Based on the key issues identified in literature, it has been discovered that, the commercial real estate investment industry is evolving together with the advancement of urban growth. Yet, determining the performance of these investments from the micro scale (emerging market) requires new research approaches.

In light of that the chapter has been divided into six research sections. The key issues serve as the basics to answer the research questions and objectives. The sections include: philosophical underpinnings of the study, research deign, strategy, mode of data collection, sampling procedures and description of analysis.

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3.2 Philosophical underpinnings of the research

The philosophical underpinnings of this study focus on the pragmatist word view of mixed research approach of solving societal problems. The philosophical scope aims at an in-depth, practical, and theoretical knowledge of real-world economic systems that warrant claims for improvement in human conditions (Poirot, 2008). That is, the movement from “what is situation” to “to-be” (Goldkuhl, 2012).This is based on systematic, and efforts in understanding of real-world beliefs that are true, tested to ensure validity of arriving at results that can solve societal problems (Creswell, 2003)

Economically, firms and individuals faces investment and financial world where prospects for investors profit rely not in suitably valuing of the investment, forecasting trends of commercial real estate investment market and the effect of economic environment during period of thorough transition to ride the wave of future uncertainty (Gross, 2018). Based on

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that, pragmatism approaches have been used by investment researchers to study the trend of commercial real estate market to inform their investment choices (Hong & Karp, 2012; M. Gross & Zróbek, 2015; Rutherford, 2017; Laudien & Karl, 2018).

Key pragmatist philosophers view the pragmatic theory as a mixed research approach (qualiquantology) focused on the problematic situation and the application of set of assumptions and tools that best increase the trust and confidence in research outcome (Shank, 2013; Eckardt & Erlanger, 2018; Biesta, 2019) . Following the arguments above, the research applied the mixed research approaches in determining the performance of commercial real estate investment on emerging cities. Section 3.1.4 describes detail about the research method.

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3.3 Selection of research strategy and method

Performance of commercial real estate investment has been studied in developed cities as a decision tool for commercial real estate investors. However, few studies have been conducted in emerging cities (Ivanova & Ivanov, 2015; H. Luo & Yang, 2016; Woetzel et al., 2013). Even the few ones are geared towards residential real estate investment. Based on this, the research is exploratory in nature. Exploratory research is conducted to solve problems that has not clearly been studied by researchers (Reiter, 2017). The study explores the performance of hotels in emerging cities.

The research used the qualiquantology research approach (mixed research). Thus, the research used both qualitative and quantitative research approaches in collecting data on the spatial extent, drivers, investment returns of commercial real estate investment in Wa. Using the ArcGIS and factor analysis as analytical tool, qualitative responses from investors assists in the interpretation of quantitative research findings (Newman & Ramlo, 2015).

3.4 Research design

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Research design is the process of organizing a research project from beginning to make best use of the possibility of generating results that delivers a reasonable answer to the research questions using a given level of resource (Gorard, 2015). The relevance of research design is to ensure that the researchers findings obtained enables to response to the preliminary research questions as explicitly as possible (Yachori, 2017).

Obtaining relevant research findings involve the specification and categorization of the type of evidence required to test a theory and answer the research questions to correctly describe some research phenomenon. Following the philosophical underpinning of this study, the researcher used the blended research deign. Blended research design is explained as a research design that determinedly mixes research methods with the aim of getting a quality and extensiveness of results that replicates the complexity of the situation being studied by the researcher (Mackinnon, 2012).

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The study used passive research design standards specifically cross-sectional survey standards in examining the performance of commercial real estate investment (hotel) in emerging cities. In repeated cross-sectional survey, research respondents at one point in time of the survey are not deliberately sampled again, even though a respondent to one survey administration could be arbitrarily carefully chosen for a subsequent one (Hall, 2011). The researcher's preliminary information shows there are few hotels in Wa with many guest houses.

Therefore, the study carefully classifies guest houses that have the status of a hotel in sampling and analysis. Table 1 below shows the research design matrix.

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Table 4 Research design matrix

Research objectives	Research questions	Data collection source	Techniques of data collection/ analysis	Expected results
1. Asses the spatial effects of hotel real estate investments in Wa	How is the spatial effect of urban infrastructure service on hotel investments in Wa?	• Field Observation • Hotel locations	• Ground control points of hotel space. (GPS) • Google image as a reference point • Data analysis tool. ArcGIS • Hotel Location guide	• Map showing spatial extent of plotted coordinates • Buffer relationships of hotel space and urban infrastructure • Impact of distances of urban infrastructure on hotel location
2. Examine the indigenous drivers of hotel investment in Wa	What are the key drivers of hotel investments in Wa?	• Hotel investors (owners) • Ghana Tourist Authority	• Quantitative Questionnaire • Qualitative interview guide • Factor analysis • SPSS Application	List of supply drivers of hotel investments • Locational attributes • Financial • Environmental • Cultural
3. Conduct a returns assessment on hotel investment in Wa	What is the nature of investment returns of hotel been over the past years?	• Hotel investors (owners) • Ghana Tourist Authority	• Quantitative Questionnaire • Factor analysis • SPSS Application	• Longitudinal trend of investment returns • Causes of change in cashflow returns

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3.5 Research Workflow

Research workflow shows the steps or processes in conducting a research (Miller, 2018). That means the research should be reproducible by an independent researcher following the process. This research was conducted using three processes. These include; pre-field works stage, field work stage and post fieldwork stage.

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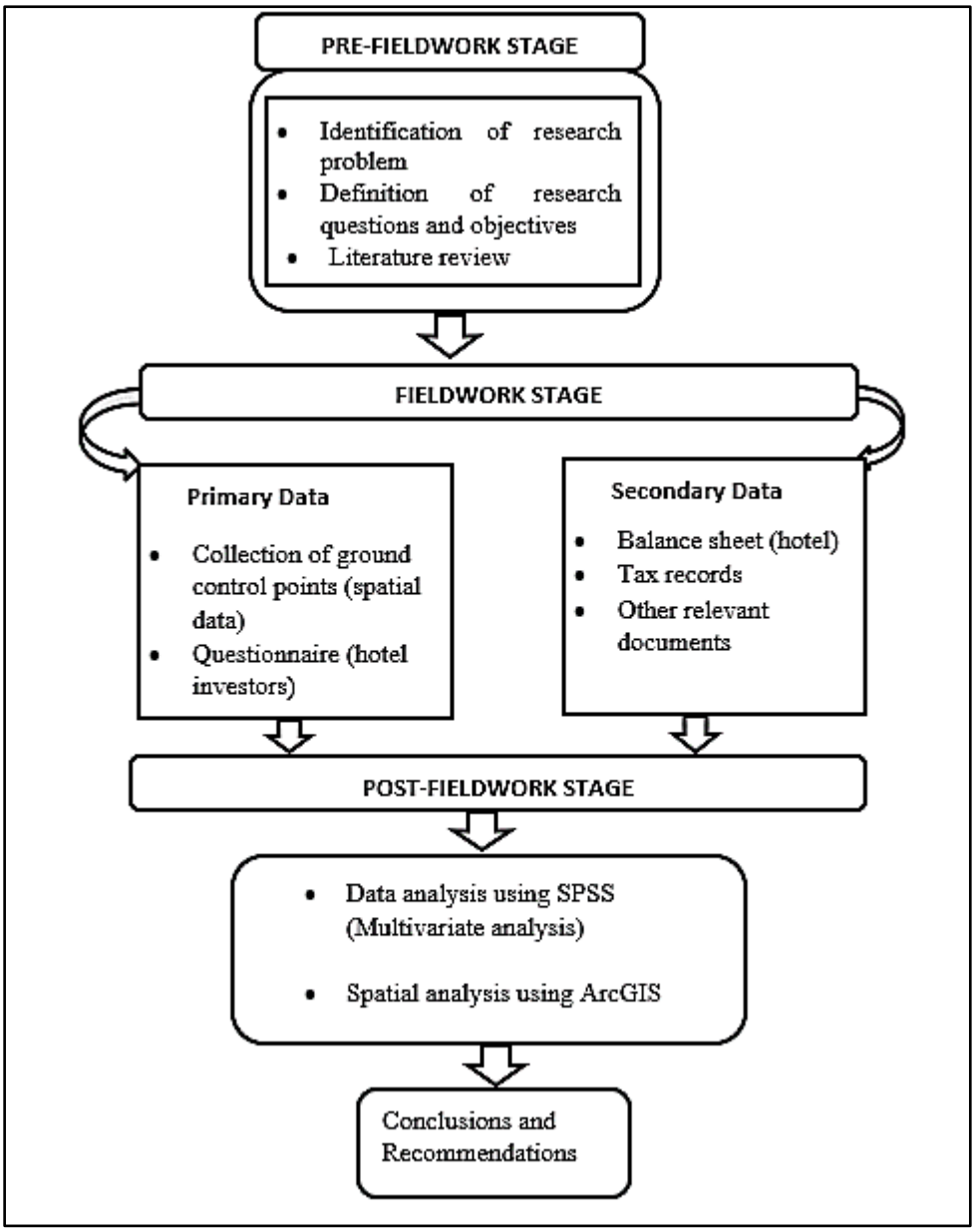

Figure 2 Research Workflow

3.6 Data collection approaches

Data collection involves a systematic and resolute method that is mainly determined by the research design that is best appropriate to accomplish the research objectives (Jans, 2011) . The data collection approaches involved both primary and secondary data.

3.6.1 Primary data collection

A primary data is a first-hand data that are collected by the researcher for a specific research aim. It may be to response to a particular research question, solve a particular research

problem, examine or test some research hypothesis, validate an existing research finding, and better understand some phenomenon. The primary data was collected from hotel investors (owners) in Wa. The mode of collecting primary data is discussed in the section below;

3.6.1.1 Questionnaire

Structured research questionnaire was used to solicit for data on the spatial and environmental drivers of hotel investment and trend of investment returns. The questionnaire was coded following statistical rules for using nominal, ordinal and interval data.

3.6.1.2 Interviews

Qualitative interviewing approach specifically semi-structured interviews was used. Qualitative interviewing is based on discussion with the prominence on the researcher listening, questioning interviewee answering (Warren, 2011). Semi-structured interviews are known of its flexibility, mutability of the interviewee to aid the interviewer figure-out the unexpected theme of the interviewer (Bryman, 2012).

Nevertheless, to ensure lenience in soliciting the essential information, the research interviews used both close and open-ended questions. The significance of this approach is that, it gives the interviewer to discover more broadly new ideas that may come out after the interview process (Mason & Jennifer, 2011). Based on that, the research solicited for information from the Spatial Planning and Land Use Authority, Wa, Ghana Tourist Authority on the extent of urban growth, nature of hotel demand, occupancy and returns ratio, influencing factors of local demand, future prospect of planning on hotel, and changes that has occurred in hotel development over the years, and its future prospects.

3.6.1.3 Observation

Direct observation approach was used to examine the spatial extent and its environmental impact on hotel investment in Wa. This involved; structure of property, external amenities,

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security, and spatial planning. These variables were used to examine their contribution to the spatial extent and the performance of hotel.

3.6.1.4 Sampling

According to Daniel (2012a), the reasons of exploratory research is not to make oversimplifications to a bigger population. Instead, the aim of the study might be to seek a broader scope about the nature of the research problem of the topic to be explored, test methodological approaches, produce hypotheses and research theories, and find probable problems of later research actions.

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The aim of the study is to establish that a particular distinguishing feature is present, then the researcher needs only a single instance of the features. The choice of nonprobability sampling and probability sampling would be practical for such studies. Based on this, this research used the Probability sampling approaches, specifically the stratified random sampling approach. Stratified random sampling is a probability sampling process in which the target population is first segmented into mutually exclusives, similar segments called (strata), before a simple random sample is used to select from each stratum and are proportional to the representation of the segments in the targeted area (Daniel, 2012b). The sampling frame includes records of all registered hotel category in Wa Municipality. The hotels were segmented into classes as first, second, third (Budget) classes based on Ghana Tourist Board standards. Table 5 below shows the registered hotels in Wa Municipality.

Table 5 Sampling frame for hotel space

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HOTEL NAME	GRADE 1
In-Service Training Centre	
Queens Valley Hotel	
Catholic Diocesan Guest House	
Jam Guest House	
Sem B Lodge	

HOTEL NAME	GRADE 2
Blue Hill Hotel	
Upland Hotel	
Nuoyong Empire Hotel	
The Pelican Hotel	
Delegio Hotel	
Grand Hyatte Hotel	
Royal hotel	

HOTEL NAME	GRADE 3 (Budget)
Victory Lodge	
B.N Royal Lodge	
Destiny Guest House	
DE-Lourdes Guest House	
Hotel Dupong	
Big White Lodge	
Jamboree Lodge	
Kedge Lodge	
Kunateh Lodge	
Franquai Guest House	
Olamso Lodge	
Ansua Guest House	
Numbu Lodge	
Pet Vero Guest House	
Hosanna Royal Lodge	
Dolidona Guest House	
Traditional Touch Inn	
GNAT Hostel	
Kaatoore Hotel	
Kiza Rest House	
Odo Hotel	
Segitos Lodge	

Source (Ghana Tourism Authority, Upper West, 2019)

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3.6.2 Secondary Data

Secondary data such as records balance sheets, brochures, annual reports, and municipal records, and other necessary documents of hotel were collected.

3.7 Data Analysis

The analysis for this study involved three analytical approaches. The first part involved thematic analysis from qualitative data, spatial analysis, and statistical analysis. The sections below explain the data analysis for each research objectives in reference to literature.

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1. Examining the spatial extent of commercial real estate investments

In chapter 2, Godinho, Phillips, and Moutinho (2018), and Zhen, Du, Cao, and Mokhtarian (2018) elaborates that neighbourhood and spatial attributes influence investors choice of location selection and market search, and how investments differ from different locations. Also an empirical investigation by Mimi Li et al. (2015) goes beyond the fore. They designed a model for estimating the spatial impact on commercial real estate investments. However, their model criticizes that determining the distance to commercial facilities does not only ensure significant investment performance but the relationship between land use mix around the investment.

They however, used the sensitivity linear regression model $R = \sum \frac{(ni(ni-1)}{N(N-1)}$ to evaluate number of land use mix within the investment neighbourhood. Their categories include; cultural attractions, shopping attractions, other commercial use land area, number of natural attractions, traffic land area, number of bust stops and number of man-made attractions. The reasons why this study will not use the models from Shen, 2005; Chiarazzo, Ibeas, et al., 2014; North and Miller (2017) is that, their model based on traveling cost as against distance as a major determining factor to determine the spatial impact of hotel space.

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However, the study area is now emerging with scattered hotel spaces. Based on this, the study applied methods of the fore. The first aspect involved the collection of ground control points of hotels in all neighbourhoods in Wa using GPS. The coordinates include; spatial attributes such as shops, roads, hospital, banks, and any environmentally related features such as pollution, availability of green areas, and availability of sewerage systems that have an impact on the property. The coordinates were imported in ArcMap GIS application software and estimated a multiple ring buffer of 500, 1000, and 1500 of hospitals, shops and banks to hotels. The study avoided the use of bus stops as an urban infrastructure because the Municipality do not have an organise transport system that require the availability of bus stops. Based on this, the study computed the number of stops from the Central Business District to hotels to understand the distance effect of travelling to hotels using network analysis. As a measure of impact, the second step established the relationship in distance between the spatial attributes to the hotel. This was estimated using the proximity analysis from SPSS. This was used to test the hypothesis that the spatial effects of urban infrastructure in emerging city has positive impact on a hotel performance.

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To test the spatial effect, a dependent variables for the test include; Grade 1, 2 and Budget hotels. While the independent variable include; the distances from, banks, shops and hospitals. The analysis used a confidence level of 95% and selected decriptives. This enabled to determine the correlation between vectors of values among the dependent and independent variables.

2. Examining the indigenous drivers of hotel investment

The research investigates the indigenous drivers that influence the performance of hotel investment. The research considered the supply side, thus the investor perspective. Following chapter two, it has been recognized that some drivers are developed city specific.

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Therefore, this study used both descriptive statistics and non-parametric (factor analysis) statistical approach in SPSS to determine the key contributors to investment drive from varied factors. Based on the output from the analysis, the study applied the bivariate correlation function to determine contributions of each key drive to investment. This helped to test Chiarazzo, Ibeas, and Ottomanelli (2014) idea that there is positive gains when the commercial real estate investment is located in a prime location. See table 6

Table 6 indigenous drivers of hotel investment in Wa

Hotel	Variables
Location	Noise
	Accessibility
	Crime
	The size of local demand
Environmental quality	Sewage management
	Pollution
	Availability of green area
Service supply	Telecommunication connections
	Water quality
	Density of Road Network,
	Quality of Road Infrastructure
	Access to power lines
Cultural factors	Religious belief
	Land tenure impact
	Social attitude

Source: Field data, 2019

Descriptive analysis for locational attributes includes accessibility, the study measured the responses using a 5-point Likert-scale; 1-strongly agree, 2-agree, 3-strongly disagree, 4-disagree, 5-indifferent. The study further crosstab the availability of road against the characteristics of the road network to these hotels. The purpose of this analysis was to determine where accessibility forms major part of locational choice of hotel investors. Crime,

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Noise, and size of local demand data were equally measured using the code 1-strongly agree, 2-agree, 3-strongly disagree, 4-disagree, 5-indifferent. Here, a bar chart was used to depict the response.

To test for ***H2***: Locational attributes of hotel investment are the key drivers of performance. The study measured the locational attributes against location as a factor using bivariate correlation function and estimated significance level using the 2-tailed test of person correlation co-efficient. This analysis helped to determine whether investors consider locational attribute as an inherent factor of hotel investment. Other factors were measured using the univariate factor analysis, the test between subject effects were determined and then estimated the marginal means.

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3. Assessing hotel investment returns in Wa Municipality

The third objective assesses the average investment returns of hotels as a measure of performance of commercial real estate investment. To Assess the returns, the study applied two approaches. With the first approach, the study used the profitability test to determine the returns from hotel investment. The study also used the occupancy ratio of hotel investment to determine its performance. The first analysis was based on the profitability test model from Jiang, Qi, and Tang (2018). This was computed by considering most recent data on quarterly gross profit. These methods helped to discover that firms with higher profitability receive higher future investment returns.

Moreover, this approach is highly significant for firms with large capitalization and higher investment growth drive. Their method also showed that there is a positive relationship between expected profitability and expected returns. This is much stronger in firms with much friction in lower investments than among those with higher friction. The study used Excel to conduct a test whether there is an increase in investment returns amidst surges in

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supply. The study conducted a trend analysis of average returns from 1995-2019, using an interval of 24 years. Annual average returns were grouped between GH3,000.00 to GH₵6,000.00, GH₵6,000.00 to GH₵9,000.00,……GH₵13,000.00+. This was conducted considering all the hotel categories.

The occupancy ratio was determined using certified data from the Ghana Tourist Authority between 2010-2019. A line graph was used to determine the trend of rise and fall in occupancy ratio.

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3.8 Description of case study area

Wa Municipality is the regional capital of the Upper West Region of Ghana. Geographically, it has a landmass area of 234.74 square kilometres. The Municipality lies within longitudes 1°40' W to 2°45' W and latitudes 9°32' N to 10°20' N. It shares borders in the East with Wa East District, North with Nadowli District and South with Tuna/Kalba District in the Northern Region of Ghana.

Wa Municipality, is increasingly experiencing and growth in both human population and infrastructure. Statistical regards from the 2010 Population and Housing Census shows that, Wa Municipality has a population of 107, 214 (2013) representing 15.3% of the total population in the Upper West Region. The growth of the Municipality has given rise to the development of its rural areas.

According to the statistical records, rural areas in Wa Municipality have a population of 36,163 representing 33.7 percent of the total population in Wa Municipality (GSS, 2012). The 2000 and the 2010 population and housing censuses discovered that the population of Wa Municipality has increased from 98,675 to 107, 214. The growth in population showed a physical expansion of the built-up area of Wa Municipality from 73.99 km² in 1991 to 144. 88 km² in 2011 (Mawuli, 2015). According to Mawuli (2015), the already existing built-up

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area which covered 12% of the total land area of Wa Municipality has increased by 23% of the total area of the Municipality in 2015. This gives an indication of fast Wa Municipality is growing and developing.

3.9 Urban development in Wa Municipality

Urban development in Wa is characterised by good principal road networks connecting assess roads in most neighbourhood of the Municipality. Based on availability of drainage facilities, socio-economic facilities, accessibility to houses, approved layout of neighbourhoods, and good and orderly development, the Municipality have been classified into 1st class, 2nd class and 3rd class residential areas. According to Wa Municipal Assembly, the first-class residential areas covers 4 neighbourhoods. This includes; Degu Residential Area, Airport Residential Area, Tendamba/Kpaguri/ Xavier Area, and some parts Dzudedayiri. Kabanye and Zongo is the only neighbourhood recognized as Second Class Residential Area.

The neighbourhood is classified as second class because, it is characterised by overcrowding, poor sanitation, erosion, due to rapid urbanization. Eight (8) neighbourhoods out of the 13 are classified as third-class residential areas. These neighbourhoods have specially designed layout and are experiencing swift increase in infrastructure and economic development.

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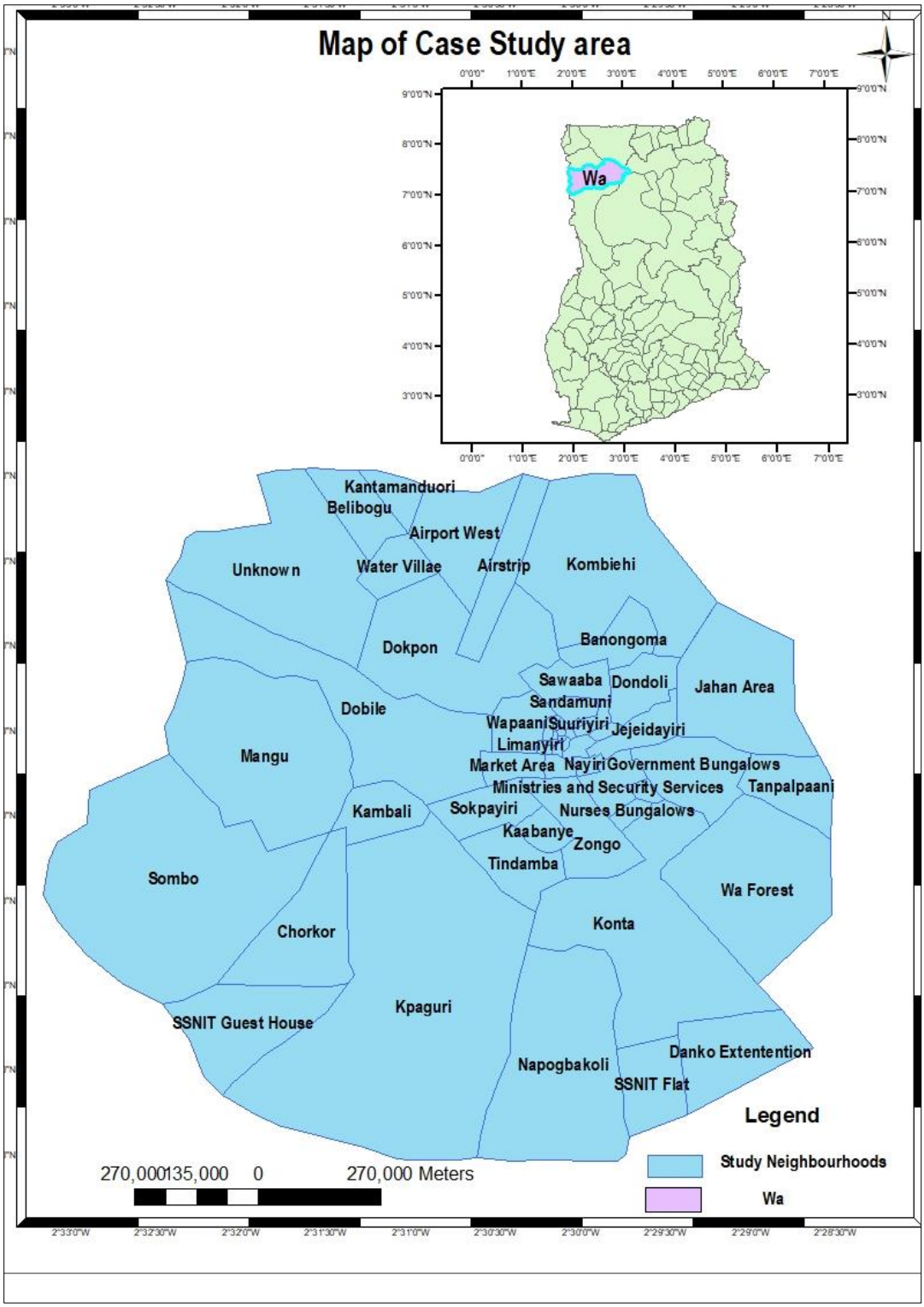

Figure 3 Case study ***(Authors Construct, 2019)***

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CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter present and analyse results based on the research objectives of the study. The first set of analysis presents the bio-data of investors. The second part presents and discusses the spatial extent and spatial effect of urban infrastructure service on hotel investments. Thirdly, the chapter analyses and discusses the indigenous drivers of hotel investments in Wa Municipality. The final section of the chapter analyses the returns (income) of hotel investments in Wa Municipality.

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4.1 Background of respondents

The section presents the gender, age distribution, investor's qualification, and management description. The purpose of this section is to understand the managerial impact of hotel investment in Wa.

4.1.1 Gender distribution of hotel investors in Wa

Hotel investors in Wa constitute both males and females. Table 7 shows the percentage distribution of the gender of hotel investors in Wa.

Table 7: Gender distribution of respondents

Gender Distribution		
Gender	Total Respondent	Percentage
Female	3	9.09
Male	30	90.90
TOTAL	33	100

Table 7 showed that most hotel investors in Wa are Males representing 90.90%. Female investors constitute about 9.09% of the total hotel investors in Wa. These 3 females who owned hotels seem striking. According to one female Budget hotel owner "I *built the hotel*

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myself using my retirement benefit". The results do not support Kuusaana et al's, (2016) assertion that traditionally women are not allowed to own landed property in the Wa.

4.1.2 Age distribution of investors

Table 8 presents results of age distribution of hotel investors in Wa Municipality. The ages were grouped using a five-year interval scale of 30-85+.

Table 8 Age distribution of respondent

	Age Distribution				
Age	Grade 1	Grade 2	Budget	Total	Percentage %
30-45	0	0	0	0	0
45-50	1	2	1	4	12
50-55	0	2	3	5	15
55-60	1	1	6	8	24
60-65	1	1	6	7	21
65-70	1	1	4	6	18
70-75	0	0	1	1	3
75-80	0	0	1	2	6
80-85	0	0	0	0	0
85+	0	0	0	0	0
Total	4	7	22	33	100

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Table 8 depicts that no hotel investor fell between the ages of 30-45 category. Budget hotel has most of its investors between the ages of 55-60, 60-65, and 65-70 representing 6, 6, and 4 investors respectively. Also, it was realised that Budget hotels have a growing number of investors between the ages of 50-55 representing 3 investors. This confirms why 22 hotel investment in Wa Municipality are Budget hotels. Grade two hotels seem to have most of its investors within the ages 45-50 and 50-55. Grade one hotels shows quit different trend in age distribution. From table 8, it is realised that Grade one investors fell between the ages of 45-50, 55-60, 60-65, 65-70. Generally, the 24% and 21% representing ages of 55-60 and 60-65 shows a good sign of experience in the hotel industry in Wa. Even the 18%, 6% and 3% looks remarkable as investors within this age category are still in good shape.

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4.1.3 Investor's qualification

Developers qualification was estimated considering the educational system in Ghana. Table 9 shows the highest qualification level of hotel developers in Wa.

Table 9 Highest qualification of hotel developers

Developers highest qualification					
		Hotel Grade			Total
		Grade 1	Grade 2	Budget	
Developers Qualification	Basic education	0	1	2	3
	Secondary education	0	4	6	10
	Polytechnic	1	1	4	6
	Vocational/technical education	0	0	3	3
	Bachelors education	1	1	5	7
	Master's degree	2	0	2	4
Total		4	7	22	33

Table 9 reveals that investor's qualification was classified as Basic education, Secondary education, Polytechnic, Vocational, Bachelor's degree, and Master's degree. Form the table it can be observed that all developers in Grade one hotels have tertiary education in the management of the hotel. This includes; 2 Master degree, 1 Bachelor and Polytechnic degree. investors of Grade 2 hotels have Basic, Secondary, Polytechnic and Bachelor's degree. Also, it can be revealed that the highest qualification of Grade 2 hotels is Tertiary education. With respect to Budget hotels, it can be observed that a growing number of investors have Secondary education (6), Bachelor's degree (5), Polytechnic education (4), and 2 Master's degree. The balance in the qualification structure among investors looks good. However, it was revealed that only those with polytechnic education have certificates in Hospitality and Tourism management.

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4.1.4 Hotel Management description

The study further determined the description of hoteliers in Wa. Management description in Wa showed that hoteliers are mostly Nephews, Brothers, Brother-in-laws, and hotel professionals. Table 10 shows the management description of hotels in Wa.

Table 10: Hoteliers description in Wa Municipality

	Hoteliers Description		
	Budget	Grade 1	Grade 2
Nephews	6	0	0
Brothers	7	0	1
Brother-in-law	6	1	2
Professional	3	3	4
Total	22	4	7

Table 10 showed that Budget hotels are mostly managed by Brother-in-laws and Nephews representing 12 respondents. Also, 7 brothers of investors manage budget hotels on their behalf. Moreover, it can be observed from Table 10 that only 3 professionals respectively manage hotels. With respect to Grade 1 hotels, 1 and 3 respondents representing Brother-in-laws and Professionals manage hotels on behalf of their developers. Grade two hotels are mostly managed by professionals, Brother-In-laws, and brother, representing 4, 2, and 1 respectively. The result from Table 9 suggests that despite a good educational background of developers, hotels are managed by family lineage. For example, it can be depicted in Table 10 that only 10 hoteliers are professionals with expertise in the hospitality industry. An in-depth interview with the Ghana Tourist Authority (GTA) showed that these trends has had effect on hotel management regarding attitude towards visitors, poor accounting and reporting, and weak relationship with service providers. According to GTA, this has led to a near collapse of some Budget hotels. Following these results, the impact is depicted in section 4.5

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4.2 Description of Hotel investments in Wa Municipality

Qualitative data gathered from the GTA shows that, hotel investments in Wa have been categorised mainly into three Grades. These include: Grade one, two and Budget respectively. Statistics from the Authority indicated that, there are 4 Grade one hotels, 7 Grade two hotels, and 22 Budget hotels respectively. This gives strong evidence that most of the hotels in Wa do not meet the standards of a Grade one and Grade two hotels. The study further investigated why Budget hotels constitute the most investment drive of Wa hotels. The top management of the GTA indicated that "E*ven though the city keeps growing, most of the hotel investors still keeps investing in Budget hotels, because, the taste of local people for Budget hotels hasn't changed". It was further revealed that because incomes of the people are low, local investors fear of losing their investment when invested in Grade 1 and 2 hotels*. According to the GTA, Grade 1 and 2 hotel investors don not target local clients but rely on top government officials, NGO's, and other high professionals. Earlier findings showed that when cities grow economic events create competitive advantages for investors, and consumers through economies of scale in commercialisation, and infrastructure development (Mimi Li et al., 2015). Deriving insight from this literature, the common understanding that can be derived is that looking at the pace of growth of Wa, local people are not taking advantage of the development to change their taste for another hotel category. Delving deep into the discussion, the comment form the Top management of Wa Tourist Board gives a clear sense of direction of Budget hotel business development, because, it can serve as a good impetus to reform the Budget hotel market in the long run. In the short run, it will impact on foreign tourist regarding their days of stay. Section 4.3 presents the spatial extent and its relationship on hotel investment.

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Table 11 Records of hotel types in Wa Municipality

HOTEL LEVEL	TOTAL NUMBER	PERCENTAGE (%)
GRADE 1	4	12
GRADE 2	7	21
BUTDGET	22	67
TOTAL	33	100

Source: Wa Ghana Tourist Authority, 2019

4.3 Spatial extent and its relationship on hotel investments

Chapter two showed that the distribution of hotels is not randomly dispersed through space. Instead, the locations of hotels are usually important to accomplish an agglomeration effect (Pardo-garcía & Mérida-rodríguez, 2018). To establish this relationship, the study collected ground control point of hotels from the field. The overlay of ground control points of hotel locations in the ArcGIS software shows the results in figure 5.

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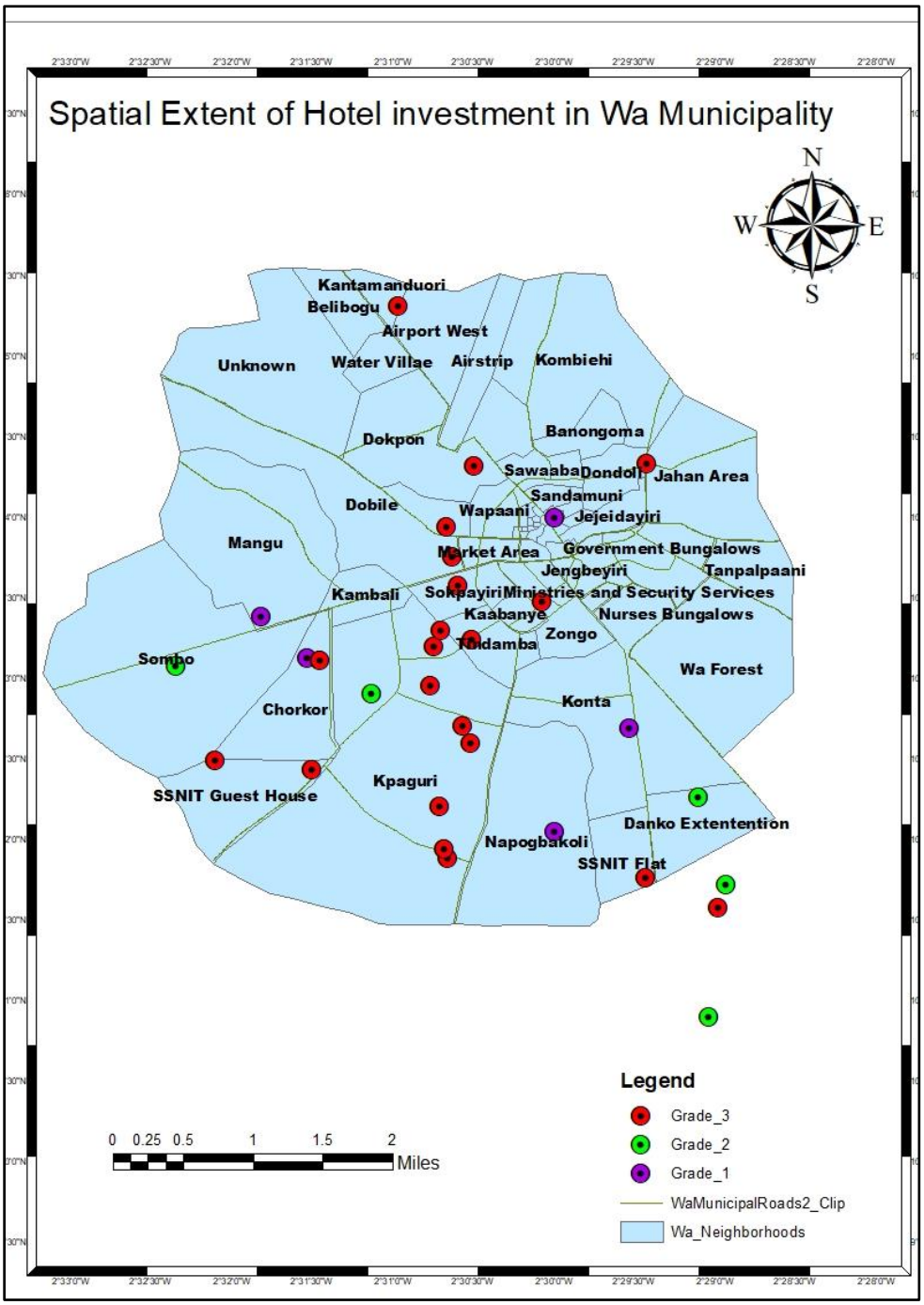

Figure 4 Spatial distribution of hotel investment in Wa Municipality

Source: field data, 2019

The results indicated the spatial extent of the distribution pattern of hotel investments in Wa Municipality. The results show that most Budget hotels are spread mostly around the inner city of the Municipality.

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Following figure 5, in neighbourhoods like Dobile, Market area, Wapaani, Jengbeyiri, Tindamba and Zongo neighbourhood, Budget hotels dominated over other hotel Grades. Thus, 9 Budget hotels out of 22 respectively. This result can be analysed based on the fact that, these neighbourhoods are accessible in terms of distance to hospital, shopping centres, entertainment centres, transport and other inner-city urban services.

Again, it can be observed that Budget hotels keep spreading around the outer zones of the Municipality. That is why it is possible to see Budget hotels at the outskirt of the shapefile. Also, most hotels of Grade one and two categories can be located in neighbourhoods such as Napagbakoli, Chorkor, Mangu and Konta, Danko Extention, and Sombo. This implies that, as the city grows, hotels with high standards are located away from the city centre. From figure 5, it can be revealed that 2 hotels out of 5 Budget hotels are located outside the captured neighbourhood of the Municipality. Field observation confirmed that, these hotels are located along the high-way of the Wa-Kumasi Road. However, it good to find Budget hotels clustering around Grade one and two in the outer zone of the shape file.

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This directly confirm Mboup and Oyelaran-oyeyinka (2019) idea that at the Municipal level, the emergence of a city is based on the fact that the middle of the city is not recognised as the only centre that grows itself, but, many more several sub-centres collectively develop a networked urban system, with sub-centres performing different functions. However, the pattern of spread of investment products cannot be determined. For example, the investment locations of Budget hotels do not follow any pattern unlike Grade one and two hotels that are mostly located outside the inner-city of the Municipality. Even though field observation revealed that these Budget hotels are the oldest hotels in the neighbourhood, yet, have not undergone massive improvements which commands for high Grade hotels. Based on these interpretations the study can infer that hotel owners do not take advantage of the location of the inner city to improve their hotel Grade.

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4.3.1 Spatial extent of urban infrastructure services and hotel investment

The performance of hotel investment is also dependent on linkages of urban infrastructure services to the hotel (Zhen, Du, Cao, & Mokhtarian, 2018). Urban infrastructure services for the purpose of this study includes shopping centres, hospitals, banks and roads. Figure 6 depicts the results form GIS operations.

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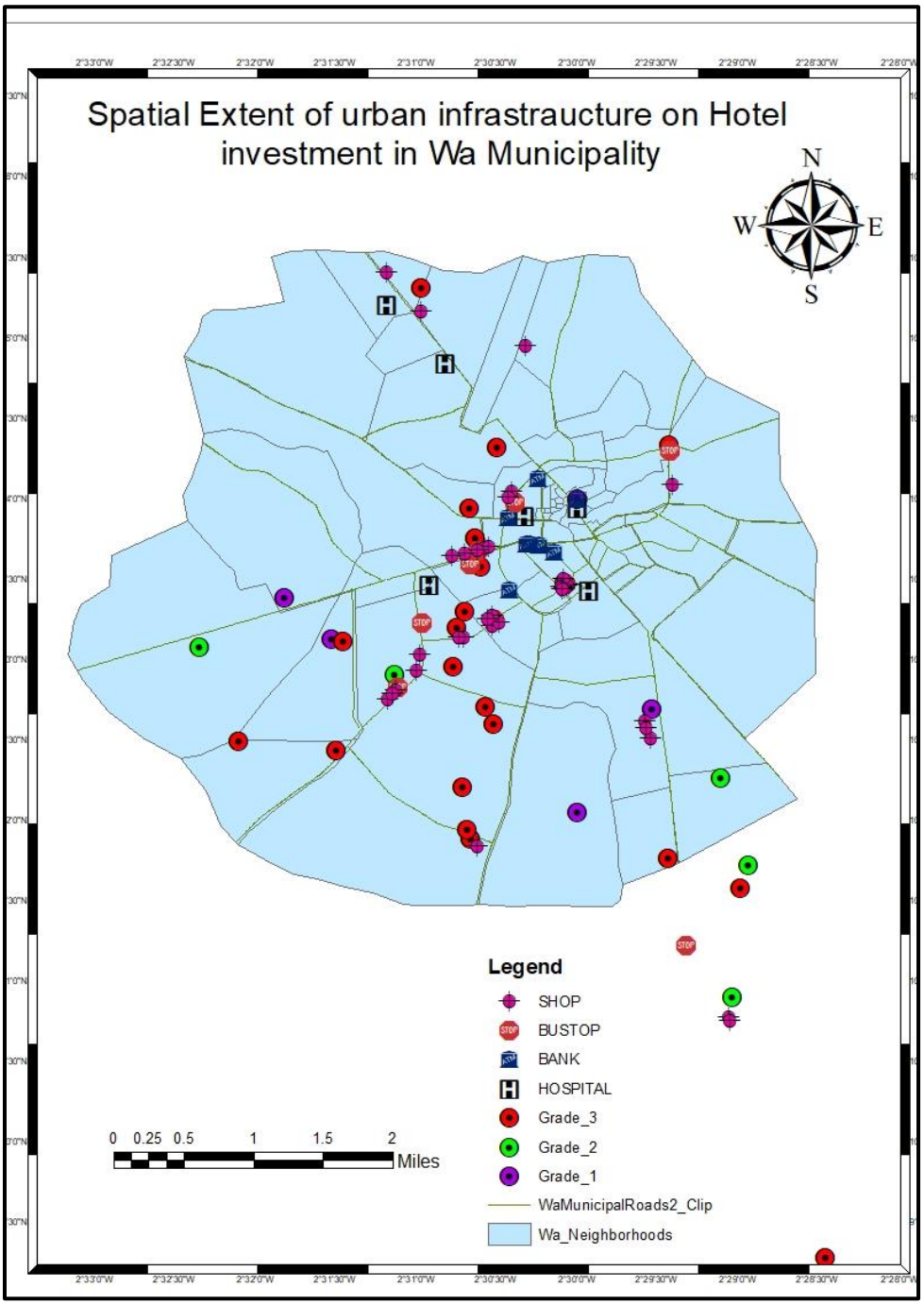

Figure 5 Spatial distributions of urban infrastructure services and hotels

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The study collected ground control points of these services and overlaid them on the neighbourhood map of Wa Municipality. The results showed that, there are 33 shops, 7 financial institutions, and 5 hospitals located around the neighbourhoods of these hotels respectively. Out of 33 shops, 24 are located around the neighbourhoods of Budget hotels, 5 around Grade one hotel and 4 at the neighbourhood of Grade two hotels. This implies that shop investors target hotel locations that have the highest local demand. However, it was observed that these shops are not well-structured, yet, attract the lodgers of these hotels. The consequence of this results as argued by Gozgor and Kablamaci (2015) is that these hotels and spatial organization with obsolete design in unsuitable location will attract low rates and even high vacancy. On the contrary, though most hotels around Dobile are obsolete, prices are high with low demand. These results give a clear characteristic of an emerging hotel market. However, the impact of those hotels on shops is not determined to reflect its impact on hotel demand and performance. Meaning, this is a limitation of the study that needs further studies.

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If we now turn to banks, figure 6 showed that almost all the financial institutions are located in the inner city of the Municipality, with most Budget hotels being the closest, followed by Grade 1 hotel respectively. Field observation shows that these financial institutions have limited withdrawal stands that which are located in the inner city. The ripple effect could be that clients who want longer stay may demand for hotels in these locations.

With regards to road network, the study uncovered that most hotels are located around a major road. However, it was observed that access roads linking to Grade 1 and 2 hotels are feeder and deplorable. Based on that we can infer that Budget hotel investors are strategic. Thus, they locate their hotels closer to major road network.

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Following interpretation above, it can be observed that the development of urban infrastructure services has a positive impact to the hotel demand. However, the weakness of the study is that literature failed to determine that the nature of roads and its contribution to accessibility. As a contribution to fill that discussion, the study further used the network analysis to examine number of stops using roads in Wa from the Central Business District to suffice the argument. The basis of using this approach was based on two main proximity problems facing the hotel market. These include; Lack of provision of shuttle services and Lack of website. Using the network analysis in figure 7 further revealed that there are a large number of stops from the CBD to some nearest hotels. This result has impact on the transportation network to hotels. This result confirms why the nature of Wa neighbourhood roads do not take into accounts bus stops. Following this, the study suggests that the large number of stops and the unavailability of organized transportation system in Wa, have impact on hotel performance as clients would have to walk a long distance to access public transport.

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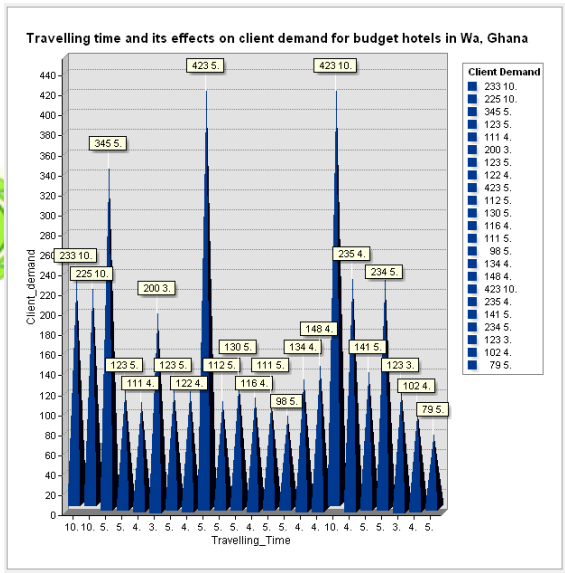

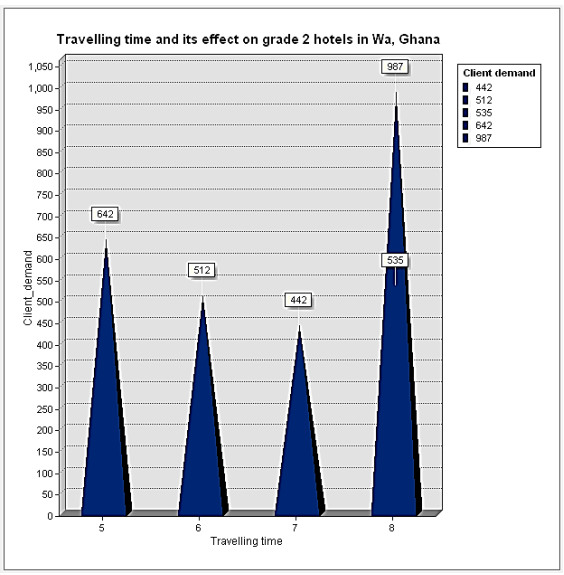

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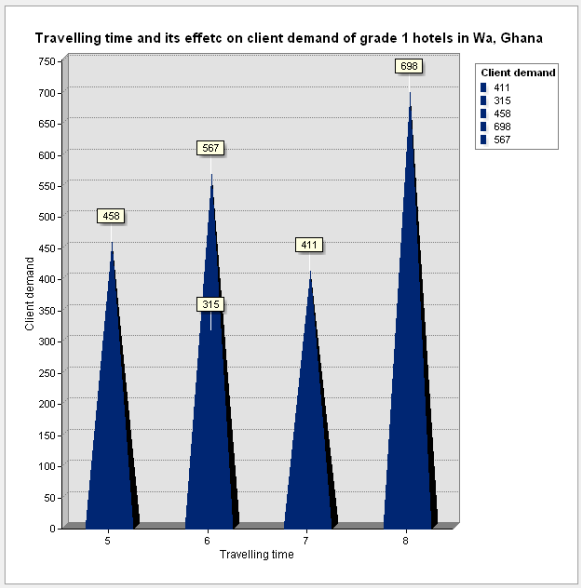

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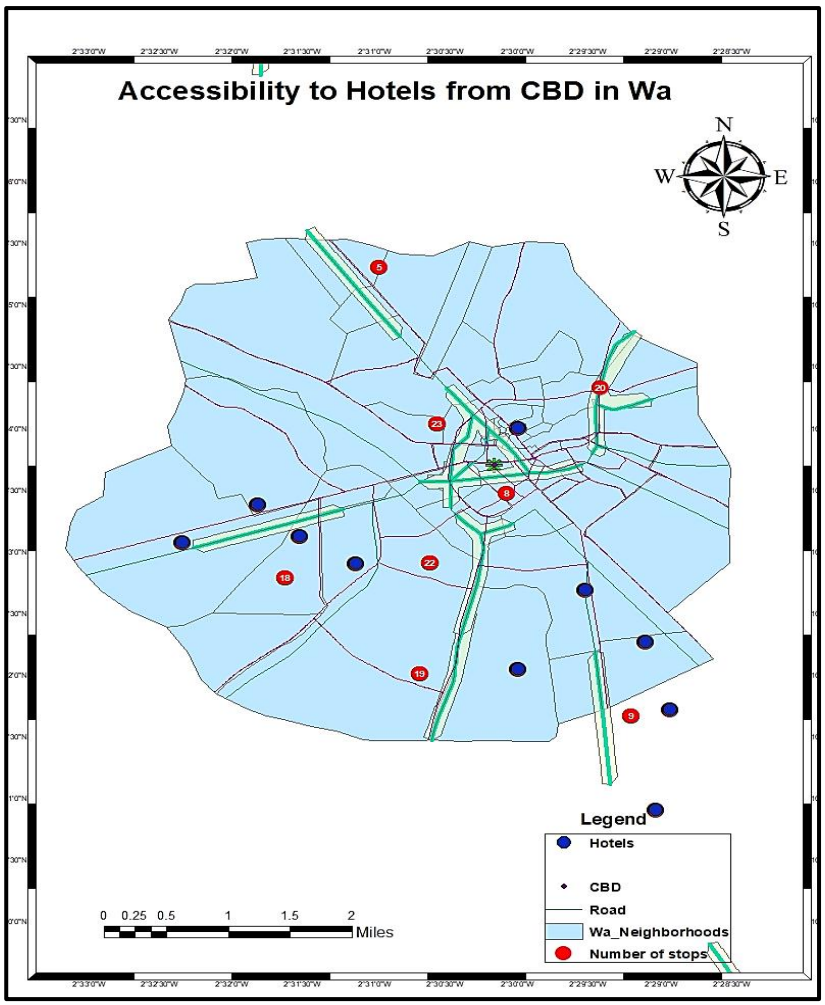

Figure 6 Hotel Accessibility in Wa

Source: Field data, 2019

4.3.2 Impact of urban infrastructure on hotel performance

Urban infrastructure services have an inherent effect on the functioning of hotel investment. According to Pardo-garcía and Mérida-rodríguez (2018), populations located at peripheral of a growing city often have a high struggle to move to central locations closer to the busy areas of the city despite the core opportunity cost of commuting long distance. This literature seem bias, because, it is not only necessary to determine how accessible are these urban infrastructures to city centre but to hotels. This implies that investments' accessibility is equally important as social mobility in ensuring urban development. To determine this the

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study used a multiple ring buffer of 500, 1000, 1500 standard measure instead of 200, 400,…..1000 used in developed cities (Ahmad et al., 2017; Zhou and Clapp 2015). Figure 8 shows the impact of shops, hospitals, and financial institutions on hotels.

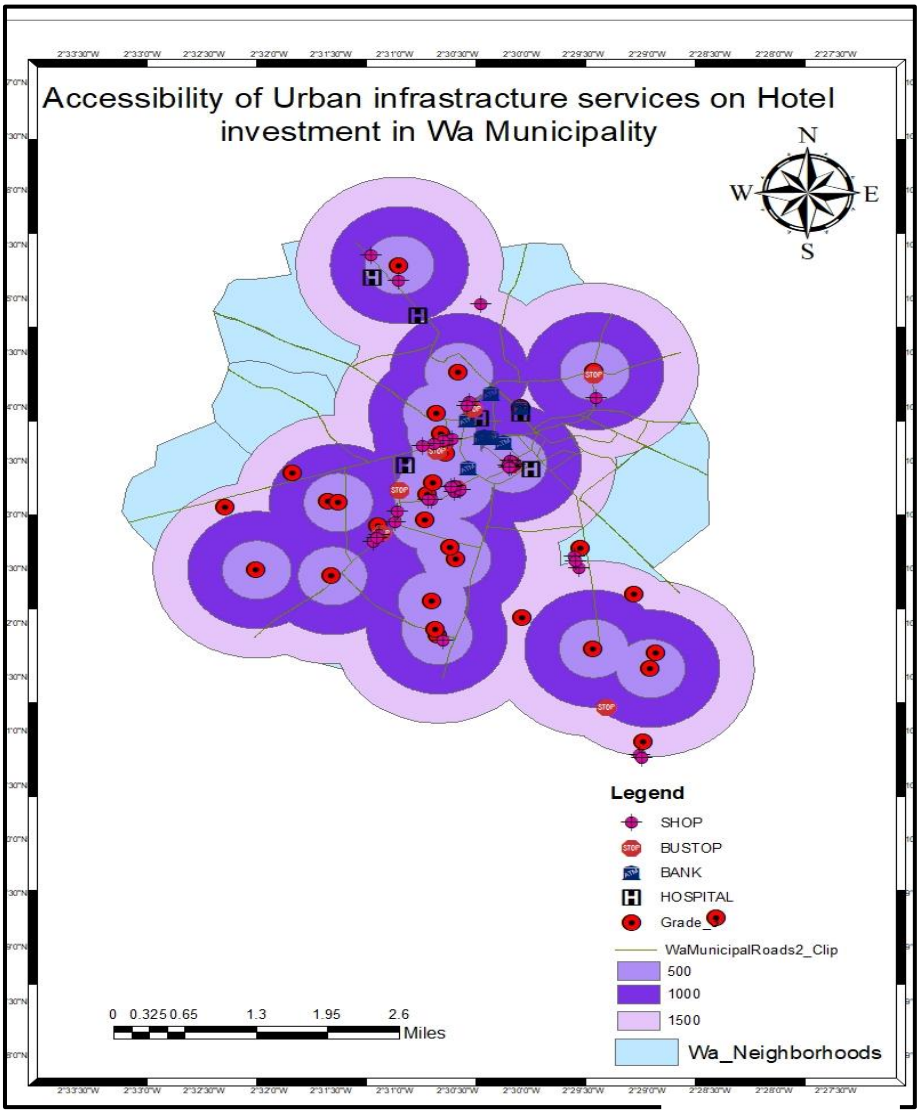

Figure 7 Accessibility of urban infrastructure services o[illegible] Wa

Source: field data, 2019

Spatial extent of a property are retrieved by spatial queries that select property based on the location and its relevant distance (Jiang & Yao, 2006 ; Priya & Kalpana, 2018 ; Lu, Lung, & Xie, 2018). Figure 8 shows accessibility of hotels on urban infrastructure services in Wa Municipality. The results show a buffer of 500, 1000, 1500 meters distance to these services. The results showed that most of the hotels in the Municipality have few shops around them.

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From figure 8, it can be depicted that at a distance of 500 meters only 14 hotels have access to them. These hotels are hotels that are located at the central business district. That is why it is not startling to locate more than one shop around a hotel. This gives an indication that clients staying in hotel outside the 500 meters accessibility buffer must walk a long distance to access basic services. In support, field observation showed that most hotels do not provide basic shopping services most especially Budget hotels. Based on that clients must walk a long way to access shops. It was observed that hotels that are located far away from road side have no shops around. This implies that clients who have no basic information about the neighbourhood (Napagbakoli, chorkor, Mangu and Konta, Danko Extention, and Sombo) may face challenges accessing shops for their stay. Locals who have basic information about neighbourhoods may demand such hotels at a low pace.

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Results from accessibility to banks showed that most of the hotels are located far beyond the 1500 metre buffer. Only 6 hotels located around the CBD have easy access within 500 metres buffer. Field observation, however, showed that the bank, mobile money transfer stands are located in some busy neighbourhood where clients can access. But the distance to these mobile money stands was not determined. Giving these indications, it can be inferred that clients who wish to access hotels must have enough money on them.

Also, figure 8, depicts 5 health facilities in Wa. Within a buffer of 500 and 1000 metres most hotels can easily access it. Hotels located in Napagbakoli, Chorkor, Mangu and Konta, Danko Extention, and Sombo must travel about 5 minutes to access these facilities. Field observation indicates that most of these hotels have no linking road to the main high way where clients can access public transport easily in an event of the need for medical care. Following the above, Shen (2005) observed that there are lower mean values for accessibility to hospitals and schools from hotels. His results is a true reflection of hotels in Wa. But, the new development in Wa hotel market is the accessibility to financial institutions and banks.

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Following the above results, the data was further tested using the proximity analysis model. This can be depicted in table 12

Table 12 correlation matrix of hotel and public infrastructure accessibility

Linear sensitivity correlation matrix			
	Correlation between Vectors of Values		
	Hospital	Shopping centre	Bank
Grade 1	1.000	.312	.283
Budget	.312	1.000	.018
Grade 2	-.283	-.018	1.000

Source: Field data, 2019

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Zhou and Clapp (2015) in their estimation used the conditional logit model to examine facility locations, and selections near limited-access highways to determine omitted variables. It was observed that there is high accessibility to the facility if it has a good high way access from the buffer to the hotel. Their model seems weak because they failed to examine the proximity of urban infrastructure on hotels. This study further goes beyond to determine the proximity of urban infrastructure services on hotels using proximity test. From table 12, the proximity analysis results in Wa shown that Grade one hotels have weak correlation to banks. Budget hotels have weak correlation to banks only, whilst Grade two hotels have negative correlation to hospitals and shopping centres. Generally, the table can be concluded that all these urban infrastructure services are negatively and weakly correlated to hotel. Therefore, we reject the hypothesis that the spatial correlation of urban infrastructure on emerging city has positive impact on hotel accessibility. This implies that focus of urban infrastrcuture services on the part of invetors lies on the provision of shopping services and mobile money sevice. At the Municipal level, road infrastrucrure improvement, and the consideration of hotels when providing health failitires is equally neccesary.

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Section 4.4

4.4 Indigenous drivers of hotel demand in Wa Municipality

This section present results of the indigenous drivers of hotel investment in Wa Municipality. Here, these drivers are classified in Ex-ante and Ex-post drivers of hotel investment in Wa. From the field, the ex-ante factor was only economic driven factors. The Ex-post factors include; cultural factors, locational attributes and environmental quality. These drivers are presented and analysed in the sub-sections below.

4.4.1 Cultural drivers

The study found that hotel investments are driven by the cultural norms of Wa. The study found that religious belief and social attitude toward hotels influence client demand for hotels. With respect to religion, most investors indicated that Wa is purely an Islamic community that have a bad perception of hotels especially the Budget Category. A summary of responses from 16 hotel investors out of 33 coated that:

"We see Budget hotels as breeding grounds for fornication".

One of these investors further indicated that, because of these beliefs it was difficult for lands to be released for such purpose in the 1990s. It was shocking to understand that during those days, local investors did not indicate the purpose of purchasing the land. Current developments indicate that this belief has reflected in the emergence of Grade one and two hotels at the peripheral of the Wa town.

The study further revealed that income and demand attitude of the local people influence hotel performance in Wa. Although the purpose of hotel investment is not dependent on the indigenes, however, traditionally, it was realised that, most of the people do not use hotels for its purpose, but, for "short time". Short time in this study means; booking a room to have an affair with a lady not more than 2 hours. According to most hoteliers, these attitudes has not changed as such has impact on returns if foreign tourist inflows are low. To suffice this result, the Ghana Tourist Authority indicated that:

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"People in Wa think that hotels are for strangers, because hotel is not part of their culture".

They further stated that, because of this attitude it is common to find most hotels in the category of guest houses and Budget. The perception of these local investors is that these guest houses can easily be converted to residential apartment when returns are not forth coming.

4.4.2 Locational attributes

Location of the investment forms an inherent drive in investors choice (Oliveira, Pedro, & Marques, 2013; Hilmi & Hadi, 2016). This section explains the locational factors that influences hotel demand in Wa Municipality. These factors include; accessibility, noise level, crime, and size of the local market. The sub-sections below explain the results.

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A. Accessibility

Accessibility is one of the locational attributes influencing hotel demand in Wa. Here, accessibility means; ability of clients to identify, reach, secure a hotel space. Table 12 shows the results from hotel suppliers.

Table 13 Accessibility as a locational attribute to hotel supply

Accessibility		
	Frequency	Percent
Strongly agree	21	63.63
Agree	10	30.30
Disagree	1	3.03
Indifferent	1	3.03
Total	33	100

Source: field data, 2019

From table 13, it can be depicted that, 21 respondents, representing 63.63%, strongly agree that accessibility is the main locational attribute of their locational choice. These respondents are hotels located in Dondoli, Dokpon, Kambale, Kaabanye, and Tindamba. 10 respondents representing 30.30% agrees that accessibility is very key to their hotel locational choice. 1

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respondent disagrees representing 3.03%, and 1 respondent do not know about accessibility issues. These results imply that most hotel developers consider accessibility as a prime factor in their location choice. Even though most hotel owners indicated that they strongly agree, it was discovered that some of the roads linking to these hotels are both tarred and untarred. This result can also be explained that accessibility has been the focus of most clients. Table 14 explains further

Table 14 Nature of roads as a contributory factor to accessibility

		Which type of road is linked to the facility		Total
		Tarred	untarred	
Is the road motorable	Yes	17	9	26
	No	4	3	7

Source: field data, 2019

Table 14, depicted that even though roads linking to the hotels are motorable but 17 hotel owners agreed that the roads linking to the hotel facilities are tarred and 9 untarred. Also, 4 respondents reported that the roads are tarred but not motorable, and 3 untarred respectively. These untarred roads are roads linking to hotels in Nakpobakorli, Danko Extension and Beligogu residential area. Following the table 14, it is significant to understand that hotel owners consider road infrastructure as a source of accessibility. However, where roads are untarred it has an inherent effect on the hotel performance regarding client turnout.

B. Noise level

Al et al., (2016) ; Helenius and Koskela, (2016); and Mao, Yang, and Wang, (2018), found that noise and acoustics can determine the locational choice of an investment. Their research indicated that bad noise from traffic, public, machinery and acoustic can lead to dissatisfaction with the hotel location which can affect client's sleep, occupancy performance and the investment performance. This implies that noise has a negative impact on the demand for hotel space. Meaning, where hotels are located in noisy neighbourhoods, is expected to

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see a fall in demand. The results in table 15 explains how hotel developers consider noisy neighbourhood in their location selection in Wa Municipality.

Table 15 Noise as an indicator of locational attribute

Noise level		
	Frequency	Percent
Strongly agree	10	30.30
Agree	8	24.24
Strongly disagree	4	12.12
Disagree	5	15.15
Indifferent	6	18.18
Total	33	100

Source: field data, 2019

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Form table 15, it can be depicted that noise level is an important factor of location selection as hotel developers expressed their concern whether strongly agree, agree, strongly disagree, disagree, and not aware in Wa Municipality. 10 respondents strongly agreed and 8 respondents agreed that noise level influences their locational choice. On the other hand, 4 respondents strongly disagreed, 5 disagreed and 6 indifferent. Those respondents who strongly agree were of the view that when hotels are located around the highway, school park, market, and lorry station, it will affect their client sleep. For example; hotels in Konta, Napobakoli, and Mangu. It was surprising to see that these hotels are both Grade 2, 3, and Budget hotels. Therefore, it implies that noise level in location selection does not affect the hotel category. On the other hand, 4 and 5 respondents who strongly disagree and disagree respectively explained that when their hotels are located at road side, the noise level doesn't affect their demand, but makes it accessible. Also, hotels located in the city centre such as Hotel Dupon, and Kunateh Lodge expressed that the noise level influences the client type, even though prices are low. The 6 indifferent respondents indicated that they cannot measure the level of noise in the neighbourhood and as such cannot consider it as a contributory factor to location.

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C. Crime rate

Locations of hotel space should be free from the fear of crime (Breetzke & Pearson, 2015; Montolio, 2018; Liberty & Fabusuyi, 2018). That is if the investment location is a new neighbourhood, investors must investigate the perception of crime (Glasson & Cozens, 2011; Eeden, Poot, & Koppen, 2016). Crime is public bad that affect lives and properties of people. Location of hotels usually attract crime. Therefore, prior crime analyses in neighbourhood is necessary for hotel investment. The results in figure 9 shows whether crime situations in locations are considered before development.

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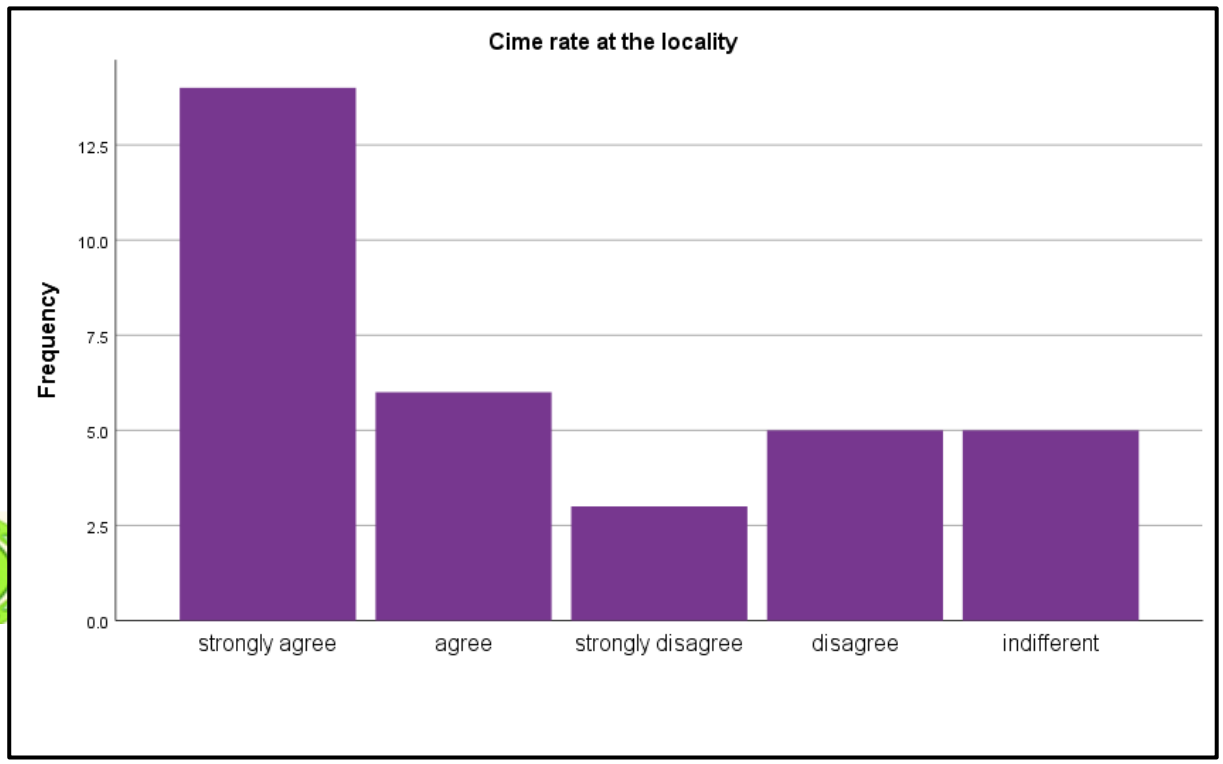

Figure 8 crime rate as a locational attribute in Wa

Source: field data, 2019

Out of 33 respondents, 14 strongly agree, 6 agree, 3 strongly disagree, 5 disagree, and 5 indifferent. From the results, the 6 respondent who agreed are the new Grade 2 and 3 hotels in Nakobakoli, Mangu, Airstrip residential area and Kpaguri. These respondents are of the before the establishment of their hotels, crime wasn't that high. However, in recent times

crime rate have risen over the past years in those neighbourhood. The 14-respondent indicated that because of the high prevalence of crime in Wa, they have to provide high class security officers to protect the facility. These findings are consistent with findings of Poot and Koppen (2016). However, the most striking results that emerged was that the 3 strongly disagree and 5 disagree respondent expressed that they do not see crime as a determinant of locational choice because their hotels are located within the CBD where there are police check point and patrols at night. This finding seems shocking, but can be added to literature that neighbourhood security in CBD's serve as a morale for some hotel investors. This can relieve investors for recruiting private security officers, hence reduce their operation cost. However, it is important to measure the intensity of the neighbourhood security.

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4.4.2.1 Testing the hypothesis of locational attributes

This section summarises the interpretation of results of locational attributes and test whether we accept or reject that locational attributes of the investment are the key drivers of hotel performance in emerging cities.

Table 16 Descriptive statistics of locational attributes

Descriptive Statistics			
Factors	Mean	Std. Deviation	N
Locational attributes	2.5152	1.25303	33
Location	2.00	.829	33

Table 17 Hypothesis testing of locational attributes

Correlations			
		locational attributes	Location
locational attributes	Pearson Correlation	1	.331
	Sig. (2-tailed)		.060
	N	33	33
Location	Pearson Correlation	.331	1
	Sig. (2-tailed)	.060	
	N	33	33

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The mean score of locational attributes is 2.5152 and location is 2.00 with a corresponding standard deviation of 1.25 and .829 respectively. Following table 17, it can be realised that the significant level of the locational attributes and location is .060 at a confidence level of 95%. Based on this we can infer that we do not reject the null hypothesis since the significant level .060 is greater than 0.050. Based on that we can conclude that, locational attributes form part of the contributory factors when selecting a location for hotel investment in Wa. This test confirms why most respondents strongly agree and agree that accessibility, crime rate, and noise are the main contributory factors to selecting location for hotel investment.

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4.4.3 Environmental Quality

Physically, Alejandra, Alberto, Marino and Rodriguez (2018) are of the view that socioeconomic circumstances of the environment are highly correlated. This implies that the environmental quality relies on the urban design and income generation capacity of the investors. Field data shows that environmental quality is a contributory factor to hotel investment in Wa. The results indicats that most of the hotel developers consider environmental quality before investing. Aside that, hoteliers indicated that clients consider the hotel facility and its environment when requesting for a hotel space. Out of the 33 hotels, 18 hotel receptionists indicated that "*local clients who consistently complain of our facility, especially our washrooms do not visit the hotel anymore*". From table 17 below, it can be realised that, 21 respondents representing 63.63% do not agree that environmental quality drives their hotel investment. This respondent constituted new hotel developers. Also, 12 developers representing 36.36% considers environmental quality in their hotel investment. These results imply that new hotel developers (Grade 1 hotels) are very cautious about the environmental quality when selecting a neighbourhood for hotel development.

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Table 18 Environmental quality

Environmental quality		
	Frequency	Percent
Yes	12	36.36
No	21	63.63
Total	33	100

4.4.3.1 Environmental quality practices and its effect on hotel performance.

The quality of physical environment and the physical conditions of hotels drives both clients and investors (Cox & Vieth, 2003). Studies have earlier cautioned that environmental quality should always be a significant factor in development planning (Thurman, 2010; Amoako & Cobbinah, 2011; Abu-Salia et al., 2015; Mensah, Brandful, & Aboagye, 2018).The environmental quality indicators in Wa revealed that pollution, sewage maintenance and availability of green area were the main environmental quality factors. This data was tested to determine the contributory indicator of environmental quality in Wa. Using the univariate factor analysis, the test between subject effects were determined and then estimated the marginal means of environmental quality in hotels. Table 19 shows the contributory indicators of environmental quality in Wa**.**

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Table 19 Testing of environmental quality factors in Wa

Tests of Between-Subjects Effects					
Environmental Quality					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	42.045[a]	26	1.617	1.493	.0325
Intercept	172.669	1	172.669	159.387	.000
pollution	10.108	4	2.527	2.333	.0169
sewage	1.676	4	.419	.0387	.0812
green	1.797	3	.599	.0553	.0665
pollution * sewage	9.327	3	3.109	2.870	.0126
pollution * green	1.210	2	.605	.0558	.0599

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sewage * green	6.924	3	2.308	2.131	.0198
pollution * sewage * green	.355	1	.355	.0328	.0588
Error	6.500	6	1.083		
Total	294.000	33			
Corrected Total	48.545	32			

a. R Squared = .866 (Adjusted R Squared = .286)

The test between subject effect was examined for significant of pollution, sewage and green area indicators of environmental quality. For pollution, it has high p-vaue (α=.0169). Sewage management has less significant level of (α=.0812). This implies that pollution is very vital when accessing the environmental quality for hotel development. Even though, sewage management seems less significant, developers are of the view that, when their facility is linked to a sewage management system, it reduces their cost of constructing a new one. Some are of the view that it will reduce mosquito outbreak which has negative effect of hotels performance when clients complain of mosquito bites. Field observation revealed that some of the Budget hotels located in the city centre get access to the public sewerage main than those at the outskirt. For them it is an advantage, however, it has a negative effect as it was observed that some neighbouring sewage systems are exposed and chocked. This findings corroborates earlier findings that neighbourhoods with well-planned layouts to meet urban development is likely to withstand urban shocks such as pollution, waste management, and slum development (Pakhtigian & Jeuland, 2019). For green area, results show a less significance level of α=.0665. Also, the results showed that pollution*sewage*green had significance 0.0588. The present findings poses an effect which was earlier indicated by Lado-sestayo et al. (2017) that, it will affect the clients average length of stay, the number of tourist that visit the hotel. Comparing the three indicators, the study can confirm that environmental quality is very vital driver of hotel investment, looking at sig=.0588.

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Moreover, the results tested the application of the responses of table 18 in each hotel. Form the responses is realised that even though hotel developers agreed that availability of green area, sewerage management system and pollution as environmental factors for the hotel development, it was realised that some of these indicators are not available in the hotels. For example, it was observed that hotels have low green areas. This result was surprising as hotel developers do not practice what they think constitute quality environmental. With respect to sewage maintenance, it can be depicted that there is a high response to low maintenance of sewage system above the observed grand mean in figure 10. Also, it can be realised that mean response to high sewage maintenance is low compared to the low sewage maintenance above the observed grand mean. Again, it was observed that there was less response of 'very high' sewage maintenance in hotels in Wa, thus point 2 of estimated marginal means below the observed grand mean on the y axis.

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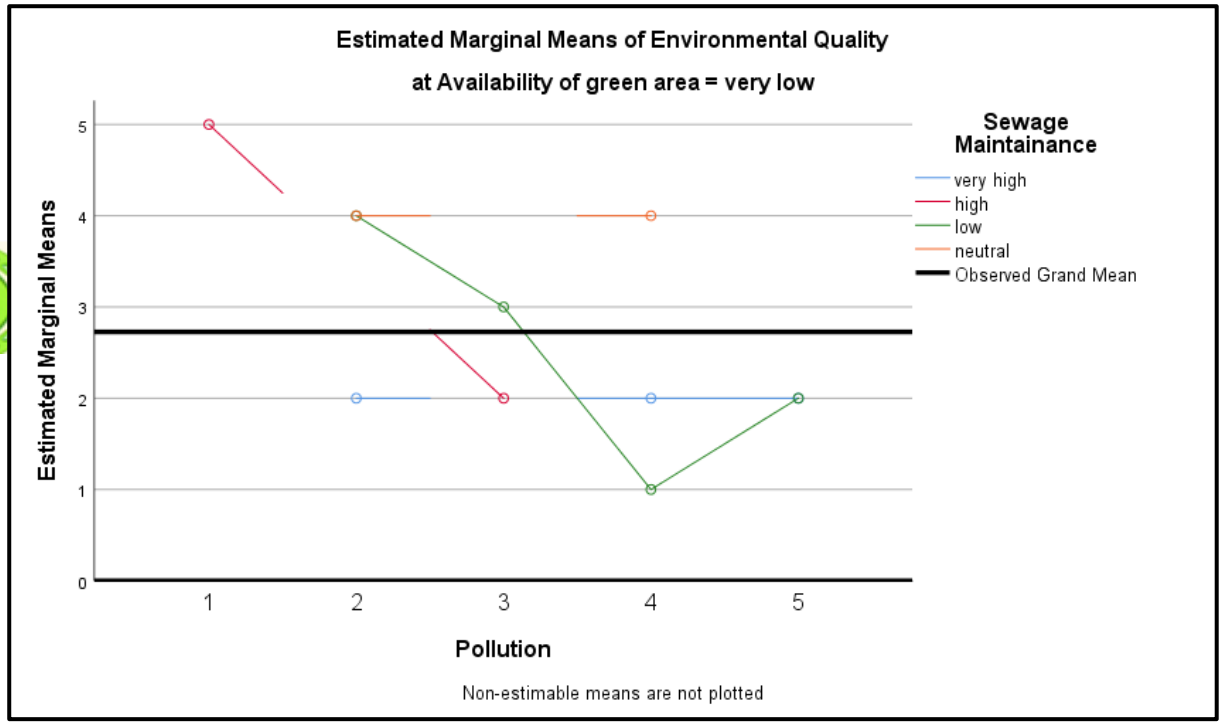

Figure 9 Profile line plot of environmental quality of hotels, Wa

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4.4.4 Size of the hotel market

Size of the hotel market is one of the important locational attributes in Wa. Respondents were asked whether the number of hotels in the neighbourhood influence their locational choice.

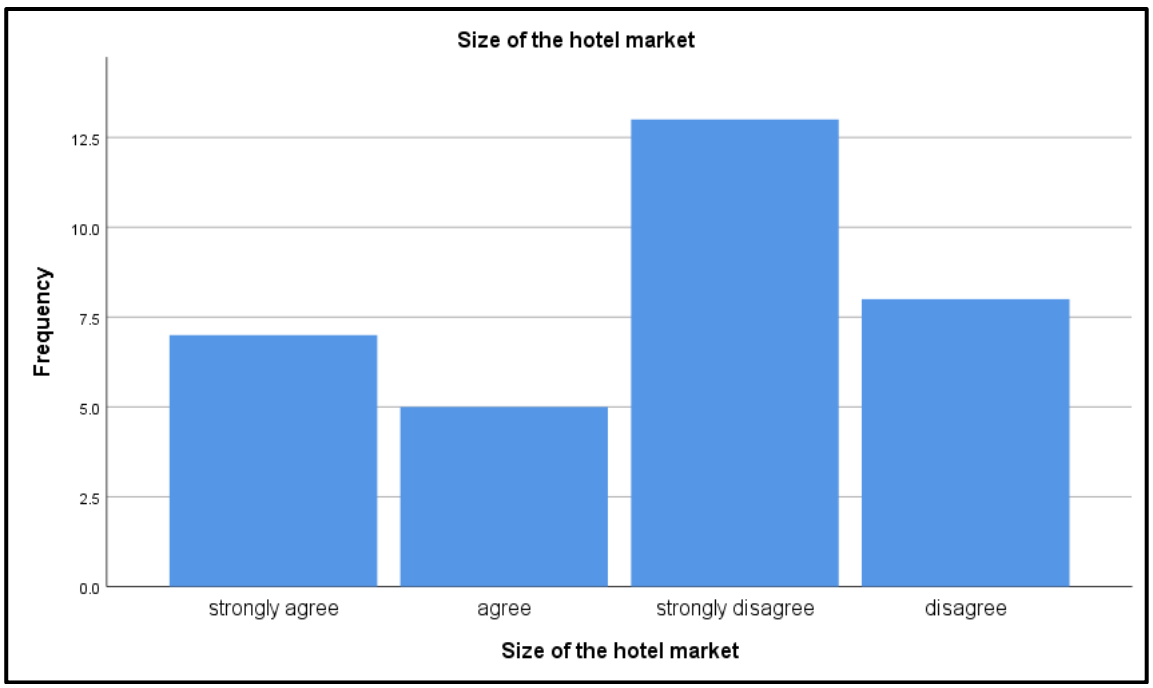

Figure 10 Size of hotel market

From figure 11, was realised that respondents indicated whether they strongly agree, agree, strongly disagree and disagree that size of the hotel market influences their location choice. From the analysis it can observed that 13 respondents strongly disagree that the size of the hotel market in Wa influences their locational choice. 8 respondents disagree size of the hotel market as an influencing location factor. These 21 respondents out of 33 shows a clear indication that size of the hotel market does not influence their locational choice. From the analysis it is realised that these respondents were the Budget hotels that have been in the Municipality for long. The other 7 and 5 respondents are of the view that the size of the market equally influences their investment. These respondents are the new hotels that were established between 2013-2018. For example, Blue-hill hotel, Pelican and Delegio hotel indicated that they conducted a market analysis to determine the size of the hotel market before entering the market. This is similar to hotel market in Beijing where investors invest

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based on the size of the market because of the existence of large commercial investments and activities in the cities (Alon et al., 2012).

Based on this analysis we can infer that Budget hotel developers don't study the size of the market because Budget hotel has been the taste of clients, therefore, irrespective of the location of the hotel, people will still demand. On the contrary, we can also infer that, new Grade 1 and 2 hotel developers conduct market study to examine the size of the market because it is capital intensive considering the services provided.

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4.4.4.1 Indicators of supply in hotel market in Wa.

This section answers the questions on "what hotel developers consider when entering the Wa hotel market". The indicators used include; entry mode, demand trend, expected income, and the ability to diversify. Considering the entry mode; elsewhere, investors study and decide on the entry mode of the local market so that the investors will know the amount of money to commit (Andreu et al., 2017). Again, it is significant for investors to study the demand trend of the investor's choice. Table 20 shows the responses from hotel developers.

Table 20 Indicators of size of hotel market

Contributory factors to size of hotel market		
Factors	Frequency	Percent
Demand trend	13	39.4
Expected income	15	45.5
Ability to diversify	5	15.15
Total	33	100.0

Visible in table 20, it was revealed that 13 respondents were for demand trend, 15 respondents for expected income, and 1 respondent for the ability to diversify. Following the results, it was realised that most of the respondent (28) considers the demand trend and expected income as the factors to consider when entering the hotel market. However, few

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respondents considered the ability to diversify (5). The results can be interpreted that hotel developers in Wa enter the market when the market is promising considering the expected income. However, it was observed that developers in Wa do not conduct market analysis to explore the performance of the market considering the income stream first. They relied mostly on the demand trends because the Municipality is emerging, hence, increase in hotel demand. Considering the low response to the mode of entry and ability to diversify, it can be inferred that the entry mode is weak. Report from the Ghana Tourist Authority indicated that most developers develop their hotels, for example Budget hotels without registering. It was revealed that some Budget hotels are currently operating without the authority's assessment and control. According to the authority, these hotels fail standards. Also, it was revealed from the table that most hotels do not consider the ability to diversify their investment. According to developers, they anticipate that the hotel market will boom in the coming years because of the influx of businesses and activities in the Municipality. However, it was observed that the purpose of some Budget hotels between 1995-2009 have changed because they are fading off and have failed to improve to meet the current hotel demand. This implies that for those hotels who are fading off can diversify into other ventures.

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4.5 Assessing returns of Hotels in Wa Municipality

According to Joachim, Uche, Shahril, and Rahman (2018), the major aim of prospective Commercial investors is to recuperate their investment capital through a good expected rate of returns or profits from their investments. The spatial extent and the supply factors have revealed a strong taste for hotel investment in Wa Municipality. This section presents the returns of hotel investment considering the analysis in the previous sections. The analysis is based on the profitability test model from Jiang, Qi, and Tang (2018) as a means of computing the returns from hotels. Jiang, Qi, and Tang (2018) computed their returns by considering most recent data on quarterly gross profit. Based on this approach, the study

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estimated the average returns from hotels in Wa. The section presents and discuss the trend of hotel supply in Wa, and the average returns of Grad one, two, and Budget hotels.

4.5.1 Trend of hotel supply in Wa Hotel Market

The growing volatility of commercial investment has a positive and negative impact on the returns due to the increasing demand for hospitable and rentable space (Fan et al., 2018). This section present results of the historic trend of hotel development in Wa over the past 24 years. The trend was estimated using 5 years interval data. Table 21 shows the supply trend of hotels in Wa Municipality.

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Table 21 Trend of hotel supply in Wa

Hotel category		Trend of hotel supply						Total
		1995-2000	2000-2005	2005-2010	2010-2015	2015-2018	2019	
Hotel Grade	Grade 1	0	0	0	2	2	0	4
	Grade 2	0	3	0	1	3	0	7
	Budget	2	6	2	5	4	3	22
Total		2	9	2	8	9	3	33

Table 21, shows that most of the Grade 1 hotels entered the market between the period of 2010-2019, representing 4 hotels. The table also shows that Grade 2 hotels entered the market between the period of 2000-2019, representing 7 hotels. With respect to Budget hotels, it can be realised that between the period of 1995-2019, there has been an increase in supply compared to Grade 1 and 2 hotels. Following the table, it can be inferred that there has been a decline in Budget hotel supply against Grade 1 and 2. However, it can also be realised that, the dynamics of hotel supply has no form since the rise and fall in supply has not been attributed to any local cause. The reason can be backed by the fact that the hotel market is not formalised with lack of data.

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4.5.2 Average returns of Grade 2 hotels

The commercial real estate market is characterized by inelastic supply and profit constraints (Zheng et al., 2015). For hotels, this makes it worrisome for investors to determine the category to invest. This sub-section presents result of average returns of Grade 2 hotels. Following the analysis, it was observed that Grade two hotels' average returns between the period of 2000-2019 ranges between GH₵6,000.00-GH₵13,000.00 Figure 12 summarises the analysis.

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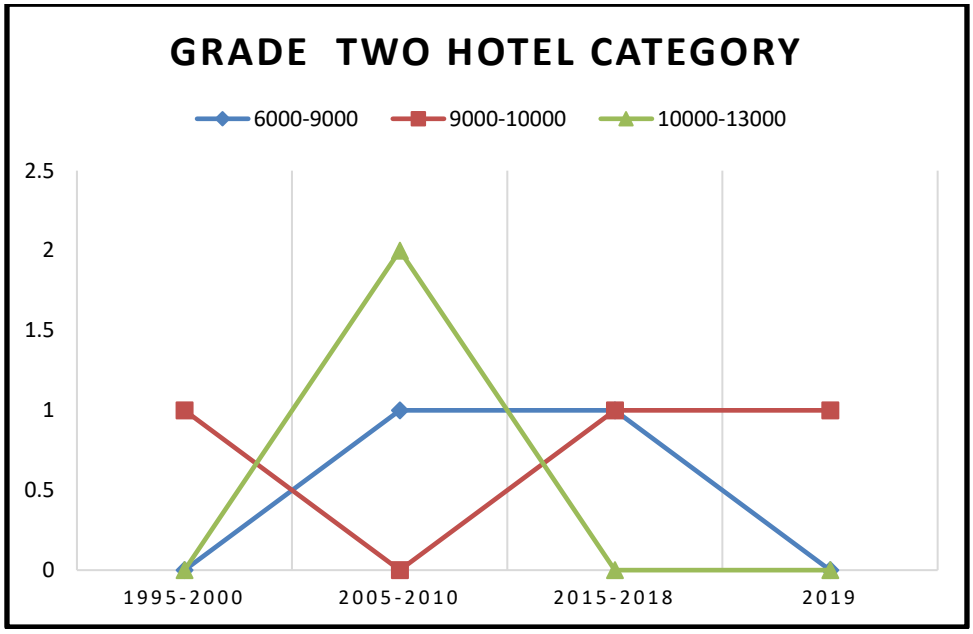

Figure 11 Average returns of Grade 2 hotels

Figure 12 demonstrate a stable growth, volatile, increase and fall in returns over the past years. The green line depicts annual investment returns for grade two hotels between GH₵10,000.00-GH₵13,000.00. The blue line shows annual investment returns for grade two hotels between GH₵6,000.00-GH₵9,000.00. Also, the red line shows annual returns of grade two hotels between GH₵9,000.00-GH₵10,000.00. Between 1995-2000, it can be revealed that there were only one (1) Grade two hotel at that time with an average return of GH₵9,000.00-GH₵10,000.00. However, the entry of Grade two hotels between 2005-2010 saw a sharp rise in returns. i.e. GH₵10,000.00-GH₵13,000.00 This period was seen to be the

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development stage of Wa where economic activities started to increase. Despite the promising returns in Grade two hotels, it can be realised that there was a sharp fall in returns (GH₵10,000.00-GH₵13,000.00) between the period of 2015-2018 and volatile after 2018 respectively. Also, between the periods of 1995-2000, returns (GH₵6,000.00-GH₵9,000.00) were zero and rose to the period of 2000-2005. However, it became stable at 2015-2018 and fell sharply in 2019. Regarding the average returns of GH₵9,000.00-GH₵10,000.00, it can be observed that between the period of 1995-2000, average returns was high, representing one (1) respondent. Following that, increase in Grade two hotels led to a sharp fall in returns (GH₵9,000.00-GH₵10,000.00) but a rise in average returns (GH₵6,000.00-GH₵9,000.00) and (GH₵10,000.00-GH₵13,000.00) respectively. Also, between the period of 2015-2018, average returns (GH₵9,000.00-GH₵10,000.00) rose and became stable with average returns (GH₵6,000.00-GH₵9,000.00). However, it can be observed that there is a sharp fall in returns (GH₵6,000.00-GH₵9,000.00). Following the analysis above it can be deduced that the average returns (GH₵9,000.00-GH₵10,000.00) has increase and stable over the past 4 years. The fall in returns (GH₵10,000.00-GH₵13,000.00) is due to the constant increase in Budget hotels, hence making the hotel market saturated. The Ghana Tourist authority confirmed that the slight difference between Grade two and Budget hotels caused that. They indicated that because most Budget hotels have improved their facility, it attracts most clients at a low price.

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Comparing the average returns to lending bank rates, it can be observed that as at 2005-2010, lending rates have averaged between 14.5%-18.50% with average Grade 2 returns increasing from GH₵6,000.00-GH₵9,000.00 to GH₵10,000.00-GH₵13,000.00 These returns look good and as such was attractive for commercial real estate investors to invents more in Grade 2 hotels. Between 2014-2018, banks' lending rates have increased from 21%-26% with Grade 2 average returns falling sharply from GH₵10,000.00-GH₵13,000.00 to GH₵6,000.00-

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GH₵9,000.00 Even though there is a fall in average returns, Grade two hotels have increased. This analysis looks quite similar to Chang, Chen, Ka, and Leung (2012) where they indicated that; during the boom period, the exchange rate will stimulate the current period of hotel returns more than the previous periods of their returns, which will lean towards a depress in investment returns. Their analysis was conducted in the developed city. Following the analysis, it can be observed that in an emerging city like Wa, an increase in bank lending rate can stimulates the returns of Grade 2 hotels.

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4.5.3 Average returns of Budget hotels

Budget hotels are less resourced, and equipped in an emerging hotel market (Yang, Mueller, & Croes, 2016). Therefore, they gain less returns. This section presents average returns of Budget hotel in Wa Municipality.

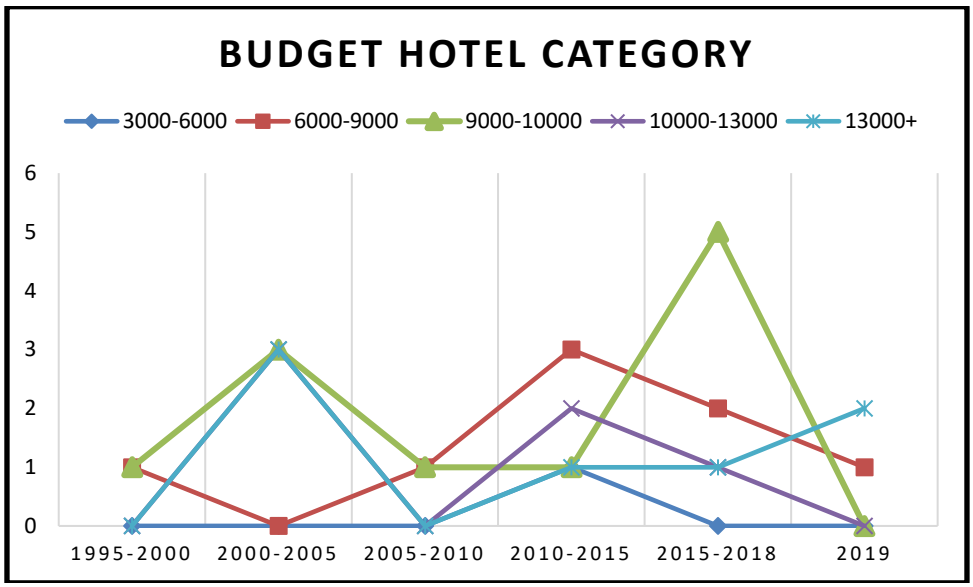

Figure 12 Average returns of Budget hotel

As figure 13 depicts, average returns of Budget hotels seem multiplicative. Thus, between the period of 1995-2000, there was increase in returns from (GH₵6,000.00-GH₵9,000.00) to (GH₵9,000.00-GH₵10,000.00). This can be attributed that due to the only existence of Budget hotels between that period. Also, there was a steady fall in returns (GH₵6,000.00-GH₵9,000.00) in 2000-2005 but steady rise in returns after 2005 to 2015 and a slight fall in

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2019. Between 2000-2005 and 2010 there was a parallel fall in average returns in (GH₵9,000.00-GH₵10,000.00 and GH₵13,000.00+) but a steady increase in returns (GH₵6,000.00-GH₵9,000.00), (GH₵10,000.00-GH₵13,000.00), and (GH₵13,000.00+) respectively and corresponding fall in 2015-2018 to 2019. However, it can be depicted that in 2019, there have been a slight increase in returns GH₵13,000.00+. Even though the returns increase and fall correspondently at the same pace, but risen rate of returns GH₵6,000.00-GH₵9,000.00 seem higher than the others. This can analyse that because there has been an increase in the supply of Budget hotels over the past 14 years, returns (GH₵9,000.00-GH₵10,000.00) and (GH₵13,000.00+) keeps falling sharply giving room for constant rise and fall of returns (GH₵6,000.00-GH₵9,000.00).

Comparing average returns to banks' lending rates, it can be observed that banks' lending rate between 1995-2000 averaged at 27.5%-18.5% with an average return of GH₵9,000.00-GH₵10,000.00 increasing sharply in 2005. Also, with respect to 2005-2010, banks' lending rates have had a stable increase of 12%-18%. This period saw a sharp supply of Budget hotel because lending rate was good and the city was expanding. However, within this period, average returns fell from GH₵9,000.00-GH₵10,000.00 to GH₵6,000.00-GH₵9,000.00 and became stable to 2015. Even though banks' lending rates in 2019 is 26.5%, average returns of Budget hotels keep increasing to GH₵13,000.00+. This implies that when Budget hotels enter the market at low lending rates, they enjoy higher returns in future irrespective of the state of the hotel.

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4.5.3 Average returns of Grade 1 hotels

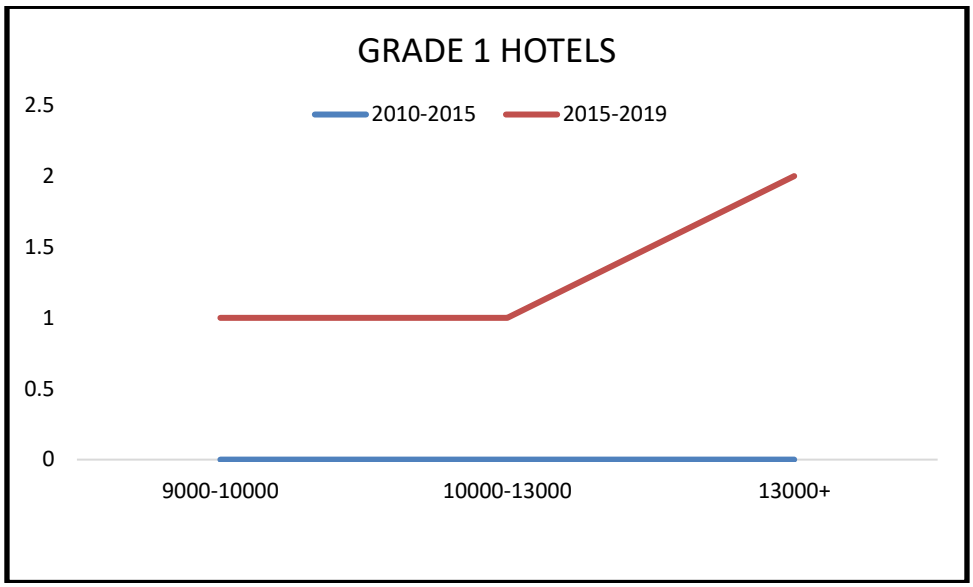

Figure 13 Average returns of Grade 1 hotels

Grade 1 hotels have seen a stable and increasing returns over the years. The figure shows zero returns (GH₵9,000.00-GH₵10,000.00), (GH₵10,000.00-GH₵13,000.00), and (GH₵13,000.00+) respectively. However, there have been a sharp increase in returns (GH₵10,000.00-GH₵13,000.00) to GH₵13,000.00+ between the period of 2015-2018. Grade 1 developers supports that the sharp rise in returns is due the political condition of Wa at that period. This led to increase in taste of Grade 1 hotels. Aside that, even though Grade 1 hotels are low in the industry, prices quoted for rooms are high.

4.6 Annual Occupancy Rate

This section present results of annual occupancy rate of hotels in Wa Municipality. The occupancy rate implies the rate at which beds of hotel rooms are occupied considering the number of rooms. The study relied on certified data from the Ghana Tourist Authority for the period 2010-2019 (see Appendix). The reason for the 10 years period is that hoteliers were

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unable to provide correct data to support this section. Figure 3 presents the trend analysis of occupancy rate in Wa.

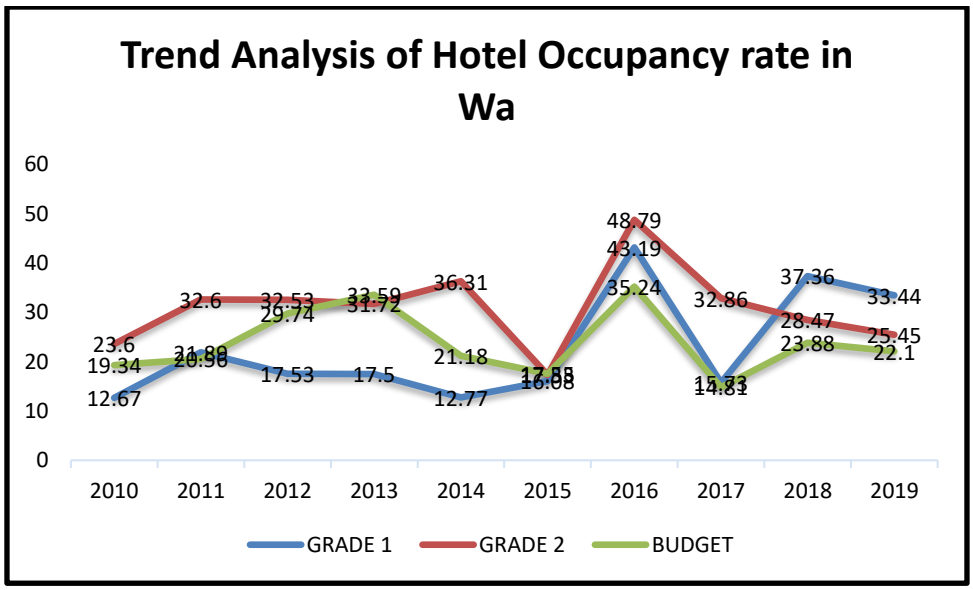

Figure 14 Annual Hotel Occupancy rate in Wa

Figure 15 shows that in 2010, grade 1 had the highest occupancy rate representing 23.6 and Grade 1 being the lowest. In 2011, Grade 2 increase by 9.0% with Grade 1 hotel making a sharp increase from 12.67% to 21.89 above budget hotels. Grade 2 because steeped between 2012 and 2013, but fell steeply in 2015. 2016 showed a remarkable increase in occupancy rate for Grade 2, 1, and Budget hotels, representing 48.79%, 43.19%, and 35.24 respectively. however, after 2016, Budget hotels fell sharply with Grade 1 hotels, while Grade 2 hotels fell slightly. 2018 and 2019 recorded an increase in occupancy of Grade 1 hotels and Budget, while Grade 2 hotels keeps falling. This trend analysis shows that although Grade 2 hotels are performing in terms of occupancy, but it is not significant. It can also be observed in earlier sections that Budget hotels are more than all the hotel category, but, has the lowest occupancy rate. Interview with the Ghana Tourist Authority indicated that:

"Most of these hotels don't incorporate recommendations given by clients and the GTA, and so loose clients".

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Grade one hotels are few but showing an increase in occupancy rate. This implies that the taste of clients is taking a good shape. Following the argument, it is clear that hotels occupancy rate is not encouraging which has effect on investors decisions. The trend analysis can predict that some hotels are likely to fade out of the market if occupancy rate remains below 50%. The study further found from the authority the reason for the occupancy rate over the past years. The authority indicated that:

"The town becomes very busy during events like political campaigns and workshops for government workers in the region. During that time most people travel around the country to participate, hence, the demand hotel space". This information reflects the trend in figure 15. For example, there was a sharp increase in occupancy rate in 2016 by all the hotel category. These results confirm why hotel sector's vacancy rates at 57% as at 2017 which is high with recent urban development's increasing pressure on rent. Based on that, developers are shifting their attention to retail sector because demand for shopping centres are increasing in Accra (Cytonn, 2017). In Wa, the best alternative is to diversify into residential real estate as the population, spatial physiognomies, and taste do not require shopping malls.

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CHAPTER FIVE

Summary of Findings, conclusion, and recommendations

5.0 Introduction

This section presents key findings conclusion and recommendations emanating from the results and discussions in chapter 4. The chapter further presents relevant policy and strategic recommendations of each key issue for future development.

5.1 Summary of findings

This section presents key findings from results and discussion. The sections are presented according to the research objectives. Section 5.1.1 presents key findings of the spatial effects of urban infrastructure services on hotels, section 5.1.2 summarises the results of the key drivers of hotel investment in Wa. The final section presents a summary of investment returns of hotels in Wa.

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5.1.1 Spatial extent of hotel investments in Wa

The results in 4.3 show that among the hotel categories, Budget hotels dominate in Wa, Municipality. These Budget hotels spread mostly around the inner city of the Municipality. For example, in neighbourhoods like Dobile, Market area, Wapaani, Jengbeyiri, Tindamba and Zongo neighbourhood. It was also realised that these neighbourhoods are accessible in terms of distance to hospital, shopping centres, entertainment centres, transport and other inner-city urban services. The development of the city also saw a spread in Budget hotels around the outer zones of the Municipality. That is why it is possible to see Budget hotels at the outskirt of the shapefile in figure 3. By this, it implies that investment locations of Budget hotels do not follow any pattern unlike Grade 1 and 2 hotels that are mostly located outside the inner-city of the Municipality. Even though field observation revealed that these hotels are the oldest hotels in the neighbourhood, yet, have not undergone massive improvements which commands high Grade hotels. Based on these interpretations we can infer that; hotel

owners in Wa are not taking advantage of the location of the inner city to improve their hotel Grade. The results can be contribution to current literature that; even though the presence of Budget hotels keep spreading around the outer circle of the Municipality.

5.1.1.1 Impact of urban infrastructure services on hotels

Section 4.3.2 shows that most hotels don't provide basic shopping services most especially among the Budget hotels. Based on the distance, clients walk a long way to access shops. Also, hotels that are located far away from road side have no shops around. This implies that shop investors target hotel locations that have the highest demand. Even though these shops are not well-structured, yet, attract the local demand of these hotels.

Using a multiple ring buffer of 500, 1000, and 1500, results from accessibility to banks shows that most of the hotels are located far beyond the 1500 metre buffer. Only 6 hotels located around the CBD have easy access within 500 metres buffer. It is further realised that aside the bank, mobile money transfer stands are located in some busy neighbourhoods where clients can access. With respect to hospital, 5 health facilities were depicted in Wa. Within a buffer of 500 and 1000 metres, most hotels can easily access it. However, hotels located in Napagbakoli, Chorkor, Mangu and Konta, Danko Extention, and Sombo must travel about 5 minutes to access these facilities unlike other hotels in other neighbourhoods.

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5.1.2 Assessing the indigenous drivers of hotel investment

Discussions in section 4.4 indicates that hotel supply drivers include; location, cultural factors, environmental quality, and size of the market. Religious and social attitude of local people was seen as the major cultural factors that affect hotel investment supply and demand. Accessibility was also observed as one of the attributes of location that influence hotel demand. Even though most hotel owners indicated that they strongly agree to accessibility, it was discovered that some of the have no access route and even roads linking to these hotels are untarred which affect client's visit. Also, noise was observed as an attribute of location..

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Also, hotels located in the city centre such as Hotel Dupon, and Kunateh Lodge expressed that the noise level influences the client type, even though prices are low. With respect to crime, most developers indicated that because of the high prevalence of crime in Wa, they have to provide high class security officers to protect the facility. Some developers strongly disagree that crime is a determinant of locational choice because their hotels are located within the CBD where there are police check point and patrols at night.

Environmental quality influences developer's hotel supply. The result showed that hotel developers do not practice what they think constitute quality environmental neighbourhood. With respect to sewage maintenance, it was realised that there is a high response to low maintenance of sewage system above the observed grand mean.

It was observed that developers do not conduct market analysis to explore the performance of the market considering the income stream first. They relied mostly on the demand trends because the Municipality is emerging, hence, increase in hotel demand. Considering the low response to the mode of entry and ability to diversify, it can be inferred that the entry mode is weak. Report from the Ghana Tourist Authority indicated that most developers develop their hotels, for example Budget hotels without registering. It was revealed that some Budget hotels are currently operating without the authority's assessment and control

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5.1.3 Assessing the investment returns of hotels in Wa, Municipality

Data supporting the results show that hotel development spans from 1995 to date with Budget hotel at that time. The analysis revealed that Budget hotels have been increasing over the years with promising returns of GH₵6, 000.00-GH₵10, 000.00 over the past 24 years. Grade two hotels had made a stable return of GH₵6, 000.00-GH₵9, 000.00 and GH₵9, 000.00-GH₵10, 000.00 between the period of 2005-2019. Grade one hotels are few, but have since an increase in returns (GH₵13,000.00+) between 2015-2019. With respect to occupancy ratio, Grade 2 hotels recorded the highest occupancy followed by Grade 1 and Budget. Even

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though Grade 2 hotel seems performing. However, the occupancy ratio is not encouraging as it falls below 50%.

5.2 Conclusion

The study brings to light the performance of Wa hotel market for the first time. The use of spatial and linear sensitive test method helped to achieve object one (assesses the spatial effects of urban infrastructure service on hotels in Wa). The results demonstrated a weak spatial impact of urban infrastructure services on hotel accessibility. For the second objective (examine the key drivers of hotel investment in Wa), which the multivariate statistics methods were utilized. The descriptive and Pearson tests support that the key drivers of hotel investment supply are location, noise, crime and environmental quality in the study area. The test concluded that over-reliance of location and the weak link between urban infrastructure services on hotels affect hotel investment in Wa. In the quest to conduct investment returns assessment, the study used the profitability test (average returns). The objective brings to bear that Budget hotel category was seen as the most prevalent hotel market in Wa, but, is underperforming. Even though, Budget hotels are underperforming, the objective concluded that increase in Occupancy ratio of Grade one and two hotels will expand significantly to cope with the continues increase in Budget hotels in Wa. This trend presents a huge opportunity for Budget hotel developers to improve and upgrade to Grade one and two hotels, and new entries to flourish.

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5.3 Recommendation

Generally, the study has revealed positive prospects for Wa hotel market. However, there are limited issues regarding the impact of urban infrastructure services on hotel locations, locational attributes of these hotels and its returns. The section has been grouped into policy recommendation and strategic business direction for developer's perspective. Section 5.3.1

presents the policy recommendation and section 5.3.1 presents the strategic business direction of the study.

5.3.1 Policy recommendation

1. The Land Use and Spatial Planning Authority must enforce regulations regarding the investment of hotels. Meaning, LUPSA must ensure that hotels are built in areas that are planned for commercial purposes. This will help to hoteliers to enjoy the benefits of urban infrastructure services such as hospitals and banks. This will avoid hotels from been fallen above 1000 and 1500 meters of buffer zones.

2. The growth of the city requires that; development planners adopt development-based infrastructure provision strategy that captures hotel investment. Thus, urban planners must consider hotel facilities when planning new neighbourhoods for road construction and its ancillary services. All-inclusive collaboration between hotel developers and development planners can provide these services together, especially hotels developing in the peripheral of Wa. This will improve client's easy location and movement to these hotels and neighbourhood services, and relieve the Municipal from being the sole provider of urban infrastructure.

3. The Ghana Tourist Authority needs to collaborate with the Land Use and Spatial Planning Authority, Development Planning and the Municipal Assembly to develop guidelines for entering the hotel market. The guidelines could focus mostly on locational attributes. This will help to prevent developers from investing in crime neighbourhoods, neighbourhood exposed to environmental pollution, and other public bad. This will also prevent new developers from failing development and investment standards. This mean development planners must guide developers to invest in land use mix that is compactible.

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4. Budget hotels located in the CBD such as Hotel Du-KPong, Kunateh Lodge, Royal hotel needs noise installation systems to reduce noise from the public. This will improve clients sleep and increase occupancy. More importantly, new hotel developers in growing neighbourhoods such as Nakpobakoli, Kombiehi, Danko Extension and Bamahu must install noise installation systems in the facilities to serve future benefit when the neighbourhood over expands.

5. The failure of most hotel developers to provide qualified security officers require Wa City Authorities to increase security in busy neighbourhoods such as Nakobakoli, Sombo, Mangu, Airstrip residential area and Kpaguri. This can be done by creating youth neighbourhood security guards to protect the neighbourhood especially at night where hotels receive most clients.

6. Also, the study demands extensive education on the need for hotel developers to understand the hospitality industry. The qualification of most developers is mostly secondary education with few bachelor' degree. Therefore, developers have divergent approaches to hotel management. This implies that short courses can be developed by the Ghana Tourist Authority to train these developers on the modern methods of managing hotels by using developed hotel markets as case study. Also, hotel investor must employ professional hoteliers and avoid the management of hotels in the hands of relatives.

7. The Ghana Tourist Authority and the Municipal Assembly must educate budget hotel investors on the need to upgrade their hotels to meet current trend. This will help to reduce the over-reliance on local demand that attract low income. The implementation of this strategy will help facilitate the tourism industry in Wa Municipality

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5.3.2 Strategic business direction

1. Budget hotels must take advantage of their location to increase returns. For example, Budget hotels located in Dobile, Market area, Wapaani, Jengbeyiri, Tindamba and Zongo neighbourhoods need an upgrade in infrastructure and services to meet the current demand of clients. Upgrade can include; massive renovation in flooring, glazing, painting.
2. New and existing hotel developers must conduct a market study to examine the nature of Wa hotel market. The market study should constitute; market size, demand trend, location, and risk. To ensure professional execution of the study, hotel developers can take advantage of the Department of Real Estate and Land Management to conduct Market analysis on hotel development in Wa.
3. Hotel developers must add basic services to their facilities. This should include; provision of shops, mobile money, and a shuttle. The shop would prevent clients from walking long distances outside the hotel to buy basic products. For example; Destiny Guest House, Kedge Lodge, Numbu Lodge, Hossana Royal Lodge, Kaatoore Hotel etc. Mobile money can be operated in the hotel to help clients acquire financial services. Hotels located far away from the main highway; for example, Delegio must provide shuttle services to clients. In that, clients will have easy access to the CBD and other parts of the town.
4. Environmental quality should be mainstreamed in all the hotels in Wa. Developers should not only focus on increasing client visit but should concentrate on the improving the hotel's environment. This can be done by creating closed sewage management systems, greening the environment and creating a sound environment for clients. The output of this will reduced cost of production, attraction of conscious environmental conscious clients and increase returns.

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5.6.3 Future Research Studies

1. The demand for hotels is dependent on the taste of clients. However, the scope of the study only concentrated on the developer's perspective as a measure of hotel performance. This implies that future investigations should consider clients perspective to provide a comprehensive performance of hotel market in Wa.

2. Developed hotel markets provide up-to-date data indexes on hotel performance. However, Lack of data on hotels in emerging cities like Wa has made it difficult for this study to determine the rate of return of hotel in Wa. Therefore, it is very necessary to investigate how to model hotel database that will incorporate up-to-date data of all the hotel category. This will need the effort of researchers from the Department of Real Estate and Land Management, SDD- university of Business and Integrated Development Studies, Wa.

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APPENDIXES 1-SAMPLE OCCUPANCY RATIO

	2017													
NAME OF UNIT	FIRST QUARTER			SECOND QUARTER			THIRD QUARTER			FOURTH QUARTER				
	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Total rate	Annual rate
BIG WHITE LODGE	23	39	30	26	28	44	39	40	39	46	57	48	459	38.25
BLESSED MARY OF THE PASSION G H	2	3	3	3	3	3	4	3	5	4	3	4	40	3.33
BLUE HILL HOTEL	41	54	58	79	21	59	49	52	50	54	61	36	613	51.08
CATHOLIC GUEST HOUSE	25	19	15	10	24	31	29	17	28	17	16	15	246	20.5
DE LOURDES GUEST HOUSE	5	2	2	3	4	4	5	4	3	6	14	8	60	5
DUBIE HILL TOP HOTEL	4	9	6	5	6	4	5	7	4	5	7	4	66	5.5
HOTEL DU POND	5	6	6	6	5	3	4	5	2	4	6	17	68	5.66
IN-SERVICE TRAINING CENTER	7	25	22	22	17	16	23	21	20	15	19	34	241	20.08
JAM GUEST HOUSE	3	2	2	2	3	5	6	4	5	5	6	19	62	5.16
KUNATEH LODGE	2	36	41	37	51	45	32	46	32	56	51	14	443	36.91
MAARONG POGNAA YIR G H	34	28	27	24	20	23	25	23	25	35	31	52	345	28.75
NUMBO HOTEL	19	27	34	37	37	49	34	31	31	15	19	8	339	28.25
NUOYOBG EMPIRE HOTEL	29	21	44	53	66	47	42	41	39	59	78	14	533	44.41
MWANKURI GAEWAY LODGE	19	8	12	9	10	11	9	10	9	11	15	5	128	10.66
PET VERO GUEST HOUSE	80	80	52	47	4	47	49	42	45	44	69	52	611	50.91
QUEENS VALLEY HOTEL	17	14	26	8	27	17	23	19	18	11	8	9	197	16.41
SALETI GUEST HOUSE	18	29	21	31	35	22	31	22	23	6	13	19	270	22.5
SILAP GUEST	53	2	64	55	65	46	49	39	29	55	55	36	548	45.66

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HOUSE														
TANJIA GUEST HOUSE	39	34	26	35	37	26	38	31	45	15	14	9	349	29.08
TRADITIONAL TOUCH INN	5	11	19	10	15	8	12	14	16	9	10	15	144	12
UPLAND HOTEL	20	49	38	20	30	31	23	14	37	31	22	26	341	28.41
VICTORY LODGE	4	4	2	3	3	3	4	6	9	3	57	3	101	8.41
KEDGE LODGE	20	26	26	36	34	25	31	32	29	26	5	7	297	24.75
KONTOL LODGE	6	8	10	8	8	13	8	10	12	25	16	16	140	11.66
HOSSANA ROYAL LODGE	15	15	11	11	12	9	19	3	29	22	13	12	178	14.833
THE PELICAN HOTEL	16	21	25	29	26	25	23	24	27	8	9	14	247	20.58

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	OCCUPANCY RATIO % 2018													
NAME OF UNIT	FIRST QUARTER			SECOND QUARTER			THIRD QUARTER			FOURTH QUARTER				
	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Total rate	Annual rate
BLESSED MARY OF THE PASSION GUEST HOUSE	43	36	53	10	13	11	5	4	3	JULY	AUG	SEPT	178	14.8
BLUE HILL HOTEL	45	52	39	10	21	6	5	6	5	5	4	3	201	16.8
CATHOLIC GUEST HOUSE	9	6	8	12	9	6	4	6	6	5	6	5	82	6.83
DE-LOURDES GUEST HOUSE	12	6	5	8	10	12	8	10	12	4	6	6	99	8.25
HOTEL DU POND	10	11	6	31	29	0	0	0	0	8	10	12	117	9.75
IN-SERVICE TRAINING CENTRE	24	7	31	32	32	25	32	32	25	11	12	15	278	23.16
KUNATEH LODGE	38	35	38	17	19	20	17	19	20	32	32	25	312	26
NUMBU HOTEL	19	6	18	11	14	8	0	0	0	17	19	20	132	11
NUOYONG EMPIRE HOTEL	14	18	19	20	46	45	35	46	45	0	0	0	288	24
PET VERO GUEST HOUSE	41	28	54	18	15	8	20	27	17	35	46	45	354	29.5
SALITE HOTEL	25	23	29	18	23	33	16	13	1	20	27	17	245	20.41
SILAP GUEST HOUSE	40	20	30	9	11	13	11	23	12	16	18	15	218	18.16
TANJIA GUEST HOUSE	16	20	16	3	5	4	3	5	4	11	23	12	122	10.16
VICTORY LODGE	4	2	4	3	6	5	3	7	5	3	5	4	51	4.12
HOSANNA ROYAL LODGE	20	17	12	7	7	9	11	10	13	13	11	10	140	11.66

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SAMPLE QUESTIONNNAIRE

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DEPARTMENT OF DEVELOPMENT MANAGEMENT

FACULTY OF PLANNING AND LAND MANAGEMENT

RESEARCH QUESTIONANNAIRE

I**NTRODUCTION:** *This questionnaire is solely to assist the researcher to conduct an academic study on the performance of commercial real estate (hotels) investment on emerging cities, using Wa as a case study.*

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BIO DATA

Name of hotel……

Year of entry into hotel industry ……

Location …….

Total rooms ……

PART ONE

Observation tool kit

This tool kit guides the researcher to confirm and investigate the spatial extent, and urban infrastructure and its impact on hotel performance using the already existing spatial data. (please tick the required box)

1. Where is the hotel located?
   ……

2. What are the facilities linked to the property' neighbourhood?

1. Hospital ☐
2. Shopping centre ☐
3. Entertainment centre ☐
4. Lorry park ☐
5. Church ☐
6. Others, specify if any ☐

3. What is the distance of the facility chosen in **Q3** to the hotel? Marks as

CODE		100m-200m	200m-400m	600m-1000m	1000m-2000m

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1	Hospital				
2	Shopping centre				
3	Entertainment centre				
4	Lorry park				
5	Church				
6	Others, specify if any				

4. Is the facility linked to a road network?
1. Yes ☐
2. No ☐

5. If yes, which type of road is linked to the facility?
1. 1st class ☐
2. 2nd class ☐
3. 3rd class ☐

6. Is the road motorable?
1. Yes ☐
2. No ☐

7. If no, how do clients visit the property?
……
……

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PART TWO

These questions are to help the researcher determine the indigenous drivers of hotel investment using the investors perspective. (please tick and fill in the required response in the questions below)

8. What factors did you consider when entering into the hotel industry?
1. Size of the hotel market ☐
2. Location ☐
3. Environmental quality ☐
4. Economic factors ☐
5. Others, if any specify …….

9. If **1)** in **Q8** is a contributory factor, which of the following factors in the table below did you consider, and how? (***Fill in the responses for the required factor***)

CODE	FACTORS	REASONS
1	Entry mode	
2	Demand trend	

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3	Expected income	
4	Ability to diversify	
5	Others, if any specify	

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10. Among the attributes of location in the table below, which of them influenced your choice of selection? Please write your reasons in the column of the selected factor.

CODE	FACTORS	REASONS FOR SELECTION
1	Crime rate at the locality	
2	Noise level	
3	Number of business entities in the locality	
4	The size of local demand	
5	Accessibility	

11. Do cultural factors affect your investment choice? *Kindly tick the correct responds.*

A. Yes ☐

B. No ☐

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12. If yes, what cultural factors influence your hotel investment?

……

……

……

13. Did you consider environmental quality before investing at this area?

1. Yes ☐

2. No ☐

14. If yes, how did you consider that? Select the correct choice in the table below.

CODE	FACTOR	**REASONS**
1	Pollution	
2	Sewage maintenance	
3	Availability of green area	
4	Others, if any specify	

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15. Describe how the following urban services influence the activities of the hotel? (***Tick the correct box***)

CODE	SUPPLY SERVICE	**POSITIVE**	**NEGATIVE**	**REASONS**
1	Telecommunication connection			
2	Water quality			
3	Density of road network			
4	Quality of road infrastructure			

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5	Access to power lines			
6	Access to public security post			
7	Quick emergency response			

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16. Do clients complain of high temperature in your rooms?
1. Yes ☐
2. No ☐

17. Has it affected your client visit to your hotel?
1. Yes ☐
2. No ☐

18. If yes, what mechanism have you put in place to improve on that?
……
……

19. Considering the improvement, have there been an increase in client visit?
1. Yes ☐
2. No ☐

20. If no, what may be the cause?

……
……

21. Do you have thermal equipment's to support high or low temperatures?
1. Yes ☐
2. No ☐

22. Considering the thermal comfort in your rooms, describe the characteristics of the ventilation services below.

CODE	Ventilation features	Total	Description
1	Use of air conditioner		

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2	Ceiling funs		
3	Window type		
4	Others, if any specify		

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PART THREE

The responses to this question will help the researcher to evaluate the returns of hotel investments over the past ten years.

23. Who is the owner of this hotel?

……

24. ***Tick*** the correct gender of the answer to question 21?
    A. Male ☐
    B. Female ☐

25. How old are you. ***Please tick your age in the category in the table below***

No.	AGES	TICK
1	30-45	
2	45-50	
3	50-55	
4	55-60	
5	60-65	
6	65-70	
7	70-75	
8	75-80	
9	80-85	
10	85+	

26. What is your relationship with the investor? ***Tick the box in the table that fit your relationship.***

Relationship	Budget	Grade 1	Grade 2
Nephews			

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brothers			
Brother-inlaw			
professional			

27. For how long have you been in the hotel industry?

1. 1-5 ☐
2. 5-10 ☐
3. 10-20 ☐
4. 20-30 ☐

28. The table below shows the qualification of hotel staff. Provide the total staff and their duties in the category that fit.

CODE	Qualification	Total staff	Duties of staff
1	Primary education		
2	Basic education		
3	Secondary education		
4	Polytechnic		
5	Vocational/technical education		
6	Bachelor's degree		
7	Master's Degree		
8	None		

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29. The table below shows room type and the average room price. Provide the description of the features of each room type

CODE	Room type	Features	Room price
1	Single bed		
2	Double bed		
3			
4			

30. What constitute the room price of each room type?

……
……
……
……

31. The table below shows the year and total client visit, income and total expenditure. Please, fill in the table accordingly.

YEARS	2009-2011	2012-2014	2015-2017	2018-2019
Total client visit				

Total income				
Total expenditure				

32. How many types of taxes do you pay per year?

1. 1 ☐
2. 2 ☐
3. 3 ☐
4. 4 ☐
5. 5 ☐

33. How much taxes do you pay for every year?

1. 100-200 ☐
2. 200-400 ☐
3. 400-600 ☐
4. 600-800 ☐
5. 800-1000 ☐
6. 1000-2000 ☐

34. Has taxes influence your investment returns?

1. Yes ☐
2. No ☐

35. If yes, how?

.....
.....
.....

36. If no, why?

.....
.....
.....

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INTERVIEW GUIDE

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FACULTY OF PLANNING AND LAND MANAGEMENT

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RESEARCH QUESTIONANNAIRE

I**NTRODUCTION:** *This questionnaire is solely to assist the researcher to conduct an academic study on the performance of commercial real estate (hotels) investment on emerging cities, using Wa as a case study.*

Name of institution ……

Aim of institution ……

Date of establishment ……

1 How many hotels do we have in the Municipality?

2 What category of hotels do we have in the region?

3 Are there any requirements for determining the categories?

4 For how long has these hotels been in the industry?

5 What is the trend of hotel demand in Wa?

6 How does the authority determine the tourist inflow?

7 What constitute the factors that influence local demand of hotels in Wa?

8 How do you access hotel performance in Wa?

9 Does occupancy ratio and returns informs your assessment decisions.

10 What constitute a high/low occupancy and returns ratio?

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