MODEL OF DEMAND AND SUPPLY FACTORS AFFECTING GREEN
COMMERCIAL PROPERTIES

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... To God Almighty, My Wife: Mavisclara Onyinyechi Amarachi Onuoha, My Kids: Kelvin Goodluck Chidiuto Onuoha, Gerald Goodluck Chibugwum Onuoha, Joachim Chidire Onuoha, Brain Chimauchem Onuoha, and Bernice Chimamanda Onuoha.

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ABSTRACT

In many countries including Malaysia and Nigeria, green building investment is still beset with uncertainties about the anticipated profits and benefits. Existing studies on green building seem much segmented and somewhat narrow focused, as such miss the inherent complexities in demand and supply. The existing studies seem to ignore the fact that green commercial building lie within the marketplace that is subjected to inter-dependent forces of demand and supply factors. The aim of this study is to establish a model of demand and supply factors affecting green commercial properties with focus on Malaysia and Nigeria. Structural Equation Modelling (SEM) methods were used to model the factors that have causal relationships with demand and supply of green commercial properties. Discriminant analysis method was used to determine if there are significant differences in perception between Malaysia and Nigeria real estate market participants on factors that influence the demand and supply, and if differences are observed, the highest discriminant value will be identified. The analysis was based on 496 valid questionnaires administered to real estate developers. The research findings revealed that factors affecting green commercial property demand and supply is an eight-causal factor structure model. The study revealed that green building supply is significantly dependent on green building demand. Economic and financial factors including personal and altruistic environmental factors had most influential effect on green building demand while available green skills and monetary green tax incentives exhibited the most causal effect on the supply side. The model was confirmed for convergent validity, discriminant validity, item reliability and construct reliability. On discriminant analysis, study revealed that overall, there were significant discriminant function that differentiated the two countries on their perception of factors that drive green building demand and supply. The variables with most discriminant power in accounting for the differences in perception were measures of economic and financial motivations for the demand side and life cycle cost saving motivation measures for the supply side. It is hoped the findings will have practical utility for green commercial property consumers, suppliers and investors who are seeking clearer explanations for commitment in green building, and green building policy makers in both Malaysia and Nigeria who are seeking workable strategies to incentivize green building demand and supply.

ABSTRAK

Dalam kebanyakan negara termasuk Malaysia dan Nigeria, pelaburan bangunan hijau masih dibelenggu dengan ketidakpastian jangkaan keuntungan dan faedah. Kajian sedia ada mengenai bangunan hijau kelihatan lebih bersegmen dan sempit fokusnya, sehingga terlepas kerumitan yang wujud dalam permintaan dan penawaran. Kajian sedia ada ini seolah-olah mengabaikan hakikat bahawa bangunan komersial hijau wujud dalam pasaran yang tertakluk kepada kuasa saling bergantung kepada faktor permintaan dan penawaran. Matlamat kajian ini adalah untuk membangunkan sebuah model faktor-faktor permintaan dan penawaran yang mempengaruhi harta tanah komersil hijau dengan fokus terhadap Malaysia dan Nigeria. Kaedah model persamaan struktur (SEM) digunakan untuk menentukan faktor-faktor yang mempunyai pergantungan sebab dengan permintaan dan penawaran harta tanah komersil hijau. Analisis diskriminan digunakan untuk mengenalpasti jika terdapat perbezaan persepsi antara peserta pasaran harta tanah Malaysia dan Nigeria terhadap faktor yang mempengaruhi permintaan dan penawaran, yang mana jika terdapat perbezaan, nilai diskriminan yang tertinggi akan dikenalpasti. Analisis kajian adalah berdasarkan 496 soal selidik yang sah yang diberikan kepada pemaju harta tanah. Dapatan kajian menunjukkan bahawa faktor yang mempengaruhi permintaan dan penawaran harta tanah komersil hijau adalah satu model struktur yang mempunyai lapan faktor pergantungan sebab. Kajian ini mendedahkan bahawa penawaran bangunan hijau adalah lebih bergantung kepada permintaan bangunan hijau. Faktor-faktor ekonomi dan kewangan termasuk faktor-faktor peribadi dan persekitaran altrustik mempunyai kesan yang paling berpengaruh kepada permintaan bangunan hijau manakala kemahiran hijau sedia ada serta insentif kewangan cukai hijau mempamerkan kesan saling bergantungan dari segi penawaran. Model ini telah disahkan untuk kesahihan tumpu, kesahan diskriminan, kebolehpercayaan item dan konstruk kebolehpercayaan. Bagi analisis diskriminan, kajian menunjukkan secara keseluruhan, terdapat fungsi diskriminan ketara yang membezakan persepsi kedua-dua negara terhadap faktor-faktor yang mendorong permintaan bangunan hijau dan penawaran. Pembolehubah dengan kuasa diskriminan yang paling tinggi menyumbang kepada perbezaan persepsi adalah langkah motivasi ekonomi dan kewangan bagi permintaan dan langkah motivasi penjimatan kos kitaran untuk penawaran. Adalah diharapkan hasil kajian akan mempunyai kegunaan praktikal untuk pengguna hartanah komersil hijau, pembekal dan pelabur yang sedang mencari penjelasan yang lebih jelas untuk komitmen dalam bangunan hijau dan pembuat dasar bangunan hijau di Malaysia dan Nigeria yang sedang mencari strategi yang boleh digunakan untuk memberi insentif kepada permintaan dan penawaran bangunan hijau.

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LIST OF ABBREVIATIONS

AGFI   -   Adjusted Goodness of Fit

AGS   -   Available Green Skills

AMOS   -   Analysis of Moment Structure

ASEAN   -   Association of Southeast Asian Nations

AVE   -   Average Variance Extracted

BCA   -   Building and Construction Authority

BIPV   -   Building Integrated Photovoltaic

BREEAM   -   Building Research Establishment Environmental
                     Assessment Methods

CBE   -   Centre for Built Environment

CBRE   -   Coldwell Banker Richard Ellis

CCRM   -   Corporate Conscience and Responsibility Motivations

CDFA   -   Council of Development Finance Agencies

CFI   -   Comparative Fit Index

CGT   -   Capital Gains Tax

CHBA   -   Canadian Home Builders' Association

CIDB   -   Construction Industry Development Board

CIMP   -   Construction Industry Master Plan

CSR	-	Corporate Social Responsibility
CT	-	Conventions Theory
DA	-	Discriminant Analysis
DERRM	-	Developers' Expected Rate of Return Motivations
ECN	-	Energy Commission of Nigeria
ECOWAS	-	Economic Community of West African Countries
EFA	-	Exploratory Factor Analysis
EFM	-	Economic and Financial Motivations
EPA	-	Environmental Protection Agency
GBCN	-	Green Building Council of Nigeria
GBCSA	-	Green Building Council of South Africa
GBD	-	Green Building Demand
GBI	-	Green Building Index
GBRS	-	Green Building Rating System
GBS	-	Green Building Supply
GDP	-	Gross Domestic Product
GFI	-	Goodness of Fit Indices
GGGC	-	Governors' Green Government Council
GIPGCM	-	Government Interest, Policies and Green Certification Motivations
GM	-	Green Mark
GS	-	Green Star
GST	-	Goods and Service Tax

GTFS	-	Green Technology Financing Scheme
HKGBC	-	Hong Kong Green Building Council
HVAC	-	Heating, Ventilation and Air Conditioning
IBS	-	Industrialized Building System
IEA	-	International Energy Agency
IEQ	-	Indoor Environmental Quality
IEQ	-	Internal Environmental Quality
ILO	-	International Labour Organization
IMF	-	International Monetary Fund
IPCC	-	International Panel on Climate Change
ITA	-	Investment Tax Allowance
LCA	-	Life Cycle Assessment
LCC	-	Life Cycle Cost
LCCSM	-	Life Cycle Cost Savings Motivation
LEED	-	Leadership in Energy and Environmental Design
MBSM	-	Market Benefit Strategy Motivations
MGBC	-	Malaysia Green Building Confederation
MGTI	-	Monetary Green Tax Incentives
MI	-	Modification Indices
MIDA	-	Malaysian Investment Development Authority
MOHEM	-	Ministry of Higher Education Malaysia
NAIOP	-	National Association of Industrial and Office Properties

NBS	-	National Bureau of Statistics
NFI	-	Normed Fit Index
NGTCM	-	National Green Technology Council Malaysia
NIBS	-	National Institute of Building Science
NNFI	-	Non-normed Fit Index
NNPC	-	Nigerian National Population Commission
NPCC-RS	-	National Climate Change and Response Strategy
NPV	-	Net Present Value
NRNC	-	Non-Residential New Construction
OECD	-	Organization for Economic Development Cooperation
PAEM	-	Personal and Altruistic Environmental Motivations
PBC	-	Perceived Behavioural Control
PREA	-	Pension Real Estate Association
PwC	-	PricewaterHouseCoopers
REDAN	-	Real Estate Developers' Association of Nigeria
REHDA	-	Real Estate and Housing Developers' Association Malaysia
REIT	-	Real Estate Investment Trust
RMSEA	-	Root Mean Square Error of Approximation
ROI	-	Return on Investment
RPGT	-	Real Property Gains Tax
SCT	-	Social Cognitive Theory
SD	-	Stamp Duties

SEM	-	Structural Equation Modelling
SMSUD	-	Shanghai Manual of Sustainable Urban Development
SPSS	-	Statistical Package for Social Science
TLI	-	Tucker Lewis Index
TPB	-	Theory of Planned Behaviour
UNEP	-	United Nations Environmental Protection
UNEPFI	-	United Nations Environment Programme Finance Initiatives
UNFCCC	-	United Nations Framework Convention on Climate Change
US GBC	-	United States Green Building Council
US-EIA	-	United States Energy Information Administration
US-EPA	-	United States Environmental Protection Agency
US-SCEPW	-	United States Senate Committee on Environment and Public Works
VAT	-	Value Added Tax
VBN	-	Value Belief Norm
WGBC	-	World Green Building Council
WSP	-	WSP-Group Africa Property Limited Parsons Brinkerhoff

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CHAPTER 1

INTRODUCTION

1.1   Background of the Study

Real estate green property market consists of three main asset categories: residential, commercial and special purpose buildings (Kats et al, 2003; Breglia, 2012). Green commercial properties which is the focus of this study consist mainly of offices, shops and retail (Chequt et al, 2013; Olszewski, 2013). In many countries including Malaysia and Nigeria, green housing which is built for the purpose of letting it to tenants is considered as part of green commercial real estate market (Chequt et al, 2013; Olszewski, 2013). One of the key characteristics of green commercial property is that it lies within the marketplace that is subject to inter-dependent forces of demand and supply factors (Olszewski, 2013). Thus, the market is often controlled by the behaviour patterns and motivation of active buyers/users, investors and developers in the market (Ingrid, 2006). However, the main difference between the participants lies in the length of participation and motivation as well as the benefits being pursued (Henneberry and Rowley 2002; Ingrid, 2006).

For example, potential occupants of green commercial properties may be driven by the benefit and motive to reduce energy use, operational cost, enevironmental footprints and enhanced productivity to demand for green commercial buildings (Aliagaha et al, 2013a; Isa et al, 2013). On the other hand, the leading aim of the real esate development team who engages in green commercial property supply could be to attract buyers and tenants either for profit maximization or social gains (Nurul and Zainul, 2013). Again, it could be driven by construction cost savings and price sgnals of other certified green buildings (Chegut et al, 2013). Further to this, Olszewski (2013) observed that income, price and cost could be at relationship with other factors such as legislation and policies to influence buyers and developers behaviour and motivation to demand and supply green commercial properties. The implication is

that there is likely to be positive relationship between green building demand and supply factors in a marketplce. This is because as the supply of commercial buildings certified to be green increases, the demand for such buildings is affected by more private sector attention to energy efficient buildings (Chegut et al, 2013). Given this scenario, Aliagha et al, (2013a) observed that model of demand and supply factors of green building will comprise of interrelated factors such as energy efficiency and environmental sustainability which has not been fully explored.

A green building (also known as green construction or sustainable building) whether residential or commercial refers to both a structure and the using of processes that are environmentally responsible and resource-efficient throughout a building's life-cycle (Kriss, 2014). It is one whose development and lifetime operation offers the healthiest conceivable environment while guaranteeing the most productive and least disruptive use of land, water, energy and resources (GGGC, 2010). According to IMF working paper (2011) a green building is an investment necessary to reduce greenhouse gas and air pollutant emanation, without basically reducing the creation and utilization of non-energy goods. While there are many different definitions of green building, it is generally accepted as the planning, design, construction, and operations of buildings with foremost considerations on energy use, water use, indoor environmental quality, material section and the building's effects on its site (Kriss, 2014).

Nurul and Zainul (2013) had argued that for green building to guarantee the above benefits, it requires real estate participants with right knowledge and motivation to invest in green building. Motivation is the force that drive individuals to buy, use, demand or supply a good or service (Gibler and Nelson, 1998). In this case it explains the benefits and factors that motivate buyers and investors to invest in green commercial properties (Nurul and Zainul, 2013). Because real estate property is a unique business, supply and demand in real estate market are often said to be localized as investors may pay attention to factors that influence their local market (Kimmons, 2012). However, not when what motivates them is not within their control (Gibler and Nelson, 1988). For example, the global change in climate may inevitably influence green building demand and supply (Aliagha et al, 2013a). Moreover, international evidence shows a strong correlation between different types of real estate in different countries. Market factors which are uncorrelated in normal times might be strongly correlated in times of economic distress (Olszewski, 2013).

Besides, internal commercial real estate market condition in one local real estate market could easily spread over to other markets (Olszewski, 2013). For

example, in 1989-1996 the collapse of Japanese real estate market had significant deteriorating effects on the US commercial real estate market. Japanese investors and banks, which had large shares in US market were forced to reduce lending to US commercial real estate market (Peek and Rosengren, 2000; Olszwski, 2013). Again, the cross border studies of the real estate market dynamics of twelve European countries show that it is possible to consider different real estate property market as one market (Wigren and Wilhelmsson, 2007; Norhaya et al, 2010). This is particularly important now that cross-regional studies indicate that green building investment is becoming less localized to one part of geographical region due to increasing global marketplace motivated by prevailing concerns on world climate change (McGraw-Hill Construction, 2013).

The focus of this study is Malaysia and Nigeria. Malaysia and Nigeria are in the same tropical zone (Abduliahman et al, 2013). Both countries are in the same latitude characterized by hot and humid climate. Thus, tropical countries such as Malaysia and Nigeria will be adopting green features suitable for green property markets that would help in reducing high temperature. On this bases, they share certain similarities in environmental features which could have clear implications for green building demand and supply. Again, Malaysia and Nigeria operate a free market where the private sector dominates the property sector. As Bawa (2013) put it, Malaysia and Nigeria have adopted comparable components of private sector dominated property delivery systems. This suggests that their property markets and the behaviour of the market participants in both countries may not differ much. Besides, the construction sector contribution to Malaysia and Nigeria GDPs is largely the same. Malaysia construction sector contribution to GDP is averaging 3.5% (Sariah et al, 2014). While in Nigeria it is in the region of 3% (Isa et al, 2013).

The above similarities however does not suggest that there may not be differences that could shape their markets and affect the perception of green commercial property market participants in both countries. For example, Malaysia has pursued green building policies that have impacted on her real estate commercial property market more than Nigeria. Malaysia for example, has set up the Green Building Confederation (MGBC) and the National Green Technology Policy (NGTP) to drive green building activities. Also, the government of Malaysia has turned its four iconic buildings into green buildings (Aliagha et al, 2013a). Furthermore, Malaysia has developed its rating system known as Green Building Index (GBI) for assessing the environmental design and performance of Malaysian buildings. Besides, Malaysian government has introduced series of green tax incentives to promote green

building investment and adoption among public and private sectors in Malaysia. (Aliagha et al., 2013a).

On the other hand, Nigeria is presently developing its policy framework for green buildings. As an initial move towards developing green building, Nigeria has in 2014 enlisted the Green Building Council of Nigeria (GBCN) with the World Green Building Council (WGBC) (WSP, 2014; Nduka and Ogunsamni, 2015). Nigeria has not yet developed green building rating tool that could be used for office, retail, multi-unit residential, public and educational building projects in Nigeria. However, at the moment, the Nigerian government has allowed the Green Building Council of South Africa (GBCSA) to certify green buildings in Nigeria using the Green Star SA - Nigeria (WSP, 2014). This asymmetries in green building policies, development and implementation between the two countries seem to put Malaysia in a lead against Nigeria. The implication is that green commercial property market participants in Malaysia may have better perception of the market and the factors that drive green commercial property demand and supply than their Nigerian counterparts.

For instance, studies have revealed that the demand and supply of green building is moderate in Malaysia (Abidin et al, 2012) while others say it is below average (Milad et al, 2013; Nazirah, 2009; Nazirah, 2010) whereas in Nigeria it is very low (Dahiru et al, 2014; Nduka and Ogunsamni 2015). This is perhaps because green commercial property market in recent times have been characterized by insufficient knowledge of the motivational drivers and uncertainty on the likely returns and benefits associated with green commercial properties among the stakeholders (Kats et al, 2003; Nurul and Zainul, 2013; Aliagha et al, 2013). Again, international comparison of green property market structure suggests that one characteristic for a matured property market is one driven by investors, developers and clients who are well-informed of the market factors that drive green property investment (DArcy and Keogh, 1998). Malaysia and Nigeria can be said to be at different levels of maturity in green building.

For example, since 2009 and 2014 when Malaysia and Nigeria green building started receiving serious attention respectively, the private sector has assumed the role of predomianant supplier and consumption of green commercial properties. For instance, in 2010, the commercial property sector represented 35-40% of the buildings constructed in Malaysia (Okinawa, 2010), but has not significantly improved in green building certification (Isa et al, 2013). In parallel with this, in 2013 a total of 228 commercial buildings applied for GBI green certification and only 5 buildings received their final certification (Green Building Index, 2013; Isa et al, 2013). In 2015, a total

of 361 applied, only 24 secured their final certification (Green Building Index, 2015). Till date, a total of 402 commercial buildings have applied for certification under the non-residential new construction (NRNC) category, only 31 have secured their final certification (Green Building Index, 2016). While Nigeria has registered 317,039sqm of green buildings (US GBC, 2015) and certified only 1 commercial building (Gray, 2015). The above scenario suggests that there is not yet a critical expansion in the qauantity of certified green commercial buildings in Malaysia and in particular Nigeria.

Experts have argued that the situation may have risen because the real estate development team who controls the chunk of green building market is either not aware or is less certain of the satisfactory returns and motivational factors of green commercial buildings (Nazirah, 2009; Nurul and Zainul, 2013). In particular, in MIS Asia, CS Tan had warned developers to pause and think about green building market before they begin to invest (MIS Asia, 2009) while Chen et al. (2014) contended that developers have always seen the development and practice of green commercial building from business sector perception with less consideration to ecological issues. Besides, Eichholtz et al. (2009a) noticed that both developers and institutional financial investors are still uncertain and hazy about how to go into green building investment, as the economic and financial motivational factors for it are still based on subjective evidences. Given this scenario, Aliagha et al, (2013a) explained that the demand and supply factors of green buildings could be modelled to provide better explanations and show the relationships and interrelated factors that drive green commercial building.

Also, Norhaya et al. (2010; 2014) observed that the nature and behaviour of property market could be illustrated in an interlinked indcators in models that send signals to buyers and sellers about market dynamic forces. According to Norhaya et al, (2014), property market modelling is an attempt to understand behaviours of the property where models present theoretical underpinning of the property market factors. The implication is that models can be used to assess factors from the interaction of demand and supply to show a relationship that represent the attributes of demand and supply factors that buyers and sellers in a property market consider before transaction (Norhaya et al, 2014). Yet what has not been achieved by previous studies is to empirically explore and model the underlying and inter-dependency of the demand and supply factors affecting green commercial properties. Models are used to impose some order on how variables are potentially interrelated (Shammout, 2007). Thus, the models in this study are used to determine the relationship between demand and supply factors affecting green commercial properties, ascertain the factors that have the

most influential effect on demand and supply of green commercial properties. While the discriminant analysis model is used to establish if there are significant differences in perception between Malaysia and Nigeria on the factors that motivate the demand and supply of green commercial properties.

This is in line with Norhaya et al, (201; 2014) contention that property market factors could be examined and established through models both in specific country and across various markets and that there is practically no limit to the use of models in property market analysis. Given the strength of this statement, this study empirically examined cross-regional perception of property market participants in Malaysia and Nigeria on factors affecting green commercial properties using discriminant analysis model. Existing studies on green building appeared to have concentrated on green residential buildings (Christopher, 2007), government and institutional green buildings (Shahamir and Zakara, 2014). Studies focusing on green commercial properties (Wade et al., 2003) are mostly identified with energy productivity without particular consideration regarding the related interdependent elements that underlie the demand and supply of green commercial properties. It is therefore against these backdrops that this study identified and modelled those motivational factors and variables that could drive green commercial properties. In other words the study developed a model that provides causal explanations for demand and supply factors affecting green commercial properties with focus on Malaysia and Nigeria.

1.2   Problem Statement

Given that green and sustianble buildings are gradually emerging in developing countries and given that stakeholders in the real estate industry are less certain of the returns associated with green building (Nazirah, 2009; Nurul and Zainul, 2013), studies have attempted to highlight various factors that could motivate green building demand and supply (Kats et al, 2003; Alev and Baabak, 2010; Aliagha et al, 2013a; Chequt et al, 2013; Isa et al, 2013; Norhaya, 2013). However, these studies have not provided an in-depth investigation on the wide-ranging demand and supply factors affecting green buildings in general and commercial properties in particular. As Lutzkendorf and Lorenz (2007) put it, factors influencing the demand and supply of green building have remained less researched and more research is required on the beneficial characteristics of green buildings. Also, recent studies suggest that there is not yet a general consensus among green building scholars on the factors that could

best capture the motive of buyers and real estate participants in green commercial property demand and supply (Nurul and Zainul, 2013; Aliagha et al, 2013a).

The implication is that the real estate market participants are less certain of the strategic factors that could best deliver high performance commercial properties. For instance, as observed earlier MIS Asia CS Tan (2009) had cautioned real estate developers to pause and reflect on green building market motivators before they begin to invest. The inference is that the factors that mostly influence the demand and supply of green commercial properties have not been fully explored. This is further complicated by the volatility of the green property market and the behaviour patterns of active investors and developers in the market (Ingrid, 2006). Also, lack of understanding of green building market fundamentals, institutional framework and dearth of information has affected investors concept of green building demand and supply (Isa et al, 2013; Joshi and Rahman, 2015). As such, it is difficult for buyers, investors and developers to have solid grip of emerging green commercial property market and the factors that drive their participation.

As a consequence, vicious circle of blame has continued to occur among the green real estate development team while buyers have continued to be influenced by the belief that green commercial properties are not easily affordable. For example, developers, contractors and consultants are complaining that clients do not ask for sustainability (Baldock, 2000). The design team such as architects have continued in their old ways of design approach and are reluctant to embrace the modern strategies. Buyers on the other hand are worried that green buildings are costly and take a longer time to complete (Bordass, 2000). As such, they expect the developers and investors to be at the forefront and vanguard in improving their services (Business Vantage, 2002). The subsequent effect of this is continued increase in conventional and traditional buildings with its attendant environmental problems.

Malaysia and Nigeria which is the focus of this study is still dominated by conventional buildings. As Alabi (2012) and Rostami et al (2015) put it, construction work in Malaysia and Nigeria is still characterized by conventional methods which are not sustainable. As noted earlier, Malaysia and Nigeria are in the same latitude characterized by hot and humid climate which could have clear implication for green building. Thus, Malaysia and Nigeria will be adopting policies and programmes suitable for green building demands and supplies that would help in reducing high temperature. Again, the two countries are ranked among twenty major emerging economics that opertates similar property market delivery system where the private

sector dominates the property market (Bawa, 2013; Nikkei-Veritas, 2014). On this bases, Malaysia and Nigeria may share similar problems of green commercial property market factors. Besides, both countries practice green building and sustainablility (Alabi, 2012). In other words, their green building markets are characterized by potential buyers and participants who may be motivated by certain factors and expectations on green building demand and supply.

Regardless of this, their market size by number of registered and certified green buildings differ. For example, in Malaysia, a total of 768 green buildings have applied for GBI certification, 374 have been certified as of 15th November, 2016 (Green Building Index, 2016). While in Nigeria, a total of 317, 039gsm of green buildings have been registered (US GBC, 2015). However, on green commercial properties which is the focus of this study, Malaysia and in particular Nigeria has not invested significantly. At the moment, demand for and supply of green commercial buildings particularly in Nigeria still represent only a small percentage in the building industry. Put differently, green commercial property investment in Malaysia at the moment is below average but very low in Nigeria (Dual Citizen LLC, 2014). For example, in Malaysia about 62.5% of green office buildings have been supplied while 12.5% are under construction (Isa et al, 2015). Furthermore, as noted earlier, a total of 228 commercial buildings applied for the GBI green certification in 2013 and only 5 buildings received their final certification (Green Building Index, 2013; Isa et al 2013). In 2015, a total of 361 applied and 24 secured their final certification (Green Building Index, 2015). Till date, a total of 402 commercial buildings have applied for certification in Malaysia under the non-residential new construction (NRNC) category, only 31 have secured their final certification.(Green Building Index, 2016).

Nigeria is yet to make significant policy on green rating scheme that could be used for office, retail, multi-unit residential, public and educational building projects in Nigeria. (WSP 2014; Nduka and Ogunsamni, 2015). Even with significant growth rate of 12.09% in the building and construction sector (Isa et al, 2013), the LEED certification update shows that only 1 commercial building-Heritage Place has received final certification in Nigeria with square footage of 97,187 (Gray, 2015; Oliyide, 2014; Northcourt, 2015). Though the market performance of the two countries on the achievement of a green economy differs, Malaysia performance could not be said to have resulted into critical expansion in the number of certified green commercial properties compared with other countries like Singapore and China. For example, at the moment, Malaysia aggregate number of certified and registered green building is put at 5,785, 244gqm while Nigeria has registered 317, 039 behind other counries like

China with 22, 959,342sqm (US GBC, 2015).

This situation appears to demonstrate that Nigeria is lagging behind Malaysia in performance while Malaysia is falling behind other countries in green building despite the huge potential market that exists in both countries. The implication is that there are multiple factors that could affect the demand and supply of green commercial buildings in both countries which real estate participants have not fully explored. Dahiru et al, (2014) and Isa et al (2015) have argued that factors affecting the demand and supply of green buildings in Malaysia and in particular Nigeria have been researched with less attention and further studies are required on the advantageous features of green buildings. While attempts have been made within and outside the study areas to discuss these multiple factors (Alev and Baabak, 2010; Ooi Jen Mei et al, 2012; Isa et al, 2013; Aliagha et al, 2013a; Nurul and Zainul, 2013), a number of critical research gaps remain.

One of these gaps is lack of empirical investigation into the impact of the relationships of the factors on green commercial properties. Green commercial properties is becoming an area of interest in relationship with demand and supply factors. Chequt et al, (2013) had argued that a relationship in green building demand cannot be thought to effectively exist without supply. Thus, the need for empirical evidence of the relationship between demand and suppy factors as key indicators to green commercial property investment has been suggested in past researches. For example, Aliagha et al, (2013a) and Mohamad et al, (2015) provided an important avenue for further research when they argued that model of green commercial building demand and supply will comprise of interrelated factors vis-a avis environmental sustainability, increased productivity, cost savings, energy efficiency, tax incentives, developers returns, branding and prestige etc.

Wade et al, (2003) and Chequt et al, (2013) also conclude that although many scholars have attempted to explain the interrelated factors and benefits of green commercial buildings, none of the studies has paid explicit attention to model the factors to determine the factors with most influential effect in influencing the demand and supply of green commercial properties. In other words, the studies did not empirically examine the inter-dependency of demand and supply factors in relation with green commercial properties. Thus, creating a huge knowledge gap in all facet of green building investment. Since one of the major failures of the past literature is their inability to ascertain if the factors are correlated in relationship with green commercial properties and ascertain which factors have the most influential effects on

green commercial property demand and supply, it becomes imperative for this study to fill the gap.

As observed earlier, given that the study areas Malaysia and Nigeria operate the same property market delivery system where the private sector dominates investment in real estate properties (Alabi, 2012; Bawa, 2013). Besides, given that green building investment is becoming less localized in one geographical region and state due to increasing global marketplace driven by world climate change (McGraw-Hill Construction, 2013). Again, because Malaysia and Nigeria falls within the same geographical latitude characterized by hot and humid climate which could have obvious impact on green building features and materials, this study attempts to determine perception of Malaysia and Nigerian real estate market participants on the demand and supply factors affecting green commercial properties.

Determining the perception of real estate professionals on sustainability factors according to Alabi (2012) will explain the overall effects of the factors on green building investment. Although among the authors, Alabi is the only researcher to have specifically examined the perception of the real estate professionals on sustainability features between Malaysia and Nigeria, in doing so, he did not link it to green commercial properties neither did he discuss nor model both the demand and supply factors affecting green commercial properties. As argued by Kuye (2000) in real estate investment, demand is not isolated from supply. This suggests that the perception of real estate participants in Malaysia and Nigeria on the demand and supply factors affecting green commercial properties is a gap in the literature that needs to be explored. Thus, it is the contention of this study that such cross-country comparison study will be an added advantage to both countries to learn from others' experiences and benchmark themselves. Accordingly, the following aim, questions and objectives have been identified out of the problem of this research.

1.3   Aim of the Study

The aim of this study is to establish model of demand and supply factors affecting green commercial properties with focus on Malaysia and Nigeria.

1.4 Research Questions

a) What are the demand and supply factors that affect green commercial properties?

b) Are there significant relationship between green building demand and green building supply of commercial properties?

c) Are there significant relationship between green commercial building demand and its factors?

d) Are there significant relationship between green commercial building supply and its factors?

e) Are there significant differences in perception between Malaysia and Nigeria consumers and investors on the factors that motivate the demand and supply of green commercial properties?

1.5 Objectives of the Study

In order to achieve the aim of this study and guided by the research problems, this research pursued the following objectives:

a) To identify demand and supply factors that affect green commercial properties.

b) To determine the relationship between green building demand and green building supply of commercial properties.

c) To ascertain the relationship between green commercial building demand and its factors.

d) To acertain the relationship between green commercial building supply and its factors.

e) To determine if there are significant differences in perception between Malaysia and Nigeria consumers and investors on the factors that motivate the demand and supply of green commercial properties.

1.6   Research Hypotheses

Based on the research questions, the study verified the following hypotheses. For details see chapter two which explains the conceptual framework from where the hypotheses were derived.

Table 1.1: Research Hypotheses of the study

No of Hypotheses	Hypotheses
H1:	Green building supply is significantly dependent on green building demand. RQb
H2a:	Personal and altruistic environmental motivations significantly influence green building demand. RQc
H2b:	Green building demand is significantly dependent on corporate conscience responsibility motivations. RQc
H2c:	Green building demand is significantly dependent on economic and financial motivations. RQc
H3:	Green building demand is significantly influenced by monetary green tax incentives. RQc
H4a:	Green building supply is significantly dependent on life cycle cost saving motivations. RQd
H4b:	Developers expected rate of return motivations significantly influence green building supply. RQd
H4c:	Government policies and green certification motivations significantly influence green building supply. RQd
H4d:	Market strategy benefit motivations significantly influence green building supply. RQd
H5a:	Green building supply is significantly dependent on monetary green tax incentives. RQd
H5b:	Available green skills significantly influence green building supply. RQd
H6:	There are no significant differences in perception between Malaysia and Nigeria consumers and investors on the factors that motivate the demand and supply of green commercial properties. RQe

1.7   Significance of the Study

In spite of the commitment of Nigeria and Malaysia in particular in green building as well as the size and potential nature of green commercial property investment market of both countries, Malaysia and in particular Nigeria seems to be lagging behind in the international green investment performance index. This could

be due to insufficient investigation to determine why property market participants are not sufficiently committed to green commercial property supply and demand. An investigation of the motivating factors of green commercial buildings in Malaysia and Nigeria could have positive effect on the market and improve their performance status globally. These factors have remained less researched, thus the justification and significance of this study which is considered timely. As a result, the study will be of immense significance in the following ways:

a) The study will reveal and enrich empirical studies on green building in the study areas, by feeding the government and the local policy makers on green property investment with strong empirical data to re-position their market for global competitiveness.

b) Giving the very significant environmental, economic and social benefits that will accrue from this study, professionals such as Estate surveyors and valuers, developers, and Architects as well as government, business enterprises and the public will be more greener in initiatives and investment

c) The dearth of funds and tax incentives has been identified as one of the major reasons why there is inadequate green housing and lack of demand and supply of green buildings. Even the available funds and tax incentives seem not to be properly channelled to the growth of green properties for fear of market uncertainties (Onyike, 2009). It is therefore imperative that models or strategies be developed to justify the importance of green drivers and why funds and tax incentives should be made available to enhance demand and supply of green commercial properties.

d) The study will redirect research interest on the property investment market by both academics and industry-based researchers by providing basic empirical evidences on factors driving the paradigm shift for green investment and practices. It will also serve as a future reference index for further academic work and research.

e) One of the reasons for cross-regional or state studies is knowledge exchange, lesson learning, information sharing and developing (Bawa, 2013; Olusegun et al., 2015). Therefore this study will possibly establish rich empirical and hypothetical lessons and knowledge transfer and awareness on green building and practice between the two countries. Cross-country comparison study of this nature will be an added advantage to Malaysia and Nigeria to learn from each other experiences on green building investment and benchmark themselves.

1.8   Scope of the Study

In addition to green commercial properties, green real estate property market consists of residential and industrial, and special purpose properties. While this study recognizes these diverse dimensions as equally important potential areas of green properties that require investigations, it however did not cover these areas. Therefore, the scope of this study is limited to green commercial properties. Green commercial properties or buildings, also known as sustainable or high performance buildings are properties built using environmentally friendly and resource efficient processes and certified by recognized certifiying institutions (Chequt et al, 2013). Kroll (2011) defined green commercial real estate to include properties that integrates water, energy and resource efficiency into commercial real estate planning, design, finance and construction. This is for the purpose of achieving economic value and benefits as well as social and environmental benefits (Nurul and Zainul, 2013). By Kats et al, (2003) explanation, the term green commercial property (also called green commercial real estate) include sustainable buildings or land intended to generate a profit, either from capital gain or rental income. Though, this study considers this definition as critical to this thesis, however, it considers Kroll (2011) and Chequt et al, (2013) explanations of green commercial properties more useful.

Green commercial properties by their nature comprise of officies, shops, retails, industrial space, including hotels (Kroll, 2011). This classfications sometimes overlap and could be further sub-classified within the various property markets (Kroll, 2011; Olszewski, 2013). For example, within the green commercial property market, there is a property market for offices, shops or retail and industrial (Kats et al, 2003; Dugeri, 2011; Chequt et al, 2013). However, one common factor bonding this classes of properties is that they are described as commercial properties irrespective of if they are new construction or modified existing green commercial building stock (Kroll, 2011). Besides, they are within the marketplace that is subject to the forces of demand and supply factors (Chequt et al, 2013). Though, comparable with conventional property market, green property market (commercial or residential) is guided by the laws of demand and supply where the amount of quantity demanded and supplied at a ceratin price and time play significant role. However, this study did not cover this area. In other words the market estimates of quantity of green commercial properties demanded and supplied in the study areas are not within the scope of this study. Nevertheless, they were briefly mentioned. Thus, the scope of this study is restricted to identifying, discussing, and modelling the demand and supply factors affecting green commercial properties (offices, retail, industrial and multi-family residential sector).

In order to achieve this, this study targeted the real estate development team and partcipants who are involve and knowledgeable in green building. So, data collection and unit of analysis of this study were limited to real estate developers, investors, architects, estate surveyors and valuers, builders/contractors and, town planners. Though, for the demand side of this study, the unit of analysis ought to be buyers and users of green commercial buildings (Piyapong et al, 2011; Mohd et al, 2013; Mohamad et al, 2015; Tawfik et al, 2015). That is normal. In any case, what is regularly ignored and not known are the views of the real estate development team on the demand side. Their opinions are likewise essential as they are regularly in direct contact and negotiations with potential purchasers and buyers. In this manner, they could have expert perception and opinion on the motivating demand factors. Moreover, studies have used the opinions of the building team such as developers to examine and investigate residential green building investment (Ibrahim et al, 2014; Yee et al, 2015; Elias and Lin, 2015). It is against this reasoning that this study based the unit of analysis of this study largely on the views of the real estate development team instead of buyers and occupants.

On the other hand, proeprty market behaviour is remarkably similar from place to place (Malpezzi, 1999). Also, depending on the type and quality of property under investigation, it may command a local market as in the case of lock-up street shops, a national and international market in the case of a retail or offices (Dugeri, 2011). As such transfer of knowledge and methods across countries is ideal (Bawa, 2013). This is what Rose (1991) described as lesson drawing, what Wolman (1992) called policy transfer and what Allen (2003) termed learning exercise. Against this logic, this study covered two countries Malaysia and Nigeria. However, data collection were restricted to their capital cities - Kuala-Lumpur in Malaysia and Abuja and Lagos in Nigeria. The choice of Kuala-Lumpur, Abuja and Lagos is because green commercial buildings are predominantly located in these cities and they largely host the targeted respondents for this study. Besides, Kuala Lumpur and Abuja and Lagos are major commercial hubs of Malaysia and Nigeria respectively.

1.9   The Study Areas- Malaysia, Nigeria

1.9.1   Geography and Background

Malaysia latitude and longitude are 2 30' North scope and 112 30' East longitude. Malaysia coastlines are in the Southeast Asia. Its total area is 330,000 square kilometres (sq mi) and is consisting of the Mainland and Borneo Island (Dipiazza, 2006). Peninsula Malaysia has an area outskirt with Thailand in the North. In the South, a thoroughfare joins it to the Singapore. Towards the West, over the straits of Malacca lies the Indonesian Island of Sumatra. Nigeria is in West Africa and has a geographic coordinate that shows 10 00' N North scope and 8 00' E East longitude with its coastlines laying in the south, on the Gulf of Guinea on the Atlantic Ocean. Nigeria has land outskirt with Benin Republic in the West, Chad and Cameroon in the East, and Niger in the North. Malaysia and Nigeria are in the same tropical zone (Abduliahman et al., 2013). On this base, they share certain similarities in environmental features which could have clear implications for green building. Green building design and construction in Malaysia and Nigeria could be said to be specifically suited for tropical regions. In that capacity green building skills requirements are those appropriate for tropical areas and climates similar to Malaysia and Nigeria.

Figure 1.1: Map of Malaysia (Source: https://maps.google.com/)

Figure 1.2: Map of Nigeria (Source: https://maps.google.com/)

1.9.2   Economic Structure

Malaysia and Nigeria are capitalist countries, though experts have argued that both countries operate a mixed economy giving government participation in the economy. However, Malaysia and Nigeria operates a free market where their housing and property delivery system is private sector driven. Put differently, Malaysia and Nigeria have adopted comparable components of private sector domianted housing delivery systems (Bawa, 2013). Though, on macroeconomics, Malaysia has more diversified economy with service and manufacturing sectors accounting for 54% and 25% of GDP respectively. Malaysias GDP in 2012, 2013 and 2014 were USD314.4 billion, USD 323.3 billion, and USD 338.1 billion respectively. This, in the same order represents annual GDP growth rate of 4.2%, 5% and 6.6%. The income per capita for 2012, 2013 and 2014 were USD6790.4 USD6997.7 and USD7304.1 correspondingly (World Bank 2016). Nigeria is one of the fastest developing countries in Africa. Service is the largest sector of the economy, accounting for about 50% of total GDP. Agriculture, which was in the past the biggest sector, now weights around 23%. While crude petroleum and natural gas remain export, it constitutes only 11% of total GDP. Nigerias GDP in 2012, 2013 and 2014 were USD461billion USD515 billion, USD568 billion respectively. The annual GDP growth rates for the years were 4.3%, 5.4% and 6.3%. The income per capita was USD3065, USD3319 and USD3567 (World Bank 2016) respectively.

Malaysia just like Nigeria is a resource rich country. Similar to Nigeria, Malaysia is a net exporter of oil and the second biggest exporter of Liquefied Natural

Gas (LNG) globally behind Qatar. On the aspect of economic trade and business, Malaysia and Nigeria are nearly the same since whatever is produced in Malaysia, the market exists in Nigeria (Bawa, 2013). Both countries diplomatic ties started since 1965 and both are members of Commonwealth of Nations and Developing-8 (D-8) an Organization for Economic Development Cooperation among eight (8) countries: Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, and Turkey (Aleyomi and Abu, 2015). Though at present, Malaysia is a non-member country. On the other hand, Malaysia just like Nigeria belong to other bodies that share similar economic and social aims and objectives dedicated towards promoting economic integration, social progress and cultural development in their regions. Malaysia is a member of Association of Southeast Asian Nations (ASEAN) while Nigeria belongs to Economic Community of West African States (ECOWAS). Both bodies have similarities in both social and economic objectives.

In addition, Malaysia like Nigeria has the mission of accomplishing her economic and social programme as envisioned in her policy strategy, vision 2020 agenda of which sustainability in housing is incorporated (Rafikul, 2011; Eneh, 2011). Malaysia economic ties with Nigeria have resulted to training of over 50 Nigerian Youths under the Post Amnesty Capacity Building Programme of Nigerian Federal Government in Malaysia (Adekalu et al, 2013). This ties have equally been extended to the education sector where over 9,000 Nigerian students are studying in various Malaysian Universities (Ministry of Higher Education Malaysia MOHE, 2010; Abdullahi et al, 2014). Some of these students are today professional engineers, architects, estate surveyors and valuers, developers, investors and builders who are involved in green building construction and development.

1.9.3 Political and Governance Structure

Malaysia and Nigeria have same frontier history. Both countries were erstwhile British colonies. Independence of Malaysia and Nigeria were nearly at the same period. Malaysia got her freedom in 1957 while Nigeria became a sovereign nation in 1960, just three years behind Malaysia. Just like Malaysia, without exception, Nigeria as a British colony came to independence with a parliamentary system based on the West Minster model (Bawa, 2013). The structure was reformed in 1963, having a President with ceremonial powers and Prime Minister as head of government. Akin to Nigeria, the Federal government of Malaysia comprises of three arms, namely, the executive; legislative and judiciary (Case, 2007). The federal constitution determines

the powers of the governments, but under terms of the federation, Sabah and Sarawak retain certain constitutional prerogatives (Case, 2001; Gomez, 2007). The executive is led by the Prime Minister and his cabinet members /ministers who are the highest policy making persons in the country (Ahmad et al, 2003; Chin, 2011).

In addition, the judiciary is independent of the executive arm of government with a system based on English common law. As noted earlier, Nigeria operates a three tier-federal structure. However before 1967 there were four entities administered and independent local administrations, namely, East, Midwest, Northern and Western regions, and central government. The national governance in Nigeria, just like Malaysia and many other countries consists of cabinet ministries, the independent agencies and public corporations. A ministry comprises of departments and the number of such varies and depends on the functions for which the ministry is responsible. The cabinet ministries are headed by ministers appointed by the president (Bawa, 2013). On the administrative machinery, Nigeria has three level systems akin to Malaysia Federal, State and Local government. The Federal government is in charge of matters set out in what is known as federal list which comprises defence, transport and education. On the other hand, state governments alone are responsible within their areas for matters set out in the state list, which includes land and religion (Ahmad et al., 2003).

In addition, other matters such as local government and town planning are the concurrent duties of the federal and states. This study argues that since land is by law under the prerogative of the states, housing should also be the responsibility of the states. In the same way, the governance in Malaysia and Nigeria is carried out by the government agencies at three main levels. They include the ministries, departments and statutory bodies. In the ministries, ministers are in charge and are responsible for articulating, preparing, overseeing and organising government policies relating to its responsibilities. On the other hand it is the duty of government departments to execute government policies. While the statutory bodies are responsible for implementing certain tasks in comparable with the national objectives based on specific own governing laws and rules.

1.9.4   Socio-demographic Structure

Malaysia and Nigeria have common socio-cultural background (Abayomi et al, 2014). This common social relationship has been mutually tied that as of today, Malaysia has its High Commission in Abuja while Nigeria has its High Commission in Kuala Lumpur. Both countries are heterogeneous states that are religiously and ethnically plural with three major ethnic groups namely, the Malays, the Chines and the Indians in Malaysia while the Yorubas, the Igbos and the Hausas in Nigeria (Bawa, 2013; Abayomi et al, 2014; Michael and Mohamad, 2015). As argued by Freedman (2006) and Nair (2007) some of what is called races in Malaysia today is large and exemplary multi-ethnic model. However, due to the absence of open and persistent political unrest, it may not be conspicuous (Bawa, 2013). The 1996 population census shows that Malaysia has a total of 21.2 million people. Nevertheless, the World Bank (2008) put Malaysia population at 27 million with about 65% umiputera denoting sons of the soil. This includes of Malays and smaller indigenous groups. Chinese constitute 26% of the population while Indians represent 8% (Weiss, 2007; Bawa, 2013).

On the other hand, Nigeria is the most populous country in Africa. According to World Bank (2011) report, Nigeria population in 2010 is put at 158 million with an average growth rate of 2.4% between 2000- 2010. However, the 2006 population census released by Nigerian National Population Commission (NNPC) pegged the population at 140,003,542 with an annual growth rate of 3.2% (Onyike, 2009). Due to population dynamics, economic growth, legislative designation of new urban centres and increase in densities of rural trading centres, urbanization rates in Malaysia and Nigeria has increased significantly. For example, Malaysia urban population is put at 74.7% of the total population with 4.66% rate of urbanization annual rate of change (2010-2015) (CIA, 2015). However, the World Bank (2015) pegged the rate of urban growth in Malaysia at 4.0% per a year on average. On the other hand, Nigerian urban population is placed at 47.8% of the total population with 4.66% rate of urbanization - annual rate of change (2010-2015) (CIA, 2015). While the World Bank (2015) put the annual urban growth of Nigeria at 4.5%.

The core social implication issues of high rate of population and urbanization in Malaysia and Nigeria is access to affordable housing and decent buildings devoid of environmental adverse effects of which green buildings (see Figure 1.3 aand 1.4) guarantee. Though Malaysia in particular and Nigeria have made some remarkable achievements in green building during the past five decades, they have not however made substantial improvement in area of green commercial buildings compared to

their counterparts in developed nations. Cross - regional and state comparative studies indicate that green building investment trend is gradually becoming less localized and limited in one part of the geographical region or economic state due to increasing competitive global marketplace occasioned by prevailing concerns on world climate change (McGraw-Hill Construction, 2013). Furthermore, studies show potentially rich empirical and theoretical benefits from knowledge transfer and knowledge sharing in comparative regional studies (Bawa, 2013; Olusegun et al., 2015).

This study suggests a two-way approach of empirical perception from the comparison. Though this study recognizes that geographical, political and economic backgrounds of both countries may create few and diverse paths towards cross-regional knowledge and cooperation in green building market and sustainability. It is however, pertinent to note that cross-regional study of this nature could re-define knowledge in general areas of international green building investment opportunities and knowledge transfer among developers and investors. At a more profound level, it will allow for benchmarking and a paradigm shift from "push" to "pull" factors that could refine institutionalized and localized approaches to perception and awareness of green building construction and investment. Against this logic, some comparative and cross-regional studies on housing, perception of professionals on sustainability in building construction, and real estate investment performance and practice between Malaysia and Nigeria have been conducted (Alabi, 2012; Bawa, 2013; Abayomi et al., 2014; Olusegun et al., 2015 see Tables 1.3 and 1.4).

Figure 1.3: Diamond Building, the eight-story Green Building in Putrajaya Malaysia.
Source: Lim Japheth (2013)

Figure 1.4: Ultra-modern, LEED certified eco-friendly building in Nigeria (Heritage Place) Lugard Avenue Kingsway Road Ikoyi Lagos (15,736sqM office space) **Source:** http://heritageplaceikoyi.com/

1.10 Justification of the Study- Why Malaysia and Nigeria?

As noted earlier, studies have shown that real estate property market is localized as investors may pay attention to issues that influence their local market (Berry and McGreal, 2003; Kimmons, 2012). However, recent studies have shown that in many respect there never can be truly local real estate market (Ventolo and Williams 2013). There may be locally occurring transactions (such as within a city or country), but all transactions are affected to a greater extent by the wider market forces within the state, between regions and nations (Ventolo and Williams, 2013). Also, latest study by (Olszewski, 2013) has revealed a strong correlation between different types of real estate markets among different countries. For example, market factors which are uncorrelated in normal times might be strongly correlated in times of economic distress in many countries (Olszewski, 2013). Furthermore, given the significant momentum towards increased international economic integration, Geoffrey and Eamonn DArcy (1994) had argued that the real estate market performance and behavior could be viewed as the combined product of various national, regional and global economies. However, this is justified on the grounds that demand and supply are the key elements of property market activity (Keogh, 1991).

Moreover, Malpezzi (1999) and more recent work of Dugeri (2011) observed that property market behaviour is remarkably similar from place to place. According to Dugeri (2011) property market has no central spot and as such it can be internationalized with entry of foreign investors who seek to make profit and benefits.

Though, the institutions and constraints particularly the amount of income available for property demand and supply by real estate market participants certainly may vary, this differences should not however obscure the regularities in behavior (Malpezzi, 1999). Besides, Doling (1997) and the recent work of Lawson et al, (2009) have argued that all knowledge and disciplines are comparative. Specifically, Lawson et al, (2009) posited that comparative entails research within and across disciplines, states, nations, continents, regions, cities, suburbs and estates. This suggests that comparative studies may be on different scales and for difference purposes. This is mainly significant now that green building is an emerging concept and is becoming less localized to one part of geographical region due to increasing global marketplace motivated by prevailing concerns on world climate change (McGraw-Hill Construction, 2013; Nurul and Zainul, 2013). Table 1.2 shows some selected cross-regional studies on green building features.

Table 1.2: Selected Cross-Regional Studies on Green Building Features. **Source:** Authors work 2016

Author	Focus / Methods	Findings
Bakar Abu-Hassan et al, (2011)	Sustainable Housing Practice in Malaysia Housing development: Towards establishing sustainability index. CASBEE, BREEAM, LEED and GBI. Quantitative.	Proposed assessment model for housing sustainability in Malaysia called Malaysias Comprehensive Assessment System for Sustainable Housing (CASSH) as obtainable in advanced countries.
Waidyasekara, K.G.A.S., and De Silva, M.L (2012)	Comparative study on GB Rating Systems: In terms of water efficiency and conservation: UK, US, Hong Kong, Australia, Singapore, India, South Africa, Malaysia, New Zealand, Sir-Lanka and Abu-Dhabi. Qualitative.	GBRS of all the countries addressed water conservation methods. However, credentials given to the construction phase is mainly addressed by GRIHA and BREEAM (India and UK.).
Muhammad A.F., and Nurhayati A.M. (2013	Green Building assessment tools: Evaluating different Tools for green roof system: BREEAM and LEED- UK; US; Green Mark-Singapore; CASBEE Japan and GBI Malaysia. Qualitative.	BREAAM is the earliest tool and account for the most points for green roof system followed by Singapores Green Mark, LEED and GBI. GBI is the newest among the tools under study.
Bahaudin et al, (2014)	Comparison of the GBs Criteria Focus on Malaysia, Singapore, USA, Indonesia and South Korea. Qualitative	Energy Efficiency, Water Efficiency and Indoor Environment Quality are the most vital elements considered in the green building criteria development by the councils under consideration
Abdullah et al, (2015)	Assessment Criteria on Sustainable Rating Tools used in Asian Countries. Qualitative	Significant Assessment Criteria for the Green Assessment tools was found high in the area of energy efficiency among the countries assessed

As noted earlier, Malaysia and Nigeria is the focus of this study. Both countries are in different regions but operate open property market economy that are globally linked (Bawa, 2013; Usilappan, 2016). As Bawa (2013) puts it Malaysia and Nigeria operates a comparable property market delivery system where the private sector dominates property delivery systems. In other words, their real estate property market is characterized by potential buyers and participants who may likely be driven by similar demand and supply factors. There is free entry and free exist in both

markets. It equally suggest that Malaysia and Nigeria property market behaviour may not differ much. Further to this, is that internal commercial real estate property market model of any of the two countries could easily be adopted over to the other market. For example, the Central Bank of Nigeria CBN between 2010 and 2011 adopted the Malaysian Cagamas model to rescue her financial and property market from total collapse during the global financial crisis of 2007 and 2008. Through Asset Management Corporation of Nigeria (AMCON) the distress property development companies and financial institutions assets and properties were acquired, their capital base re-shored with funds and repackaged for sale to the public (Olusegun et al, 2015; Onuoha et al, 2016).

On green building, though Malaysia has a relatively improved green commercial property market as well as high demand and supply of green commercial properties, the factors that drive the market participants remain similar and comparable with Nigeria. For example, as reported by Chequt et al, (2013) irrespective of geographical factors, one of the direct economic benefits of green commercial property demand in any real estate property market is the quest for energy efficiency and sustainability. Also, studies from Malaysia and Nigeria have shown that energy efficiency and CO_2 reduction are among the factors that drive the demand for green commercial properties (Alabi, 2012; Mohamad et al, 2015; Isa et al, 2015; Nduka and Ogunsanmi, 2015). Furthermore, studies have revealed that factors such as building certification facilitates the inter-mediation process between building developers, investors and buyers in the context of what constitutes quality or energy efficient buildings in any country (Chequt et al, 2013; Aliagah et al, 2013a).

Besides, construction cost, price signals of other certified buildings, government policies, developers expected returns, tax incentive still influence the supply of green commercial buildings in many countries including Malaysia and Nigeria (Nurul and Zainul, 2013; Isa et al, 2013; Nduka and Ogunsamni, 2015). Though, a major factor that can create significant difference in market variations among countries is the quantity of green building demanded and supplied in line with the fundamental laws of demand and supply (Chequt et al, 2013). But this is outside the scope of this study. Different from this, and as observed earlier Malaysia and Nigeria are in the same latitude characterized by hot and humid climate. As a result, both countries are likely to adopt green features suitable for green property markets that would help in reducing high temperature. This similarity has given rise to cross-regional studies between Malaysia and Nigeria on real estate, housing and sustainability in building construction as shown in Tables 1.3 and 1.4 below.

Regardless of the similarities, Malaysia and Nigeria are not in the same level of green building investment, development and implementation. For example, at the moment, a total of 402 green commercial buildings have applied for certification in Malaysia under the non -residential new construction (NRNC) category, only 31 have secured their final certification.(Green Building Index, 2016) while in Nigeria only 1 green commercial building has received final certification (Gray, 2015). As indicated before, studies show that in Malaysia about 62.5% of green office buildings have been completed and occupied while 12.5% are under construction (Isa et al, 2015). Besides, the Dual Citizen LLC (2014) study on the performance of countries in green economy ranked Malaysia higher than Nigeria. Thus, this study is based on the premise that this differences could affect the orientations and perception of the market participants on factors that drive green commercial properties.

On the other hand, commercial property sector is a key sector in the mitigation of harmful environmental impacts in both Malaysia and Nigeria but has remained poorly researched. Local literature on green commercial building investment in the study areas are inadequate with little or no empirical support (Isa et al, 2013). As such most literature for this study were drawn from external publications. However, as observed earlier, existing studies on green building seem to focus more on government and institutional green buildings (Yahya et al, 2013; Shahamir and Zakara, 2014), Green Infrastructure (MacFarlane et al, 2005; Ian, 2010), energy efficiency (NgBan and Zainal, 2013), green technology (Popp et al, 2011), benefits of green buildings (Kats et al, 2003; Alev and Baabak, 2010) and residential green buildings (Christopher, 2007; Mohamad et al, 2015). Investment in green building requires the demand side and supply side.

The demand side is determined by potential occupants and buyers while supply side is mainly controlled by the real estate development team. This study focuses on the analysis of both demand and supply side factors of commercial properties as no study has so far attempted to examine the causal relationships and inter-dependence of demand and supply factors in relation to green commercial buildings. This has created a very huge knowledge gap in all facets of green building and construction. On this bases, this study contends that if green building is considered as the core footprint of environmental, social and economic and financial benefits as recognized by experts, it will be basically more in the area of green commercial properties. As such, more research focuses on empirical evidence of demand and supply factors are needed.

Table 1.3: Related Studies on Green Building and Properties between Malaysia and Nigeria [1] **Source:** Authors work 2016

S/N	Author / Year & Type of Study	Research Title/Focus	Methodology	Findings
1	Bawa, C. A. (2013) PhD dissertation Department of Estate Management University of Malaya	Low-income Housing Policy: A Comparative Study of Malaysia and Nigeria	Quantitative and Qualitative Approach	In Nigeria greater majority of low income group LIG are unable to acquire housing while Malaysian context shows an inclusive trajectory in housing its LIG.,Housing allocation goes to target beneficiaries of LIG in Malaysia while in Nigeria majority of low-cost beneficiaries are excluded in LIG.,In Malaysia renters are on the increase. About 48% are renters. In Nigeria more than 50% and 48% are renters and owner-occupiers respectively, 60% of housing owners/occupiers secure housing units from private developers while more than 55% obtain housing units from private developers. Housing finance is more available to LIG in Malaysia than in Nigeria. Institutional structures and agency responses play an important role in the shaping and determining outcomes of the low-income housing policies in both countries.
2	Mustapha, B (2011) MSC dissertation. Department of Construction Contract Management Universiti Teknologi Malaysia	Comparison between the standard forms of Building contract used in Nigeria and Malaysia.	Qualitative method. Interviews	Over 11, 800 capital projects are abandoned in Nigeria than in Malaysia due non-payment or delays in payment of contract fees.,Joint Contract Tribunal (JCT) 2009 standard is used in Nigeria for both public and private projects while Pertubuhan Akitek Malaysia (PAM) 2006 is in use in Malaysia for private projects whereas JKR, 203A is used for government projects. Payment for issuance of interim certificate at interval in Nigeria is 28 days in joint contract tribunal (JCT) standard while in Malaysia it is 21 days in Pertubuhan Akitek (PAM).,Parties involved in contracts in Nigeria are less knowledgeable about construction laws compared to their counterparts in Malaysia.,Budget for construction projects are not adequate in Nigeria compared to project budget in Malaysia.
3	Alejo, A (2012) MSC Dissertation. Department of Construction Contract Management Universiti Teknologi Malaysia	Comparative Study of Defects Liability Period Practice between Malaysia and Nigeria. Case studies: Universiti Teknologi Malaysia and Federal University of Technology Akure, Nigeria as case studies	Qualitative and quantitative analysis	Defects liability period in Malaysia is 12 while Nigeria is 6 months. Defects that manifest in buildings after the defects liability period in Malaysia is 1.00% whereas in Nigeria it is put at 27.67%.,Total rate of defects during defects liability period in Malaysia is 23.5% while in Nigeria it is 8.99%., Occurrence of defect after defects liability period in Nigeria is higher compared to Malaysia.,Defect liability period practice in Nigeria is not reasonable enough to allow defects (latent and patent) to manifest compared to Malaysia.
4	Olusegun, O.O; Rosil, S and Daud, M. N (2015) - Journal	Comparison of REIT Dividend Performance in Nigeria and Malaysia	Risk Adjustment Return Analysis	Risk adjusted performance of Nigeria REIT is lower than Malaysia REIT. Average annual return - Malaysia 7.5%, Nigeria 4.8%. Annual Risk - Malaysia 1.74%, Nigeria 0.82%. Risk free yield - Malaysia 10.35%, Nigeria 3.2%. Risk-return ratio- Malaysia 0.17%, Nigeria 0.23 and Sharpe ratio Malaysia 2.47, Nigeria -6.77%., REIT characteristics of Malaysia property investment market indicates that about 75% (50 in real estate assets and 25% in related securities while in Nigeria at least 75% on real estate assets for close end and 70% on real estate assets for open end.

Table 1.4: Related Studies on Green Building and Properties between Malaysia and Nigeria [2] **Source:** Authors work 2016

S/N	Author / Year & Type of Study	Research Title/Focus	Methodology	Findings
1	Abayomi, I; Olayinka, O & Rotimi, A. (2014) - Journal	Regulation of Real Estate Agency Practice in Malaysia: An investigation for Nigeria.	Document Review	Significant compliance with Real Estate Agency Act and laws among practitioners in Malaysia are high than in Nigeria. Though Nigeria Estate Agency law is comprehensive, Malaysia Estate Agency is more detailed and all-inclusive to ensure that clients are served by qualified agents.,Real Estate Agency Practice in Malaysia is better organised than in Nigeria especially in standards, order and absence of quackery
2	Abimbola, W & Olusegun, M (2010) - Journal	An Investigation into Nigeria Property Construction Companies Perception on Critical Risk.,-Result compared with studies conducted in US, Hong Kong and Malaysia	Descriptive Statistics / survey approach design	Significant difference with perception between contracting organization in US, Hong Kong, Malaysia and Nigeria on what constitutes critical risk.,Property development companies in Nigeria perceived natural hazards (Act of God) as the most critical risk to the performance of property construction companies while countries like US and Malaysia perceive it as the least of many critical risk.,Specifically, contractors competence and contract delay and resolution are ranked 7 and 10 in Malaysia respectively compared to Nigeria where it is ranked 3 and 8 respectively.,Well-structured insurance companies and government support to deal promptly with any adverse situation in building construction in Malaysia while constrictors in their capacity are left to deal with such situation in Nigeria.
3	Alabi, A.A (2012) -Journal	Comparative Study of Environmental Sustainability in Building Construction in Nigeria and Malaysia.	Quantitative averaging statistical analysis and qualitative approach	Building and Construction works are still being executed in conventional and traditional ways in Malaysia and Nigeria which are not sustainable and environmentally friendly. Low awareness of sustainability concept in Nigeria while in Malaysia, it is moderate.,Nigeria level of sustainability implementation is 23.1% low compared to Malaysia that records 15% low.
4	Bawa, C. A and Abdaziz Wan Nor, A. W (2011) - Journal	The role of Private Sector Participation in achieving anticipated outcomes for low-income group: A comparative analysis of housing sector between Malaysia and Nigeria	Multiple case, structured and semi-structured questionnaire, interviews and document review	Housing delivery in Malaysia and Nigeria are private sector dominated.,There is gap between housing demand and the private sector response in Malaysia and Nigeria and the adequacy and affordability of houses developed for the low income group LIG. Private sector response to housing demands of low income group LIG is high in Malaysia than in Nigeria.,In Malaysia, the development of low-cost housing is facilitated by the cross subsidy policy while about 76% and 20% of Nigerians obtain their housing finances from financial institutions and government loans respectively
5	Zalanga, S. I., (2000) PhD dissertation	The postcolonial state and the, development agenda: A comparative, study of the role of ruling elites in,the development policy formulation,and implementation in Malaysia, and Nigeria	Qualitative by,comparative, historical,analysis, method	Development choices and implementation strategies in Malaysia and Nigeria are determined by multiple factors. Type of ruling elite in Malaysia and Nigeria. Mediate these factors by shaping the development goals and implementation of strategies.

REFERENCES

Abayomi, I., Olayinka, O., and Rotimi, A. (2014). Regulation of Real Estate Agency Practice in Malaysia: An Investigation for Nigeria. *International Journal of Humanities, Social Sciences and Education,* 1 (10), 65 – 76.

Abbaszadeh, S., Zagreus, L., Leher, D., and Huizenga, C. (2006). *Occupant Satisfaction with Indoor Environmental Quality in Green Buildings.* Paper presented at the Eighth International Conferenece for Healthy Buildings, Lisbon Portugal.

Abdul Rashid-Abdul Aziz (2002). Skills Shortages in the Construction Sector: A Critical Survey of Existing Formal Vocational Training Systems. *Kajian Malaysia, Jld xx,* (2).

Abdul, D. M. (2011). Tackling The Poor Maintenance Culture in Ghana Through Green Retrofits. Retrieved from http://www.modernghana.com/news/315701/1/tackling-the-poor-mai...

Abduliahman, A. R., Ui Islam, M. R., Rahman, T. A., and Rahim, S. K. A. (2013). Terrestrial Rain Attenuation Transformation Model for KU-band in Tropical Regions Using Path Length Reduction Techniques. *Wirless Comminucation Centre*, Universiti Teknologi Malaysia In I. A. Adimula University of Ilorin Nigeria.

Abdullah, L., Jumadi, N., Sabu, R., Arshad, H., and Fawzy, M. F.F. (2015). Assessment Criteria on Sustaianble Rating Tools used in Asian Countries. *Jurnal Teknologi*, 1 (1).

Abdullahi, Umar, Noor-Azian, M. N, and Abdullahi, M. (2014). Chanllenges Confronting African Students in Malaysia: A Case of Postgraduate Nigerian Students at International Islamic University Malaysia (IIUM) Kuala Lumpur. *Journal of African Studies and Development,* 6 (9) 161-168.

Abidin, Z. N., Yusof, N., and Awang, H. (2012). A Foresight into Green Housing Industry in Malaysia. *International Journal of Environmental, Chemical, Ecological, Geological and Geophysical Engineering,* 6 (7).

Abimbola, W and Olusegun, M. (2010). An Investigation into Nigeria Property Construction Companies' Perception of Critical Risk. *Journal Insurance Markets and Companies, Analysis and Actuarial Computations, 1 (1).*

Abiodun, Y. B. (2012). The Impact of Corporate Social Responsibility on Firm's Profitability in Nigeria. *European Journal of Economics, Finance and Administrative Sciences (45) 1450-2275.*

Adam, A. (2008). It's True: Green Building Do Boost Sales, Rental and Occupancy Rates. Retrieved on March 10, 2014 from http://www.businessweek.com/ investing/green_business/archives/20.

Adegbile, O. B. M. (2013). Assessment and Adaptation of an Appropriate Green Building Rating System for Nigeria. *Journal of Environment and Earth Science, 3*(1).

Adekalu, S .O., Oludeyi, O. S., Genty, K. I., and Wolo, A. (2013). Petroleum Technology Development Fund (PTDF) Mandates and Human Capacity Development in Nigeria: Benefits for Nigeria Youths. *International Journal of Research in Management*, 3 (5).

Adenuga, O. A., Olufowobi, M. B., and Raheem, A. A. (2010). Effective Maintenance Policy as a Tool for Sustaining Housing Stock in Downturn Economy. *Building Performance, 1*(1).

Adewunmi Y, Omirin M and Famuyiwa F (2011) "Post-occupancy evaluation of postgraduate hostel facilities" Facilities 29 (3/4): 149-168.

Adnan, H. (2009). An Assessment of Risk Management in Joint Ventures Projects (JV) in Malaysia. *Asian Social Science*, 4 (6).

Ahmad, A. S., Mansor, N., and Ahmad, A. K. (2003). *The Malaysian bureaucracy: four decades of development*. Petaling Jaya: Pearson/Prentice Hall.

Aibek. D., and Ahmad, Z. A. (2015). Customers' Intention to use Green Products: The Impact of Green Brand Dimensions and Green Percived Value. *EDP Sciences SHS Web of Conferences* (18) 01008 Doi: 10.1051/shscomf/2015187801008.

Aikaterini. M. (2013). *The Relationship Between User Satisfaction and Sustainable Building Performance - The case study of Leiderdorps Town Hall.* (Msc), Delft University of Technology.

Ajzen, I., and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*: Englewood Cliffs, NJ: Preentice Hall.

Akerlof, G. (1970). The market for ''lemons'': quality uncertainty and the market mechanism. *Quarterly Journal of Economics* 84, 488–500.

Alabi, A. A. (2012). Comparative Study of Environmental Sustainability in Building Construction in Nigeria and Malaysia. *Emerging trends in Economics and Management Scienece(JETEMS), 3*(6), 951 - 961.

Alan, D. (2013). Does Stamp Duty Limit Housing Mobility? Retrieved on January 3, 2014, from http://blogs.crikey.com.au/theurbanist/2012/07/30/does-stamp-duty-limit-housing-mobility/

Alejo. A. O. (2012). Comparative Study of Defects Liability Period Practices between Malaysia and Nigeria. MSc dissertation. Construction and Contract Management, Faculty of Built Environment, Universiti Teknologi.

Alev, P. D., and Baabak, A. (2010). An Overview of the Benefits and Risk Factors of Going Green in Existing Buildings. *International Journal of Facility Management, 1*(1).

Alex, M. (2012). Green Branding: Why Closing The Gap Matters? Retrieved on March 10, 2014 from http://www.interbrand.com/en/knowledge/blog/post/2012-08-01/Gre...

Aleyomi. M. B., and Abu. M, Z. B. (2015). Malaysian and Nigerian Foreign Policy in Comparative Perspective. *Mediterranean Journal of Social Sciences, 6(6).*

Al-Hammad, A., Assaf, S., and Al-Shihah, M. (1997). The Effect of Faulty Design on Building Maintenance. *Journal of Quality in Maintenance*, 3(1), 29-39.

Aliagha G. U., Alfred, P. T. G, Naim. A. A, Jaafar, N. M., and Eluwa, S.E. (2015). Investigating Skill Gaps in Green Building Skills for Energy Efficiency, *Advanced Materials Research* 1073 (1076): 1282-1287.

Aliagha, U. G. (2004). Model for Regional Cooperation on Environmental Conflict Management and Resolution: The case of the Lower Mekong River Basin (Thailand, Combodia, Vietnam, Laos). Doctor of Philosophy, Nanyang Technological University Singapore.

Aliagha, U. G., and Yin, N. C. (2013b). Perceptions of Malaysia Office Workers on Adoption of Japanese Cool Biz Concept of Energy Conservation. *Journal of Asian and African Studies, 48*(4), 427-446.

Aliagha, U. G., Maizon, H., Afeez, S. O., and Ali, K. N. (2013a). Review of Green Building Demand Factors for Malaysia. *Journal of Energy Technologies and Policy, 3*(11).

Aliagha, U.G., Jin, T.E., Choong, W.W., Nadzri Jaafar, M, and Ali, H.M. 2014. Factors Affecting Flood Insurance Purchase in Residential Properties in Johor, Malaysia, *Journal of Natural Hazards and Earth System Sciences* (14) 3297 – 3310.

Allen. C. (2003). Theories and levels of comparative analysis. In N. Gallent, M. Shucksmith and M. Tewdwr-Jones (Eds.), *Housing in the European countryside: rural pressure and policyin Western Europe* (13-22). London: Routledge.

Allison. G. (1971). *Essence of decision*. Boston: Harper Collins.

Alwaer, H., and Clements-Croome, D. (2010). Key Performance Indicators(KPIs) and Priority Setting in Using The Multi-attribute Approach for Assessing Sustainable Intelligent Buildings. *Building and Environment, 45*(4), 799 -807.

Amaratunga, D., Baldry, D., Sashar, M., and Newton, R. (2002). Quantitative and qualitative research in the built environment: application of "mixed" research approach. *Work Study, 51*(1), 17-31.

Aminu, G. W., Nor, A.Y., and Atasya, O. (2015). Green Construction Practice (GCP) Implementation in Nigeria: How far so far? *Advances in Environmental Biology*, 9 (5), 84-86.

Amirul, A. M., and Nadzirah, Z. (2013). *User Perception towards Green Building Practise at PUSAT TENNAGA Malaysia Geo Building.* Paper presented at the International Conferenece on Environment, Agriculture and Food Science, Kuala Lumpur Malaysia.

Anderson, J. C., and Gerbing, D. W. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrica, 49*, 155-173.

Anderson, J. C., and Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin, 103*(3), 411-423.

Andrea-Well. (2010). Green Building Movement Raises some Construction Defects, Claims Concern. Retrieved on July 8, 2016 from http://www.insurancejournal.com/news/national/2010/04/07/108808.htm

Andrew, J.H., and Rebecca, H. (2008). Overcoming Psychological Barriers to Green Building. *Journal of organisation and Environment* 21 (4) pp. 390-419.

Aniza-Abdul Aziz, Y.M.A. (2008). Incorporation of Innovative Passive Architectural Features in Office Building Design towards Achieving Operational Cost Savings. Proceedings of the 4th Pacific Rim Real Estate Society Conference, 1-11.

Arbuckle, J. L. (2005). *Amos 6.0 User's Guide*. Spring House, PA: Amos Development Corporation.

Ashworth, A., and Hogg, K. (2007). *Willis's Practice and Procedure for the Quantity Sureveyor*

Asmah, A. M. B., and Bo Xia (2015) Developing Green Procurement Framework for Construction Projects in Malaysia. Retrieved March 15, 2016. From www.ppml.url.tw/Eppm/conference/2015/download.

Atkinson. J. W. (1964). *An Introduction to Motivation*. New Jersey: D Van Nostrand Company.

Austrade (2014) Infrastructure, Building and Construction to Malaysia. Available at: www.austrade.gov.an/export-market/countries/malaysia/industries/ infrastructure-building-and-construction#VY3-IPmqqko

Awe, E. M., Stephenson, P., and Grififith, A. (2015). Impact of Vocational Tarining on Skilled Labour Shortage within the Nigerian Construction Sector. Retrieved February, 18 2016, from http://www.irbiet.de/deten/konda/cib_dc24215.pdf.

Axelrod. J. L. (1994). Balancing Personal Needs with Environmental Preservation: Identifying the Values that Guide Decisions in Ecological Dilemmas. *Journal od Social Issues, 50*(85-104).

Azlan, S.A., Syahrul Nizam, K., Raha, S., and Yong C.P. (2010). Factors Affecting Housing Maintenance Cost in Malaysia. *Journal of Facilities Management, 8(4)*, 285-298.

Baars, P. and Gerarde, M. A. (2006). Design teams and Personality Effects of team composition on process and effectiveness Eindhoven: Techinchsine University Eindhoven.ISBN: 90-386- 0653-2.

Babawale, G., and Kolesoso, H. (2006). Real Estate Valuation Practice in Nigeria: Implication in a Globalizing World. *The Built Environment, Innovation, Policy and Sustainable Development*. 301-306.

Babayemi, J.O., and Dauda, K.T. (2009). Evaluation of Solid Waste Generation Categories and Disposal Options in Developing Countries: A Case Study of Nigeria. *Journal of Applied Sciences and Environmental Management 13 (3).*

Babbie, R. E. (1995). *The Practice of Social Research.* Belmont, California: Wadsworth Publishing Company.

Babiak, K., and Trendafilove, S. (2011). CSR and Environmental Responsibility: Motives and Pressure to Adopt Green Management Practicies. *Journal Corp.Soc.Responsib, Environ, Mgmt* (18), 11 – 24.

Bagozzi, R. P., and Yi, Y. (1988) On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science,* 16(1), 74-94.

Bagozzi, R. P., and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*(1), 74-94.

Bahaudin, Y. A., Elias, M. E., and Saifudin, M. A. (2014). A Comparison of the Green Buildings Criteria. Web of Conferences EDP Sciences, DOI: 101051/e3sconf/20140301015. Retrieved on 15, 2016 from http://www.e3s-conferences.org/articles/e3sconf/pdf/2014/02/e3sconf_etsdc2014_01015.pdf

Bakar-Abu, H. A., Cheen, S. K., and Rahmawaty. (2011). Sustainable Housing Practices in Malaysia Housing Development: Towards Establishing Sustainable Index. *International Journal of Technology* (1), 84-93.

Bakare, W. (2016). Solid Waste Management in Nigeria. Bio Energy Consult. Retrieved March 15, 2016, from www.bioenergyconsult.com/solid_waste_nigeria.

Baldock, H (2000) Enter the Green Knight. *Journal of Building 265 (13) 24-26.*

Bandura, A. (1989). Social Cognitive Theory. In R.Vasta(Eds.), Annals of Child Development. Six theories of child development Greenwich. *CT: JAI Press*, (6), 1-60.

Barbara, M. B. (2010). Structural Equation Modeling with AMOS: Basic concepts, Applications and Programing. (2 Eds). Routledge.

Barnett, D.L and Browning, W.D (2007) A Primer on Sustainable Building. Retrieved February 18 2016, from www.spot.pcc.edu/.shinkle/Bct-206/primer-07.pdf

Batson, D.C. (2008) Empathy-induced Altruistic Motivation. Draft of lecture and chapter for Inaugural Herzliya Symposium on Pro-social Motives, Emotions and Behaviour, Department of Psychology University of Kansas.

Baumol, W., Panzer, J., and Willig, R.D., (1982). Contestable Markets and the Theory of Industry Structure. Harcourt Brace, San Diego, CA.

Bawa, C. A. (2013). Low-Income Housing Policy: A Comparative Study of Malaysia and Nigeria. Doctor of Philosophy, University of Malaya Kuala Lumpur.

Bawa, C.A., and Aziz Wan-Nor, A.W. (2011). The Role of Private Sector Participation in Achieving Anticipated Outcomes for Low-income Group: A Comparative Analysis of Housing Sector between Malaysia and Nigeria. *African Journal of Business Management 5 (16) 6859-8690.*

Bentler, P. M. (1990). Comparative fit index in structural models. *Psychological Bulletin, 107*, 238-246.

Bentler, P. M. (1995). *EQS: Structural Equation Program Manual*. Encino, CA: Multivariate Software, Inc.

Berardi, U. (2013). Clarifying The New Interpretations of The Concept of Sustainable Building. *Sustainable Cities and Society, 8*, 72 - 78.

Berit, S. (2010). Impact of Sustainability on Property Values. (Msc Business Administration), University of Regensburge Germany.

Berry, J. N., and McGreal, W. S. (2003) European Cities, Planning Systems and Property Markets. Real estate studies Unit University of Ulster edited book, E & FN Spon London.

Bilal, K., Ali, H .M., Sipan, I., Ali, N., and Ali, N. (2014). Conceptual Framework of Green Infrastructure Performance Evaluation for Local Authority. International Journal of Sustainable Development and World Policy, 3 (3) 55-66.

Bollen, K. A. (1989). *Structural Equations with Latent Variables*. New York: Wiley.

Bollen, K. A., and Long, J. S. (1993). *Testing Structural Equation Models*. Newbury Park: Sage Publications.

Boomsma, A. (1983). *On the Robustness of LISREL (Maximum Likelihood Estimation) Against Small Size and Normality*. Amsterdam: Sociometric Research Foundation.

Bordass, B (2000) Cost and Value: Fact and Fiction. *Building Research and Information 28 (5/6) 338-352*

Bove, L. L., and Johnson, L. W. (2006). Customer Loyalty to one service worker: Should it be discouraged? *International Journal of Research in Marketing*, 23 (1), 79-91.

Boyd, T. (2005). *Can we assess the worth of environmental and social characteristics in investment property?* Paper presented at the Preoceedings of the PRRES Conference, Auckland New Zealand, School of Construction Management and Property, January 2006.

Boyden, S. (2004). *The Biology of Civilization: Understanding Human Culture as a Force in Nature.* (eds) New South Wales: University of New South Wales Press.

Breckler, S. J. (1990). Application of covariance structure modelling in psychology. Cause for conern. *Psychol Bull*, 107 (2), 260 – 73.

Breglia, M. (2012) The Real Estate Market: types of property and criteria appraisal. Retrieved on 10, 2017 from http://www.fupress.net/index.php/ceset/article/viewFile/13168/12454

Browne, M. W., and Cudeck, R. (1992). Alternative Ways of Assessing Model Fit. *Sociological Methods and Research, 21*(2), 230-258.

Budhiarta, I., Chamhuri, S and Hassan, B. (2012). Current Status of Municipal Solid Waste Generation in Malaysia. *International Journal on Advanced Science Engineering Information Technology 2 (2).*

Building and Construction Authority BCA. (2011). Singapore Leading the way for Green Buildings in the Tropics. Retrieved February 1, 2016, from http://www.bca.gov.sgm

Bursa Malaysia (2007), "CSR 2007 status report". Retrieved on May 10, 2016 from http://www.bursamalaysia.com.

Business Vantage (2002) Equal Partners –Customer and Supplier Alignment in Construction. London; Business Vantage Ltd.

Byrne, B. M. (1989). *A Primer of LISREL: Basic Applications and Programming for Confirmatory Factor Analytic Models.* New York: Spring-Verlag.

Byrne, B. M. (2001). *Structural Equation Modelling with Amos: Basic Concepts, Applications, and Programming.* Mahwah, NJ: Erlbaum.

Byrne, B. M. (2010). Structural equation modelling with AMOS: basic concepts, applications, and programming. New York, NY: Routledge.

Byrne, M. B. (1998). *Structural Equation Modelling with Lisrel, Prelis, and Simplis: Basic Concept, Application and Programme.* London: Lawrence Erlbaum Associate Publishers.

Carmines, E. G., and McIver, S. P. (1981). Analysing models with unobserved variables: Analysis of covariance structure. In G. w. Bohrnstedt & E. F. Borgatta (Eds.), *Social Measurement: Current Issues*. Beverly Hills: Sage. Cause for concern? *Psychological Bulletin, 107*(2), 260-273.

Case, W. (2007). Semi-democracy and minimalist federalism in Malaysia. In B. He, B. Galligan & T. Inoguchi (Eds.), *Federalism in Asia* 124-143. Cheltenham: Edward Elgar.

Cassell, C., and Symon, G. (1994). Qualitative research in work contexts. In C. Cassell, and G. Symon (Eds.), Qualitative methods in organizational research (pp. 1-13). Thousand Oaks, CA: Sage Publications

Cavana, R. Y., Delahaye, B. L., and Sekaran, U. (2001). *Applied Business Research: Qualitative and Quantitative Methods* (3rd ed.). Milton, Qld: John Wiley and Sons.

CDFA. (2013). CDFA Spotlight: Green Building Finance.   Retrieved December 21, 2013   from   http://www.cdfa.net/cdfa/cdfaweb.nsf/ordredirect.html?open& id=greenbuildingfactsheet.html

Celestine, V. (1989). Building Maintenance: A Catalyst of Economic Development. *Journal of the Nigerian Institution of Estate Surveyors and Valuers(NIESV), 13*(1).

Chad, M., MaryEllen, N. C., and Brian, D. (2011). The Cost of LEED - An Analysis of the Construction Costs of LEED and Non-LEED Banks. *Journal of Sustaianble Real Estate, 3*(1), 255 - 259.

Chambers, W., Chapple, E., Sullivan, M. and Moon, J. (2003). ''CSR in Asia: a seven country study'', paper presented at CSR in Asia onference, Kuala Lumpur, 26-27 March.

Chan, W. H. E., Qian, Q., and Lam, P. (2009). The Market For Green Building in Developed Asian Cities -The Perspective of Building Designers. *Journal of Energy Policy, 37*, 3061 - 3070.

Chau, P.Y.K., and Hu, P. J. H. (2001). Information Technology Acceptance by Individual Professionals: A Model Comparison Approach. *Decision Sciences, 32*(4), 699-719.

CHBA. (2008). Housing Affordability and Accessibility: A Synopsis of Solutions. Canada: Canadian Home Builders' Association.

Chen Y.S (2012). Enhance Green Purchase Intentions: The Role of Green Perceived Value, Green Perceived Risk, and Green Trust. *Management Decision*, 50 (3) 502-520.

Chen, M, F., and Tung, P, J. (2010). The Moderating Effect of Perceived Lack of Facilities on Consumers' Recycling Intentions. *Environment and Behaviour*, 42(6), 824-844.

Chen, Y. H., Brenda, C. T. L., and Jin, C. L. (2014). Sustainability in the Construction Industry in Malaysia: The Challenges and Breakthroughs. *Journal of social, behavioural, educational, economic, business and industrial engineering*, 8 (4).

Chequt, A., Eichholtz, P., and Kok, N. (2013). Supply, Demand and the Value of Green Buildings. *Urban Studies*, 1- 22.

Chin, J. (2011). History and context of public administration in Malaysia. In E. M. Berman (Ed.), *Public Administration in Southeast Asia: Thailand, Philippines, Malaysia, Hong Kong and Macao* (pp. 141-154). Boca Raton: CRC Press.

Chin, W., and Newsted, P. (1999) Structural Equation Modelling Analysis with small Samples using partial least squares. In Satistical Strategies for Small Sample Research Rick Hoyle (Ed.)., pp. 307-341. Sage Publications.

Christopher, W. S. (2007). *Adoption of Residential Green Building Practices: Understanding the Role of Familiarity.* Doctor of Philosophy, University of Michigan.

Churchill, G. A. (1995). *Marketing Research Methodological Foundation* (6th ed.)Orlando, Florida: The Dryden Press.

CIA Central Intelligence Agency (2015). The World Fact-Book. Retrieved May 7 2016 from https://www.cia.gov/library/publications/the-world- actbook/fields/ 2212.html

CIDB Construction Industry Development Board CIDB Malaysia. (2007). Strategic recommendations for improving environmental practices in construction industry. Kuala Lumpur: CIDB Publisher. Retrieved March on 15, 2016 from File://c:/users/user/Downloads/CITP-Pubic.pdf.

CIDB Construction Industry Development Board CIDB Malaysia. (2008). Guidelines for implementing environmental management system in the construction industry. Kuala Lumpur: CIDB Malaysia. Retrieved March on 15, 2016 from File://c:/users/user/Downloads/CITP-Pubic.pdf.

Cidell, J. (2012). Building Quality, Building Green: Conventions Theory and Industry Transformation. *Urban Izziv*, (23), 2.

Clarke, A. (1999). *Evaluation Research: An Introduction to Principles, Methods and Practice*. Thousand Oaks, CA: Sage Publication.

Clement, and David. (2005). International Tax Incentives for Reanewable Energy: Lessons for Public Policy". San Francisco: Center for Resource Solutions.

Cohen, S.G. and D.E. Bailey. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *J. Manag.*, 23: 239-290. Http://dx.doi.org/10.1016/s0149-2063(97)90034-9.

Coorley, W. W. (1978). Explanatory observation studies. *Educational Researcher* (October), 9-15.

Corey, K. (2004). Moving People, Goods, and Information in Singapore: Intelligent Corridors. In R. E. Hanley (Eds.), Moving People, Goods, and Information in the 21st Century: The Cutting Edge Infrastructure of Networked Cities. New York: Routledge.

Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structural of Tests. *Psychometrica, 16*(3), 297-334.

Curran, P. J., West, S. G., and Finch, J. F. (1996). The Robustness of Test Statistics to Non normality and Specification Error in Confirmatory Factor Analysis, Psychological Methods, (1) 16 – 29.

Dahiru, D., Bala, K and Azeez, A.D.A. (2014) Professionals' Perception on the Prospect of Green Building Practices in Nigeria. Retrieved on March 20, 2016 from www.irbnet.de/daten/iconda/cib-de26231.pdf.

Dahiru, D., Dania, A.A., and Adejoh, A. (2014). An Investigation into the Prospect of Green Building Practice in Nigeria. *Journal of Sustainable Development* 7 (6).

Dalapo, A. (2013). Stamp Duties: What you need to know. Detail Solicitors. Retrieved March 15, 2016 from www.detailsolicitors.com/media.achive/articles/articles15.pdf.

D'Arcy, E., and Keogh, G. (1998) Territorial competition and property market process: an exploratory analysis. *Urban Studies*, 35, 1215-30.

Darren, A.P., and Tetsuo, K. (2014). Green Building Geography Across the United States: Does Governmental Incentives or Economic Growth Stimulate Construction? *Real Estate Law Journal, 43* (1).

Darus A, Z, MD and Hashim N. A. (2012) Sustainable Building in Malaysia: The Development of Sustainable Building Rating Systems. *Journal of Sustainable Development, Education, Business and Management*, 953-978 www.intechopen.com

Darus, Z. M., Hashim, N. A., Saleh, E., Haw, L. C., Abdul, A. R., and Abdul-Manan, S. N. (2009). Development of Rating System for Sustaianble Building in Malaysia. *WSEAS Transactions on Environment and Development 3*(5), 260 - 272.

David, T. (2007). Green Building Standard. *Understanding Green Building Standards will help you -and your Customers -Stay out in Front of this Exploding Market.* Retrieved December 21, 2013 from http://www.rethinkwood.com/sites/default /files/Wood-Products-Green-Building.pdf

Davis, L. (2007). Cost of Green Revisited: Re-examaining the Feasibility and Cost Impact of Sustainable Design in the Light of Increased Market Adoption. Retrieved Janauray 10 2016 from http://www.davislangdon.com/upload /images/publications/USA/The%20Cost%200f%20Green%20Revisted.pdf.

Dawkins, R (1976) The Selfish gene, New York: Oxford University Press.

De Wulf, K., Odekerken-Schröder, G., and Iacobucci, D. (2001). Investments in consumer relationships: A cross-country and cross-industry exploration. *Journal of Marketing, 65*(4), 33-50.

Deloitte (2014) "2014 Global Survey of R and D Tax Incentives. Retrieved February 14, 2016 from http://www 2.deloitte.com.

Deshpande, A. (2012). Role of Stakeholders in the Development of Green Buildings Market in India. Retrieved 11, 2017 from http://blog.schneider-electric.com/building-management/2012/06/05/role-of-stakeholders-in-the-development-of-green-buildings-market-in-india/

Desiree, H. (2008). Do Green Buildings Cost More? Retrieved on December 21, 2013 from http://www.facilitiesnet.com/green/article/Do-Green-Buildings-Cost-More-Facilities-Management-Green-Feature--8954

Dewick, P., and Miozzo, M. (2002). Sustainable Technologies and the Innovation - regulation paradox. *34*(9 - 10), 823 -840.

Diamantopoulos, A. (2003). Can Socio-demographics still play a role in profiling Green Consumers? A Review of the Evidences and an Empirical Investigation. *Journal of Business Researc*h 56 (3) 465-480.

Diana, U.V; Danny-Harvey, L.D; Sevastianos, M and Levine, M.D. (2007). Mitigating C02 Emissions from Energy use in the World's Buildings. Building Research and Information 35 (4) 379-398.

Dike, M. A.C. (2014). An Overview of the Nigerian Tax Systems: Implications for Foreign Investors. Paper Presented at the Investment Conference of Nigerians in Diaspora Organisation NIDO UK South 18th March.

Dipeolu Adedotun Ayodele (2015) Influence of Urban Environmental Greening on Climate change Challenges in Nigeria, Journal of Sustainable Development, 8 (6).

DiPiazza, F. (2006). *Malaysia in pictures*. Minneapolis, MN: Twenty-First Century Books.

Doling, J. (1997). *Comparative Housing Policy*: Government and housing in advanced industrialized countries. Houndmills: UK Macmillian Press.

Doug, W. (2011). Existing Buildings Seeing New Tenant Interest and Increased Savings with LEED. Retrieved on December 22, 2013 from http://www.vca-green.com/news.html

Dual Citizen LLC. (2014). The Global Green Economy Index (GGEI) 2014-Measuring National Performance in the Green Economy. Retrieved 8 March from http://www.dualcitizeninc.com/global-green-economy-index/economic-environmental-indicators.php?id=3.

Dugeri, T. T. (2011). An Evaluation of the Maturity of the Nigerian Property Market. Doctor of Philosophy, University of Lagos Nigeria.

Duke, J. and Kankpang, K. (2013). Implications of Corporate Social Responsibility for Performance of Nigerian Firms. *Advances in Management and Applied Economics 3 (5) 73-87*

Edward, B. (2006). Benefits of Green Offices in The UK: Analysis from Examples Built in The 1990s. *Sustainable Development, 14*(3), 190-204.

Eichholtz P., Kok, N., and Quigley J. M. (2009a) Doing Well by Doing Good? Green Office Buildings; ECCE – European Centre for Corporate Engagement. Retrieved August 6 from www.coporate-engagement.com/research/33

Eichholtz, M. P., Kok, N., and Quidley, M. J. (2009b). *"Why Do Companies Rent Green? Real Property and Corporate Social Responsibility"*. Paper presented at the Berkeley Programe on Housing and Urban Policy, Calinfornia USA.

El-Haram, M.A., and Horner, M.W. (2002). Factor Affecting Housing Maintenance Cost. *Journal of Quality in Maintenance Engineering,* 8(2), 115-123.

Elias, M. E., and Lin, K. C. (2015). The empirical study of green buildings (residential) implementation: Perspective of house developers. *Procedia Environmental Sciences* (28) 708 – 716

Ellis Trevor, R (2001) Difference between a Value Estimate and an Appraisal. Paper presented at the SME Annual Meeting. Ellis International Service. In. Denver Colorado.

Elster, J. (2006). Altruistic Behavaior and Altruistic Motivations. Retrieved on 13 March 2016 from http://ideas.repec.org/h/eee/givechp/1-03.html

Ely. M., and Sheryn, P. (2014). Green Infrastructure- Life Support for Human Habitats, the compelling Evidence for Incorporating Nature into Urban Environments. Report of Green Infrastructure Project Botanic Gardens of South Australia. Retrieved March 13, 2016 from www.botanicgardens,sa.gov.au/greeninfrastrcuture.

Eneh, O.C. (2011). Nigeria's Vision 20:2020 – Issues, Challenges and Implications for Development Management, *Asian Journal of Rural Development,* 1(1), 21 -40.

Epstein, M. (1996). *Measuring Corporate Environmental Performance*. Chicago: Irwin Professional Publishing.

Erlandsson, M., and Borg, M. (2003). Generic LCA-methodology Application for Buildings, Constructions and Operation Services-today practice and development needs. *Building and Environment, 38*(7), 919 -938.

Eshofonie, F.P. (2008) Factors Affecting Cost of Construction in Nigeria. Master of Science University of Lagos Akoka, Nigeria.

Eugene, C. (2010). The Effects of Municipal Policy on Green Building Designations in the United States. *The Korean Journal of Policy Studies, 25*(2), 39 - 63.

European Union EU (2015) Understanding and Monitoring of the Cost Determining Factors of Infrastructure Projects: A Users Guide. Retrieved March 10, 2016 from www.webcache.googleusercontent.com

Evans, G. W., and Johnson, D. (2000). Stress and open-office noise. *Journal of Applied Psychology,* 85(5), 779-783.

Faremi, O. J., and Adenuga, A. O. (2012). Evaluation of Maintenance Management Practice in Banking Industry in Lagos State, Nigeria. *International Journal of Sustainable Construction Engineering & Technology, 3*(1).

Field, A. P. (2000). Discovering Statistics Using SPSS for Windows: Advanced Techniques for the Beginner, London: Sage

Finch, J., and West, S. (1997). The investigation of personality structure: Statistical models. *Journal of Research in Personality*, 31, 439-485.

Forest, F., and John, B. (2012). Multidisciplinary Design Optimization of Buildings for Life-Cycle Cost and Environmental Impact Performance. In L. Michael and F. Martin (Eds.): Center for Integrated Facility Engineering.

Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Frankfort-Nachmias, C., and Nachmias, D. (1992). Research methods in the social sciences (4th ed.). New York: St. Martin's Press.

Freedman, A. L. (2006). *Political change and consolidation: democracy's rocky in Thailand, Indonesia, South Korea and Malaysia*. New York: Palgrave Macmillan.

Fuerst, F. and McAllister, P. (2011) Green Noise or Green Value? Measuring the Price Effects of Environmental Certification in Commercial Buildings. *Real Estate Economics*, 39 (1), 45–69.

Fuest, C., Huber, B., and Nielsen, S. B. (2004). Capital Gains Taxation and House Price Fluctuations. Germany and Denmark: Department of Economics, Copenhagen Business School.

Fuller, D. (1999). *Sustainable Marketing - Mnagerial and Ecological issues*. UK: SAGE Publications Inc 2000 - 2014.

Gabe, J. (2015) Market Implications of Operational Performance Variability in Certified Green Buildings. 17th Annual PRRES Conference, Auckland New Zealand.

Gefen, D., Straub, D., and Boudreau, M. C. (2000). Structural Equation Modelling and Regression: Guidelines for Research Practice. Communications of the Association for Information Systems, 4(1). Retrieved from http://aisel.aisnet.org/cais/vol4/iss1/17

Geof, S., Mara, B., Darren, B., and Wesley, S. (2003). Managing The Cost of Green Buildings .Report of Partnership with State of California's Sustainable Building Task Force. California: California State and Consumer Services Agency

Geoffrey, K., and Éamonn D'Arcy. (1994). Market maturity and property market behaviour: A European comparison of mature and emergent markets, *Journal of Property Research*, 11:3, 215-235, DOI: 10.1080/09599919408724118

GGGC. (2010). Building Green in Pennsylvania WHAT IS A GREEN BUILDING? Fundamental Principles of Green Building and Sustainable Site Design. Pennsylvania: Goverrnor's Green Government Council.

Gian, P., and Aber, C. J. (2010). Tax Incentives Available for Green Building Construction. Retrieved on January 1, 2014 from http://www.accountingtoday .com/news/Tax-Incentives-Available-Green-Building-Construction-53714-1.html

Gibler, M. K., and Nelson, L. S. (1998). Consumer Behaviour Applications to Real Estate. Proceedings of American Real Estate Society Meeting. Retrieved on 10, 2017 from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.198.6732&rep=rep 1&type=pdf

Gomez, E. T. (2007). Introduction: resistance to change- Malay politics. In E. T. Gomez (Ed.), *Politics in Malaysia: the Malay dimension,* 1- 23. London: Routledge

Gorman, P. (2004). *Motivation and Emotion.* London: Routledge.

Graham, P. (2003). The Role of Environmental Performance Assessment In Australian Building Design. The Future of Sustainable Construction (Special Issue article). ISBN 1-886431-09-4.

Gray, C. (2015). LEED Certification Update: April 2015. Retrieved March 15, 2016 from www.usgbc.org/article/leed_crtification_update_april_2015.

Gray, T., and Birrell, C. (2014). Are Biophilic Designed Site Office Buildings Linked to Health Benefits and High Performing Occupants? *International Journal of Environmental Research and Public Health 11 (12)* 12204-12222

Green Building Index GBI (2009). GBI Assessment Criteria for Non-Residential New Construction (NRNC) Version 1.0 First Edition. Retrieved February 18, 2016

from New.greenbuildingindex.org/files/resources/GBI%20Tools/GBI%20 NRNC%20Non-Residentail%20Tool%V1.0.pdf.

Green Building Index GBI (2013). Green Building Index Criteria. Retrieved on April 16, 2016 from http://www.greenbuildingindex.org.

Green Building Index GBI (2015). Executive Summary of GBI Certified Projects by Categories as of 15th October, 2015. Retrieved on 16 Feburary 2016 from www.greenbuildingindex.org/organsation-certified-buildings-summary.Gtml

Green Building Index GBI (2016). Stewardship Council: GBI Certified Projects Executive Summary as of 15th January, 2016. Retrieved on Feburary 2016 from www.new.greenbuildingindex.org/organisation/summary.

Green Purchasing Guide GPG (2016) Green Purchasing and the Supply Chain – Implementing Strategies to Garner more Green. An NASPO Green Purchasing Policy Statement: Understanding the Basics. Retrieved on February 1 2016 from www.naspo.org/green/index.html .

Green, Homes (2013a). The Benefits of Green Building to Homeowners. Retrieved December 26, 2013 from http://www.hgtvremodels.com/interiors/a-green-building-overview/i..

Green-Homes. (2013b). A Green Building Overview: Minimizing The Residential Sector's Toll on The Environment with 10 Practices. Retrieved on March 26, 2016 from http://www.hgtvremodels.com/interiors/a-green-building-overview/i...

Guthrie, J., and Parker, L. (1989). ''corporate social reporting: a rebuttal of legitimacy theory''. *Accounting and Business Research*, 19 (76), 343-52.

Hair, F. J., Anderson, E. R., and Talham, L. R. (1987). *Multivariate Data Analysis with Readings*. New York: McMillan Publishing Company.

Hair, J. F., Anderson, R. E., Tatham, R. L., and Black, W. C. (1995). *Multivariate Data Analysis with Readings* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Hair, J. J., Black, W., Babin, B., and Anderson, R. (2009). Multivariate Data Analysis (7th Edition). United State: Published by Prentice Hall.

Hair, J., Black, W., Babin, B., Anderson, R., and Tatham, R. (2006). Multivariate data analysis (6th ed.). Upper Saddle River: NJ: Prentice-Hall.

Hand, A., Zuo, J., Rameezdeen, R., and Xia, Bo. (2013). Green Skills for the Construction Industry. In Gonzalez, Vicente and Yiu Tak wing (Eds). *38th*

Australasian Universities Building Education Conference, the University of Auckland, Auckland, New Zealand, 1-10.

Haynes, B. P. (2007). Office Productivity: A Theoretical Framework. *Journal of Corporate Real Estate, 9*(97 - 109).

Heerwagen, J. (2000). Green Buildings and Worker Well Being. *Environmental Design and Construction*, 24 29.

Heerwagen, J. H., and Orians, H. G. (1993). Human, habitats and aesthetics. In S R Kellert and E O Wilson(Eds) *The Biophilia Hypothesis* Washington DC: Island Press, Shearwater Books.

Heerwagen, J., Loveland, J., and Diamond, R.. (1992). Post Occupancy Evaluation of Energy Edge Buildings. Seattle, Washington: University of Washington.

Heerwagen, J., and Zagreus, L. (2005). The Human Factors of Sustainability: Post Occupancy Evaluation of The Phillip Merrill Environmental Center. USA: US Department of Energy.

Henneberry, J., and Rowley, S. (2002). Developers' decisions and property market behaviour, In Simon G., and John B. (Ed.), *Development and Developers: Perspectives on Property*. Blackwell Science Ltd.

Hes, D. (2005). Facilitating "Green Building". Turning Observation into Practices. Doctor of Philosophy. School of Architecture and Design RMIT University.

Heschong Mahone Group. (1999). *Daylighting in schools: An investigation into the relationship between daylighting and human performance*. Fair Oaks, CA: Author.

HFM Asset Management (2012) Shopping Centre Water Efficiency. Retrieved on March 15, 2016 from www.watercorporation.com.au

Highton, J. (2012). Life-cycle costing and the procurement of new buildings: The direction of the construction industry. *Public Infrastructure Bulletin,* 1(8).

Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management, 21*(5), 967-988.

Hiscock R., Madu, P., Braubach, M., Martuzzi, M., Perez, L., and Sabel, C. (2014). Wellbeing Impacts of City Policies for Reducing Greenhouse Gas Emissions. *International Journal of Environ Res and Public Health* 11 (12) 12312-12345.

Hoffman, A., and Woody, J. (2008). *Memo to the CEO: Climate change, what's your business strategy?* Cambridge, MA: Harvard Business Press.

Holmes-Smith, P., Coote, L., and Cunningham, E. (2006). *Structural Equation Modelling: From the Fundamentals to Advanced Topics*. Melbourne: SREAMS.

Hong Kong Green Building Council HKGBC (2016) Statistics of BEAM plus Projects –Registered BEAM Projects.Retrieved February 1 2016 from www.hkgbc. org.hk /eng/BEAMplusStatistics.aspx.

Hoyt, W. H., and Rosenthal, S. S. (1992). Owner -occupied Housing, Capital Gains, and the Tax Reform Act of 1986. *Urban Economics, 32*, 119 - 139.

Huberty, C.J., and Barton, R.M. (1989). An Introduction to Discriminant Analysis: Measurement and Evaluation, Counselling and Development, 22, 158-168.

Ian, M. (2013). The Case for Restoring Capital Gains Tax Neutrality. Retrieved on March 2014 from http://taxwatch.org.au/SSL/CMS/Files_CMS/54_McAuley-caseforrestoringcapitalgainstaxneutrality.pdf

Ian, M. C. (2010). Green Infrastructure: Concept, Perceptions and its Use in Spatial Planning. Doctor of Philosophy, Newcastle University.

Ibrahim, F. A., Shafiei, M. W. M., Ismail, R., And Said, I. (2014). Green Homes Development: Factors Affecting Housing Developers' Readiness. ARPN Journal of Engineering and Applied Sciences, 9 (6).

IEA International Energy Agency. (2011). C02 Emissions from Fuel Combustion Paris. Retrieved on May 29 2016 from https://www.iea.org/publications/ freepublications/publication/CO2EmissionsFromFuelCombustionHighlights2 015.pdf

ILO. (2011). A Skilled Workforce for strong, Sustainable and Balanced Growth. A G20 Training Strategy Report. International Labour Office Geneva, ILO Cataloguing in Publication Data

ILO. (2012). Greening of the Building Sector is held back by Skills Shortages. Research Brief of International Labour Office/European Union Geneva. Retrieved on March 15 2016 from www.uncsd2012.org/content/documents /skills.research%20brief-building%20sector.pdf

IMF-Working-Paper. (2011). Who's Going Green and Why? Trends and Determinants of Green Investment. In L. Eyraud, A. Wane, C. Zhang and B. Clements (Eds.), pp. 38: IMF Fiscal Affairs Department.

Inderst, G., Kaminker, Ch., and Stewart, F. (2012). Defining and Measuring Green Investment: Implications for Institutional Investors' Asset allocations" OECD Working Papers on Finance, Insurance and Private Pensions (24).

Ingrid, N. C. (2006). The role and Behaviour of Commercial Property Investors and Developers in French Urban Regneration: The Experience of the Paris Region. *Urban Studies,* 43(9), 1511-1535.

Isa, M., Rahman, A. M. G. M. M., Sipan, I., and Hwa, K. T. (2013). *Factors Affecting Green Office Building Investment in Malaysia.* Paper presented at the Asia Pacific International Conference on Environment-Bahaviour Studies, University of Westminster London, UK. 4-6 September

Isa, M., Sipan, I., Hwa, K. T., and Rahman, A. M. G. M. M. (2015). Rationalising the Potentials of Green Office Building Investment in Malaysia. 2Ist Annual Pacific Rim Real Estate Society Conference Kuala Lumpur 18-21 January.

Isa, R. B., Jimoh, R. A., and Achuenu, E. (2013) An Overview of the Construction Sector to Sustainable Development in Nigeria. *Net Journal of Business Management*, 1 (1), 1 – 6.

Issa, M. H., Rankin, J. H., Attalla, M., and Christian, A. J. (2011). Absenteeism, Performance and Occupant Satisfaction with the Indoor Environment of Green Toronto Schools. *20*(5), 511 - 523. Retrieved on Mrach 10 2016 from http://ibe.sagepub.com/content/20/5/511.full.pdf

Iyagba, R. O. A. (2005). *The Menance of Sick Buildings - A Challenge to all for its Prevention and Treatment*. Paper presented at the Inaugural Lecture, University of Lagos, Nigeria.

Jaccard, J., and Wan, C. K. (1996). *LISEREL Approaches to Interaction Effects in Multiple Regression*. Thousand Oaks, CA: Sage publications.

Jason, K. (2011). The Human Benefits of Green Building. Retrieved on Mrach 12 2014 from http://sustainablecitiescollective.com/jasonking/20484/guest-post-h...

Jasonson, M. A. (2005). Assessing the Effect of Architectural Design on Real Estate Values: A Qualitative Approach. Master of Science, Massachusetts Institute of Technology.

Jaya, P. (2009). Increased Building Cost Despite Easier Stamp Duty Assessment [Press release]

Jayaselvi, R.P. (2006). Development of Civil and Structural Consultant's Performance Evaluation. Master of Science, Universiti Teknologi Malaysia, Jahor.

Jeff, D. (2013). Grants and Loans For Green Development. Retrieved on March 12, 2014 from http://www.sustainablebuild.co.uk/grantsandloansgreendevelopment

Jeremiah, B. (2012). Definition of Tax Abatement- Tax Glossary. Retrieved on March 12 2014 from http://my.curbed.com/archieves/2012/07/01/what-on-earth-is-a-abatement.php

Jim, B., Kathryn, F., Steve, B., Jeff, H., Sarah, S., and Matt, F. (2013). Life Cycle Cost Analysis of Non-Residential Buildings. Hennepin US.

Jim, N. (2008). Measuring The Cost To Become LEED Certified. Retrieved on March 13 2014 from http://www.facilitiesnet.com/green/article/Measuring-The-Cost-To-..

Jones, L. L. (2011). Green Buildings Driving Employee Productivity.Retrieved on May 29 2016 from http://www.gbcsa.org.za/wp-content/uploads/2013/06/NZGBC-Jones-Land-La-Salle-Green-Buildings-Driving-Employee-Productivity-September-2011.pdf

Joreskog, K., and Sorbom, D. (1989). *LISREL 7 User's Reference Guide*. Chicago: Scientific Software International, Inc.

Jöreskog, K., and Sörbom, D. (1996). *LISREL 8: User's Reference Guide*. Chicago: Scientific Software International.

Joshi, Y., and Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review* (3), 128-143.

Judith, I., Thomas, B., Ashild, L. H., Karine, D., Solvar, W., and Sidsel, J. (2013). The Interaction between Building and Users in passive and Zero-energy Housing and Offices: The Role of Interfaces Knowledge and User Commitment. *Smart Sustainable Built Environment* 2 (1) 43-59.

Kagochi, J. M., and Mace, L. M. (2009). The Determinants of Demand for Single Family Housing in Alabama Urbanized areas. International *Journal of Housing Mrakets and Analysis*, 2 (2) 132 – 144 (13).

Kalu, U. I. (2001). *Property Valuation and Appraisal*. Owerri Nigeria: Bon Publications.

Karlson, C.H. and R. Stephens *et al*. (2008). A primer series for sustainable design charrettes. 1. Harnessing the potential of design teams to achieve sustainable design outcomes: Chimera.

Katrin, P. (2012). Understanding Behaviour Chnge: How to apply theories of behaviour change to SEWeb and related public engagement activities *Scotland's Environment* (4). UK: James Hutton Institute.

Kats, G. (2003). Green Buildings Costs and Financial Benefits. Massachusetts Technology Collaborative

Kats, G. Leon, A. Adam, B. Evan, M. and Jeff, D. (2003). The cost and Financial Benefits of Green Buildings. Report of California Sustainable Building Task Force. Retrieved March 15 2016 from www.usgbc.org/Docs/News/News 477.pdf.

Kelloway, K. E. (1998). *Using Lisrel for Structural Equation Modelling: A Researcher's Guide*. California: Sage Publications, Inc.

Kelly, T., and Field, M. (2002). Sustainable Construction: Reducing the impact of creating a building. *Sustainable Building, Green Building? Constructing the Future.* Retrieved Febuary 4, 2014

Keogh, G. (1991). The British property market; failing to reconcile use and investment, *University of Reading Discussion Papers in Urban and Regional Economics,* Series C. No. 59.

Kerr, P. (2008). High Performance Buildings: The Process of Delivery for Universities and Colleges. Retrieved on March 14 2016 from http://www.goodcampus.org /files/files/18-hpb_delivery.pdf.

KeTTHA (2012) Ministry of Energy, Green Technology and Water. Retrieved on July 8, 2016 from http://www.scpmalaysia.gov.my/images/GGP%20short%20 term%20 action%20Plan%20-%20250613%20-%20final_0.pdf

Keung, J. (2014). BCA Building Energy Benchmarking Report 2014. Retrieved April 16, 2016 from https://www.bca.gov.sg/GreenMark/others/BCA_BEBR_ Abridged_FA.pdf

Khasreen, M., Phillip, B., and Gillian, M. (2009). Life-cycle Assessment and the Environmental Impact of Buildings: A review. *Sustainabiity, 1*, 674 - 701.

Kim, C. (2008). An Empirical Study on the Integrated Framework of e-CRM in online shopping: Evaluating the relationship among perceived value, satisfaction and trust based on customers' perspective. *Journal of Electronic Commerce in Organisations,* 6 (3) 19.

Kimmons, J. (2012). Real Estate Supply and Demand: The amount of Inventory Determines Real Estate Prices. Retrieved on 13, 2015 from https://www.thebalance.com/real-estate-supply-and-demand-2866979

Kinnear, T. A., and Talylor, J. (1996). *Marketing Research: An Applied Approach.* New York: McGraw Hill.

Kline, P. (1999). *An Easy Guide to Factor Analysis.* London/New York: Routledge

Kline, R. B. (1998). *Principles and Practice of Structure Equation Modelling* (1st ed.). New York: The Guildford Press.

Kline, R. B. (2005). *Principles and Practice of Structural Equation Modelling* (2nd ed.). New York: The Guilford Press.

Knight Frank (2013) Africa Report 2013. Retrieved on March 14 2016 from www.content.knightfrank.com/research/155/documents/emafrica-report-2013-2013.pdf

Knight Frank (2015) Malaysia Commercial Real Estate Sentiment Survey 2015. Retrieved on March 14, 2016 from www.knightfrank.org

Kok, N. (2014). How Green is overtaking the Commercial Property Market. Retrieved on July 20, 2016 from http://www.usgbc.org/articles/how-green-overtaking-commercial-property-market

Konstantinos, P. (2000). Green Building Performance Prediction and Assessment. *Building Research and Information, 5*(6), 394 -402.

Koukkari, H. and L. Bragança *et al*. (2005). Sustainable design principles in construction sector. Paper presented at the International Conference Sustainable Construction: Action for Sustainability in the Mediterranean. Retrieved on March 10, 2016 from http://hdl.handle.net/1822/5071.

Krajie, C., and Morgan, L. (1970). *Determining Sample Size. In Sekaran, U 1992. Research Methods for Business: A Skill Building Approach*. Toronto: John Willey and Sons, Inc.

Kriss, J. (2014). What is Green Building? Retrieved on 12, 2017 from http://www.usgbc.org/articles/what-green-

Kroll, C. A. (2011). Green Buildings in Green Cities: Integrating Energy Efficiency into the Real Estate Industry. Master of Science. University of California Berkeley.

Kumaraswamy, M. M., and Anvuur, A. M. (2008) Selecting Sustainable teams for PPP Projects. *Building and Environment*, 43 (6), 999-1009.

Kuye, O. (2000). *Property Valuation: Principles and Practice in Nigeria*. Lagos: National Cateloging Publication Data.

Kuye, O. (2008). *Introduction to Property Valuation*. Lagos Nigeria: Lagos Climax Communication Limited.

Lacey, M (2010) IEQ Factors Day lighting, Thermal Comfort and Acoustics for Healthy Space. Retrieved on March 15 2016 from: www.facilitiesnet.com

Langdon, D. (2007). *The Cost and Benefit of Achieving Green Buildings*. Sydney, Australia: (Eds) Davis Langdon and Seah International.

Laroche, M., Bergeron, J., and Barbaro-Forleo, G (2001) Targeting Consumers who are willing to pay more for Environmentally Friendly Products. *Journal of Consumer Marketing* 18 (6) 503 – 520.

Lawson, J., Haffner, M., and Oxley, M. (2009). Comparative housing research in the new millennium: methodological and theoretical contributions from the first decade. Comparative Housing Workshop. *repository.tudelft.nl/assets/uuid:6c00f3e1-b364-49f2-bfb9.../240706.pdf*

Leaman, A., and Bordass, A. (2006). *Productivity in Buildings: the "Killer" variables. In D. Clements-Croome(ed). Creating the Productive Workplace* (2nd Eds.). London and New York: Taylor and Francis.

Leather, P., Beale, D., and Sullivan, L. (2003). Noise, psychosocial stress and their interaction in the workplace. Journal of Environmental Psychology, 23(2), 213-222.

Leech, N. L., Barrett, K. C., and Morgan, G. A. (2005). *SPSS for Intermediate Statistics: Use and Interpretation.* Psychology Press.

Levin, H. (2013). Design and Construction of Healthy and Sustainable Buildings. Retrieved on March 10 2015 from www.buildingecology.net/index_files/publications/designand.....

Lewin, K (1951) Field Theory in Social Science, New York: Harper

Liang, C., and Wang, W. (2005). Integrative research into the financial services industry in Taiwan: Relationship bonding tactics, relationship quality and behavioural loyalty. *Journal of Financial Services Marketing, 10*(1), 65-83.

Lim, J. (2013) ST Diamond Building, The Green Building Landmark SouthAsia. Retrieved on April 16, 2016 from http://blog.japhethlim.com/index.php/2013 /10/15/st-diamond-building-the-green-building-landmark-in-southeastasia/

Lin, H. F. (2007). Predicting Consumer Intention to shop online: An Empirical test of competing Theories. *Electronic Commerce Research and Applications*, 6 (4) 433-442.

Linas, C., Rugile, B., and Agne, D. (2014). Green Business: Challenges and Practices. *Journal Ekonomika* 93 (1).

Ling, Y.Y.(2002). Model for Predicting Performance for Architects and Engineers, Construct Engineering management 128 pp. 446-455.

Loband, T., and Jones, T. (2008). Valuation Issues in a Greening World. *Journal of Green Building, 3*(3), 42 -56.

Loehlin, J. C. (1998). Latent Variable Models: An Introduction to Factor, Path and Structural Analysis, (3eds) London: Lawrence Erlbaum Associate, Publishers.

Lois, D. M. L., and Zumunta, D. M. (2012). Green Deal Nigeria- Green Growth with Social Justice: The Transformation from Fuel to Green Energy *Sustainable Management of Natural Resources and the need for revenue Transparency, Susbsidy Reform and Full Deregulation*.

Long, S. J. (1983). *Covariance Structure Models: An Introduction to LISREL*. Beverly Hills, London, New Delhi: Sage Publications.

Love, P.E.D., Skitmore, R.M., and Earl, G. (1998). Selecting an appropriate procurement method for a building project. *Construction Management and Economics*, (16).221 – 223.

Lutzkendorf, T., and Lorenz, D. (2005). Sustainable Property Investment: Valuing Sustainable Buildings Through Property Performance Assessment. *Building Research and Information, 33*(3), 212-234.

Lutzkendorf, T., and Lorenz, D. (2007). Integrating Sustainability into Property Risk Assessments for Market Transformation. *Building Research and Information*, 35(6), 644-661.

Maarleveld, M. (2008). Evidence-Based Workplace Design and The Role of End-User Participation. Retrieved on March 10, 2016 from www.cfpb.nl/fileadmin/cfpb/ images/publicaties/artikelen/2008/eng...

MacCallum, R. C., and Browne, M. W. (1993). The use of causal indicators in covariance structure models: Some practice issues. *Psychological Bulletin, 114*(3), 533-541.

MacFarlane, R., Davies, C., and Roe, M. (2005). *Green Infrastructure and The City Regions*. Paper presented at the Disscussion Paper, NECF Dunston.

Maddux, J. E. (1999). Expectancies and the Social-Cognitive Perspective: Basic Priniciples, Processes, and Variables. In I.Kirsch(Ed.*), How Expectancies Shape Experience*. Washington DC: American Psychological Association.

Maggie, C. (2012). Demand for Green Buildings Exceeds Workforce Supply. Retrieved on 10 October 2015 from http://www.usgbc.org/articles/demand-green-buildings-exceeds-workf.

Malhotra, N. K. (2003). *Marketing Research: An Applied Orientation* (3rd Ed.). Upper Saddle River, N.J: Pearson Education Inc.

Malloy, D. P. (2011). State of the States: Fuel Cells in America. Retrieved on February 14 2016 from www.energy.gov.

Malpezzi, S. (1999). A Simple Error Correction Model of House Price. Journal of Housing Economics, (8) 27-62.

Mansor, M., and Ismial, S. (2012) .Green Infrastructure as Green Health Promotion Agenda for Urban Community. Retrieved on April 14, 2016 from www,irep.uum.edu.my/25087/1/greeninfrastruture-as-green.pdf

Marc, L. (2013). 8 Benefits of Green Buildings. Retrieved on December 21, 2013 from http://greenliving.about.com/od/architecturedesign/tp/green_building _advantages.htm

Marsh, D. (1999). Results Frameworks and Performance Monitoring. , retrieved 5th June, 2015 from http//www.childsurvival.com/tools/marsh/sld001.htm

Marsh, H. W., and Balla, J. (1994). Goodness of fit in confirmatory factor analysis: The effects of sample size and model parsimony. Quality and Quantity, 28(2), 185-217.

Marsh, H. W., Balla, J. R., and McDonald, R. P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin, 103*(3), 391-410.

Mathieu, J. and M.T. Maynard *et al*. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *J. Manag.*, I: 34-410. http://dx.doi.org/10.1177/0149206308316061.

Mattiessen, F. L., and Morris, P. (2004). Costing Green: A Comprehensive Cost Database and Budgeting Methodology. Retrieved on March 12 2013 from http://www.davislangdon.com/upload/images/publications/USA/2004%20Co sting%20Green%20Comprehensive%20Cost%20Database.pdf.

Matveev, V. A. (2002). The Adavantages of Employing Quantitative and Qualitative Methods in Intercultural Rsearch: Practical Implications from the Study of the Perceptions of Intercultural Communications Competence by American and Russian Managers. In Rozina Rostov-on- Don, I. N, *Theory of Communication and Applied Communication* (168), 59-67.

Maurizio, C., Kevin, M., and Chris, B. (2013). Green Branding and Networks: Building Salvaged Material in a Branded Value Proposition. Retrieved on March 12, 2016 from www.imgroup.org/upload/papers/7318.pdf

McGraw-Hill Construction Smart Market Report. (2013). World Green Building Trends – Business Benefits Driving New and Retrofit Market Opportunities in over 60 Countries. Retrieved on March 10 2016 from www.worldgbc.org.

McGraw-Hill-Construction. (2006). Green Building Smart-Market Report 2006. Retrieved on July 10, 2016 from http://construction.com/smartmarket/ greenbuilding/

Megat, A.A. (2006). The Limitations and Opportunities to Implement Environmental Management System in Malaysia. *J. Alam Bina*.

Meir, A. I., Garb, Y., Jiao, D., and Cicelsky, A. (2009). Post-occupancy Evaluation: An Inevitable Step Towards Sustaianbility. *Advances in Building Energy Research, 3*(1), 189 - 220.

Melissa, M. O., and Shan, B. (2012). Why Invest High-Performance Green Buildings? North Andover USA: LEED AP Global Segments and Smart Campus Solutions.

Melvin, R. (2010). Effects of Taxes on Supply and Demand – Investopedia. Retrieved on January 2, 2014 from http://www.investopedia.com/exam-guide/cfa-level-1/microeconomics/tax-effects.asp

Michael, B. A., and Mohamad, Z. A. B. 2015. Malaysia and Nigeria Foreign Policy in Comparative Perspective. *Mediterranean Journal of Social Sciences*, 6 (6).

Michael, J. Z., and Jennifer, M. R. (2010). The Law of Green Building: Regulatory and Legal Issues in Design, Construction, Operations and Financing. In J Cullen Howe and Michael B Gerrard *The Law of Green Buildings* (4t[h] ed) pp. 434, USA: Library of Congress Catologing-in-Publication Data.

MIDA. (2012). Property Gain Tax. Retrieved on April 15 2016 from http://www.mida.gov.my/env3/index.php?page=real-property-gains-tax

Milad, S., Esmaeillifar, R., and Shafiei, M.W.M. (2014) Green Building: Strategic Approach to Sustainable Economy. *International Journal of Business and Management* 2 (7).

Milad, S., Nariman, G., Reza, E., Parnaz, O., and Mohd, W. M. S. (2013). The Investigation of Barriers in Developing Green Building in Malaysia. *Modern Applied Science*, 7 (2)

Miller, N., Pogue, D., Gough, Q., and Davis, S. (2009). Green Buildings and Productivity. *Sustainable Real Estate, 1*(1), 1 - 31.

Milton, D., Glencross, P., and Walters, M. (2000). Risk of Sick Leave Associated with Outdoor Air Supply Rate, Humidification, and Occupant Complaints. *Indoor Air, 10*, 212 - 221. *MIT Sloane Management Review.*

MIS Asia. (2009). Green Malaysia Boom. March 5.Retrieved March 5 2016 from http://www.mis-asia.com/

Mohamad T., Ibrahim, N.A., Asniza-Hamimi, A.T., Ismail, N.A., and Azurawati, Z. (2015). Factors Influencing Buyers to Purchase Green Residential Properties. Iᵗt International Joint Conference of Indonesia-Malaysia-Bangladesh-Ireland (IJCIMBI)

Mohamed S E and Ismail R (2010) An Investigation of factors Influencing Design Attributes in Green Buildings, *American Journal of Applied Science*. 7(7), 976-986.

Mohamed, S. A. Elforgani., Abdahadi, A., and Ismail, B. R. (2014). The Association between Client Qualities and Design Team Attributes of Green Building Projects. *ARPN Journal of Engineering and Applied Sciences*, 9 (2).

Mohamed, S. E. and Ismail, B. R. (2012). The Influence of Design Team Attributes in Green Design Performance of Building Projects. *Journal of Environmental Management and Sustainable Development,* 1 (1).

Mohammad, I.Z., Zainol, N.N., Abdullah, S., Woon, N.B., and Ramli, N.A (2014) Critical Factors that Lead to Green Building Operations and Maintenance Problems in Malaysia. *Journal of Theoretical and Empirical Researches in Urban Management,* 9 (2).

Mohd, W.M.S., Milad, S., and Nariman, G (2013) Strategic Approach to Green Home Development in Malaysia – the perspective of Potential Green Home Buyers. *Life Science Journal* 10 (1).

Mohd-Rezabin, E., Marham-Mohd, A., Rostan, Y., Ahmad-Arzlee, H.N.A.N.R and Hamimah, A. (2011). Obstacles in Implementing Green Building Projects in Malaysia. *Australian Journal of Basic and Applied Sciences 5 (12)* 1806-1812.

MOHE Ministry of Higher Education Malaysia (2010). Compilation of Statistics, Putrajaya: Ministry of Higher Education. Retrieved on March 15 2016 from http://www.mohe.gov.my/web_statistik/perangkaan_2010.pdf

Montoro, R. F. J., Marinez, T. L., Moreno, F. F., and Soriano, P. C. (2006). Improving Attitudes towards Brands with Environmental Associations: an experimental approach. *Journal of Consumer Marketing, 23*(1), 26 - 33.

Morgan, G., and Smircich, L. (1980). The case for qualitative research. *Academy of Management Review*, 5, 491-500.

Morts, D. (1997). Sources of Unofficial UK Statistics. Third Edition. Retrieved on April 16, 2016 from www.mis.coventry.ac.uk/maths_centre/

Muhamed I. B. (2013). Green Financing: Discover Green Technology Industry in Malaysia: Role of the Islamic Financial System in Supporting Green Technology. Keynote address at Green Financing Kuala Lumpur Convention Centre. Retrieved on February 18, 2016 from www.mife.com.

Muhammad, A. F., and Nurhayati, A. M. (2013). Green Building Assessment Tools: Evaluating Different Tools for Green Roof Systems. *International Journal of Education and Research* 1 (11).

Muhammad. N., Z., Ali, K., Majid, M.Z., Arezou, S., Aliyu, M.M., Hasan, L and Saeed, B (2015). Assessment of Cost Escalation Factors for Building and Civil Engineering Projects in Nigerian Construction Industry: A Multiple Regression Approach. *Jurnal Teknologi* 74 (4) 85-91.

Mustapha, B. (2011). Comparison between the Standard Forms of Building Contracts used in Nigeria and Malaysia. Master of Science, Universiti Teknologi Malaysia.

Myers, G., Reed, R., and Robinson, J. (2007). *The Relationship between Sustainability and The Value of Office Buildings.* Paper presented at the 13th Annual Pacific Rim Real Estate Conference Curtin University of Technology, Perth WA. 21 - 24 January.

Nadzirah, Z., and Mei Caremen, T. Y. (2015). An Insight of Sustainable Development a Study among Construction Professionals in Malaysia. *International Journal of Current Research and Academic Review,* (2) 56-64.

Nair, S. (2007). The limits of protest and prospects for political reform in Malaysia. *Critical Asian Studies, 39*(3), 339-368.

Nakic´enovic´ N, Nebojsa N, Joseph A, el at (eds) (2000) IPCC Special Report on Emissions Scenarios, Cambridge University Press, Cambridge.

Nazirah, Z. A. (2009). Sustainable Construction in Malaysia- Developers' Awareness. *International Journal of Social, Behavioural, Educational, Economic, Business and Industrial Engineering*, 3 (5).

Nazirah, Z. A. (2010) Investigating the Awareness and Application of Sustainable Construction Concept by Malaysian Developers. *Habitat International* (34) 421 – 426.

Nduka, D.O., and Adegboyega, S. S. (2014). Stakeholders Perception of the Awareness of Green Building Rating Systems and Accruable Benefits in Construction Projects in Nigeria. *Journal of Sustainable Development in Africa, 16 (7)*.

Nduka, D.O., and Ogunsamni. (2015). Stakeholders Perception of Factors Determining the Adoptability of Green Building Practices in Construction Projects in Nigeria. *Journal of Environment and Earth Science* 5 (2*)*.

Nelms, C., Russell, D. A., and Lence, J. B. (2005). Assessing the Performance of Sustainability Technologies for Building Projects. *Canadian Journal of Civil Engineering, 32*(1), 266 - 128.

Neuman, W. L. (1997). *Social Research Methods: Qualitative and Quantitative Approaches*. Boston, MA: Allyn and Bacon.

Ng Ban-Huat, and Zainal, A. A. (2013). The Development of a Newly Designed Building Performance Survey Framework for Energy-effficient Building: A Review, International Journal of Application or Innovation in Engineering and Management, 2 (2).

NIBS. (2013). Optimize Site Potential. – Whole Building Design Guide.   Retrieved on December, 10th, 2013 from https://www.wbdg.org/design/site _potential.php

Nicolay, C. (2007). The Greening of Real Estate Appraisal: Sustainable Building Gains Momentum Through Standards, Legislation and Public Desire, the Appraisal Community Responds. *Valuation Insights and Perspectives*, (12) 2, 15-9.

Nkkei-Veritas. (2014). Nigeria, Malaysia top survey of 20 emerging economics. Retrieved on 10, 2017 from http://asia.nikkei.com/Politics-Economy/Economy/Nigeria-seen-as-most-promising-among-emerging-economies-Veritas-survey.

Nobel. C. (2013). How Governments Spur Private-Sector Demand for Green Buildings. 13 February. Retrieved on March 19 2016 from http://www.forbes.com/sites/hbsworkingknowledge/2013/02/13/how-governments-spur-private-sector-demand-for-green-buildings/

Norhaya, K. (2013). Determining green property management conceptual framework in Malaysia. Retrieved on 10, 2017 from http://eprints.utm.my/37327/

Norhaya, K., Ismail, S., Ali, M. H., Sipan, I., and Mahamud, R. (2010). Modelling of the Property Market: The Malaysian Experience. Retrieved on 10, 2017 from http://eprints.utm.my/5591/1/

Norhaya, K., Ismail, S., Ali, M. H., Sipan, I., and Raji, F. (2014). An Overview of Property Market Modelling in Malaysia. *Jurnal Teknologi*, 71(4), 167-173.

Nornes, D. (2005). *Use of Life Cycle Costing in the US Green Building Industry.* Colorado State University, Fort Collins.

Noronha, G., and Ferris, S. P. (1992). Capital Gains Tax Policy and The Behavior of Common Stock Returns. *Economics Letters, 40*, 113 - 117.

Northcourt, (2015) Nigeria Real Estate Market Outlook 2015. Retrieved on March 19, 2016 from www.northcourtrealestate.com

Nubi, T. O. (2000). Housing Finance in Nigeria: Need for Re-engineering. Retrieved on March 10 2016 from http://www.housingfinance.org/.pdfstrorage/Africaeffective%20mobilization%20housing-%20Nigeria.pdf

Nunnally, J. C. (1967). *Psychometric Theory.* New York: McGraw-Hill.

Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric Theory* (3rd Ed.). New York.

Nurick, S., Le Jeune, K., Dawber, E., Flowers, R., and Wilkinson, J. (2015). Incorporating Green Building Features and Initiatives into Commercial Property Valuation. *Journal of Sustainable Real Estate, 7* (1).

Nurul, A. D., and Zainul, N. A. (2013). Motivation and Expectation of Developers on Green Construction: A Conceptual View. *World Academy of Science, Engineering and Technology, 76*, 4-27.

Nurul, N. Z Z., Mohammad, I. S., Baba, M., Woon, N. B., and Nazri, A.Q. (2015). Green Cleaning: An Essential Aspect of Malaysian Green Buildings. *Jurnal Teknologi 75 (10) 65-70.*

Nwanekezie, F.O. (1996). *Principles and Practice of Estate Management*, Avan Global Publication Owerri, Nigeria.

Nwokoro, I. and Onukwube, H. (2011). Sustainable or Green Construction in Lagos, Nigeria: Principles, Attributes and Framework. *Journal of Sustainable Development*, 4:4, 166– 74.

Obi, K. A. (2015). Labour Productivity in Nigeria (2010-2014): A Short. Retrieved on February 18, 2016 from Aanalysis. www.nigeriastat.gov.ng/pages/download/292

Odewumi, T.O., Ojedokun, O.Y., and Babalola, A.O. (2012). Cost Control Variables in Building Construction: A Case Study of Ibadan North Local Government Oyo State, Nigeria. *Journal of Mechanical and Civil Engineering* 4 (1) 32-37.

Odum, H. H. (1992). *Approach to Multivariate Analysis*. Enugu, Nigeria: Joglus Publishers.

Odusami, K.T. and R.R.O. Iyagba *et al*. (2003). The relationship between project leadership, team composition & construction project performance in Nigeria. Int. J. *Project Manag,* 21: 519-527.

Ofori, C., Briffett, G. G., and Ramasinghe, M. (2000). Impact of ISO 14000 on Construction Enterprises in Singapore. *Construction Management and Economics,* 18, 935-947.

Ojameruaye, E. (2011). Reflection on Nigeria's Social and Political Development: Nigeria's Unfinished Agenda at 51. Retrieved March 16, 2016 from www.waado-org/-/nigeria.

Ojo, O. (2007). Factors Affecting Borrowers Choice of Housing Loan Package in South Western Nigeria. *Housing Finance International Internal Union for Housing Finance, 13*(2).

Okinawa, S. (2010). Introduction of Construction Industry. Retrieved February 16, 2016 from http://studentsrepo.um.edu.my/3249/4/Chapter_1.pdf

Olaleye, A., Ayodele, T.O., and Komolafe, M. O. (2015). The Relevance of Green Building Practice in Emerging Markets: A Perceptual Analysis of Commercial and Industrial Building Users in Ibadan, Nigeria. *JOSRE*, 7 (1).

Olanrewaju, A. A.L, Mohd, F.K and Arazi, L. (2011). Behavioural issues in Maintenance of University Buildings, *Journal of Retail and Leisure Property*, (9) 415-429.

Oliyide, S. (2014). The Evolution of Green Building in Nigeria: Myth or Reality. An Alpha Mead Facilities and Management Services Limited publication. Retrieved on April 15 2015 from www.shdeshare.net/amfacilities/the-evolution-of-green-buildings-in-nigeria.

Olszewski, K. (2013). The Commercial Real Estate Market, Central Bank Monitoring and Macroprudential Policy. *Review of Economic Analysis*, (5), 213-250.

Olusegun, O.O., Rosli, S., and Md-Nasir, D. (2015). Comparison of REIT Dividend Performance in Nigeria and Malaysia. *African Journal of Business Management,* 9 (16), 608 – 614.

Onakoya, A B., Onakoya, A.O., Olalekan, A.J.S., and Odedairo, B.O (2013) Energy Consumption and Nigeria Economic Growth: An Empirical Analysis. *European Scientific Journal 9 (4).*

Onuoha, I. J. (2011). Assessment of Borrowers' Perception of Lenders' Requirements for Financing Housing Investment in Owerri. Master of Science, Abia State University Uturu Nigeria.

Onuoha, I. J., Aliagha G. U., Norhaya K., and Kalu J. U. (2014). Application of Social Cognitive Theory on Motivations and Expectations of Developers' and Investors' to Commit to Green Building Construction and Supply. *Journal of Advanced Material Research,* 1073 (1076), 2890 -2898.

Onuoha, I. J., Norhaya, K., Aliagha G. U., and Kalu J. U. (2015). Theoretical Explanations of Environmental Motivations and Expectations of Clients on Green Building Demand and Investment. *Earth and Environmental Sciences,* 23 (1).

Onyike, J. A. (2009). *Developing a funding model for housing the low-income earners of the urban areas of South-East Nigeria.* Doctor of Philosophy, Abia State University Uturu, Nigeria.

Ooi, M. J., Kwek, l. C., and Keoy, H. K. (2012). *The Antecedents of Green Purchase Intention among Malaysian Consumers.* Paper presented at the International Conference on Economic, Business Innovation. Singapore.

Opeyemi, K.M and Oluwole, O.M. (2015). Perception of Estate Surveyors and Valuers on Users' Preference for Green Building in Lagos, Nigeria. In Laryea, S and

Leiringer, R (Eds) Proceedings of 6th West Africa Built Environment Research (WABER) Conference 10-12 Aagust Accra Ghana 863-886

Orians, G. H., and Heerwagen, J. H. (1992). *Evolved Responses to Landscapes. In The Adapted Mind: Evolutionary Psychology and the Generation of Culture* (Eds) Oxford and New York: Oxford University Press.

Othman, J., and Masoud, Y. (2014). Reducing C02 Emissions in Malaysia: Do Carbon Taxes Work? Prosiding Perkemke (9) 175-182

Ottman, J .A. (2008). The Five Simple rules of Green Marketing. *Design Management Review.* 8 (2) 434-478.

Oyedepo, S.O. (2013). Energy in perspective of Sustainable Development in Nigeria. *Sustainable Energy 1 (12) 14-25*. Doi 10.12691/rse-1-2-2.

Oyeniyi, O. (2012). Architecture that saves Nigerians 30% on Building Cost. Retrieved on March 14, 2016 from webcache.googleusercontent.com

Pawi, S., Juanli, D. M., and Yusoff, W. Z. (2011). *Property Tax Management Model of Local Authorities in Malaysia.* Paper presented at the Proceedings of the International Conferenece on Social Science, Economics and Art, Malaysia.

Pearce, A. R. (2008). Sustainable Capital Projects: Leapfrogging the First Cost Barrier. *Civil Engineering and Environmental System, 25*(4), 291-300.

Peek J., and Rosengren, E. S. (2000). Collateral Damage: Effects of the Japanese Bank Crisis on Real Activity in the United States. *American Economic Review* 90(1): 30-45.

Perez-Lombard, L., Oritiz, J., Gonzalez, R., and Maestre, I. R. (2009). A Review of Benchmarking, Rating and Labelling Concepts within the Framwork of Building Energy Crtification Schemes. *Journal of Energy Building* (41) 272 – 278

Piyapong, N., Atcharawan, N., and Panichpathom, S. (2011). Factors Affecting Green Housing Purchase. Retrieved on March 10 2016 from www.bing.com/search?q=factorsaffectinggreenhousingpurcahse&PC=conduit&ptag=A01AEBD945CA7442B9BF&Form=CONBDF&conlogo=C13210127

Polonsky, M.J. (1994) An Introduction to Green Marketing. *Electronic Green Journal*, 12 (5) 1273-1298.

Popescu, D., Bienert, S., Schutzenhofer, C., and Boazu, R. (2012). Impact of Energy Efficiency Measures on The Economic Value of Buildings. *Applied Enrgy, 89*(1), 454 - 463.

Popp, D., Ha╠ĹiĹ, I. and Medhi, N. (2011). Technology and the diffusion of renewable energy. *Energy Economics*, 33, 648-662.

Porter, L. W., Steer, R. M., Mowday, R. T., and Bouhari, P. V. (1974). Organisational Commitment, Job Satisfaction and Turnover among Psychiatric Techanicians. *Applied Psychology, 59*(5), 603 - 609.

Property-Net. (2013). Stamp Duty on Transfers. *Stamp Duty of Malaysia.* Retrieved on January 3, 2014 from http://www.jpph.gov.my/V2/kira_dutisetem. php?versi=1

Prum, D. A. (2013). Greenbacks for Building Green: Does a Lender for Sustainable Construction Projects need to make Adjustments to its current practices. *Journal of Environmental Law*, 43 (3).

Punch, K. F. (1998). *Introduction to Social Research: Quantitative and Qualitative Approaches*. London: Sage.

PwC Price water house coopers (2010). Green Tax Incentives for Sustainable Malaysia. PwC Alert Issue No 86 October, 2010 pp9741/10/2010 025623. Retrieved on March 16, 2016 from www.greentechmalaysia.my.

PwC Price water house coopers (2013). Doing Business in Malaysia 2013 Report. Retrieved on March 15, 2016 from .http://www.pwc.de/de/international-market/assets/doing-business-in-malaysia.pdf

PwC Price water house coopers (2015a). A Guide to Doing Business in Nigeria. Retrieved on March 15, 2016 from https://www.pwc.com.

PwC Price water house coopers (2015b). Malaysia Corporate-Tax Credits and Incentives. Worldwide Tax Summaries. Retrieved on March 15, 2016 from www.taxsummaries.pwc.com/uk/taxsummaries/wwts.nsf/ID/Malaysia-Corporate-tax-credits-and-incentives

Qiu, Y., Ashutosh, T., and Yi, D.W. (2015). The Diffusion of Voluntary Green Building Certification: a Spatial Approach. *Energy Efficiency* (8) 449-471.

Rafikul, I. (2011). Prioritizing the Nine Challenges of Malaysian Vision 2020. Proceedings of International Symposium on the Analytic Hierarchy Process. Kuala Lumpur Malaysia.

Raman, M. (2005). *Sustainable Design: An American Perspective. In B.Kolarevic and A. Malkawi (Eds), Performative architectecture: beyond instrumentality.* New York: Spon Press.

Ramsower, R.M. (1985). *Telecommuting: The Organizational and Behavioral Effects of Working at Home.* Ann Arbor, Michigan: UMI Research Press

Rena, M. S. (2011). *Market Analysis for Real Estate* In Petros-Sivitanides (Eds) Basic Real Estate Economics. Wells Fargo Economics Group, Southern California.

Retzlaff, R. (2010). Developing Policies for Green Building: What can the United States Learn from the Netherlands? *Sustainability, Science, Practice and Policy, 6*(1).

Ries, R., Bilec, M. M., Gokhan, N. M., and Needy, K. L. S. (2006). The Economic Benefits of Green Buildings: A Comprehensive Case Study. *The Engineering Economist,* 51 (3).

Roa, S.P; Asrul-Mahjuddin, R.A; Hong-Wan, T; Nurul-Amira, A.J; Nazli-Bin, C.D and Nil Inangda, M.K.D. (2012). Thermal and Acoustic Environmental Requirement for Green Buildings in Malaysia. *Journal of Design and Environment* (11).

Robert, J. M. and Liliya, N. (2011). Suburbanization and Sustainability in Metropolitan Moscow. *Geographical Review* 101 (3): 316 -333.

Robert, Q. (2006) Water Efficiency Guide – Office and Public Buildings; Department of environment and Heritage Australian Government

Roberts, K., Varki, S., and Brodie, R. (2003). Measuring the quality of relationships in consumer services: An empirical study. *European Journal of Marketing, 37*(1/2), 169-196.

Robichaud, B. L., and Anantatmula, S. V. (2011). Greening Project Management Practices for Sustainable Construction. *Journal of Management in Engineering*, 27 (1) 48 – 57.

Rodriguez, M. A., Ricart, J. E., and Sanchez, P. (2002). Sustainable Development and the Sustainability of Competitive Advantage: A Dynamic and Sustainable View of the Firm. *Journal of Creativity and Information Management, 11*(3), 135-146.

Roscoe, J. I. (1975). Fundamental Research Statistics for Behavioural Sciences. (2rd ed.) New York: Holt, Rinehart and Winston.

Rose, R. (1991). What is lesson-drawing? *Journal of Public Policy, 11*(01), 3-30.

Rosen, H. S., Rosen, T. K., and Holtz-Eakin, D. (1984). Housing Tenure, Uncertainty and Taxation. *Review of Economics and Statistics, 66*, 405 - 416.

Rostami, R., Seyed, M.K., Rasoul, R., and Hasanuddin, L. (2015). Green and Sustainability Policy, Practice and Management in Construction Sector: A Case Study of Malaysia. *Research Journal of Applied Sciences, Engineering and Technology*, 9 (3) 176-188.

Roulet, A. C., Johner, N., Foradini, F., Bluyssen, P., Cox, C., De-Oliveira, F. E., Aizlewood, C. (2006). Perceived Health and Comfort in Relation to Energy use and Building Characteristics. *Building Research and Information, 34*(5), 467 - 474.

Ruano, A. M., and Cruzado, M. G. (2012). Use of Education As Social Indicator in The Assessment of Sustainability Throughhout The Life Cycle of a Building. *Engineering Education, 37*(4), 416 -425.

Ruderman, H., M. D. Levine, and J. E. McMahon, (1987). The Behavior of the Market for Energy Efficiency in Residential Appliances in Cooling Equipment. *The Energy Journal,* 8(1): 101-124.

Ruparathna, R., and Hewage, K. (2015). Sustainable Procurement in Canadian Construction Industry: Current Practices, Drivers and Opportunities. *Journal of Cleaner Production*, 109, 305-314.

Sanders, B. (2014). Federal Tax Return. Retrieved April 14, 2015 from https://berniesanders.com/press-release/sanders-2014-federal-tax-return/

Sara, W. J., Richard, R. G., and Junaidah, J. (2011). *User Satisfaction in Sustainable Office Buildings: A Preliminary Study.* Paper presented at the 17th PRRES Pacific Rim Real Estate Society Conference, Gold Coast, Australia.

Sariah, A. K., Noridah, S., Che-Saliza, C. S., and Abidin, Z. N. I. (2014). Meeting Construction Industry Requirements- the Malaysia way. Paper at 20th Asia Construct Conference, Hong Kong, 13-14. Retrieved on November 7, 2016 from www.bre.polyu.edu.hk/20th_asia_construct/theme%20papers/malaysia

Sarkum, A. S. A. (2010). Green building Certification-Policies, Guidelines and Benefits. Green Building Congress Malaysia 9 June, 2010. Retrieved on May 10, 2016 from http://www.frost-apac.com/green/GreenPolicies.pdf

Saunders, M. (1999). *Research Methods for Business Students* (2nd eds.): Pitman.

Schreiber, J. Nora, A., Stage, F., Barlow, E., and King, J. (2006). Reporting Structural Equation Modelling and Confirmatory Factor Analysis Results: A Review. *The Journal of Educational Research, 99*(6), 323 – 337.

Schultink, G. (2007). Sustainable Land use and Urban Growth Management: Demand-Supply Factors and Strategic Planning Considerations. *Journal of Agricultural, Food and Environmental Sciences* 1 (1).

Schumacker, R. E., and Lomax, R. G. (1996). *A Beginner's Guide to Structural Equation Modelling*. Mahwah, NJ: Erlbaum.

Scott, W.R (1995) Institutions and Organisations. Thousand Oaks: SAGE

Sekaran, U. (2000). *Research Methods for Business: A Skill -Building Approach* (3ed ed.). New York: John Wiley and Sons, Inc.

Service, R. F. (2008). SOLAR ENERGY: Can the Upstarts Top Silicon? *Science*. 319 (5864): 718-20.

Shafii, F, and Othman, M. Z. (2005). Sustainable building and construction in South-EastAsia. Proceedings of the Conference on Sustainable Building South East Asia (SBO4SEA) Kuala Lumpur, Malaysia on 11—13 April

Shahamir, S. R., and Zakara, R. (2014). Green Assessment Criteria for Public Hospital Building Development in Malaysia. Proceedings of 4th International Conference on Sustainable future for Human Security SustaiN, 2013. *Procedia Environmental Sciences* 20, 106-115.

Shammout, A. B. (2007). Evaluating an Extended Relationship Marketing Model for Arab Guests of Five-Star Hotels. Doctor of Philosophy, Victoria University Melbourne

Sharon, Y. (2012). Corporate Social Responsibility and the Malaysian Property Industry. 18th Annual PRRES Conference, Adelaide, Auatralia 15-18 January.

Shazmin, S. A. A., Sipan, I., and Sapri, M. (2016). Property Assessment Incentives for Green Buildings: A Review. *Journal of Renewable and Sustainable Energy Reviews* (60), 536-548.

Sheffrin, S. M., and Turner, M. T. (2001). Taxation and House Price Uncertainty: Some Empirical Estimates. *International Tax and Public Finance,* 8, 621 - 636.

Sheltair-Group-Innes-Hood. (2013). Green Residential Building in North America: The Benefits of a North American Strategy; A Perspective from Canada. Canada: The Sheltair Group (Innes Hood).

Singh, A., Syal, M., Grady, S. C., and Korkmaz, S. (2010). Effects of Green Buildings on Employee Health and Productivity. American Journal of Public Health, 100(9), 1665-1668.

Siti Nurhada, A. W. (2014). Developing Sustainable Procurement Framework for Malaysia Public Construction. Conference on Engaging the Challenges, Enhancing the Relevance. International Federation of Surveyors Congress Kuala Lumpur Malaysia 16-21 June.

Smith, B. (1998). Buyer-seller relationship: Bonds, relationship management, and sex type. *Canadian Journal of Administrative Sciences, 15*(1), 76-92.

SMSUD Shanghai Manual Guide for Sustainable Urban Development (2012). Municipal Solid Waste Management: Turning Waste into Resources. Retrieved on March 16 2016 from www.un.org/esa/dsd/susdevtopics/sdt_pdf/ shaghaimanual/introduction.pdf

Sober, E and Wilson, D.S. (1998). Unto Others: The Evolution and Psychology of Unselfish behaviour, Cambridge, MA: Harvard University Press

Sogo, M. A., Manasseh, B. S., Chimobi, D. N., Charles, A. E., Allwell, O. K., Abdulmutalib, Y., and Oluwole, A. (2014). An Approach to Energy Management: A case study of a medium scale printing press in Lagos, Nigeria. *Interntional Journal of Energy and Power Engineering, 3*(1), 7-14.

Sonja, P., Nils, L., and Lucuit, M. (2007). Marketing Green Buildings to Tenants of Leased Properties. Retrieved on January 15 2015 from http://www. Ibmjournal.com/article/92

Sorensen, A., Marcotullio, P., and Grant, J. (2004). Towards Sustainable Cities. In A. Sorensen, P. J. Marcotullio and J. Grant (Eds.), Towards Sustainable Cities: East.

Srimoyee, D. and Gargi, C. (2015). Evaluating Environmental Sensitivity of Arid and Semiarid Regions in North-Eastern Rajasthan, India. *Geographical Review Journal,* 105(4), 441-461.

Steenkamp, J. E. M., and Van Trijp, H. C. M. (1991). The use of LISREL in validating marketing constructs. *International Journal of Research in Marketing, 8*(4), 283-299

Stern, C. P., Thomas, D., Abel, T., Guagnano, A. G., and Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review, 6*, 81 - 97.

Stewart, G.L. (2006). A meta-analytic review of relationships between team design features and team performance. *J. Manag.*, 32: Retrieved Mrach 12, 2016 from 29.http://dx.doi.org/10.1177/0149206305277792.

Strauss, A., and Corbin, J. (1990). Bases of Qualitative Research: Ground Theory Procedures and Techniques. Nebury Park. CA: Sage Publications, Inc.

Suhaida, M. S., Tan, K. L., and Leong, Y. P. (2013). *Green Buildings in Malaysia Towards Greener Environment: Challenges for Policy Makers.* Paper presented at the International Conference on Energy and Environment, Malaysia.

Suleiman, A. S., Maimunah, S., Abdullah, S., Jibril, J. D., and Shahril, A. R. (2012). Towards an Intergrative Sustainability Concept for Retrofitting Commercial Office Buildings in Malaysia. Retrieved on January 10 2014 from http://eprints.utm.my/40053/

Suzaini, M.Z., Myeda, N.E., Norhayati, M., and Raha, S. (2014). Lack of Energy Efficiency Legislation in the Malaysian Building Sector Contributes to Malaysia's Growing GHG Emissions. E3S Web of Conference 3, 01029 EDP Sciences.

Tabachnick, B. G., and Fidell, L. S. (2001). *Using Multivariate Statistics* (4th Ed.). Boston: Allyn and Bacon.

Tawfik-Salah, A.N., Habib, S.A and Ali, A. A. (2015). Factors Influencing the Intention to Purchase Real Estate in Saudi Arabia: Moderating Effects of Demographic Citizenship. *International Journal of Business and Management,* 10 (4)

Tenth Malaysia Plan - Economic Planning Unit Malaysia EPUM. (2010). Tenth Malaysia Plan 2011-2015. Retrieved on February 16, 2016 from http://www.pmo.gov.my/dokumenaltached/EMK/RMK10_Eds.pdf.

Thompson, B. (1997). The importance of structure coefficient in structural equation modeling confirmatory factor analysis. *Educational and Psychological Measurement, 57*(1), 5-19.

Thompson, P., and Zakaria, Z. (2004). Corporate Social Responsibility Reporting in Malaysia: Progress and Prospects. *JCC* (13*).*

Ting-Toomey, S. (1984). Qualitative research: An overview. In W.B. Gudykunst, and Y.Y. Kim (Eds.), Methods for intercultural communication research (pp. 169-184). Beverly Hills, CA: Sage Publications.

Turcotte, D., Villareal, J., and Bermingham, C. (2006), The Benefits of Building Green, UMass Lowell's Centre for Family, Work and Community, University of Massachusetts Lowell.

Turner-Construction. (2009). Green Building Market Barometer. Retrieved on June 11 2015 from http://www.turnerconstruction.com/Uploads/Documents/Turner_2008_Green _Building_Market_Barometer.pdf

Tuti H. J. and Ali H. M. (2014). The Impact of Sustainability on the Value of Commercial Office Buildings in Malaysia: Russian-Doll Model Approach. *Jurnal Teknologi*, (71) 131-143.

U.S-GBC. (2015) Country Market Brief. 10 July. Retrieved on April 15 2016 from http://www.usgbc.org/advocacy/country-market-brief.

UNEP United Nations Environmental Programme. (2009). Buildings and Climate Change – Summary for Decision Makers. Retrieved February 14, 2016 from www.unep.fr/scp/sun.

Urbecon, B. (2008). Building Green: Financial Costs and Benefits. *SGS Economic and Planning*. University of New South Wales Press.

US GBC. (2007). LEED for Homes Program Pilot Rating System, Version 1.11a January, 2007. Retrieved on April 15 2016 from www.hopewelltwp.org /LEED%Homes.pdf

Usilappan, M. D. (2016). Real Estate Uncertainty. Proceedings of Asset Integration International Conference Universiti Teknologi Malaysia 13-14 December, Johor Bahru.

US-SCEPW. (2002). Building Momentum: National Trends and Prospects for High-Performance Green Buildings. US: US Green Building Council

Vardi, Y. and E. Weitz. (2004). Misbehavieor in organizations: Theory, Research and Management: Lawrence Erlbaum Associates, Publishers, Mahwah, New Jersey, London. ISBN: 0-8058-4332-9.

Ventolo, W. L., and Williams, M. R. (2013). *Fundamentals of Real Estate Appraisals.* 11th edition. Learning Objective. Retrieved on 11, 2017 from https://www.amazon.com/Fundamentals-Real-Estate-Appraisal-11th/dp/B00HQMBLN0

Victoria and Kador Group. (2008). *Employee productivity in a sustainable building.* Melbourne, Australia: Sustainability Victoria.

Volker, T. (2013). Nigeria: Labour Market and Skill Development, Lead Economist World Bank. Retrieved March 18, 2016 from https://www.wilsoncenter.org /sites/default/files/Treichel%20Presentation.pdf.

Wade, J., Petty, J., and Ramsay, L. (2003). Energy Efficiency in Offices – Assessing the Situation. Retrieved on February 18 2016 from http://www.ukace.org/wp-content/uploads/2012/11/ACE-Research-2003-05-Energy-Efficiency-in-offices-Assessing-the-situation-report1.pdf.

Waidyasekara, K. G. A.S., and De-Silva, M. L. (2013). Comparative Study of Green Building Rating Systems: In Terms of Water Efficiency and Conservation. Proceedings of Symposium on Socio-economic Sustainability in Construction 14-15 June Colombo Sri Lanka.

Wang, W., Liang, C., and Wu, Y. (2006). Relationship bonding tactics, relationship quality and customer behavioural loyalty-behavioural sequence in Taiwan's information service industry. *Journal of Service Research, 6*(1), 31-57.

Waniko, D. P. (2013). Green Building in Nigeria: Emerging Opportunities for the Quantity Surveying Profession. Retrieved on February 18, 2016 from http://www.academia.edu/12181314/Green_Building-in-Nigeria.

Warren, L.P and Peter, A.T. (2008). A comparison of Occupant Comfort and Satisfaction between a Green Building and a Conventional *Building. Journal of Building and Environment* (43) 1858-1870.

WBDG. (2013). Optimize Site Potential. Retrieved on December 15 2015 from http://www.wbdg.org/design/site_potential.php

Wedding, C., and Crawford-Brown, D. (2007). An Analysis of Variation in the Energy-Related Environmental Impacts of LEED Certified Buildings. *Journal of Green Building, 2*(4), 151 -170.

Weiss, M. L. (2007). What a little democracy can do: Comparing trajectories of reform in Malaysia and Indonesia? *Democratization, 14*(1), 26-43.

Werts, C. E., Rock, D. A., and Linn, R. L. (1976). Comparisons of Correlations, Variance, Covariances, and Regression Weights with or without Measurement Errors, Psychological Bulletin, (83), 1007 – 1013.

WGBC (2013). The Business Case for Green Building – A Review of the Cost and Benefits of Developers, Investors and Occupants. Retrieved February 13, 2016 from www.worldgbc.org

WGBG World Building Design Guide (2014) Project Planning, Delivery and Controls. Retrieved February 15, 2016 from http:/webcack.googleuserscontent.com

Wheaton, B., Muthen, B., Alwin, D. F., and Summer, G. F. (1977). Assessing reliability and stability in panel models. In D. R. Heise (Ed.), *Sociological Methodology* (pp. 84-136). San Francisco: Jossy-Bass.

Whelan J and Msefer, K (1996) *Economic Supply and Demand*. MIT System Dynamics in Education Project. Retrieved July 14 2015 from www.ocw.mit.edu

Wigren, R., and Wilhelmsson, M. (2007). Housing Stock and Price Adjustments in 12 Western European Countries between 1976 and 1999. *Housing Theory and Society*, 24 (2), 133-154.

Wiley, J., Benefield, J., and Johnson, K. (2010). Green Design and The Markek for Commercial Office Space. *Real Estate Finance Economics, 41*(228 - 243).

Wilson, A. (1999). Daylighting: Energy and Productivity Benefits. *Environmental Building News*, (1), 10-14.

Wilson, E.O (1975) *Socio-biology: The new Synthesis.* Cambridge, MA: Harvard University Press.

Windapo, A.O. (2014). Examination of Green Building Drivers in the South African Construction Industry: Economics versus Ecology. *Sustainability*, (6) 6088–6106.

Wolman, H. (1992). Understanding cross-national policy transfers: the case of Britain and United States. *Governance, 5*(1), 27- 45.

Wong, W. P., Fellows, R. F., and Liu, A. M. M. (2006). Use of Electrical Energy in University Buildings. A Hong Kong case study, Journal of facilities 24 (1/2) 5-17

World Bank. (2008). *World Development Report, 2009: Reshaping economic geography*. Washington, D. C: World Bank Publications.

World Bank. (2011). *World development indicators 2011*. Washington D.C: World Bank.

World Bank. (2015). Malaysia among Most Urbanized Countries in East Asia. Retrieved May 7 2016 from http://www.worldbank.org/en/news/feature/ 2015/01/26/malaysia-among-most- urbanized-countries-in-east-asia.

World Bank. (2016) World Bank Indicators. Retrieved on May 7 2016 http://www.tradingeconomics.com/country

Wright, S. (1934). The Method of Path Coefficients, *Annals of Mathematical Statistics*, (5) 161 – 215.

WSP Africa (2014) Green Star SA for use in Nigeria: Local Context Report Version 1. 2 February. Retrieved on July 42015 from www.gbcsa.org.za

Wu, P., and Low, P. S. (2010). Project Management and Green Buildings: Lessons from the Rating System. *Journal of Professional Issues in Engineering Education and Practice*, (136) 2, 64-70.

Wu, S. I., and Chen, J. Y. (2014). A Model of Green Consumption Behavior Constructed by the Theory of Planned Behavior. *International Journal of Marketing Studies,* 6 (5).

Yahaya, I and Abidin, N. Z. (2013). Commitment of Malaysian Contractors for Environmental Management Practices at Construction Site. *International Journal of Sustainable Human Development,* 1 (3) 119 – 127.

Yahya-Syed, S .N. N., Ariffin, A. R. M., and Ismail, M. A. (2013). Green Buildings in Campus: An Assessment of Green Potential for Existing Conventional Buildings. 8 October. Retrived on July 4 2015 from respository.um.ed.my.

Yean, Y.L. (2002). Model for predicting performance of architects and engineers. J. Construction Eng. Manag. 128: 446-455. Retrieved on July 4 2015 from http://dx.doi.org/10.1061/ (ASCE) 0733-9364(2002)128:5(446).

Yee, C. S., Abd-Rahim, M. H. I., and Mohamed, S. H. (2015). An Insight of Sustaianble Housing in Malaysia. Retrieved on 10, 2017 from zakimin @uthm.edu.my

Yin, R. K. (1994). *Case Study Research: Design and Methods* (2nd Ed.). Beverly Hills, CA: Sage Publications.

Yuanshu, D., and Jared, E. (2009). Green Building Incentives in New York, New Jersey and Connecticut. Retrieved on April 13 2016 from www.goulstonstorrs.com

Yu-Stti, M., Toh Eng-S., and Benjamin, H. X. (2011). BCA-NUS Project on Valuation of Green Commercial Properties. Retrieved on February 1, 2016 from www.bca.gov.sg

Zainudin, A. (2012). A Handbook on Structural Equation Modeling. Universiti Teknologi Mara, Kelantan: Center of Graduate Studies.

Zainul A.N and Ayishatul, P. (2014). Perception on Motivating Factors and Future Prospects of Green Construction in Oman. *Journal of Sustainable Development,* (7) 5.

Zainul, N. A. (2010b). Investigating the Awareness and Application of Sustainable Construction Concept by Malaysian Developers. *Journal of Habitat International, 34*(4), 421-442.

Zakaria, R., Foo, K. S., Mohammad Zin, R., Yang, J., and Zolfagharian, S. (2012). Potential retrofitting of existing campus buildings to green buildings', *Applied Mechanics and Materials* 178 (181), 42 -45.

Zalanga, S. I. (2000). The postcolonial state and the development agenda: a comparative study of the role of ruling elites in the development policy formulation and implementation in Malaysia and Nigeria. Doctor of Philosophy. University of Minnesota, USA.

Zalina, S. (2011). Development of a Sustainability Assessment Framework for Malaysian Office Buildings Using a Mixed-Methods Approach. Doctor of Philosophy. University of Adelaide.

Zamali, T., Mohd, L.A., and Abu-Osman, MD.T. (2009). An Overview of Municipal Solid Wastes Generation in Malaysia. *Jurnal Teknologi (*51) 1 -15.

Zikmund, W. G. (2003). *Exploring Marketing Research*. Cincinnati, Ohio: Thomson/South-Western.

Zikmund, W. G., and Babin, B. J. (2007). Exploring Marketing Research. Cengage Learning.

APPENDIX A

PUBLICATIONS ASSOCIATED WITH THIS THESIS / PAPERS CO-PUBLISHED DURING THE PRIOD OF THIS STUDY

Onuoha, I. J., Aliagha G. U., Norhaya K., and Kalu J. U. (2014). Application of Social Cognitive Theory on Motivations and Expectations of Developers' and Investors' to Commit to Green Building Construction and Supply. *Journal of Advanced Material Research,* 1073 (1076), 2890 -2898. Trans Tech Publishers, Switzerland (*Scopus, 2014*). http://www.scientific.net/AMR.1073-1076.2890.

Onuoha, I. J., Adjei-Twum, A., Aliagha, G. U., and Norhaya, K. (2014). Borrowers' and Lenders' Perception of Lending Requirements for Financing Housing Development in Owerri, Nigeria, 2014. Proceedings of the 7th International Real Estate Research Symposium (IRERS) in conjunction IBIMA Thomson Reuters Scientific (ISI) Kuala Lumpur Malaysia.

Onuoha, I. J., Norhaya, K., Aliagha G. U., and Kalu J. U. (2015). Theoretical Explanations of Environmental Motivations and Expectations of Clients on Green Building Demand and Investment. *Earth and Environmental Sciences,* 23 (1). (*Scopus*). IOP Conferences Series Indonesia.

Onuoha, I. J., Norhaya, K., and Aliagha, G. U. (2015). Application of the Powers of Governors' to Charge Ground Rent under Nigeria Land Use Act of 1978. *Jurnal Teknologi*, 73 (5), 195-200. Universiti Teknologi Malaysia (*Scopus*). www.jurnalteknologi.utm.my

Onuoha, I. J., Norhaya, K., Aliagha, G. U., Miswan-Abdul, H. M., Hishmuddin - Mohd A. (2016). Green and Sustainable Commercial Property Supply in Malaysia and Nigeria. *Geographical Review*. United States of America (*Impact Facto*r).Wiley Library Publishers.

Onuoha, I. J., Norhaya, K., Aliagha, G. U., Okeahialam, S. A., Atilola, I. M., and Atamamen, O. F. (2016). Developing Policies and Programmes for Green Buildings: What can Nigeria Learn from Malaysia's Experience? Proceedings of Asset Integration International Conference (Aic) Faculty of Geoinformation and Real Estate Universiti Teknologi Malaysia Johor Bahru 13-14 Decemeber.

Kalu, J. U., Gyang, Z. Z., Aliagha, G. U., Alias, B., and **Onuoha, I. J.** (2015). Monetary Policy and its Price Stabilization Effects on the Prices of Building Materials. *Mediterranean Journal of Social Sciences,* 6 (4). MCSER Publishing Italy. http://www.mcser.org/journal/index.php/mjss/article/view File/6915/6619

Kalu, J. U., Aliagha, G. U., Alias, B., and **Onuoha, I. J.** (2015). Climate Change Mitigation and Voluntary Disclosure in Malaysia's Listed Property Companies. *Jurnal Teknologi,* 77 (15) 47-53. Universiti Teknologi Malaysia (Scopus). www.jurnalteknologi.utm.my

Atilola, I M., Norhaya, K., Kamalahasan, A., and **Onuoha, I. J**. (2016). The implications of valuation methods on property rating valuation accuracy in Nigeria. Proceedings of the 8th International Real Estate Research Symposium IRERS. 26-28 April, at Putra World Trade Centre Kuala Lumpur Malaysia

Atamamen, O. F., Mohammed, H. A., and **Onuoha, I. J**. (2016). Application of Resource Based Theory to Green Cleaning Services Implementation. . Proceedings of the 2nd Asia International Conference organized by Innovative and Commercialization Centre (ICC), Universiti Teknologi Malaysia. 10-11 December.