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PREFACE

DEAR CONFERENCE DELEGATES,

In our third edition of the proceedings, we are happy to welcome you to our AfRES annual conference for 2016 being held in Addis Ababa which stands for "new flower", or Finfinne. Addis, as we call it for short, is a chartered city, it has the status of both a city and state, and it is with pleasure that we welcome you here. Importantly, according to the World Bank (2015), Ethiopia is the fastest-growing economy in the world offering significant opportunities in the Real estate sector.

As usual, we have to thank the numerous sponsors who have assisted in different ways; the conference would not have been possible without their contributions. We trust that we will all benefit from the gathering through discussions and debates both of a professional and academic nature.

Today, we can see the maturation happening around us on the African soil. Real estate markets are starting to show growth and higher levels of maturity. From the papers and presentations, data is starting to reflect a much needed understanding of these markets. The theme of this conference is appropriately **"Sustainable Multi-Sec oral Real Estate Development in Emerging Economies"** shows trend.

This year we had the highest number of submitted abstracts at 51 abstracts and eight referred papers and seven non-referred papers. We appreciate the Scientific / Technical committee of the conference for their work in reviewing the submitted abstracts and papers. The feedback to the authors assisted greatly in finalizing them in the format presented in these proceedings. The papers printed in these proceedings were double-blind reviewed to ensure the highest standards and international comparability. The abstracts were reviewed and guidance given to authors.

The East African AfRES chapter is grateful to those who assisted and contributed in bringing this conference together and making it happen. We are appreciative of the hours of work which some of our members dedicated to the process.

Sisay Zenebe
On behalf of the Organizing committee
August 2016

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ABSTRACTS

AFFORDABILITY OF HOUSING AMONG MIDDLE INCOME DWELLERS IN KADUNA STATE

ABOLADE ABIODUN. O., B. SC., M. SC. (EST. MAN) & TERZUNGWE DUGERI, PHD (EST. MAN.), FNIVS, RSV

Department of Estate Management, Kaduna State University, Kafanchan Campus, Kaduna State Nigeria.

Corresponding Author Email: deepeeontop2009@gmail.com Tel No: +234 (0) 7083981796

PURPOSE: To investigate the factors inhibiting the affordability of housing among middle income dwellers. To examine the effects of non-affordability of housing on middle income dwellers and to offer solution to the problem.

DESIGN / METHOD / APPROACH: A list of factors, effects and solutions to the problem of non-affordability of housing was drawn into a questionnaire and administered on government middle income group of Kaduna State. This was subsequently subjected to analysis through SPSS and the results presented in tables using the frequencies, percentages, means and ranking. The factors, effects and solutions were presented in a five point likert scale.

FINDINGS: The results of the study indicate that the top factors inhibiting affordability of housing among middle income dwellers of Kaduna state include lack of access to loan facilities in the state and non-affordability of land in Government Reserved Areas (GRA). The effects include long distance travels to work places leading to less productivity and low standard of living. The solutions identified include government making land available for middle income groups at subsidized rate. This will enable them to build their own houses or engage the private sector in a Private Public Partnership. Such partnerships will enable an arrangement that affords housing at prolonged mortgages on subsidized rates.

RESEARCH LIMITATIONS: The major limitation to this work is access to the middle income group of Kaduna state. Thus, the study is limited to government workers in the state.

PRACTICAL IMPLICATIONS: At various points in time, public and private sectors in Kaduna State has embarked on the provision of affordable housing. This appears not to have been affordable to the majority of middle income dwellers in Kaduna state. However, the results of this study can be handed to the appropriate government authority for the recommendation of the study to be implemented.

ORIGINALITY/ VALUE OF WORK: This study on housing affordability has not been conducted anywhere to the best of my knowledge.

Keywords: housing, affordability, middle income, housing challenge, Nigeria

DETERMINANTS OF HOUSING AFFORDABILITY: A LITERATURE REVIEW

F. G. ADELEKE AND A. OLALEYE

Department of Estate Management, Obafemi Awolowo University, Ile-Ife, Nigeria

Email: a_olaleye2000@yahoo.co.uk

PURPOSE: This paper is expected to provide information on the factors indicating housing affordability levels of low income civil servants in Southwestern Nigeria.

DESIGN / METHODS: Desktop analysis of literature was employed to achieve the stated objective.

FINDINGS: The study provides an overview of various discussions on affordable housing among low income earners. The preliminary findings suggests that socio-economic characteristics of low income civil servants, their housing choice and individual preferences are some of the factors that have significant influence on the affordability level

PRACTICAL IMPLICATION: The paper explored the challenges confronting the provision of affordable housing for low income civil servants in Southwestern Nigeria.

ORIGINALITY: This study contributes to the increasing debate for affordable housing among low income civil servants.

Keywords: ***housing, affordability, low-income, civil servants, Nigeria***

SOCIAL NETWORKS AND SALES TRANSACTIONS IN SOUTH AFRICAN OFFICE MARKETS

NALUMINO AKAKANDELWA (PHD CANDIDATE), STEVEN DEVANEY (ASSOCIATE PROFESSOR) AND KATHY PAIN PROFESSOR OF REAL ESTATE DEVELOPMENT)

School of Real Estate and Planning, Henley Business School, University of Reading, UK

Contact Author Email: n.akakandelwa@pgr.reading.ac.uk (Nalumino Akakandelwa)

Scarcity of information on office transaction opportunities contributes to office markets being illiquid. Asset and vendor identity is problematic since information is privately held and highly localised in geographically dispersed markets. DiMaggio and Louch (1998) and Rangan, (2000) demonstrate how social networks resolve market uncertainty where conversional mechanisms which rely on publicly available information are not practical. The research question is how social networks are used to resolve uncertainty in commercial office sales markets.

METHODOLOGY: The paper adopted an exploratory research approach. Data was collected through in-depth face-to-face interviews with opportunistically sampled commercial real estate brokers in Johannesburg, South Africa. Data was organised using NVivo (1999) ® and employed constructivist theoretical thematic analysis.

FINDINGS: Social networks seem relevant in high-value office sales transactions involving sophisticated clients. Brokers use social networks to access private information on clients' acquisition and disposal criteria, manage information on transaction activity as per clients' interests, pool potential buyers, channel business opportunities, and build relations and trust. Transaction are likely to be publicly marketed when they involve unsophisticated clients or unknown buyers.

RESEARCH LIMITATIONS: There is descriptive validity threat relating to factual validity of respondents' accounts. There are also interpretive validity threats on accuracy of respondents' interpretation of contexts, and researcher's interpretation of responses. Introducing non-mainstream real estate concepts and using an opportunistic sample presents a theoretical validity threat of a plausible theoretical framework associating social networks to office sales transactions.

RESEARCH IMPLICATIONS: This paper contributes to understanding how social networks address information asymmetry in sales transactions where conventional mechanisms are not able to cost-effectively do so.

ORIGINALITY: This paper is extracted from the first author's PhD research on liquidity in commercial real estate markets. Social networks have been explored in business and built environment, but there are no previous studies that have sought to understand social networks in office sales markets.

THE DRIVERS OF DIRECT COMMERCIAL REAL ESTATE RETURNS IN AN EMERGING MARKET: EVIDENCE FROM SOUTH AFRICA

[1]Omokolade Akinsomi and [2]Nikiwe Mkhabela

Corresponding author: kola.akinsomi@wits.ac.za

1Senior Lecturer in Real Estate Finance and Investments, University of Witwatersrand, South Africa.

2Affil ted with the University of Witwatersrand and is an Asset Manager at Stanlib, South Africa.

There is limited research and robust data on the performance drivers of the underlying commercial real estate assets in investment portfolios as opposed to the residential and listed property sectors in the South African context. SA real estate competes internationally and the rapid growth in emerging countries is creating new real estate players and growing competition for real estate investment opportunities (PwC, 2015). It is important for investors in the industry to understand the factors that affect the sector's performance to be able to plan and revise investment strategies, to allocate resources efficiently and to understand past trends and manage future risks.

The study is aimed at understanding the performance of the SA direct commercial real estate sector and identifying the key factors that affect the sector's returns in the country. Using Pearson's correlation analysis and regression analysis, the study statistically tests for relationships between macroeconomic indicators, property performance variables and direct commercial real estate returns as measured by the International Property Databank (IPD) over the past 20 years from 1994 to 2014. The study finds gross rental escalation and real GDP growth rate to be the key drivers of direct commercial real estate total returns which suggests that real estate rental income growth and performance are highly related to the economy. The findings assist in understanding the behaviour of the direct commercial real estate sector and provide a basis for property investment analysis and asset allocation decisions at different economic conditions.

EXPROPRIATION, VALUATION AND COMPENSATION PRACTICE IN AMHARA NATIONAL REGIONAL STATE (ANRS)

THE CASE BAHIR-DAR CITY AND SURROUNDING

BELACHEW YIRSAW ALEMU (PHD)

Bahir –Dar University

Institute of Land Administration
Bahir Dar, Ethiopia
PO Box1663
Email: belachew.y02@gmail.com

PURPOSE: Aims to examine the expropriation, valuation and compensation practice. This paper tries to investigate how the expropriation and compensation laws are implemented when privately held land and attached real properties are taken for public purpose development.
DESIGN / METHODOLOGY / APPROACH: The paper reports the findings of a survey of expropriatees from main practices throughout Bhair Dar city and its surroundings.
FINDINGS: There is a big gap between the actual practice of expropriation, valuation and compensation and the law. Lack of application of standardized methods and procedures created situations of unfair valuation and compensation.
PRACTICAL IMPLICATION: The practical implication is that the living status of affected people before and after expropriation could be useful.
ORIGINALITY / VALUE: The value of the paper for government officials, real property valuers and investors- is that transparency, consistency and fair compensation are useful.

Keywords: expropriation, valuation, compensation

THE CONCEPT OF MARRIAGE VALUE IN PROPERTY INVESTMENT VALUATION – MYTH OR REALITY

[1]BIOYE TAJUDEEN ALUKO;[2]BENJAMIN GBOLAHAN EKEMODE AND [3]DARAMOLA THOMPSON OLAPADE

[1, 2, 3,] Department of Estate Management, Obafemi Awolowo University, Ile-Ife NIGERIA

Corresponding Author E-mail: gbolaekemode@yahoo.com

Where two real properties, either physically or legally, merged into one, the new one produces a higher value than the values of both when they are separately sold. The excess in value is known as marriage value (UK). This concept has been closely linked with “abutment value” or “enhancement value” (USA); and, at times, confused with “monopoly value” in the literature. Besides, its valuation had become a mirage in practice and requires careful thought of appropriate methodology that will capture value to be estimated. However, appraisal literature is filled with methodologies that hardly work in reality. Through interactions with focused groups of senior estate surveyors and valuers that had practiced for not less than two decades in Nigeria, the authors seek to develop more consistent and descriptive ways of handling marriage valuation.

Keywords*: marriage value, real property, methodology, estate surveyor and valuer, concept*

PROPERTY VALUATION IN EMERGING ECONOMIES: THE HANDS ON EXPERIENCE

DR WILFRED K. ANIM-ODAME, FGHIS, MRICS

Chief Executi e Offic

Lands Commission

Accra GHANA
Email: animodame@hotmail.com

Businesses, individuals, financial institutions and governments globally require property valuations for several purposes. Property value as a proxy for price is usually determined on the basis of market value. Typical purposes for which property valuation may be required include sale, purchase, mortgage, insurance, rating and stamp duty whilst rental value is determined for a tenancy arrangement or the associated tax payment.

This research is indeed, motivated by the view that property plays an important role in the development agenda of all nations. For instance, the expansion of property stock and rise in its market value form part of the accumulation of wealth with successful economic development. As a potential source of tax revenue for central and local governments, especial in emerging economies where cash-based informal sectors hamper the collection of other forms of taxation, property markets will continue to play an important role in national development. And as exemplified by the Asian crisis in the late 1990s, incorrectly valued and unstable property markets are major risk components for the banking and financial systems (Renaud and Mera, 2000).

The credibility, reliability and accuracy of property value determination in emerging economies are therefore critical. This paper examines the practice of property valuation in Ghana to establish that five underlying requirements – Property Valuation Guidelines and Standards, electronic database, automated property valuation, research and development, and property market intermediaries – are a necessity for the development of the valuation profession. The research concludes that these requirements are the corner pillars to promote property market development in Ghana, which may also be applicable to other African countries with similar property market characteristics.

PROVIDING A VEHICLE FOR CITIES GROWTH IN AFRICA

DR WILFRED K. ANIM-ODAME, FGHIS, MRICS

Chief Executi e Officer Lands Commissi

Accra GHANA
animodame@hotmail.com

Cities in Africa are characterized by the rapid spread of informal settlements, lack of affordable serviced plots and zoning policies to guide the process. Through the process of urbanization, the property market does not only grow to stimulate economic development but also improve the living quality of residents with sustainable infrastructural development. In principle, cities have greater potential to raise local revenues. Firstly, the larger urban economy provides a significant local tax base, although its predominantly informal nature prevents the authorities from capturing taxes. Secondly, high-value urban properties constitute a major tax base, although the lack of clear property titles prevents this from being realized.

This paper reviews historical interventions in land administration in Ghana. The development of the first ever land policy in 1999 and implementation of land administration project – phase 1 and 2 (between 2004 and date) - have still not adequately addressed the fundamentals. Sectorial gaps in achieving a sustainable land market development in the country remain unresolved.

A qualitative approach is employed to investigate how the gains of the land administration project in Ghana have addressed the fundamentals of the country's land policy. The findings reveal significant interventions in land administration in Ghana over the past 12 years; yet there are gaps in the nation's effort to provide a sustainable platform for cities growth. This paper makes a considered contribution that land use and building regulations become more important as urbanization advances. Urban planning must guide cities growth and the associated infrastructure needed.

The paper further establishes a strong connection between three thematic areas – sustainable land administration, participatory land use planning, and infrastructure investment – as a vehicle for cities growth, an explicit added value. It comparatively analyses sub-regional performance and concludes that by every measure of infrastructure coverage, African countries lag behind their peers in other parts of the developing world.

CHALLENGES OF A CENTRALIZED CUSTOMARY LAND REGISTRATION IN GHANA: A CASE OF SELECTED DISTRICTS IN THE ASHANTI REGION OF GHANA

LEWIS ABEDI ASANTE AND ALEXANDER SASU

CORRESPONDING AUTHOR: ASANTEAL@GMAIL.COM

Department of Estate Management, Kumasi Polytechnic, Kumasi, Ghana

Ghana's National Land Policy provides that secured tenure, through title registration, can be achieved if capacity building for land service delivery is created and maintained at the national, regional and district levels. Although the second phase of the Land Administration Project (LAP-2) aims at decentralizing land service delivery in Ghana, this is yet to become a reality five years since the onset of LAP-2. The Lands Commission (LC) [focusing on Public & Vested Land Management (PVLMD) and Survey & Mapping Divisions (SMD)] is barely visible at the district levels, albeit its visibility at the regional levels.

This paper poses the question: 'to what extent is land registration at the regional level enhancing clearly defined property rights and security of tenure at the district levels'. This study was conducted at Sekyere Afram Plains, Sekyere East and Offinso North district assemblies and at the premises of the LC of the Ashanti region. Using qualitative approach, data was drawn by adopting purposive and convenience sampling. Respondents sampled were mainly traditional authorities, staff of LC and lessees. The study revealed that over 85% of the lessees appreciate the benefits of attaining property rights and security of tenure through registration of their respective interests in land. However, they are disinclined in attaining same for reasons not limited to (a) travelling distance (over 100 kilometers) covered to the regional land service delivery divisions in Kumasi, (b) reluctance on the part of some personnel of the LC to go for site inspection, and (c) the perception that payment of ground rent to the Office of the Administrator of Stool Lands is a guarantee of security of tenure. The study recommends, amongst others, collaboration between the LC and the traditional authorities to establish district offices of the LC to enhance security of tenure at the district levels.

Keywords: Land service delivery, decentralization, Lands Commission, Ashanti region, Ghana

IMPACT OF ADDING SECURITISED PROPERTY INTO MIXED-ASSET PORTFOLIO IN EMERGING MARKETS: EVIDENCE FROM NIGERIA

TIMOTHY OLUWAFEMI AYODELE AND ABEL OLALEYE

Estate Management Department, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.
Corresponding Author: ayodele.t.oluwafemi@gmail.com
Presenter: a_olaleye2000@yahoo.co.uk

PURPOSE: The paper examined the performance of securitised property and analysed its diversification benefits when added into domestic mixed-asset portfolios, constructed using Naïve and MPT optimization techniques. The paper also tested the hypothesis that the performance of naïve portfolios with securitised properties is better than naïve portfolios without such.

DESIGN/METHODS: The data comprised of quarterly returns on securitised property, all share, Federal bonds, State bonds, Debentures and Treasury bills for years 2000 to 2013. Return-risk analysis was compared using mean return, standard deviation, Sharpe ratio and correlation coefficient. The data sets were also analysed for stationarity using the Philip Perron unit root test. Furthermore, the static and time varying correlations (DCC) between LPS and other assets in the portfolio were examined. In assessing securitised property return enhancements and risk reduction benefits in mixed asset portfolio, 24 naïve portfolios (18 with securitised property and 6 without) were constructed and the effectiveness of diversification was assessed for each portfolio. This is in addition to examining the impact of securitised property on optimal portfolios using Markowitz quadratic function.

FINDINGS: The results showed that securitised property did not offer superior returns and underperformed most other assets on risk adjusted basis. Furthermore, inclusion of securitised property into mixed asset portfolios might not bring statistically significant improvement in portfolios performance. The results are however dependent on the percentage weightings of assets and the asset class being replaced.

PRACTICAL IMPLICATION: The study has implications for investors interested in emerging markets like the Nigerian investment market.

ORIGINALITY: It is one of the few attempts within the context of Africa's emerging market and Nigeria in particular.
Keywords: securitised property, mixed-asset portfolio, diversification, emerging market, investment, Nigeria

THE INCIDENT OF LOW OCCUPANCY RATE FOR RESIDENTIAL PROPERTIES IN NIGERIA. A CASE STUDY OF ABUJA-NIGERIA FEDERAL CAPITAL TERRITORY.

BARIDOMA, MOSES, BARIDI

Lecturer: Department of Estate Management, Rivers State University of Science and Technology, Port Harcourt.

Email: *baridoma.moses@ust.edu.ng*
Phone: *+234-8033083163*

One of the most important housing challenges in Nigeria and particularly Abuja, is not the availability of housing but the inability of citizens to afford the rent of the existing stock, especially in the Federal Capital City. The extremely high cost of rent and service charges culminates into a low occupancy rate for finished residential properties. Property owners create an artificial scarcity by continually increasing rent on empty completed properties and on property developments not principally investment-driven. This study x-rayed the causes of voids and the solution whereby government can impose taxes on unoccupied residential properties by enacting relevant legislation to check this trend. A simple questionnaire was designed to elicit answers from estate surveyors, agents, lawyers, estate developers, property owners, and prospective tenants. The use of bar and pie-charts were adopted to interpret the responses and inferences drawn. The city was zoned into four major parts to make it easier for this study, because part of the challenge was the large size of the city and the impossibility to cover all the streets. It was discovered that the majority of the residential properties developed, were not with financial assistance from financial institutions. They were purely private equities of politicians and businessmen who only want to consolidate their assets in physical structures but not for profit. The implication of this is the mass exodus of civil servants to seek accommodation outside the Federal Capital City where rent is cheap. This denies government of valuable manhours as a result of lateness to work due to the distance away from the office. The solution proffered, if followed, will help to alleviate the present situation of housing scarcity in the Federal Capital City.

Keywords: low occupancy rate, residential properties, Abuja (FCT)

LAND INVENTORY AND ITS USE FOR PROTECTION OF STATE LAND FROM LEGAL PROPRIETORS AND ILLEGAL INVADERS BASED ON THE CASE OF SHASHEMENE

GIZACHEW BERHANU

PHD student in Addis Ababa University on Urban and Regional Planning

This abstract is based on the writer's experience of parcel based land inventory preparation for the whole of Shashemene City. The work is done by COMPASS AEPED consultant while the writer is involved with the capacity of coordinating the land inventory work of Shahsemene. The client is Shasheme City Administration.
The author is specifically interested in revealing general land inventory profiles and patterns and the review of policy on land inventory and registration. It also analyses, quantify and reveal spatial pattern on the extent of state land encroachment by tenure types and sub cities. Based on the analysis results, the author will suggest remedial actions that can be taken to protect state land from encroachment of legal and illegal invaders, lessons learned, conclusions and recommendations.

CONCEPTUAL MODEL FOR INTEGRATION OF AMP ON GIS SYSTEM FOR ASSET FACILITY MANAGEMENT

GIZACHEW BERHANU

PHD student in Addis Ababa University on Urban and Regional Planning

The topic deals with a brief presentation of the manual on conceptual models for integration of AMP on GIS systems, which was written by me. The client is Ministry of Urban Development and Housing. The topic deals with integrated physical municipal asset management (road, drainage, building, water supply and so on) using GIS based on the new experience of Urban Local Governance Development Program. It is further based on the author's experience of manual preparations on the subject of ULGDP cities.

As the manual belongs to Ministry of Urban Development, Housing and Construction, authorization for the writer to present is required by the client. The manual is going to be practically implemented for Asset Management Plan Preparation for ULGDP cities using GIS. The manual is a practical manual supporting the new Asset Management Plan manual written by Professor DR. John Abott (while the author is Ministry of Urban Development).

The new manual deals with a conceptual model backed with demonstration on cyclic and procedural management of physical assets through the management of information on physical asset, maintenance condition and deficit assessment, valuation and finance, maintenance plans, new asset plans, maintenance projects and new asset projects. The destined objective is the preparation of an Asset Management Plan.

It is envisaged to demonstrate with selected assets, the conceptual model and system developed through testing the operation of physical asset, maintenance condition and deficit, valuation and finance, planning and project preparation for efficient operation of Asset Management Plan of the Municipality. It also specifically deals with a dynamic segmentation model and its use for management of linear assets of road, drainage and water.

BIOFUELS AND THE HAZARDS OF LAND GRABBING: TENURE (IN)SECURITY AND INDIGENOUS FARMERS' INVESTMENT DECISIONS IN GHANA

BISMARK AHA[1*] AND JONATHAN ZINZI AYITEY[2]

Department of Estate Management and Valuation, Uni ersity of Rwanda – College of Science and Technology

Corresponding author's email address: *Bismark.aha@gmail.com*

Abstract

The past decade has witnessed a renewed interest in transnational land deals in the developing land-abundant countries of Sub Sahara Africa (SSA), Asia and Latin America following the convergence of the global financial, food and energy crises in the mid 2000s. In much of SSA, these deals occur on customary (communal) lands which are managed by traditional chiefs in trust for the entire local community and hence occupied by local farmers. Traditional authorities have, for unexplained reasons, become much interested in these deals; alienating large tracts of customary lands to foreign investors for biofuel and food crop plantations. In this paper, we examine the effects of the current mode of communal land acquisition for Jatropha cultivation in Ghana on the security of indigenous farmers' land rights and their decisions to invest in their farms. Empirical evidence is based on primary data collected from field surveys conducted in two districts in Ghana; Yeji and Ejura in the Ashanti and Brong Ahafo regions respectively. We show that the increasing alienation of communal lands to biofuel investors without fair and adequate compensation to the indigenous land holders has resulted in higher levels of uncertainty and land tenure insecurity among farmers in affected communities. Consequently, such farmers have become apathetic to farming, cultivate smaller farm sizes and thereby show low agricultural investments. These findings provide a new perspective for considering the nexus between increasing biofuel cultivation and food security in developing countries.

Keywords: Land grabbing, communal lands, tenure insecurity, agricultural investments, Ghana.

ASPECTS OF MORTGAGE PRICING IN DEVELOPING COUNTRIES: THE CASE OF RWANDA

AHA BISMARK (ASSISTANT LECTURER), AND IYANDEMYE SAMUEL (TUTORIAL ASSISTANT)

Department of Estate Management and Valuation, Uni ersity of Rwanda – College of Estate Management and Valuation, K gali – Rwanda

Contact corresponding author, Bismark Aha by Email: cashnoba@gmail.com

PURPOSE: Access to decent and affordable housing remains one of the greatest challenges in Sub-Sahara African exacerbated by its exponential population growth rate and low income levels. Whilst mortgage has proven to be a superior approach to housing finance in developed countries, this has not been the case in developing countries where ridiculous interest charges have effectively priced the middle and low income groups out of the mortgage market. This study provides an empirical examination of the determinants of mortgage interest rates and effective borrowing costs in Rwanda, and the implications thereof for residential mortgage demand and affordability.

DESIGN: The study combines secondary data (mainly macroeconomic indicators) with primary information obtained by questionnaires and interviews with the major mortgage lenders in Rwanda.

FINDINGS: The study reveals that, at the current interest rates, mortgages are affordable to less than five percent of the Rwandan population. The high cost of borrowing is driven primarily by the lender's cost of funds, unstable macroeconomic environment (exchange rate and inflation), inflation, liquidity, default risks, and lack of access to long term funds.
RESEARCH LIMITATIONS: The mortgage market in Rwanda is still very young, and as such, access to longer time-series data was unavailable to permit a more robust analysis.

PRACTICAL IMPLICATIONS: There is the need to integrate the housing finance market to the broader capital market to ensure access to long time funding and reduce asset-liability mismatches on the part of mortgage lenders. This will also reduce the risk borne by the primary mortgage lenders and transfer the risk to capital market investors who are better able to handle such risks. The government of Rwanda should partner with Rwanda Social Security Board (RSSB) and life insurance companies to provide a mortgage liquidity facility to ensure constant supply of mortgage funds to the commercial banks.
ORIGINALITY: The study provides primary empirical explanations for the reasons behind the high interest rates on mortgages. By identifying the primary reasons behind this, it offers more relevant recommendations to help curtail this situation
Keywords: housing, mortgage, interest rate, effective borrowing cost, affordability, mortgage liquidity facility

AN EVALUATION OF THE INVESTMENT MATURITY OF PROPERTY MARKETS IN SOUTHWESTERN NIGERIA

1C. C. CLEMENT, 2O.A. OGUNBA & 3T. T. DUGERI

1Department of Estate Management, Obafemi Awolowo University, Ile-Ife, Nigeria

2Visiting P ofessor, Department of Estate Management, Federal University of Technology, Akure, Nigeria

3Senior Lecturer & Head, Department of Estate Management, Kaduna State University, Kafanchan, Nigeria

Corresponding Author Email: segogunba@yahoo.co.uk

PURPOSE: Studies on the maturity status of sub-Saharan African property markets are scanty. The absence of such studies appear to have made African property markets - such as the Nigerian market - unattractive to foreign investors who require market information to assess the viability of proposed investments. This paper explores the maturity status of selected city property markets in Southwestern Nigeria (that is, markets in the capital cities of Lagos, Ibadan and Osogbo), with a view to providing information for enhanced property investment in Africa.

DESIGN / METHODS: The study adopted and expanded on property market maturity paradigms suggested by Keogh and D'Arcy (1994), Akinbogun (2012) and Jones Lang LaSalle (2014) to measure the maturity status of the property markets in the Nigerian cities. In achieving this objective, the study sampled players in the markets - estate surveyors and valuers, public land administrators and financiers (represented by commercial banks) - using questionnaire surveys and structured interviews. The responses were classified by means of a five-point classification scale which expanded on the initial scale developed by Dugeri (2011).

FINDINGS: The three property markets were found to exhibit varying maturity characteristics (with weighted mean scores of 3.07, 2.71, 2.51 respectively), representing emerging and immature stages of evolution on the maturity path.

PRACTICAL IMPLICATIONS: The study concluded that the Ibadan and Osogbo markets require substantial remodeling to make them attractive to international investors

ORIGINALITY/VALUE: The value of the paper is in providing much needed information for enhanced property investment in Africa

Keywords: globalization, maturity characteristics, property investment, Nigeria

IMPACT OF PROPERTY TAX ADJUSTMENT ON RENTAL VALUE IN NIGERIA

EKENTA, CHUKWUEMEKA & BARIDOMA, MOSES BARIDI

Email: emekaekenta@yahoo.com or mozito4u@yahoo.com
Tel: 2348033083163 or 2348036762802

Tax adjustment in every economy is significantly affected by monetary policies and by implication real property taxes. This study examines the effect of property tax adjustments with respect to their impact on rental value in Nigeria. Data were obtained from 150 respondents. The multiple regression models and SPSS package were adopted for data analysis. The study found that there is a statistically significant relationship between landed property taxation and rental value. The implication is that the rental income from property is significantly affected by tax adjustments thus discouraging real property investments. It was recommended that tax reform and related institutional reform should entail actions that are consistent with local conditions rather than an attempt to realize abstract principles.

Keywords: impact, landed property, taxation, rental value

THE DYNAMICS OF PROPERTY DEVELOPMENT IN MAURITIUS

VISHESH GANGARAM

Researcher at Viruly Consultants

Email: Vishesh.gangaram@gmail.com

Mauritius is nominated in several global indices as an attractive country in which to do business. In Africa, Mauritius is also often nominated as the best country to do business, a leader in economic freedom, the most competitive nation, and a success story of good governance. Mauritius has positioned itself as a country where the right conditions are in place for the conduct of business, for investing, working, and living a high quality of life. This research considers the social, technological, financial, economical, investment and political trends affecting Mauritius which in turn have made it an attractive investment destination. Focus is also placed on the major property developments and opportunities in Mauritius. It will also look at how does a population of 1.2 million, in an area of 2040 km^2, with no natural resources, achieve financial stability. Real estate makes a contribution of 5.4% to the National Gross Domestic Product (GDP). The real estate sector is of critical importance to the local economy and forms part of the national policy framework. This includes Smart Cities development and the Property Development Schemes policy framework. There are currently major projects underway to attract Foreign Direct Investments as well as to boost the local economy. The research concluded that a correct policy framework can play an important role in fostering the real estate sector of country.

HOTEL PROPERTIES IN ANGOLA – ANALYSIS OF MARKET CHARACTERISTICS AND SUSTAINABLE COMPETITIVENESS

JONAS HAHN

University Regensburg
International eal Estate Business School

Jonas.hahn@irebs.de

Current developments indicate a significant increase in hotel investment inflows from hotel chains throughout Africa. Specifically, large multi-national players such as Hilton, Accor or Marriott have confirmed their interest in further investments and revealed specific plans for expansion on the continent. This paper comprises an explorative study to identify the status and attractiveness of the tourism sector, hotel properties and related investment markets in Angola. This paper collects and interprets a variety of tourism-and property market-driven primary data in order to gain a fundamental understanding of risks, the competitiveness and upside potential in a developing hospitality market with high orientation in the business tourism segment. The paper analyses the tourism fundamentals as well as the development pipeline of major hotel chains and elaborates typical regional hotel investment patterns. The overall finding is that, while well-known for business tourism within the Southern African Development Community, Angola's hotel market is perceived in the context of high volatility and risk due to its dependency of the oil and gas sector, which will impact foreign visitor spending going forward.

FORCED SALE OF MORTGAGED PROPERTIES IN KIGALI: THE IMAGE OF REAL PROPERTY VALUERS

[1]VEDASTE HAVUGIMANA, [2]MARIE GRACE NYINAWABEZA, [3]BERNARD NSANZIMANA

[1, 2, 3] University of Rwanda-College of Science and Technology, Kigali, Rwanda

[1]havugimana77@gmail.com, [2]mgracenyina50@yahoo.com, [3]bensanzimana@yahoo.fr

Valuation as an art and science of determining the monetary worth of real property has had a direct and critical relationship with mortgage lending. This led directly to the high involvement of real property valuers in mortgage lending decisions. The aim of this paper is to understand the role of valuations in the mortgage approval process in order to find out whether the valuers are contributing to the loss caused by forced sales of mortgaged properties and come up with an approach to regulate financial systems in a country to reduce loan default. To accomplish this aim, questionnaires, structured interviews, and observations have been used among different research groups. Moreover, views taken from related literature to discover important variables relevant to the topic, and gaining a new perspective. Statistical and content analysis were used to discuss and analyze data collected to provide a meaningful context vis-a-vis the study aims. It found the liable party for the loss accounted for by the borrowers and lenders during forced sales. The research also reveals little influence in valuation in Rwandan valuation practice, which was recommended for further research to determine its associated effects. The best practice found is one from Seoul, Korea called "Countercyclical Macro Prudential Approach". Recommendations have been made by researchers in order to govern financial systems by avoiding mortgage loan default to all involved groups in the mortgage market in Kigali.

Keywords*: mortgage loan*, *forced sale*, *property valuer*

DEMOGRAPHIC INVERSION: THE CASE OF WASHINGTON, DC

[1]L. JIDE IWARERE & [2]JOHN E. WILLIAMS

[1]Department of Finance, International usiness and Insurance, School of Business, Howard University, Washington, DC 20059, 202-806-1634

[2]Division of Business and Economics, Emeritus Professor and Mills Lane Chair, Morehouse College, Atlanta, Georgia, 404-215-2694

Email: [1]liwarere@howard.edu, [2]jwilliam@morehouse.edu

Demographic Inversion involves a socioeconomic reordering of the uses and occupants of properties inside the boundaries of major US cities. The concept is akin to gentrification, which has generally been defined by the outplacement of less affluent minority groups by more affluent residents, but has a broader impact on both the people and types of property affected by the process. Employing 2000 and 2010 census data, we examined the demographic changes of residential patterns of Washington, DC. Analysis of this data revealed that the demographics of the residents of the city changed significantly between 2000 and 2010, including household income, number of households with children, selling prices of homes, foreclosure rates and ethnic composition. The change in ethnic composition also had an impact on a diversity index that was devised for the study.

PROPERTY MANAGEMENT OF COMMERCIAL BUILDINGS IN UGANDA: THE TENANT'S EXPERIENCE!

ANGELLA KIRABO

UNIVERSITY OF CAPE TOWN MSc PROPERTY STUDIES

Email address: karssy_angie@yahoo.com

PURPOSE: The purpose of this study is to assess whether the expectations of tenants are met in the newly setup commercial buildings in Kampala, Uganda.

DESIGN / METHODS FOLLOWED / APPROACH: The data collected will be analysed quantitatively, carefully tabulated and some illustrated graphically. The analysis will be done using Microsoft Excel. The methods of data collection include:
Questionnaires will be administered to the tenants of the selected commercial buildings.
Personal interviews will be held with some of the tenants and managers of the selected commercial buildings that will be relevant to this study.
The desk research will involve looking through magazines, journals, websites related to the study.
Visits to some of the properties in question will be done to give a better understanding on what the tenants and managers of commercial buildings are involved in.

FINDINGS: The major expected output will be a study with the following data, among others:
Considerations taken by tenants as they select the properties to rent in Kampala.
Considerations taken by property managers as they accept offers from tenants in Kampala.
Expectations by property managers from tenants and vice versa.
Proposed appropriate guidelines of selection of properties by tenants of commercial buildings in Kampala.

RESEARCH LIMITATIONS / IMPLICATIONS: The study will focus on some selected newly constructed commercial buildings in Kampala, Uganda.

PRACTICAL IMPLICATIONS: Develop and make recommendations of the appropriate practices of handling tenants in commercial buildings in Kampala, Uganda

ORIGINALITY / VALUE OF WORK: This study is being carried out by the researcher herself, contributing to existing literature.

LOOKING EAST: CHINA'S INVOLVEMENT IN ETHIOPIA'S URBAN SECTOR

MARJAN KLOOSTERBOER (LECTURER & RESEARCHER IN URBAN SOCIOLOGY, EIABC) & FEMKE VAN NOORLOOS (ASSISTANT PROFESSOR OF INTERNATIONAL DEVELOPMENT STUDIES, UTRECHT UNIVERSITY)

Contact Email: h.j.vanNoorloos@uu.nl and marjankloosterboer@gmail.com

It is estimated that at least 80% of Addis Ababa's urban population lives in slum defined settlements which are populated by the urban poor, in dilapidated conditions, overcrowded, and generally lack access to basic services. The government therefore promotes a large-scale city-wide approach to effectively address the multitude of problems. This takes shape in two practices: (1) government initiated area-wise renewal and (2) plot wise renewal by the private sector. In this regards, the Chinese government is increasingly engaged as a stakeholder in the private sector and by now well-represented in urban development projects in Ethiopia, through both Chinese state-owned and private companies, often via public-private partnerships. Chinese urban projects in Ethiopia include; the Eastern Industrial Zone (Dukum), Poli Lotus International Centre (Addis Ababa), the new Headquarter for the Commercial Bank of Ethiopia (Addis Ababa) and the Light Rail Train (LRT) (Addis Ababa).

Until recently academics mainly focused on China's presence in Africa in terms of natural resources and extractives, infrastructure, industrial and agricultural development projects. However, while Chinese investments in housing and urban development are increasingly reaching Africa (as a 'last frontier' for global capital), little is known about China's engagement with urban development projects in Africa. With this study we aim to capture China's presence in Ethiopia's urban sector through highlighting the projects' cultural and financial trajectories, and their (potential) impacts in terms of equitable and sustainable development. What types of urban models are being implemented, and what views of modernization and development are invoked? What types of urban transformations and effects can be expected, e.g. in terms of access to land and housing? This research is based on analysis of both primary sources (in-depth interviews with key stakeholders and residents) and secondary sources (policy and planning documents) and focuses on both commercial and residential projects.

ALTERNATIVE COMPENSATION SCHEMES IN LARGE SCALE INVESTMENTS IN AGRICULTURAL LAND

FELICIAN KOMU, ARDHI UNIVERSITY

Email: fkomu@yahoo.com

Purpose: Over the last decade, there has been a general outcry on the loss of livelihood by communities through land acquisition schemes to accommodate large scale farming in Africa. Interventions by the African Union through Declaration on Land Issues and Challenges in July 2009 – the LSLBI and the FAO Voluntary Guidelines on Responsible Governance of the Tenure of Land, Forests and Fisheries (VGGT) have addressed this to a very great extent. Notwithstanding these interventions, local communities continue to be insufficiently compensated, under-consulted, and left with their livelihoods threatened. The basic question as to who is to improve land governance in LSLBI remains unanswered and, it is intriguing to establish whether the VGGT are sufficiently understood and operational.

Methodology: through documentary and government policy reviews, the study evaluated three projects in the Coast and Kigoma regions of Tanzania.

Findings: It is clear where local communities were directly consulted; there was consensus on how to address the livelihood issue and the project objectives were more likely to be achieved. Local communities were more readily to adapt to a new arrangement if offered some ownership rights in the subsequent investors' project than monetary compensation.

Research limitations the studied projects had been stalled on account of hostile communities and political interventions in the past. They nevertheless present a good case for understanding the underlying factors that may hinder large scale agricultural investment in countries such as Tanzania.

Practi al implication Monetary compensation for land to be acquired has been a source of disputes for too long. An alternative scheme such as equity participation in a new venture assures continued rights and food security.

Value of Work: A framework for improving FAO Guidelines and customizing them for the African local conditions is given. Besides, the land assessment and compensation problem has been addressed.

Keywords: land acquisition, livelihood, adequate compensation, equity

PREDICTORS OF CHOICE OF RESIDENTIAL HOUSING IN KAMPALA, UGANDA

RACHAEL DAISY MIREMBE, AUGUSTINE MATOVU, ISAAC NKOTE (PHD), AND NABIRYE IMMACULATE.

Corresponding Author Email*: Rachael Daisy Mirembe (rmirembe@mubs.ac.ug)*

PURPOSE: This study investigates the predictors of choice of residential housing in Kampala, the largest metropolitan area in Uganda. The city is growing exponentially with a diverse population estimated at 1.5 million. As a result, there has been a steady growth in the residential market. The city is working on a range of housing solutions to meet the market needs. The study will draw from the APH Model comprising of the three key dimensions, mobility, community facilities, and community social capital to examine whether and when choosing a housing option, decision makers are subject to a variety of influences.

METHODOLOGY: The researchers investigated the choice behavior of residential houses based on a sample of 384 respondents and adopted the exploratory, cross sectional, and quantitative research designs in this study. The data was collected through five point scale questionnaire survey, coded using Epi Data and analyzed using SPSS.

FINDINGS: Findings suggest that there is a positive relationship between residential choice and mobility, community facility and community social capital.

PRACTICAL IMPLICATIONS: Findings suggest that ease of mobility, access to amenities, and community social capital are key determinants in influencing the tenants' decision on choice of residence.

ORIGINALITY: The methodology applied in this paper provides an innovative way to measure choice of residential housing among tenants in developing countries.

Keywords: residential choice, housing, mobility, Uganda, tenants

CHALLENGES FACING PROPERTY/FACILITIES MANAGEMENT PROFESSIONALS OF MIXED USED DEVELOPMENTS: A CASE STUDY OF THE NEW CENTRAL BUSINESS DISTRICT OF GABORONE, BOTSWANA

NELTAH TSHEPISO MOSIMANEGAPE

Facilities Mana er of Exponential I vestments (Pty) Ltd/PhD in Built Environment applicant

Contact email address: neltahm@exponential.co.bw or neltahm@yahoo.com

PURPOSE: This paper investigates the challenges encountered by property managers of mixed use developments in the new Central Business District of Gaborone, Botswana. Property developers are steadily diversifying their investment portfolios by including mixed use developments, given the opportunity-bound evolution of the local industry.

This research paper seeks to identify the challenges that property managers of mixed use developments face in comparison to managing contemporary properties consisting of one type of tenancy. In particular, comparisons in the management styles employed by property managers in relation to the different types of properties will be considered.

DESIGN / METHODS FOLLOWED / APPROACH: In order to expedite this research, managers of identified mixed use developments will be engaged. Qualitative and quantitative methods of research including, but not limited to, conducting interviews, surveys and hypothesis testing will be employed to achieve the study's research objectives. Tenants who have occupied both single use and mixed used developments will be invited to contribute their views on the managerial styles of the different properties they have occupied.

FINDINGS: The anticipated outcome of this study is the identification of the challenges of managing mixed-use developments, as well as outlining solutions that property managers of these complex developments with an array of tenants can undertake. The findings of the study will be useful in improving the management approach and understanding the intricacy of developing, managing and occupying mixed use developments for stakeholders.

LIMITATIONS: Mixed use developments are a fairly new concept, not only in Gaborone but also countrywide. Therefore, only a limited number of participants will be suitable for the study.

PRACTICAL IMPLICATIONS: With the progressively increasing popularity of mixed use developments, based on the findings, the conclusions of the study will serve as a precedent for future property managers of mixed-use developments to tackle the challenges faced by managing multifaceted properties.

ORIGINALITY / VALUE OF WORK: This statement certifies that the content of this paper will contain my original piece of work. All the assistance, references and sources to be used to prepare this paper will be duly acknowledged.

AN INVESTIGATION ON THE IMPACT SERVICE CHARGE ADMINISTRATION ON THE MAINTENANCE OF CIVIL SERVANTS HOUSING FACILITIES IN UGANDA

MOSES MUBIRU

Department of Lands and Architectural Studies-Kyambogo University, Kampala, Uganda

Email: Mormoses06@gmail.com

PURPOSE: The purpose of the study is to assess the effectiveness of service charge administration in Uganda and to establish how it has affected the maintenance of civil servant's housing facilities in selected government estates in Kampala City, Uganda.

METHODS FOLLOWED / APPROACH: The analysis of this study covered 55 properties housing civil servants in selected estates. Causal research design and linear multiple regression as the underlying statistical tests were employed in this study. This method was used to find the relationship between service charge administration and the maintenance of selected government estates in Uganda. The study further employed both systematic and purposive random sampling procedures in data collection. A combination of both interviews and questionnaires were us to engage with the selected respondents and determine the impact of service charge administration on the overall serviceability of the civil servant's buildings.

FINDINGS: The results of this research based on the evidence gathered indicate that, being one of the few sources of income for the administrators of civil servants' housing, if adequately structured and administered, service charges can go a long way in sustaining not only the building fabric and serviceability, but also ensuring comfort of the users.

VALUE OF WORK: This research exposes the fundamental solution to the persistent challenges facing the management of civil servants' housing in Uganda, leading to a systematic dilapidation of most of them even before their planned lifespan.

Keywords: service charges, building maintenance, civil servant's housing

CAPITAL STRUCTURE DECISIONS IN COMMERCIAL PROPERTY INVESTMENTS IN RWANDA

RAISSA MUGISHA AND CHRISTINE UMUGWANEZA

Final year students: Department of Estate Management and Valuation, Uni ersity of Rwanda College of Science and Technology

Email: raissmu@gmail.com and christineumugwaneza@yahoo.com

The commercial real estate sector is one of the fastest developing sectors in Rwanda, evidenced by an explosion in the development of high-rise properties especially within the CBD of Kigali city. A peculiar feature of commercial real estate investment is the requirement for huge initial capital outlay with a maturity commensurate through the economic life of the investment holding period. Thus, it is often impractical or finically imprudent for investors to finance such acquisitions or developments solely from their personal savings. This necessitates the use of external funding to finance the cost of developing or purchasing commercial properties. This paper provides an empirical examination of the factors which underpin commercial real estate investors' decisions to combine debt, equity and other financing options the way they do. It focuses on Rwanda, where 10 commercial properties in the city of Kigali were examined. The analysis revealed that the majority of investors prefer combining debt and equity in their capital structure, with the types of equity capital mainly used being partnerships and personal savings, whereas the debt financing option mainly used is bank loans secured by the subject property. The main difference in the capital structure lies in the proportionate fractions of debt and equity that makes up the capital stack. This difference appears in two ways, where an investor might choose a high debt-to-equity ratio or a low debt-to-equity ratio, high debt to equity ratio being the most commonly chosen. The differences were then analyzed to understand the reasons for the observed capital structures. From this understanding we were able to determine empirically the factors that influence investors' capital structure decisions of commercial properties in Rwanda. The key determinants were interest rates, risk diversification, portfolio considerations and the tax deductibility. The implications of the adopted capital structure on investment performance and risk were also examined.

Keywords: capital structure, debt, equity, commercial real estate, debt to equity ratio, Rwanda

THE ROLE OF STANDARDS IN SUSTAINABLE REAL ESTATE DEVELOPMENT IN EASTERN AFRICA

WAFULA NABUTOLA, M.SC.

Regional Director, SSA RICS International

Email: wnabutola@rics.org

Routinely chronic and misplaced funding is one of the key challenges of the Kenyan and indeed the Eastern Africa regional sustainable development of REAL ESTATE. Equally and perhaps more telling is the weakness of the national policy framework to do the same. That would form the setting of much needed standards for benchmarking with the rest of the world in this increasingly global real estate investment market. This paper presents a review of the experience with standards provision in Kenya as well as discussing the suite of standards that RICS promotes under various international Standards Coalitions. It needs to explore and analyze the gaps, and, if deemed suitable, adopted and or domesticated. Standards have become relevant, especially in these days of financial crises, collapsing buildings, and failure of other infrastructure, that reflect adversely on the various professionals engaged in the development and maintenance of real estate in the Eastern Africa region and Sub Saharan Africa as a whole. Support for standards programmes cannot be the responsibility of governments alone, given the perceived benefits of Public Private Partnerships (PPP). This analysis indicates that sustainability is dependent on adoption of the Standards Coalition and partnership with professional organizations, governments and the private sector, in the real estate value chain.

RECOMMENDATIONS: Global organizations such as RICS, private sector investment, and capacity development through PPP arrangement need to work together in sync to drive the sustainability agenda based on the UN's SDG model. Private sector participation in real estate creation could actually unlock the myth that they only go for the top end of the market, especially given the economic circumstances of the majority of the people of Sub Saharan Africa. Training and the need for an appropriate and sound legal, regulatory and institutional PPP framework for Investment in real estate is an imperative.

Keywords: Valuation Standards; Coalition of Standards; Partnerships Policy and Legislative Regimes; Private Sector Participation in Real Estate Development; Sub Saharan Africa

A CASE STUDY OF THE UNSUSTAINABLE FACILITIES MANAGEMENT PRACTICES IN MAJOR SPORTS STADIA IN KENYA; THE CASE STUDY OF SAFARICOM SPORTS COMPLEX AND NYAYO NATIONAL STADIUM IN NAIROBI CITY COUNTY.

KEFFA N NG'ANG'A /SHARLEEN KABBIS AUMA

THE UNIVERSITY OF NAIROBI, KENYA

Email: Keffanganga17@gmail.com

There is a growing concern amongst sports and entertainment enthusiasts in Kenya about the quality of sports facilities and the nature of management practices that are being implemented in these facilities. The real estate industry on the other hand, has been running major facilities in Kenya such as malls with precise efficiency.
The paper focuses on the systematic analysis of management of two stadiums that is Safaricom Sports Complex and the Nyayo National Stadium while comparing the system with the successful management systems of other facilities. We also interview managers and boards in management of sports as well as sports fans and players who use sports facilities.
There is a loss of revenue from gate collection, little upgrade of the facilities, poor management of available resources, high levels of resource underuse, high levels of vandalism of stadia, poor security measures, as well as the few employees trained on management of stadia in this industry. There is not a lot of information available on the management of these facilities due to poor record keeping resulting in loss of information, unwillingness of the managers to talk or respond to queries, and the high level of corrupt practices within the staff and management boards. The real estate and management industry needs to realize that the absence of managers in the sports facilities is hurting our economy and promoting chaos, unprofessionalism and corruption in the Kenyan sports industry.

The above expressed ideas are my own. The declining standards of sports talent management and development has resulted mainly from the above factors.

SUSTAINABLE REAL ESTATE: AN ANALYSIS OF OPEN PUBLIC SPACES INCORPORATION IN REAL ESTATE DEVELOPMENT IN KENYA

MWAI TILDA NJERI, MWIRIGI PAMELA MUKIRI

Undergraduates, Bachelor of Real Estate

University of Nairobi
Email: tildamwai@yahoo.com, mukirimwirigi@gmail.com

Open public spaces are an integral part in sustainable development by enhancing the quality of life through human interaction. The social value that emanates from this interaction within the spaces has been greatly undermined by the economic value of the developments within the country in the recent past. The introductory part of this paper seeks to define public spaces, their value and importance to sustainable real estate. It also attempts to explain the extent to which these spaces have been undermined and the under lying causes for this. The paper further seeks to investigate the conservation techniques applied on the already existent open public spaces in Kenya.

The paper presents an analysis of real estate developments in different parts of the city of Nairobi, Kenya. The essence of the analysis is to give a clear depiction of the extent to which public and private developers have incorporated open public spaces in their developments. The paper analyses the legal framework governing the allocation of open public spaces in developments within the country. In addition, it seeks to analyse best use practices in the world over and how this can be replicated in Kenya.

The paper concludes by making recommendations on how to incorporate open public spaces in real estate developments and their appropriate conservation methods.

Keywords: ***sustainable development, open public spaces, social value, economic value, real estate***

THEORETICAL FRAMEWORK FOR MANAGING CORPORATE REAL ESTATE IN NIGERIA

NJUNGBWEN ERNEST (PHD, SENIOR LECTURER)

Udo, G. O. (PhD, Professor of Estate Management)

Department of Estate Management, Faculty of Environmental Studies, University of Uyo, P.M.B. 1017, Uyo, Akwa Ibom State, Nigeria.

Email: njungbwen_ernest@yahoo.co.uk or godfrey.U2@gmail.com
Tell: 08033534001 (Njungbwen) or 08033126640 (Udo)

This research sought to develop a framework for managing Corporate Real Estate (CRE) in Nigerian universities in particular and private or public corporate organizations in Africa in general. The purpose of the research was to understudy Corporate Real Estate Management (CREM) frameworks, critically examine the nature and organisational structure of CRE units in the universities, and develop a CREM framework for managing the real estate of universities. In this research, the Cross-sectional study design was applied. This was done in combination with purposive sampling technique. That is to say only universities with dependable funding sources for example federal universities, universities with sizeable quantity of corporate real estate and located within the south eastern region were chosen to use as samples in this research. A sample of sis universities was selected from among the 36 federal universities in Nigeria for this research. The interview schedule developed and used for this study covered several themes including the following: corporate real estate unit objectives and strategy which comprised Inventory of Real Estate, Assets and Real Estate Decision-making. About 75% of the CRE executives in the selected universities were of the view that the Universities did not have a formally and well organized CRE Unit. 100% of the respondents were of view that the real estate units were structured as more or less a decentralized department of the university. A careful study of the other frameworks developed for CREM by other researchers were understudied and modified and a framework for CREM in Nigeria in particular and Africa in general was developed. Though it is discussed here with respect to the university system in Nigeria, it can be applied to all corporate organizations be it private or public.

Keywords: real estate, Corporate Real Estate, Corporate Real Estate Management, management, theoretical framework, Nigerian Universities

A REVIEW OF STRATEGIC ENVIRONMENTAL ASSESSMENT PROCESS AND ITS IMPLICATION IN REAL ESTATE DEVELOPMENT PROJECTS IN KENYA

[i]NICKY NZIOKI & [ii]DAVID KITULAZZI

[i]Senior Lecturer; Department of Real Estate and Construction Management

[ii]Master of Arts in Valuation & Property Management

University of Nairobi

Email: nmnzioki@uonbi.ac.ke

Strategic Environmental Assessment (SEA) is widely recognized as a promising approach to take account of the environmental effects of policy, plans and programmes (PPP). This comes after a key challenge of the Environmental Impact Assessment of projects not influencing higher-level, strategic decision-making processes as well as its complexity to capture cumulative effects. SEA is widely recognized as a promising approach to take account of the environmental effects of policy, plans and programs although it is relatively new. However, it has not been fully realized in regard to understanding and addressing cumulative environmental effects at broader regional scales as a precondition to ensuring the sustainable development of the environment. Effective SEA depends on an adaptive and continuous process focused on strengthening institutions, governance and decision-making processes rather than just a simple, technical approach focused on impacts, as is often found in EIA. The clear focus throughout the subsequent process of SEA should be on incorporating sustainability as a means to continue economic growth without undue harm to the environment in regards to the proposed activities or projects that are being developed and evaluated at both regional level and national level. This is therefore, a literature review paper highlighting an introduction of SEA together with its objectives, principles and the stages for undertaking SEA. The paper will also look at the existing guidelines for SEA including its legal framework especially the relevant provisions of Environmental Management and Co-ordination Act (EMCA) of 1999 and the Environmental Impact Assessment (EIA) Regulations of 2009. The paper will review a SEA case study in Kenya and its implication in real estate development projects in Kenya.

Keywords*: Strategic Environmental Assessment (SEA), plan, policy and programmes (PPP), SEA Principles, SEA Guidelines, legal aspects, sustainable development*

THE NEED FOR SOCIAL IMPACT ASSESSMENT (SIA) IN REAL ESTATE DEVELOPMENT PROCESS: THE CASE STUDY OF SELECTED SIA PROJECTS IN KENYA

NICKY NZIOKI (SENIOR LECTURER) & KIRK K. KATWA (MASTER OF ARTS IN VALUATION & PROPERTY MANAGEMENT)

Department of Real Estate and Construction Mana ement, University of Nairobi

Email: nmnzioki@uonbi.ac.ke or katwakirk@gmail.com

The greatest social impact of many real estate development projects, particularly those planned for community benefits, is the stress that results from the uncertainty associated with it. Stakeholder involvement through social impact assessment during the development process has been ignored, yet it is crucial to directly involve locals in planning teams in real estate development. Understanding the social conditions of the site surroundings in terms of demographic composition, cultural, religious and social behaviours, is important to establish the potential social impact of any real estate development project.

This paper will be based on reviews of related literature on social impact assessments (SIA). It will further endeavour to establish the need of SIA's based on its importance and highlight potential setbacks that are likely to befall any real estate developments that does not incorporate the SIA process. The potential gains from SIA will be explained including but not limited to: reduced uncertainty of potential project impacts, enhanced legitimacy of the development project, increased accuracy of the SIA report through community participation, and potential maximisation of the capacity to mitigate impacts. The paper will conclude with the summary of a review of selected recent SIA reports of major projects in Kenya, and a brief assessment of how such SIA reports have significantly enhanced the space for stakeholder acceptance of projects with minimum conflicts.

Keywords: ***sustainability, social impact assessment, real estate development, community involvement***

THE ROLE OF PROPERTY INDICES IN PROMOTING DEVELOPMENT OF GREEN BUILDINGS IN EMERGING ECONOMIES

[i]NICKY NZIOKI & [ii]AYUB O. NABURI

[i]Senior Lecturer; Department of Real Estate and Construction Mana ement, University of Nairobi

[ii]Master of Arts in Valuation & P operty Management, University of Nairobi

Email address: nmnzioki@uonbi.ac.ke or ayubnaburi@gmail.com

The paper discusses the role of property indices in promoting development of green buildings in emerging economies. This study addresses four critical questions. What are financial benefits of green buildings? How does economic efficiency of green buildings compare to conventional buildings? What is the effect of economic efficiency of sustainable real estate on demand? How can we use property indices in demonstrating economic performance of green buildings in order to increase demand in emerging economies?

This qualitative research employs a content analysis approach. It entails detailed and systematic examination of existing literature on demand for sustainable real estate in emerging economies, economic efficiency of green buildings, challenges associated with demonstration of economic viability of green buildings in emerging economies, and role property indices in demonstrating performance of green buildings. A conceptual model of these concepts is used to structure the analysis.

Indicative results demonstrate that green buildings offer a better return to investors in the form of higher rent, capital appreciation and cost saving. However, there is a challenge of demonstrating the viability of financial benefits of green buildings in emerging economies leading to low demand. Lack of demand hinders the provision of sustainable property development. Demonstration of economic efficiency through property indices will lead to increased demand of green buildings in emerging economies. The paper concludes with the proposition that major gains in utilisation of property indices is to ultimately enable investors, tenants and buyers in emerging economies to establish economic performance of green buildings. This will lead to increased demand for sustainable real estate in these economies.

Keywords: ***green buildings, capital appreciation, economic efficiency, property indices, emerging economies***

UNDERSTANDING CITY RESILIENCE PRINCIPLES IN THE BUILT ENVIRONMENT: A CASE STUDY OF APPROPRIATE CITY RESILIENCE PRINCIPLES FOR THE BUILT ENVIRONMENT IN THE NAIROBI CITY COUNTY

[1]NICKY NZIOKI, [2]CATHERINE KARIUKI AND [3]JOSEPH IKINYA AND MAGDALENE MWENDE KITUMA

[1]Senior Lecturer,Department of Real Estate and Construction Mana ement, University of Nairobi

[2]Lecturer,Department of Real Estate and Constructi n Management,University of Nairobi

[3]Bachelor of Real Estate Department of Real Estate and Construction Mana ement, University of Nairobi

Abstract

This paper discusses how application of city resilience principles in the built environment can help to manage future flooding disasters in the urban regions considering the current exponential urbanization in Nairobi City County as well as in the rest of the Forty Six Counties in the Republic of Kenya. The paper recommends integration of city resilience sustainable practices in the Built environment and the responsibilities of different stakeholders towards the realization of the disaster reduction and adoption of appropriate mitigation measures to reduce vulnerability in urban areas. Flooding incidence is not a new phenomenon in Kenya. For many years several regions in Kenya have had flooding accompanied some of devastating mudslides.

Flooding in the past mainly occurred in areas neighbouring the riparian land along the banks of major urban rivers as a result of the seasonal overflowing of rivers and siltation.. During the recent rainy seasons of both 2015 and 2016, a new face of flooding has been manifested in areas several kilometers away from the riparian lands. Nairobi City County and its suburbs has been one of the worst hit areas this time round The majority of residents in Nairobi have recently witnessed the wrath of the recent floods either through long hours of traffic jam due to flooded urban roads,, flooding in residential houses, clogged up storm water drains, overflowing sewers, and ultimately loss of life and destruction of the built residential properties in most of the low income residential areas within the Eastland's Estates of the City. Just like in Noah and the Ark, human beings do not have power to control floods once they occur, but they have the power to manage flooding. Building the Wooden Ark at this era might not be a viable solution .The modern day Ark can however be achieved by understanding and integrating city resilience concept in disaster management.

A case study of some of the areas that were recently affected by the devastating flooding will be described in this paper to highlight the extent of the property damage and losses incurred by the various stakeholders, residents and real estate developers in some of the worst areas of the East lands of the City.
This paper will conclude with a summary of recommendations of the most appropriate city resilience principles for the built environment in the Nairobi City County.

Keywords: city resilience principles, , disasters, flooding, stakeholders, urban vulnerability, disaster preparedness, risk assessment , disaster mitigation.

THE IMPACT OF INCREASED REAL ESTATE DEVELOPMENT ON AGRO-PASTORAL LANDS IN THE NAIROBI CITY SUBURBS IN KENYA

[i]NICKY NZIOKI, SENIOR LECTURER, [i]CATHERINE KARIUKI, LECTURER & [ii]AUGUSTINE JUMA KATIAMBO

[i]Department of Real Estate and Construction Mana ement, University of Nairobi

[ii]Master of Arts in Valuation & P operty Management, Department of Real Estate and Construction Mana ement, University of Nairobi

Email: nmnzioki@uonbi.ac.ke

The combination of high land values and increased demand for houses in Nairobi and its suburbs, has led to high investment in real estate. The real estate developers have opted to purchase and development land into real estate products within agro-pastoral areas like the Kajiado County. This is due their cheap land values and proximity to the Nairobi city which is a major economic hub in the eastern Africa region. This paper explores the effects of the developments in real estate on agro-pastoral land in Kajiado County since the county has experienced massive developments in real estate in terms of increased property investment, high demand and supply of real estate property and land use changes.

This paper explores the prevalence of real estate development; the effects of real estate development on agricultural activities, and the challenges in safeguarding pastoral activities within arid and semi-arid areas. The paper also explores the best practices that ought to be applied in order to safeguard the agricultural activities in arid and semi-arid areas and achieve sustainable real estate development in Kenya.
This paper shall present the findings from Kajiado North District in the Northern part of Kajiado County which is situated next the Nairobi City County. The paper targets the recent real estate developments within the areas, near the city, and compares them with the agro-pastoral lands which are yet to be transformed. The paper will mainly focus on real estate developers, property owners, pastoralist and the key informants within the affected areas. The paper will summarise and conclude with a set of observations for creating a harmonious balance in the sustainable use of agricultural lands adjacent to major city suburbs and the continued sustainable pastoral practice in these affected areas.

***Keywords:** sustainability, pastoral activities, arid and semi-arid land, change of use, amalgamation, subdivision, real estate development*

THE MEASUREMENT OF DEPRECIATION IN THE COST APPROACH TO VALUATION

[i]OGUNBA, OLUSEGUN ADEBAYO (PHD ESTATE MANAGEMENT) & [ii]BELLO, ISMAIL KOLAWOLE (M.SC ESTATE MANAGEMENT)

[i]Professor in the Department of Estate Management, Obafemi Awolowo University, Ile-Ife, Nigeria,, GSM: +234-803-4014739

[ii]Principal Lecturer in the Department of Estate Management, Moshood Abiola Polytechnic, Abeokuta, Nigeria, GSM: +234-803-4741382

[i]Email: segogunba@yahoo.co.uk

PURPOSE: It has been an embarrassment to the valuation profession where it found that its professional practices have been a little more than educated guesses. This has been particularly true in the estimation of depreciation in the use of the cost method for valuing land and buildings and plants and machinery. The study set out to investigate current models adopted for the measurement of depreciation in Nigeria, examine the patterns of depreciation for residential properties in the study area and evaluate the conformity of the identified models to depreciation patterns. These were done with a view to improving cost valuation practice.

METHODS FOLLOWED: Questionnaires were administered on a cross sectional survey of 154 valuation firms across Southwestern Nigeria to address the three questions.
FINDINGS: The study found that current models adopted by valuers for the measurement of depreciation of residential buildings were the estimated percentage model and age life models. However, the pattern of depreciation was found to follow an S shape. An analysis of the models usually adopted vis-a-vis the S shaped depreciation pattern using the Student t-test showed no significant relationship. This showed that the use of depreciation in the cost method of valuation has accuracy deficiencies. Other tests demonstrated that depreciation measurement is user-friendly but inconsistent and incapable of separating depreciation components.

THEORETICAL AND PRACTICAL IMPLICATIONS: The paper has discomforting implications for the reliability of professionally prepared valuation estimates for residential property and calls for urgent corrective action along the lines of S shaped depreciation.

ORIGINALITY: The paper expands and improves on earlier depreciation measurement studies which were restricted in terms of geographical scope and methodology.
Keywords: cost valuation, depreciation

ECONOMIC GROWTH AND DEVELOPMENT THROUGH REAL ESTATE MARKET RESEARCH

[i]ESV. (MRS.) ROSE C. OKORO (RSV, ANIVS) & [ii]ESV. JAMES B. EFFIONG (RSV, ANIVS)

[i]Head of Department [ii]Lecturer

Department of Estate Management, Cross River University of Technology, Calabar

Email: roseokoroandpartners@yahoo.com or jamesbassey4real@yahoo.com

Real estate markets are not centrally organized but are organized by existing market outlets where interests, rights, etcetera, in real estates are sold, bought or leased. Major players within the markets are investors, lessees, financiers, buyers and sellers. The markets may be local, national or international, specializing in different types of property. The market possesses special characteristics which make its operations uniquely different from the conventional commodity markets. Success in any investment venture require prior research into the intended business arena to discover the strength of demand, number of suppliers, the goods or services needed and their quality, the market segments and the supply gaps. Most real estate investors, globally, fail to undertake market research to discover the market segments they intend to serve before venturing into them. They employ human intuition for investment decisions. Often these result in entering saturated markets thereby loosing huge investment funds and truncating overall economic development in the process. Prudent economic principles for investment are to discover unexplored or underexplored markets and to design appropriate products and services for economically empowered consumers for good economic returns. This paper examines appropriate real estate market researches that need to be undertaken prior to investment decisions and execution thereof. Survey approach was used to find out how the property investors approach the market research before embarking on developmental investments and the investment outcomes. The place of study encompasses major cities in Akwa Ibom, Cross River and Abia states of Nigeria.

Keywords: ***real estate, market, investors, property, interest, market segment, supply gabs, economic return, renters, Nigeria***

THE BODY OF KNOWLEDGE FOR REAL ESTATE EDUCATION CURRICULUM: A LITERATURE REVIEW

A. OLALEYE,[1] T. T. OLADOKUN[2] AND T. O. AYODELE[3]

Department of Estate Management, Obafemi Awolowo University, Ile-Ife, Nigeria.

Emails: [1]a_olaleye2000@yahoo.co.uk, [2]tundeoladokun@yahoo.com, [3]ayodele.t.oluwafemi@gmail.com

PURPOSE: This paper gives an overview of the body of knowledge (BOK) which often forms the foundation of the curriculum development for real estate programs and discipline. It provides an overall background to understanding the expectations of the real estate profession on the knowledge, skills and attributes of real estate practitioners.

DESIGN/METHODS: Desktop analysis of literature was employed to achieve these objectives.

FINDINGS: The paper prescribes aggregation of knowledge, essential competencies and attributes that prospective real estate practitioners are expected to be certified in. This was done so that real estate education can align with industry requirements. The review showed that the BOK for real estate education focuses on three broad approaches/perspectives. These include the U.K. model, the U.S. model and a multi or inter-disciplinary approach to real estate education. The U.K. model allows real estate practitioners to have skills in legal and planning framework, as well as in building construction techniques but with little knowledge in the area of business and finance. They also appreciate their roles in the property development process. Contrarily, the U.S. model is anchored on applied finance and business. Their approach to knowledge of real estate is that of a business manager and has greater emphasis on finance and business management than building construction and surveying as found in the U.K. The multidisciplinary approach, which is a more diverse model, combines some of the components of the U.K. and U.S. models and advocated an interdisciplinary dimension to real estate education.

PRACTICAL IMPLICATION: The paper concludes that BOK in real estate education and curriculum development are marked with differences from one country to another and varied depending on the needs and characteristics of every environment and nation.

ORIGINALITY: This paper adds to the debate on the definition of the BOK for real estate education for which there is yet to be a clear cut direction either in academic or profession.

Keywords: body of knowledge, real estate education, competencies and attributes

ENSURING AN EFFICIENT CONCURRENCE AND LAND REGISTRATION PROCESS IN GHANA: ASSESSING THE PRACTICAL APPLICATION OF THE SURVEY (SUPERVISION AND APPROVAL OF PLANS) REGULATIONS, 1989 [LEGISLATIVE INSTRUMENT 1444] IN THE AWUTU SENYA EAST MUNICIPALITY, CENTRAL REGION, GHANA

GABRIEL KOFI OWIREDU1, ALEXANDER SASU[2] AND LEWIS ABEDI ASANTE[3]

12Department of Estate Management, Kumasi Polytechnic, Kumasi, Ghana

Corresponding author: owugab@yahoo.com

Section 6 of the Survey Act, 1962 (Act 127) requires that any map and plan attached to an instrument for registration must be prepared and certified by an official or licensed land surveyor. However, Act 127 made no provision for supervision and approval of these maps and plans by the Survey and Mapping Division (SMD) of the Lands Commission. Consequently. Errors that were made in relation to maps and plans distorted geo-land information on ownership, size and extent of land boundaries, invariably affecting the land registration process. It is against this background that the Survey Regulations, 1989 (LI 1444) was passed to strengthen the supervisory role of the SMD with respect to prospective plans attached to an instrument for registration. This paper poses the question: '*has the passage of the L1 1444 enhanced concurrence and the land registration process?*' Using Awutu Senya East municipality as a study area, respondents were selected by means of purposive and convenience sampling techniques. Respondents sampled were mainly traditional authorities, lessees and staff of land sector agencies. The study revealed that there is a strong enforcement of the LI 1444 by the Lands Commission; however, the expected improvement with respect to duration and cost for title registration is yet to be achieved. Findings also indicated (a) poor supervision of licensed surveyors by SMD due to inadequate staff, (b) backlog of concurrence at PVLMD due to delay in approving cadastral plans submitted by land surveyors for and on behalf of lessees, and (c) PVMLD denying lessees concurrence due to disparities between the approved cadastral plan and planning scheme of the area (some as far as 100 feet interval). The study recommends, amongst others, the increment in staff strength and establishment of district offices of the SMD to ensure effective supervision and efficient land administration at all levels.

Keywords: Land registration, LI 1444, concurrence, cadastral plan, PVLMD, Awutu Senya East Municipality

UNDERGRADUATE REAL ESTATE EDUCATION IN ZIMBABWE: A COMPARATIVE STUDY

PARTSON PARADZA AND CHRIS CLOETE

Department of Construction conomics, University of Pretoria, South Africa

Email: chris.cloete@up.ac.za

PURPOSE: The aim of this study was to establish if there is a national consensus on the real estate body of knowledge in Zimbabwe and to benchmark Zimbabwean property programmes with similar curricula accredited by the Royal Institution of Chartered Surveyors (RICS) in Africa.

DESIGN / METHODS FOLLOWED / APPROACH: Purposive sampling was used to choose participating institutions. Relevant documents were obtained from either websites of selected institutions or requested by email from relevant officials.
FINDINGS: The study established that the real estate curricular which is currently offering real estate in Zimbabwe is diverse in nature. However, a closer analysis revealed that the course's content of Zimbabwean property curricula compares well. Also property programmes in Zimbabwe compare well with RICS accredited curricula in Africa but there were notable variations on names of programmes, the number of courses covered and course credits.

RESEARCH LIMITATIONS / IMPLICATIONS: This study was limited to real estate programmes which are offered up to Honours degree level in Zimbabwe and similar RICS accredited programmes which are offered in Africa. Results might be different if one considers all RICS accredited real estate programmes.

PRACTICAL IMPLICATIONS: Results of this study can be used to justify cooperation of real estate education and professional institutions in working towards standardisation of real estate education curricula in Africa.

ORIGINALITY / VALUE OF WORK: Though research on real estate education increased over the past years, this study is the first to consider Zimbabwean curricula in detail.
Keywords: real estate, comparison, progress, curriculum, consistency, diversity

A STRATEGY TO ENTER THE EAST AFRICAN CLOTHING RETAIL MARKET: A PRELIMINARY ANALYSIS

RIAAN PELSER AND CHRIS CLOETE

Department of Construction conomics, University of Pretoria

Email: chris.cloete@up.ac.za

PURPOSE OF THIS PAPER: To characterize the major factors to be considered in the development of a strategy to enter the East African clothing retail market.

DESIGN / METHODOLOGY / APPROACH: A preliminary selection of potential geographical markets in East Africa was made based upon size and political stability. Four countries were selected and major cities and towns in these countries were visited on two occasions, to obtain firsthand knowledge of the current retail market as well as to identify possible investment opportunities. The four selected countries were ranked according to probable ease of market penetration. Shopping malls in the two most attractive countries were visited and characterized.

FINDINGS: It is recommended that Kenya should be established as springboard for expansion into East Africa, with Uganda earmarked as the second country to invest in. Stores rollout should start in Nairobi with a rapid rollout to key rural cities and towns. Once the operation is stabilized a sales area team with logistics support should be established in Kampala with the focus to grow the footprint rapidly westward.

RESEARCH LIMITATIONS / IMPLICATIONS: The research is a preliminary survey of factors to be considered in the establishment of a strategy to enter the East African clothing retail market. Sudan and Somalia was excluded from the study due to political turmoil currently present in these countries while Eritrea, Djibouti, Rwanda and Burundi were excluded due to size.

PRACTICAL IMPLICATIONS (IF APPLICABLE): Understanding the factors required to enter the relevant markets will increase the potential success of an entrant.

ORIGINALITY / VALUE OF PAPER: Although specific markets in some of the countries in East Africa had been investigated in the past, this is the first systematic study of the strategy required to successfully enter the clothing retail market in East Africa.

***Keywords:** clothing retail market, East Africa, growth, strategy, invest*

STOOL LAND DISPOSITION AND DEVELOPMENT IN GHANA: ASSESSING THE PRACTICAL APPLICATION OF ARTICLE 267 (3) OF THE 1992 CONSTITUTION OF GHANA IN THE EJISU-JUABEN MUNICIPALITY OF THE ASHANTI REGION

*ALEXANDER SASU1, LEWIS ABEDI ASANTE1AND JOSEPH KWAKU KIDIDO2

1Department of Estate Management, Kumasi Polytechnic, Kumasi, Ghana

2Department of Land Economy, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

**Email of the corresponding author: alexandersasu85@gmail.com*

Article 267 (3) of the 1992 Constitution of Ghana provides that stool land disposition and development must be consistent with the planning scheme approved by the Town and Country Planning Department (TCPD) of the area in which the land is situated, without which traditional authorities are not expected to dispose of a prospective lessee. The study sought to address two questions: (a) '*to what extent does stool land disposition and development in peri-urban Kumasi comply with Article 267 (3) of the 1992 Constitution of Ghana*'; (b) '*what are the driving factor(s) for compliance or non-compliance with the constitutional provision'*. Using the Ejisu-Juaben Municipality (EJM) in the Ashanti region as a case study, the study used both purposive and convenience sampling techniques to select respondents constituting the traditional authorities, lessees and officials of TCPD of EJM and Public and Vested Land Management Division (PVLMD) of Lands Commission (LC). The study revealed that over 65% of statutory planning areas in the municipality were not covered by planning schemes. Traditional authorities displayed high awareness of the constitutional provision but failed to adhere to it. The non-compliance with the provisions of Article 267 (3) is marked by conflicting relations between the traditional authorities, TCPD and PVLMD coupled with high cost of base map and planning scheme preparation. The study recommends a partnership between the traditional authorities and metropolitan, municipal and district (MMDAs) in the preparation of base maps and planning schemes. The MMDAs should also directly support the chiefs both financially and technically to ensure that planning schemes are prepared ahead of development. This, when done, has the potential to create a win-win situation for the traditional authorities and the MMDAs vested with planning powers at the local level.

Keywords*: stool land, Constitution, disposition, development, Ghana*

CONDOMINUIMS AND GATED COMMUNTIES: AN INVESTIGATION OF THE ATTRIBUTES INFLUENCING BUYING DECIONS:A CASE OF DAR ES SALAAM

NANCYMERINA SHAIDI

BSC. LAND MANAGEMENT &VALUATION, ARDHI UNIVERSITY.

Email: Shaidinancymerina@gmail.com

The ultimate aim of the study was to investigate an emerging trend of home buying amongst individuals in Tanzania from commercial real estate developers "What attributes influences their decision in to purchase or not to purchase housing units?"
The study adopts both a quantitative and qualitative case study approach focusing on the condominium and gated communities in Dar es Salaam. The data collection methods used in the research includes a self-administered questionnaire to 200 home owners and prospective buyers. It was developed by using attributes in theories but only those that applied to Tanzanian content as verified by interviews carried out prior to the survey. Data collected were analysed by using a multiple linear regression model in SPSS, the interpretation has developed a ranking of criteria that people prefer when purchasing houses. The availability of buyers of the condominiums that were sold on pre-sale arrangement was a challenge, but this was well addressed.

The findings of the study revealed that location, demographic variables notably income level, the family size, occupation, investments purposes, chaos of incremental construction, and developers have significantly influenced housing purchase decisions. Whereas factors like price against quality, and means of housing finance negatively influenced housing purchase decisions.
The study implies to develop a guideline to assist buyers in making house purchase decisions. At the same time, the finding forms a feedback to developers on customers' preferences in order to diverse strategies to improve their products, increase their market share, and to enjoy medium to long term returns. The study shall also enlighten and lay a platform to the government in developing more appropriate housing policies to curb the housing problem.

SUSTAINABLE RESIDENTIAL REAL ESTATE DEVELOPMENT IN EMERGING DEVELOPMENTAL STATES: THE CASE OF ETHIOPIA

DANIEL TESFAW

PhD candidate in Urban and Regional Planning; MA in Urban Development and Management; LLB and B.Ed. in Geography and Environmental Studies

Email: tesfawdaniel@gmail.com

This paper explores the theoretical perspectives of sustainable real estate development in an emerging developmental state, taking Ethiopia as a case study. The paper argues that the contemporary notion of real estate development sets aside the developmental state political economy approach which allows government involvement in the sector; rather emphasis is given to the economic growth perspective that gives priority for the market interaction of demand and supply. This conceptual paper points out the main theoretical perspectives on sustainable residential real estate development that prevail in the contemporary world and their application in emerging economy developmental states. Taking this into consideration, the aim of this paper is to look at a sound residential real estate development perspective for the emerging economic developmental states political economy, which maintains sustainability and optimizing equity and efficacy. It also reveals the existing empirical research gaps in the area of residential real estate development practice, which contributes to sound decision and policy measures for harmonious and sustainable development in the area. The paper puts forward policy options as well as adding inputs on the inclusive sustainable real estate development approaches theoretical perspectives, which will be compatible for emerging developmental state political economy.

Keywords: sustainable development, emerging economy, developmental states, residential real estate, the economic growth perspective, inclusive approach perspective

TTIP, CETA, AND THE LAND: ON THE EFFECTS OF INVESTMENT TREATIES FOR THE REAL ESTATE SECTOR IN AFRICAN EMERGING ECONOMIES

FABIAN THIEL

Professor of Construction L w, Real Estate and Property Valuation, Departme t of Geoinformatics and Public orks,

Frankfurt University of Applied Sciences, Faculty of Architecture, Civil Engineering and Geomatics, Nibelun enplatz 1, D-60318 Frankfurt am Main, +49 (0)69 1533 2337,

Email: bodenrecht@fabian-thiel.de

"Caveat real estate investor": The currently negotiated Transatlantic Trade and Investment Partnership (TTIP) represents 60% of global GDP and 850 million consumers (and potential investors). The German government is – even after the 14th round of negotiations which ended on 15th of July 2016 – a key advocate in favor of TTIP within the negotiation process between the European Commission and the US Administration. A core element of TTIP is the protection of property and investment expectations which are enforced by mechanisms such as bidding procedures. Investment (mirrored by the "I" in TTIP) protection is the raison d´ être of the treaty as the new potential transatlantic corporate bill of rights. Originally designed as an extraterritorial, geo-strategic, and extrajudicial instrument to eliminate trade restrictions and to invent global standardization processes, TTIP could lead to diversified real estate investments. TTIP is a "game changer" such as NAFTA, but with overwhelming geostrategic implications since the EU and the US harmonize their trade and investment preference schemes for sub-Saharan Africa. Either as part of or as a complement to their partnership pact (Hamilton and Blockmans 2015), leading to harmonized public procurement for building construction services, land policies, land management structures, and monopolized landownership regimes in the member states. Can land policy under the influence of TTIP prospective be interpreted as a sub-category of investment planning rather than a foresighted, comprehensive spatial planning or as a vehicle of (just) managing real estate asset investment?

Indeed, "law and land matter", more than ever. There should be no illusions about the difficulties involved in achieving a global treaty or an "open architecture" such as TTIP. A clash of norms, property solutions, and the invention of indirect expropriation can be foreseen if the investment treaty comes into force in Europe and the US. TTIP is seen as a "platform" (Froman 2014) and will also likely influence emerging economies in Africa. Thus, TTIP is far more than a WTO+ agreement; it might bring fresh air into the Doha round, and represents the third generation of investment treaties that include arbitration and investor-state-dispute settlement. TTIP could create a new (global) legal order that is autonomous in relation to domestic law, to its legislative production processes, and their democratic legitimacy. Arbitration councils are seen as "parallel justice in the name of money". CETA and TTIP are unique due to their binding for the Member States, especially the obligation of decisions made by dispute settlement tribunals and litigation, with the possibility to avoid interventions of national governments and courts. Domestic constitutional courts are avoided by investors and the ability is given to keep negotiations, investment decisions, arbitration cases and disputes over the violation of the fair and equitable treatment standard as a secret.

Unlike yet undisputed Bilateral Investment Treaties (BITs) and the TTIP-sibling CETA, the transatlantic trade and investment partnership is unique in respect of the competency to "overrule" national laws and to introduce standards, norms and regulations in favor of regulatory convergence to the detriment of national parliament's legislation and the democratic legislative legitimacy. TTIP is not a "carte blanche" for undisturbed investments in Europe, the United States, and in emerging economies (Thiel 2016). However, there are challenges and institutional changes for the land policies in all TTIP member states if the free trade agreement will be ratified. Nowadays, real estate development has to be conceived of in a complex and contemporary fashion. If TTIP comes into force, it will make no sense (anymore) to have diverse and differing access arrangements for companies from emerging countries such as Africa and Asia investing in the EU and the US – and vice versa.

Keywords: ***Transatlantic Trade and Investment Partnership, indirect expropriation, fair and equitable treatment, arbitration, geostrategic implications, European Union, United States of America, Africa***

URBAN LAND ACCESS FOR HOUSING DEVELOPMENT IN ETHIOPIA: LEGAL AND PRACTICAL CHALLENGES

ALELEGN WENEDEM, LECTURER

LLB in Law, MSc in Land Management, Instit te of Land Administration, Bahir Dar University, Bahir Dar, Ethiopiagr

Email: alelegn38@gmail.com

PURPOSE: The current rapid growth of urbanization in Ethiopia has caused an impact on housing development, which in turn puts great pressure on urban land. Thus, the purpose of this paper is to investigate the legal and practical challenges of urban land access for housing development in Ethiopia.

DESIGN / METHODS FOLLOWED / APPROACH: The study has employed interviews with housing and urban land management experts, key-informant interviews with the persons involved in land lease tender and in different housing programs, research reports to examine the applicability of lease tender and allotment for housing development as modalities of urban land acquisition. Urban land lease laws, policies, plans and manuals were reviewed to explore the problems which exist in practice.

FINDINGS: The study has explored that the formal urban land market in Ethiopia is not working well in resolving the problem of the shortage of residential housing units. The current lease holding system should apply in accordance with the housing rights of citizens.

RESEARCH LIMITATIONS / IMPLICATIONS: The number of samples that would be taken is small as compared to the size of the country and the percentage of the population and the absence and fear of respondents to provide genuine and accurate information for questions posed are limitations to this paper.

PRACTICAL IMPLICATIONS: Interested organs in urban land and the housing sector would appreciate and consider implementing the proposed solution to alleviate the problem of shortage of housing related to land in Ethiopia.

ORIGINALITY / VALUE OF WORK: Although urban land access is a necessary condition for housing development, it's applicability for all groups of society is questionable. This study contributes to fill this gap and to show an insight into the basic conditions of alternative modalities of urban land access.

Keywords*: urban land, access, housing development, challenge, Ethiopia*

COMPARISON OF MASS APPRAISAL MODELS FOR EFFECTIVE PREDICTION OF PROPERTY VALUES

[i]YACIM, JOSEPH AWOAMIM & [ii]BOSHOFF, DOUW GERT (PHD)

[i]PHD CANDIDATE IN REAL ESTATE

[ii]SENIOR LECTURER IN REAL ESTATE

Department of Construction conomics, Faculty of Engineering, Built Environment and Information echnology, University of Pretoria, South Africa

Email: joseph.yacim@up.ac.za and douw.boshoff@up.ac.za

There are a number of models that are used for mass appraisal of properties. However, the choice of a model is predicated on a number of criteria. One of these criteria is to compare models predictive accuracies that are reflected in minimum error of estimates. This study focuses on comparing predictive accuracies of mass appraisal models with a datasets of 3494 property transactions from the city of Cape Town, South Africa. Five mass appraisal models including back propagation trained artificial neural networks, multiple regression model, M5P tree, support vector machine optimise with sequential minimal optimisation and additive nonparametric regression were used for the simulations. Waikato Environment for Knowledge Analysis (WEKA) explorer; an open source data mining software was used to pre-processed property data to normalised values and model property prices. The analysis shows that BP trained artificial neural networks (BP-ANN) and M5P tree utilised in this study predicted better results with root mean squared error and mean absolute error within acceptable threshold of 5%. But M5P tree shows distinctiveness in predicted results between normalised and absolute values which require further examination. The other three mass appraisal models including multiple regression model, additive nonparametric regression and support vector machines with simulated minimal optimisation predicted RMSE that are higher than 5% acceptable threshold. With these results it is hereby recommended that mortgage lenders, valuation offices in South Africa, the rest of Africa and beyond should consider utilising BP-ANN in their mass appraisal predictions.

Keywords: mass appraisal models, predictions, accuracy, market values, properties

THE GROWTH OF REAL ESTATE PRIVATE EQUITY IN ETHIOPIA, AND AN IN-DEPTH LOOK INTO THE SUSTAINABILITY THAT THE GROWTH WILL HAVE ON THE ETHIOPIAN ECONOMY

NATHANAEL YISHAK

Chairman of the Cass Real Estate Society,

Cass REC Scholar, MSc in Real Estate Investment (2015-2016),BA (Hons) Business & Property – First Class Honours (2012-2015),Dip Banking Treasury Risk Management,-Cass Business School 2016

Email: Nathanael.yishak@cass.city.ac.uk

PURPOSE: As the youngest ever Chairman of the Cass Real Estate Society, I am a 21-year-old passionate, well informed and driven Post Graduate student who has been granted the privilege of being an Ethiopian, whilst being born and educated in London. Holding a position such as the Chairman of the Cass Real Estate Society enables me to analyse and assess the appetite of investors, but one thing I have realised is that Ethiopia is the best kept secret within the global real estate industry, I believe it is my duty to invest the knowledge I have developed about the real estate investment industry for the primary development of the Ethiopian economy. The reason for this specific proposed topic, is firstly, due to my sincere passion as an Ethiopian to actually delve deeper into this growing industry of the private equity model in Ethiopian Real Estate, and whether there is actually growing benefit to the Ethiopian population both from an economic, and a social perception, whilst delving into the intriguing question, as to what this model of investment holds for Ethiopia in the next 10-20 years. It is a topic that has been expounded, but not by an actual Ethiopian who has a passion to understand how sustainable this investment model will be for the Ethiopian population. This coupled with my interest to see how a growing economic system such as Ethiopia's would react to such a specialised investment model into real estate investment, and whether the actual financial industry would embrace this level of investment sophistication.

DESIGN / METHODOLOGY: From critically analysing various research sources, and consulting senior professionals within the Ethiopian real estate industry, the trend is that real estate private equity will reduce in the level of investment capital, until there is progressive development of the country's private sector. However, trends also highlight that private equity firms will begin to increase their investment in neighbouring countries, and this trend would also be assessed on the basis of comparison between different countries in Sub Saharan countries and their capacity to embrace real estate private equity investment. In addition, the question as to why the current governmental structure has not embraced and implemented investment friendly regulations creates a question as to whether investing into Ethiopia would be sustainable for private equity firms.
The method I utilised is based on three key research techniques. Firstly, interviewing 70 active investors within the real estate industry within Africa, with 10 key contacts within the real estate private equity industry. From these sources, I conducted informal qualitative interviews, to assess how deals are structured differently within the Ethiopian real estate industry. I also gathered their thoughts on what developments would be needed for their current holdings within Ethiopia to enhance in investment value. I also have had access to the Ethiopian Ambassador to the United Kingdom, which shared invaluable information on the implications of private equity in Ethiopia.

FINDINGS: There are various findings from this research, one of many is the sheer distance that real estate private equity investment creates for the Ethiopian, and how it adds to the class segregation, due to the sheer lack of understanding and the level of sophistication of the investment model. In addition, there were findings that highlighted how corruptive private equity could be, due to the method of foreign private equity firms holding knowledge only at the top hierarchy. There were findings that reinforced the benefits of foreign credible Universities which have developed finance teaching capacities, to conduct short courses in partnership with the Ethiopian Government on models such as private equity, which would create awareness, as well as develop the financial "intellectual capacity" of the country. For institutions such as Harvard University, Cambridge and Oxford University to partner with the domestic Universities in Ethiopia with the intention of developing the country's training of the financial world.

RESEARCH QUESTIONS / LIMITATIONS: The key questions that would be answered by this body of research will be following:
How is the real estate private equity market being structured, expanded and executed in Ethiopia, (the limitations and advantages of this model of investment into a growth nation)?

Is the real estate private equity market actually a subsidy to the Ethiopian population (How can it be utilised to solve levels of deprivation within the country)?

How sustainable is this current overflow in foreign capital into the Ethiopian real estate market, would it actually be economically beneficial to the country in the next 10-20 years, and whether the actual benefits are centralised?
How can the Ethiopian Government create a private equity scheme which enables foreign private equity firms investing into Ethiopia, to provide community development as one form of paying corporate taxes i.e. enhancing the primary, secondary and graduate / post graduate educational system, i.e. training schemes for aspiring entrepreneurs, i.e. think tanks / idea incubators for the main purpose of inspiring creativity and developing a budding entrepreneurial nation?

After thorough research, I have added the emergence of real estate venture capital investment into the research topic, as I believe that this would provide a more diverse method of comparing the emergence of real estate private equity against real estate venture capital. I can then utilise these two investment methods and assess

which would be most sustainable for the Ethiopian economy in the long term, as one argues for more of a corporate and sophisticated investment approach, whilst the latter reinforces an entrepreneurial take on the Ethiopian start up enterprise industry.

PRACTICAL IMPLICATIONS: The research reveals a numerous amount of practical implications. Firstly, how the private equity industry that is slowly progressing in Ethiopia must do more for the actual Ethiopian community, as opposed to capitalising on companies that lack knowledge of the private equity model. In addition, the need for robust financial education in the educational system. There must be an incorporation of how the financial system operates and how the financial dynamic of the country is changing. This will develop a level of understanding among graduates that can assist them to embark on interesting career paths. Also, the need for close inspection of private equity deals, and the need for private equity firms to actually conduct robust training and contribute to the employees, as a pose to keeping them lower down the hierarchy simply for man power.

ORIGINALITY / VALUE OF WORK: The research project is highly original due to the fact that the concept of real estate private equity within Ethiopia has not been researched or written about within a research context. This provides a unique and compelling opportunity to shine the spotlight on the real estate private equity investment model and to answer the current debate in Sub Saharan Africa as to what the most sustainable investment models are for such a flourishing nation such as Ethiopia. The value of the work speaks of academic excellence. The sheer value that this piece of research could create can be judged from a political as well as an economic development perspective. The value of the research will be timely, as more than 40 conferences commence specifically regarding private equity in Africa per annum, and this research would provide an exceptional foundation to build upon whilst providing real estate investors with a more conscious understanding as to how they can develop the country as well as create wealth from it. The research will be presented more so as a guideline on how to actually utilise real estate private equity in Ethiopia. This is a one of the most sophisticated investment models, in such a delicate season of the Ethiopian economy, therefore concluding with the statement “are the two meant to be?”. In simple terms, the research project would answer this question “how can we take real estate private equity in Ethiopia, and develop the lay man or lay woman in Ethiopia?”. I believe by answering this question, we could utilise this investment model to pioneer the country with Ethiopians themselves pioneering the race.

DISCUSSING HOUSING FINANCE AND INVESTMENT IN DEVELOPING COUNTRIES: THE ZIMBABWEAN CASE

ADDMORE ZHOU

MBA Finance, MSc Real Estate, Ph.D. Real Estate student with Kingston University,

Faculty of Art Design and Architecture, London.

Contact email: addmorez@yahoo.co.uk

The world is witnessing unprecedented levels of urbanisation. UN-HABITAT (2009) predicted that two thirds of the world’s population will be living in cities and towns by 2030. Cities in developing countries are the fastest growing. However, the most worrying phenomena have been the rapid growth of slums in and around some cities coupled with acute shortages of housing in many others. In 2004, the U.N reported that more than a billion people in developing countries live in slums, a figure expected to double over the next 30 years. Developing countries continue to grapple with challenges of providing housing to their communities. Investment and new development in housing remain low and slow. The major problem has been lack of finance and investment towards housing.

This paper will discuss Zimbabwe’s finance industry particularly the banking sector and the extent to which it has committed resources towards housing. The paper will also discuss the challenges faced by the banking sector over the years. The banking industry is a major player in every country’s economy and it influences the growth and prosperity of a nation.

In discussing Zimbabwe’s housing finance, the paper will look at both domestic and foreign sources of finance, their volumes and the factors which influence their deployment. The paper is an extract from a broader ongoing Ph.D. research study whose main aim is to investigate why Zimbabwe is failing to provide adequate housing in the context of both private investment and public housing. In the study, it is found that housing finance in Zimbabwe is not adequate and falls far short of the levels required to effectively address the shortage of housing.

REFERRED PAPERS

THE CONCEPT OF MARRIAGE VALUE IN PROPERTY INVESTMENT VALUATION – MYTH OR REALITY

[1]BIOYE TAJUDEEN ALUKO;

[2]BENJAMIN GBOLAHAN EKEMODE, AND

[3]Daramola Thompson OLAPADE,12Department of Estate Management, Obafemi Awolowo University, Ile-Ife

NIGERIA
Corresponding Author E-mail: gbolaekemode@yahoo.com

Abstract
Where two real properties, either physically or legally, merge into one, the new one produces a higher value than the values of both when they are separately sold. The excess in value is known as marriage value (UK). This concept has been closely linked with "abuttment value" or "enhancement value" (USA); and, at times, confused with "monopoly value" in the literature. Besides, its valuation had become a mirage in practice and requires careful thought of appropriate methodology that will capture value to be estimated. However, appraisal literature is filled with methodologies that hardly work in practice. Through interactions with focus group comprising twenty-one (21) senior estate surveyors and valuers that had practiced for not less than two decades in Nigeria, the authors seek to develop more consistent and descriptive ways of handling marriage valuation.

Keywords: marriage value, real property, methodology, estate surveyor and valuer, valuation

THE CONCEPT OF MARRIAGE VALUE IN PROPERTY INVESTMENT VALUATION – MYTH OR REALITY?

INTRODUCTION
Marriage valuation, a specialised type, reflects the recognition that by combining or recombining two assets – legally or physically – it may be possible to create a third asset that is more valuable than the sum of the parts (Aluko and Amidu, 2005). However, one of the most vexing problems confronting valuers or appraisers is the uncertainty and confusion surrounding its recognition or existence as well as lack of a unifying body of literature on the meaning of the concept.

There are reasons for this: first, perhaps, because property valuation is not an exact science, hence, the science of marriage valuation is purely an art. Its valuation therefore requires a certain measure of flair and judgement that is partly intuitive and partly derived from experience in analyzing market data to arrive at an opinion of marriage value. Little wonder that Lusht (1983) illustrated this problem with a game where a group of people whispers one word from one person to another until the last person repeats it to the entire group. He concluded that the final report would

barely relate to the original thought. The latter illustration leads naturally to a second reason why there is no adequate, broadly understood approach(es) or methodology(ies) to assessing marriage value.

Against the foregoing, it is the objective of this article to resolve the conflicting views about marriage valuation, its recognition or existence, including appropriate methodology to prosecute it. It is apposite at this point to note that this article benefitted from an interactive session in a workshop on property investment valuation with a focused group of senior executives of estate surveying who had practiced for minimum of two decades. These real estate executives are twenty-one (21), with established practice as property valuers in addition to consultancy in estate agency. Questionnaires backed up with oral interviews were administered on them. The data obtained there from were analysed using descriptive statistics such as frequency counts and percentages. Implications of these results are also discussed and analysed with a view to improving the quality of valuation advice by valuers in the country. Their views may be helpful, although, 2 (9.52%) of the respondents had not done marriage valuation before. However, 19 (90.48%) of the respondents claimed to have acquired direct experience in marriage valuation. The results of the survey as presented in the appendices were reconciled with the definitions and concepts of marriage value, laden with practical examples that further explains it as well as appropriate methodologies to prosecute the task in practice.

MARRIAGE VALUE DEFINED AND DISTINGUISHED
Where two assets or real properties, either physically or legally, merge into one: the new one produces a higher value than the values of both when they are separately disposed of (See worked examples in Appendix I). Similarly, Baum, Mackmin and Nunnington (1987; 1997; 2006) opined that marriage value might be shown to exist where a property is split into multiple interests, either physically or legally, or both…. the total values of these values will not necessarily equate with the market value of the freehold in possession of the whole property. This is what Reenstierna (1988) referred to as "abutters value", where two abutting properties are acquired or bought and united into one ownership or prescribed by Also, Albert, Banton and Pearson (1982) agreed that marriage value exists when valuing real estate under conditions of bilateral monopoly.

Although, Reenstierna (1988) described abutter value as being derived from "enhancement value", which he defined as the amount by which the value of a property is increased through assemblage of another property into the same ownership; this is differentiated from such "enhancement value" in an enhancement studies usually carried out in the United States by appraisers (Martin and Ordway, 1983). The latter relates to the increment in value of adjoining properties or those within the proximity or neighbourhood of newly constructed public infrastructure (such as road, school, hospital, etc) which is not as a result of the efforts of their owners. It is variously referred to as either "betterment value" (United Kingdom) or Development Land Value (The United States and other Latin American countries) or generally as an economic rent to the owners of these properties.

Henry George during his reign advocated that such economic rent be fully taxed in the United Kingdom and recovered into the public treasury who, at the same time, bears full burden of payment of compensation to those whose lands were acquired for the provision of those social infrastructure.

Furthermore, marriage value is quite distinct from monopoly value. The latter arises where a property hardly has a substitute or is not replaceable. A property used by an enterprise, which through franchise, license, zoning regulation, etc, has the exclusive right to carry on that enterprise (Berry, 1984). This is further divided into legal or factual monopoly by Millington (2000); while legal monopoly exists where the operation of the property requires a license, factual monopoly takes advantage of the locational attributes (or its uniqueness). Examples include properties subject to trading potential, ocean frontages, beaches etc. Nevertheless, where two real estate or properties adjoin or abut one another under conditions of bilateral monopoly as explained by Albert, et al. (1982) and are united together by either of the parties as a special purchaser, monopoly properties could produce a marriage value. Here, the value of the two adjoining properties when separately valued would be lower than the single property, comprising the two, but united into one ownership. Other abutters under conditions of bilateral monopoly may be those whose property is separated from the subject by a physical barrier such as a street but who maybe in sufficient proximity to the subject to make the subject especially attractive.

The results presented in Table 2, Appendix II confirm that valuers interpret or define marriage value differently. About 47.62% (10) of the respondents agreed with the definition of marriage value provided by Baum et al., (1997, 2006) while none sees it as related to “abutter value” (Reenstierna, 1988). Perhaps, the latter term is more “American” in a former British colony or it has not gained universal acceptability since it first appeared in Appraisal Journal in the 1980s. However, more worrisome, is to equate marriage value to ‘monopoly value’ and ‘enhancement value’. Yet, 28.57% (5) and 23.81 (6) of the respondents respectively likened marriage value to monopoly value and enhancement value respectively. Thus, about 11 (52.38%) of the respondents are wrongly interpreting what marriage value entails. It, therefore, has implication on education and training of valuers as well as on the quality of valuation advice offered by these valuers.

The above responses are not unconnected with uncommon or infrequent nature of marriage valuation in practice as indicated in Table 3. The Table shows that majority 19 (90.48%) agreed that instructions on this type of valuation are infrequent while few 2 (9.52%) agree that the instructions are common. These findings might not be unrelated to the fact that rather than being an independent valuation instruction, marriage valuation is usually associated independently with real estate agency transactions. This raises some fundamental questions: Does it mean that agency surveyors are better valuers? Would it be better for the valuation profession if agency and valuation are combined in one Department in practice?

Nevertheless, as shown in Table 4, Appendix 2, marriage valuation is infrequent, as respondents stated, because it is scientific or theoretical in nature (42.85% or 9); more of an art or practical in nature (38.10% or 8); or its existence is difficult to recognize or value in practice (14.29% or 3); and its existence is due to capitalization factor or yield (4.76% or 1). The views further reinforce the confusion associated with marriage valuation. It is also apparent that majority of the respondents believe that it is theoretical and difficult to recognize in practice. This equally has implication on education and training of valuers in the country. Also, the finding that it is more of an art confirmed the earlier assertion above that marriage valuation relates more to real estate agency transactions where real estate market are based on the locational and other behavioural attributes of market participants dictate the value of the property being valued. Hence, the science of marriage valuation is an art. From the above, it is trite that capitalization factor or yield alone cannot create marriage value.

3.EXAMPLES OF MARRIAGE VALUATION

In practical situations, marriage value had been found to exist in the following:
In business combinations including mergers and acquisitions, where real properties constitute integral part of the assets of a company, marriage or abutter value subsists. A merger will make economic sense to the acquiring firm if shareholders benefit. Thus, considerable entrepreneurial effort is devoted to creating and adding value; one firm may takeover another believing that the combined firm will be more valuable than the two separate entities. Valuation of this is well documented in Aluko and Amidu (2005).
Similarly, a real estate developer or a state/provincial government as the case may be, during urban renewal programme, may assemble, through a series of discrete purchases, a site that can yield additional value when developed as an entity.
It also exists in landlord and tenant valuation where issues of surrenders, extensions and renewal of leases are involved. Here, part purchases are involved; hence, tenants or lessees tend to gain more in the proposed arrangement than the present lease while landlord or lessor prefers the present lease to the proposed lease. The differences in values from both points of view represent the marriage value in each case; but it is the minimum the landlord/lessor may be willing to accept before intending to part with the property whilst it is the maximum offer the lessee/tenant can give in this case. Through negotiation or bargaining power the two parties would reach a compromise.

Where either a freehold property with vacant possession is encumbered and split into two or more lesser interests; the sum of the market values of the lesser interests when valued separately would be less than the market value of the unencumbered freehold with vacant possession, thus; producing marriage value.
When opinion of valuers were sought on their level of agreement as to the existence of marriage value in some situations or examples, varying degree of responses were collated as revealed in Table 5, Appendix II. For instance, all (100.0%) the respondent valuers, notwithstanding the degree of agreement, agreed that split estates/interests later unified into one ownership and that the joining together of two abutting or adjoining properties represent good and clear examples of situations where marriage value do exist.

Majority of the respondents in the two examples 16 (76.19%) Strongly Agree, 3 (14.29%) Somewhat Agree while 2 (9.52%) Agree respectively.

None of them disagreed with these examples. Besides, while none of the respondents [Disagree (9.52% or 2) and (90.48% or 19) totaling 21 (100%)] agreed with real estate under conditions of bilateral monopoly as being good example of a situation where marriage value exists, only few 14.39% (3) representing Somewhat Disagree and 4.76% (1) and 9.52% (2) respectively agreed that marriage value subsists in business mergers and acquisitions. Majority of the respondents (71.43% {15}) representing Strongly Disagree and (14.29% or 3) representing Disagree, did not support the idea of marriage value in business combinations. Furthermore, as shown in Table 5, unlike in surrenders, extensions and renewal of leases where respondents views on existence of marriage valuation are almost balanced between those in favour (57.15% {11}) and those against (42.85% {9}), majority of the respondent valuers (85.71% {18}) disagreed with the view that marriage value is an integral part of urban renewal programme where there would, usually, be unification of multiple interests. Only a few {14.29% (3)} agreed with its existence in urban renewal. It is also not unusual to conclude that these situations above would have implications on the education and practical training of valuers in Nigeria to ensure good practice.

4.VALUATION APPROACHES/METHODOLOGIES

There is unanimity of opinion amongst authors (see, for example, Baum, et al. (1997; 2006); Millington (2000); Reenstierna (1988); Aluko and Amidu (2005); Albert, et al. (1982); etc. on the right approach to be adopted in valuing properties with element of marriage value. The method usually adopted is the reverse of the procedure for estimating loss in value due to a partial taking. In the above examples, the values of parcels to be assembled or unified into one ownership is valued before and after the assemblage or unification and the difference is referred to as the marriage or abutter value.

The methodology to be adopted differs from one property to another depending on the location and type of properties to be merged; and, in some cases, the purpose of the valuation exercise. For instance, where the abutting or adjoining properties with bilateral monopoly are shops, one with main frontage and the other, corner-piece with return frontage are to be valued, perhaps, comparison, adopting zoning or halving-back method on pro-rata basis or investment method can be adopted. Where obsolete properties or lands to be assembled are within a built-up area in a town or city, residual method would suffice. But, if the lands or obsolete properties are at the outskirt of an urban area, comparison method may be helpful. For income generating properties, the investment method is appropriate.

There are situations where two adjoining properties within the same neighbourhood are not of the same land use type. Where, for example, a commercial property is to be expanded and would require the acquisition of a adjourning residential property abutting it, the new asset to be created would be valued as commercial with its prospects while the old assets are to be valued separately rebus sic stantibus, as commercial and residential property respectively using either comparison or investment method or a combination of both. Besides, where hotels or properties with trading potentials are involved, either we adopt profit or account method or a hybrid of cost or contractor's approach and profit or account method subject to the test of adequate potential profitability.

The views of the respondents in Table 6 in Appendix II confirmed the foregoing that all the methods of valuation are relevant to assessing real properties with inherent marriage value, although, majority {61.91% (13)}supported comparison method. This further reinforces the view earlier expressed that the science of marriage valuation is an art. It deals more with the operations of the real estate market mechanism. Hence, knowledge of real estate agency practice might be highly helpful in arriving at reliable marriage valuation outcomes.

It is important to note that assemblage of lands or unification of interests abutting or adjoining one another puts the buyer in a position of a special purchaser who must be prepared to outbid other competitors in order to achieve the amalgamation or marriage value. The property to be disposed of or acquired becomes a monopoly property. In these circumstances, the value in use is a proper substitute for market value. This contradicts the position of Baum et al. (1997; 2006) in their valuation worked example (see Appendix I), who opined that marriage value is derived from the difference market values of freehold with vacant possession (newly created asset) and other lesser interests due to capitalization factor. In practice, the excess in value is attributable to creation of new, value added asset and the monopoly element in the abutting property acquired. In the same worked example in Appendix I, the authors systematically and scientifically treated encumbered freehold and freehold with vacant possession unlike in Richmond (1993) where marriage value is just shared proportionally in relation to the market values of both the freehold in possession and other lesser interests without due regard to other relevant issues such as mode or order of negotiation between the parties in transaction.

CONCLUSION

We have observed in this article that marriage valuation presents a special challenge to valuers in Nigeria, particularly with respect to its recognition in practice, proper definition of the concept and its treatment in terms of approaches and methodologies. As can be distilled from the analysis above, the high level of confusions and misunderstandings is no longer in doubt. The above, therefore, has implication on both the education and practice of marriage valuation, or, in general landlord and tenant valuation, for the valuer's in the country. Thus, there might be a need for partnership between academia and those directing the affairs of valuation profession in Nigeria on the need to continuously organize seminars and workshops to update the knowledge of both practitioners in order to improve the quality of valuation outcomes. This may help to promote codification good valuation practice and, as well, encourage users of valuation to continue to have confidence in our valuations.
Moreover, since element of special purchase is involved in marriage value, it requires a good working knowledge of the real estate market where the properties inherent with marriage value are located.

Hence, the science of marriage valuation is purely an art. One may, therefore, be tempted to assume real estate agency surveyors are better as valuers. The conclusion emanating therefore further suggest the need for agency and valuation departments in a real estate company to be combined together.

It is also important to appreciate that much as the right approach to value has to be adopted, that is, valuation before and valuation after marriage, the valuation must also adopt any of or a combination of the methods of valuation depending on location, and property type. Finally, it can be concluded from the foregoing that marriage value exists in practice. It is, therefore, not a fictitious value.

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APPENDIX I

METHOD 1: BAUM'S APPROACH

Example

A is the freeholder of an office block, the FRV of which is ₦2,800,000 p.a on FRI terms. 14 years ago A let the whole to B on a 40 year lease at a rent of is ₦1,000,000 p.a on FRI terms. B sublets to C 6 years ago, at a rent of is ₦1,800,000 p.a, FRI, for a term of 25 years. B wishes to become the freeholder in possession of the office block. Advise him how much he should offer for the interest of A and C. How much should they accept? Assume a freehold rate of 10%.

Solution

A's INTEREST – FREEHOLD ENCUMBERED

	₦	₦
Term: 26 years		
Rent passing p.a.	1,000,000.00	
YP 26 years at 9%	9.929	9,929,000
Reversion to perpetuity		
FRV p.a	2,800,000.00	
YP in perpdef'd at 10%	0.839	2,349,200
Capital Value (CV)		**12,278,200**

B's INTEREST – LEASEHOLD

		₦	₦
Term: 26 years			
1st 19 years			
Rent received p.a. from C.		1,800,000.00	
Less: rent paid p.a to A		(1,000,000.00)	
Net income p.a.		800,000.00	
YP 19 years at 11%/3%/40k tax		5.670	4, 536,000.00
Last 7 years			
Reversion to FRV p.a.		2,800,000.00	
Less: Rent p.a.		(1,000,000.00)	
Profit rent p.a		800,000.00	
YP 7 years 12%/3%/40k tax		0.839	
PV of N1 in 19 yrs at 12%	0.116	0.344	619,200.00
Capital Value (CV)			**5,155,200.00**

1

C's INTEREST – SUB LEASEHOLD

	₦	₦
Term: 19 years		
FRV p.a.	2,800,000.00	
Less: Rent p.a.	(1,800,000.00)	
Profit rent p.a	1,000,000.00	
YP 19 years 13%/3%/40k tax	5.093	
Capital Value (CV)	**5,155,200.00**	

The total value of all interests at present is ₦ (12,278,200 + 5,155,200 + 5,093,000) = ₦22,526,400.

B wishes to become freeholder in possession. That is, how much will this be worth now that the FRV can be received immediately and in perpetuity.

FREEHOLD WITH VACANT POSSESSION

	₦
FRV p.a	2,800,000.00
YP in perp at 10%	10
Capital Value (CV)	**28,000,000.00**

This increase created by the merger: ₦(28,000,000.00 - 22,526,400.00) = ₦5,473,600.00 is known as marriage value.

Value	Amount (₦)
Marriage value	5,473,600
C	5,093,000
B	5,155,200
A	12,278,200

How much should B offer to A and C? What prices should A and C ask for their interests?

2

B'S INTEREST AFTER MERGER

Value of B +A	₦	₦
Term: 19 years		
Rent received p.a.	1,800,000.00	
YP 19yrs at 9%	8.950	16,110,000
Reversion to perp.		
FRV p.a.	2,800,000	
YP in perp def'd 19yrs at 10%	1.635	4,578,000
Capital Value		**20,688,000**

Note: B's present interest is worth ₦5,155,200: the gain will be ₦(20,688,000 – 5,155,200) = ₦15,532,800 and this is the maximum that can be offered to A. The minimum A will accept is the market value of ₦12,878,200. The difference between ₦15,532,800 (maximum offer by B) and ₦12,878,200 (minimum A will accept) which is **₦3,254,600** is the marriage value between A and B.

Alternatively, value of B's interest after merger (₦20,688,000) less the sum of the present values of A's and B's interests respectively before merger ₦(12,278,200 + 5,155,200) = ₦17,433,400 equals **₦3,254,600** which is the marriage value between A and B.

3

B's NEXT STEP IS TO ACQUIRE C's INTEREST

Hence, B becomes the freeholder in possession and can enjoy the maximum value of ₦28 Million attributable to the Freehold with vacant possession. The gain that B stands to make is therefore:

₦28, 000, 000.00 – ₦20, 688, 000.00 = ₦7, 312, 000.00

This represents the maximum that B could offer to C. The minimum that C will accept is ₦5, 093, 000.00. Although, there will be negotiation between the parties, ceteris paribus, the difference between the two figures is ₦2, 219, 000.00 which is the marriage value between B and C. Alternatively, we can deduct the addition of separate values of B's new interest after merger and C's interest together and deduct from the Capital Value of freehold with vacant possession. This is illustrated as follows:

[₦28, 000, 000.00 – (₦20, 688, 000.00 + ₦5, 093, 000.00)] = ₦2, 219, 000.00

₦2, 219, 000.00 is the marriage value between B and C.

Thus, the total marriage value is obtainable as follows:

Marriage Value A+B = ₦3, 254, 600.00

Marriage Value B+C = ₦2, 219, 000.00

TOTAL MARRIAGE VALUE = ₦5, 473, 600.00

SOURCE: Adapted (but modified by the authors) from Baum et al. (1997), pgs 103-106.

4

METHOD 2: RICHMOND'S APPROACH

The valuation of all the interest holders (A, B and C) including the freehold with vacant possession are the same with the Baum's approach. Total Marriage Value is also the same. Nevertheless, the share of each interest holder in marriage value was just based on the value of the interest relative to the aggregate value of all the interests subsisting in the property.

Marriage Value	₦5, 473, 600.00
C	₦5, 093, 000.00
B	₦5, 155, 200.00
A	₦12, 278, 200.00

A+B+C = ₦22, 526, 400.00

Freehold with vacant possession = ₦28, 000, 000.00

Interest	**Minimum Offer (₦)**	**Marriage Value (₦)**	**Maximum Offer (₦)**
C	5, 093, 000.00	5, 093, 000.00 x 5, 473, 600.00 / 22, 526, 400.00 = 1,237, 527.74	5, 216, 753
B	5, 155, 200.00	5, 155, 200.00 x 5, 473, 600.00 / 22, 526, 400.00 = 1,252, 641.47	6, 407, 841
A	12, 278, 200.00	12, 278, 200.00 x 5, 473, 600.00 / 22, 526, 400.00 = 2,983, 430.80	15, 261, 631

SOURCE: Adapted (but modified by the authors) from Richmond (1993), pgs 65-67.

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Appendix II

RESULTS EMANATING FROM QUESTIONNAIRE ANALYSIS

Table 1: Experience in Marriage Valuation

Options	**No of Estate Surveyors**	**Percentage**
Yes	19	90.48
No	2	9.52
Total	**21**	**100.00**

5

Source: Author's Survey (January, 2016)

Table 2: Definition of Marriage Value

	Options	No	%
A	Monopoly value	6	28.57
B	Abutter value	0	0.00
C	Enhancement value	5	23.81
D	Value of unified estates less addition of their separate values	10	47.62
	Total	**21**	**100.00**

Source: Author's Survey (January, 2016)

Table 3: Frequency of Marriage Valuation in Practice

Option	No of Estate Surveyors	Percentage
Frequent	2	9.52
Not frequent	19	90.48
Total	**21**	**100.00**

Source: Author's Survey (January, 2016)

Table 4: Reasons for non-frequency of Marriage Valuation in Practice

	Reasons	No	%
A	It is purely scientific or mainly theoretical in approach / nature	9	42.85
B	It is purely an art or practical in nature	8	38.1
C	There is lack of unifying or body of literature on it	0	0.00
D	Its existence is difficult to recognize or value in practice	3	14.29
E	Its existence is due to capitalization factor / yield	1	4.76
	Total	**21**	**100**

Source: Author's Survey (January, 2016)

Table 5: level of agreement amongst Estate Surveyors and Valuers in examples of Marriage Valuation

	Examples	Strongly Agree	Somewhat Agree	Agree	Disagree	Strongly Disagree
A	A property split into multiple inters and, or, unified into one ownership.	16 (76.19)	3 (14.29)	2 (9.52)	0 (0.00)	0 (0.00)
B	Real estate under the condition of bilateral monopoly	0 (0.00)	0 (0.00)	0 (0.00)	2 (9.52)	19 (90.48)
C	When two or more abutting or adjoining properties are united into one ownership	16 (76.19)	3 (14.29)	2 (9.52)	0 (0.00)	0 (0.00)
D	Business combinations including mergers and acquisition	0 (0.00)	1 (4.76)	2 (9.52)	3 (14.29)	15 (71.43)
E	Urban renewal programme where multiple interests are acquired.	0 (0.00)	0 (0.00)	3 (14.29)	2 (9.52)	16 (76.19)
F	Surrenders, extension and renewal of leases in landlord and tenant relationship	8 (38.10)	3 (14.29)	1 (4.76)	2 (9.52)	7 (33.33)

Source: Author's Survey (January, 2016)

Note: Frequency (Number) = without bracket
Percentage ( )

Table 6: Methods of Marriage Valuation

	Methods	Frequency	Percentage
A	Comparison	13	61.91
B	Investment/Income Capitalization	2	9.52
C	Profits or Accounts	1	4.76
D	Residual	1	4.76
E	Costs or Contractors	1	4.76
F	All of the above	3	14.29
	Total	**21**	**100.00**

Source: Author's Survey (January, 2016)

IMPACT OF ADDING SECURITISED PROPERTY INTO MIXED-ASSET PORTFOLIO IN EMERGING MARKETS: EVIDENCE FROM NIGERIA

TIMOTHY OLUWAFEMI AYODELE AND ABEL OLALEYE

Estate Management Department, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.

ayodele.t.oluwafemi@gmail.com; a_olaleye2000@yahoo.co.uk

ABSTRACT

Purpose: The paper examined the performance of securitised property and analysed its diversification benefits when added into domestic mixed-asset portfolios constructed using Naïve and MPT optimization techniques. The paper also tested the hypothesis that the performance of naïve portfolios with securitised properties is better than naïve portfolios without securitised property.
Design/methods: The data comprised quarterly returns of securitised property, all share, Federal bonds, State bonds, Debentures and Treasury bills for years 2000 to 2013. Return-risk analysis was compared using mean return, standard deviation, Sharpe ratio and correlation coefficient. Preliminary analysis was conducted on the data sets to examine the stationarity using the Philip Perron unit root test. In assessing securitised property return enhancements and risk reduction benefits in mixed-asset portfolio, 24 naïve portfolios (18 with securitised property and 6 without securitised property) were constructed and the effectiveness of diversification was assessed for each portfolio. This is in addition to examining the impact of securitised property on optimal portfolios using Markowitz quadratic function.

Findings: The results showed that securitised property did not offer superior returns and underperformed most other assets on risk adjusted basis. While the results of the naïve portfolio showed no statistically significant difference in portfolio performance when securitised property was included; the effect was however dependent on the percentage weightings of assets and the asset class being replaced. The MPT analysis showed that along the efficient frontier, securitised property has no percentage allocation in the mixed-asset portfolio.

Practi al Implication The study has implications for investors interested in emerging markets like the Nigerian investment market.

Originality: It is one of the few attempts within the context of Africa's emerging market and Nigeria in particular.

Keywords: ***securitised property, mixed-asset portfolio, diversification, emerging market, investment, Nigeria***

1.INTRODUCTION

In a bid to reduce volatility associated with investment assets while optimizing returns, investors seek to invest in a combination of asset classes. The concept of asset combination is intuitively evident in investment decisions, as it helps to disperse risk across various asset classes and allows investors to benefit from the potential risk reduction opportunities obtainable from these asset classes. The investment returns are consequently hedged against expected or unexpected fluctuations that could lead to increased volatility (Andersson and Svanberg, 2003).

Modern portfolio theory (MPT) suggests that random combination of assets; such as stocks, bonds, bank deposits, real estate and others, reduces risk and in turn increases portfolio returns (Markowitz, 1952). However, when various assets are combined in a portfolio, there is potential for risk reduction if the assets are lowly or negatively correlated; lower level of correlation between assets implies higher potential to reduce portfolio risk and vice versa. In line with this assertion, authors, such as Hung &Tu (2007), Lee (2003a), Hoesli, Lekander & Witkiewicz (2004), have recognised real estate as an asset class that can provide risk reduction benefit. Thus, the case for including real estate in investors' portfolio is typically based on the potential risk reduction benefits due to its low level correlation with other investments (Benjamin, Sirmans & Zietz, 2001; Schindler, Rottke & Fuss, 2009).

The issue of whether real estate asset can help to improve portfolios return and reduce risk when added to a mixed-asset portfolio has been examined by previous studies in different economies and over different time frames. These studies have examined the performance of portfolios with the inclusion of real estate; either as direct (private) or indirect (public) investment assets or a combination of both. Examples of such studies include, Wilson and Zurbruegg (2003), Hoesli *et al.,* (2004), Lee and Stevenson (2006), Adair, McGreal and Webb (2006), Falk (2012), Andersson and Svanberg (2003) and AXA-RERN (2012). Others include Lee (2003b), Nardo and Anderson (2009), Bond and Glascock (2006) and Lee and Ting (2009).

Evidently most of the prior studies have based their analyses on developed property market such as the UK, USA, New Zealand, Australia, with a focus on REITs as a form of indirect real estate. There are very few studies on Africa's emerging markets and in effect on securitised property (SP) which are the predominant form of indirect real estate in Africa emerging market (Olaleye, 2011; Mwanza, 2013). The few available studies include that of Ramushu (2006) and Olaleye (2011) on South African market. In essence, where REITs vehicles rarely exist in most African emerging property markets, investors can only tap into the indirect property investment markets through property company share or securitised property (SP). Thus, there is still the need to provide information on the impact of adding SP into a mixed-asset portfolio especially from the perspective of Africa's emerging markets. This type of analysis is particularly important because, with the rising growth in cross border investments and increasing foreign investments in international property market, targeted especially at the emerging markets, further examination of the effects of adding SP into a mixed-asset portfolio in the markets will not be out of place.

It has been noted that emerging markets represent about 12% of world equity market capitalization (Russell Indexes, 2014). Therefore, there could be some potential diversification attractiveness and increased returns offered by investment in these emerging economies. The findings of the study is believed will enable investors to ascertain if they are missing out of the growth in the emerging markets or if there is need to exercise restraints before investing in such market like Nigeria.

Against the foregoing, the paper provides information on the performance of SP and the effect of adding it into a domestic mixed-asset portfolio. It is believed that this information will be a useful decision tool in the hands of domestic and international investors who may want to take advantage of the growing liberalization and globalization of the Nigerian property market. Also, the nature of the impact of adding SP assets into a mixed-asset portfolio in African emerging market will give further evidence on the nature of SP as a form of real estate equity as different from REITs. This understanding is particularly important for portfolio managers when forming a portfolio that will include SP asset.

THE NIGERIAN ECONOMY OVERVIEW

The April 2014 rebasing exercise saw Nigeria emerging as Africa's largest economy, with a GDP estimate of $1 trillion USD for 2015. Drivers of Nigeria's economic growth over the last five years has been influenced by growth in the services, having the largest contribution of 56.1%, followed by the industry, contributing 23.6% and agriculture, having the least contribution of 20.3%. However, the GDP growth which had previously experienced an upsurge from 4.9% in 2011 to 6.3% in 2014 is currently experiencing a nosedive, having a 2.7% value for 2015 and a 0.8% forecast for 2016 (CIA, 2016). This seeming decline in economic growth is apparently due to the effect of local disruption of oil production; arising from regional unrest, and plummeting oil prices; which has been a major source of income and government revenue since early 1970. However, despite this apparent setback, Nigeria still serves as an attractive destination for investors targeting the African emerging markets given the huge population size of over 170 million and a projected increase in GDP to about 4% in 2017 and 2018.

2.REVIEW OF RELEVANT LITERATURE

Real estate as an investment asset has clearly established itself as a strategic asset and a major investment class in the mixed-asset portfolio. This is owing to its effectiveness as a risk diversifier in a mixed-asset portfolio, among other advantages (Andersson and Svanberg, 2003; Adair *et al.,*; 2006; Amidu and Aluko, 2006; Amidu *et al.,* 2008; Higgins and Ng, 2009). Empirical evidences from these studies have shown that the diversification benefits of real estate are important ingredients in the overall performance of the portfolio.

Investigating the diversification effect of indirect real estate (REITs and SP) in a mixed-asset portfolio, earlier studies such as Mull and Soenon (1997) concluded that inclusion of REITs in a mixed-assets portfolio might be expected to bring minimal diversification benefits for domestic G7 investors. Lee (2003a) investigated the performance of United States domestic mixed-asset portfolio with the inclusion of REITs

using risk return analysis. Monthly returns of large cap stocks, small cap stocks, long dated government bonds, cash (T-Bills) and indirect real estate (REITs) were analyzed over 1972-2001 period. The results showed that the inclusion of REITs in mixed-asset portfolio could lead to an increase or decrease in returns depending on the asset class being replaced. The study by Nardo and Anderson (2009) examined whether unleveraged REITs in Dubai helped in optimizing the risk/return characteristics of a mixed-asset portfolio under the Sharia structure. The findings revealed that investment in real estate via Dubai REITs would significantly enhance the performance of a mixed-asset portfolio through its ability to hedge inflation, enhance returns and reduce volatility. The study concluded that leveraged REITs produced increased risk without providing adequate risk/return benefits.

From an international investors' perspective, Gordon, Canter and Webb's study of (1998) noted that the inclusion of international real estate securities in a mixed-asset portfolio could enhance portfolio diversification benefits. Over a shorter time frame, Bond and Glascock (2006) studied the performance and diversification benefits of European public real estate securities from 1995-2001, using mean, standard deviation and correlation analysis. It was submitted that diversification benefits from real estate securities afforded investors good growth opportunities and potential to reduce risk within a diversified portfolio.

Adair, McGreal and Webb (2006) examined the effects of private real estate as against public real estate in the UK over 1975 to 2003, using mean variance analysis on low, medium and high risk portfolios. The findings of the study indicated that both direct and indirect real estate would serve as a good portfolio diversifier for low and medium risk portfolios. However, for high risk income return and high risk appreciation return portfolio, real estate did not provide any diversification effect. Falk (2012) study in Sweden concluded that though institutional investors have overtime allocated about 5% to real estate assets, the percentage optimal allocation to public real estate investment lied between 21% and 30%.

From an emerging market outlook, authors such as Tan and Ting (2008), Lee and Ting (2009), Nguyen (2010), Olaleye (2011) and Pham (2012) have examined the effects of real estate in a mixed-asset portfolio. Ramushu (2006) analysed the performance of South African real estate assets in a domestic portfolio containing equities, bonds and real estate. Findings from the study showed that real estate assets provided diversification benefits with an optimal allocation of between 10 and 15 percent. The study of Abdullah and Zahari (2008) investigated the performance of listed property companies in Malaysia from 1996 to 2007. The study revealed that on an overall basis, returns of listed property companies outperformed the market benchmark. However, when assessed over different financial periods, the returns underperformed the market. While, Razali (2013) noted that investments in Malaysian listed property companies had a fairly high level of risk over 1998 to 2012 period. In addition, Nguyen (2010) examined the performance of listed property companies in Vietnam over 2003 to 2009. On the basis of risk adjusted returns, the study found that return on property securities underperformed other assets.

The results further showed that property assets exhibited diversification potential when included with bonds in a mixed-asset portfolio. However, across the efficient frontiers, property assets might not enhance optimal portfolio combination. Also, Olaleye (2011) analyzed the diversification benefits from adding real estate shares into domestic mixed-asset portfolios in South Africa. Quarterly returns on property shares, all shares, bonds and 90-day treasury bills over the period of 1999 – 2009 were analyzed on a risk adjusted basis. Affirming the findings of previous studies, the results showed that the inclusion of property stock in a mixed-asset portfolio produced significant risk-adjusted returns, while risk reduction benefits were found to be minimal. The study concluded that the diversification effect of real estate security in a mixed-asset portfolio was dependent on the percentage allocation to real estate and the asset class being replaced. In addition, the study of Pham (2011) examined the risk return characteristics of South Korean REITs (K-REITs) in a multi asset portfolio containing Shares, bonds and property companies, using monthly data from 2002 to 2012, the study noted that K-REITs underperformed other assets over the entire period, though their exist some level of diversification potential when combined with Shares and property companies.

Comparing the risk return performance of REITs in Asian emerging and developed markets, Pham (2012) submitted that emerging markets had lower returns than developed markets. However, emerging markets had lower risk exposures. The study further noted that developed market REITs underperformed emerging REITs on a risk adjusted basis. Examining another developing market over 2001 to 2011, Newell and Peng (2012) noted that Japan REITs performed better than other major assets classes in terms of risk adjusted returns, while the study of Peng and Newell (2012) submitted that Taiwan REITs assessed over 2005 to 2011 underperformed construction shares, though T-REITs provided portfolio diversification benefits and a significant risk adjusted returns. Furthermore, Tan and Ting (2008) examined the role of Malaysian residential real estate properties in mixed-asset portfolio over 2000 to 2006, using mean-variance framework.

The findings from the study showed that ex-post efficient portfolios typically devoted up to about 66.68% allocation to residential properties, which was capable of enhancing the risk-adjusted performance up to about 73.87%. The study concluded that there existed positive portfolio diversification benefits by combining residential properties in a mixed-asset portfolio consisting of shares and bonds in the Malaysian investment context. Over a longer time frame, Lee and Ting (2009) verified the effectiveness of the Malaysian real estate in a mixed-asset portfolio, using mean-variance and downside risk optimization frameworks. Monthly returns of Malaysian stocks, bonds, property sector index and REITS were analyzed from 1991-2006. The authors concluded that property shares offered little or no diversification benefits or enhancement in portfolio returns. However, equally-weighted REITs provided greater diversification benefits and return enhancements. Thus, the inclusion of REITs was encouraged as against property shares, in a mixed-asset portfolio. Considering the need for increased geographic diversification with respect to real estate assets, Akinsomi *et al.,* (2015) investigated the barriers to real estate investment in other African countries from the perspective of a South African investor.

The study noted the need for enhanced legal frameworks and regulation of property rights as factors that will necessitate increased investment in African real estate market.
From the foregoing, results from most of the studies from developed or emerging economies showed that likely benefits exists when real estate is included in a mixed-asset portfolio. Though, the degree of benefits accruable varies and dependent on the nature and dynamics prevalent in the market, economy and time frame under study. Also, most of the studies supported a percentage allocation ranging between 15% and 35% to real estate asset for optimal diversification benefits. However, the analyses of most studies were based on REITs, direct real estate, or a combination of both direct and indirect real estate. Only a few analyzed securitised property (SP) with a focus on African emerging markets.

Thus, the applicability of these findings may not reflect the prevailing economic circumstance in emerging markets of Africa. This is because the market still appears underdeveloped as a result of various investment risks and attendant institutional constraints (Akinsomi *et al.,* 2015). Thus, it is expected that differences in investment and economic conditions would pose different results. Also, since most of the studies focused on REITs as a form of indirect real estate investment vehicle, the findings may not be aptly applicable to SP which is the predominant form of indirect real estate investment in the emerging market of Africa (Olaleye, 2011; Mwanza, 2013). REITs (Equity, Mortgage or Hybrid) could either be public or private REITs, and its difference from SP is embedded in the way both are structured. REITs and SP come with different structures in terms of their legal forms, tax status and governing regulatory legislation.

In addition, studies that specifically focused on Nigeria investment market were limited to comparative performance of investment assets in Nigeria. The study of Amidu and Aluko (2006) investigated the performance of listed property and construction companies relative to stocks from 1998 to 2005. The study found that stock outperformed both listed property and construction company shares on a risk adjusted basis. Also, due to the low correlation with the market, listed property and construction company showed potential for diversification benefits. Corroborating the findings of Amidu and Aluko (2006), Amidu *et al.,* (2008) examined the investment characteristics of property stocks and other investment media for the period 1999 to 2005. The study revealed that property stocks outperformed the market on nominal basis. However, it underperformed the market on risk adjusted basis and it is uncorrelated with the market. Contradicting these previous findings that securitised real estate underperformed other investment media, Olaleye *et al.,* (2010) analysed the performance of direct and indirect real estate assets compared against other securities in the Nigerian capital market from 2001 to 2007. The paper noted that direct real estate assets outperformed other investment options and showed potential for significant diversification benefits when combined with other assets in the portfolio. Emele and Umeh's (2013) analysed the risk return performance of SP and selected stocks in the Nigerian capital market over 2003 to 2009.

The study noted that indirect real estate asset underperformed most other assets on the basis of mean variance ratio and showed no diversification benefits when combined with other assets. While Olaleye and Ekemode (2014) investigated the long run association between public real estate and common stocks in the Nigerian capital market from 1999 to 2011. The study showed that SP outperformed stocks with a corresponding higher risk level. Ayodele and Olaleye (2015) examined the downside risk performance of securitised real estate and other investment assets in the Nigerian capital market from 2000 to 2013. The results showed that returns on SP underperformed most other assets except Shares.

Based on existent literature, most studies examining the Nigerian market noted that while SP underperformed other assets classes, it showed significant diversification potential when included in a mixed portfolio in the Nigerian market. The available studies of Olaleye and Aluko (2007) and Olaleye *et al.,* (2008) investigated property type and geographic diversification of direct real estate. While Olaleye and Aluko (2007) in comparing the diversification benefits of using MPT or naïve diversification approach, the authors noted that there might be enhanced diversification benefits with direct real estate with the use of Naïve diversification approach. Supporting this assertion, the study of Olaleye *et al.,* (2008) concluded that diversified property portfolio constructed using the MPT approach may not always be more efficient than naively constructed portfolios. However, a comparative empirical investigation into the diversification effects of SP in mixed-asset portfolios in Nigerian emerging market have been scanty. This further justifies the need for this study. This study will aid investment decision of investors targeting the Nigerian property market on the effect of including SP in a mixed-asset portfolio.

3. THE NIGERIAN CAPITAL MARKET AND SECURITISED PROPERTY (SP) SECTOR

The Nigerian Stock Exchange became operational in 1961 as the Lagos Stock Exchange; with 19 securities listed for trading. Subsequently, it was renamed as The Nigerian Stock Exchange (NSE) in 1977 due to a government financial system review. Presently with over 200 listings and a total market capitalization of US$ 50.03 billion as at 31st December, 2015, the Nigerian capital market is fast becoming the center point of the Nigerian investment market.

Studies (see for instance Olaleye and Ekemode, 2014; Olaleye *et al.,* 2015) have noted that as a result of the developmental achievements in the Nigerian capital market, there has been remarkable improvement in the Nigerian property sector giving rise to the participation and domination of the market by international corporate investors. This dynamic growth coupled with the demand for provision of security backed property assets has led to the merging of real estate assets into the capital market through the listing of UACN Property Development Company in 1998, Skye REITs in 2008 and Union homes in 2008. Thus, the SP sector in the capital market presently has one company – UPDC with a total market capitalization of about US$ 114 million. The prime focus of UPDC is the development and management of real estate in choice cities in Nigeria. UPDC purchases, develops, disposes, leases and manages prime residential and commercial real estate assets across various sectors in the Nigerian economy. Thus, investments in SP in the Nigeria capital market is an investment in direct property assets, which gives smaller investors the opportunity

to participate in the direct property market through the purchase of smaller units of the SP, as opposed to direct investment.

4. DATA AND METHODOLOGY

The data consists of average quarterly returns and dividends of SP and common stocks/Shares, as well as quarterly returns of Bonds and Treasury bills for the period of January 2000 to December 2013. Based on the classifications of the NSE, Bonds in the Nigerian capital market are grouped into three, namely Federal Bonds, State Bonds and Corporate Bonds (Debentures), and this classification is adopted for this study. The prices of SP, Bonds and Shares were sourced from the Nigerian Stock Exchange daily price list, while prices on Treasury bills were sourced from the Central Bank of Nigeria statistical bulletin.

Preliminary analysis was done to examine the stationarity of assets returns. This is with a view to ascertaining if the returns of the assets were mean reverting and thus consistent over the study period, or otherwise. The study employed the Philips Perron test due to its ability to accommodate known and unknown structural breaks, and being widely regarded as the most appropriate for examining data for unit root (Okunev and Wilson, 1997; Li, 2006). The results are as shown in the appendix.

Having conducted the preliminary check and established that the data sets were stationary, the returns of the assets for the period under study was examined. The holding period was employed. Subsequently, the mean return for each asset was calculated. Having determined the holding period return and the mean return for each asset, the study employed standard deviation to measure the degree of variation of returns (risk) associated with each asset. In addition, the performance profile of each asset was compared in absolute terms as well as on the basis of risk adjusted returns using Sharpe Performance Index. The higher the Sharpe index, the better the performance of an investment. Learning from previous studies such as Liow (2001), Ooi and Liow (2004) and Amidu *et al.,* (2008), quarterly average of the 90-day Treasury bill rate over the study period was used as proxy for the risk free rate. Furthermore, the paper examined the correlations existing between the pair of assets, with a view to ascertaining possible diversification potential of SP.

Having analysed the assets return-risk performance and correlations, the effect of including SP in a mixed-asset portfolio was investigated using naïve and Markowitz quadratic function. The results obtained from both methods were subsequently compared.

For the naïve portfolios, 24 portfolios were developed; 18 with SP and 6 without SP. Assets' initial weightings were chosen on the basis of a typical institutional portfolio of 45% Shares and 55% fixed interest (30% bond and 25% T-Bill) (Lee, 2005). The initial weightings of the asset classes were subsequently adjusted to allow for the inclusion of SP; by replacing certain percentage of an asset or a combination of assets with SP at a time. The risks and returns level of the resulting portfolios were subsequently determined using Markowitz's mean variance analysis. A comparison was thereafter made of each portfolio's risk and return to determine the effect of adding SP to a mixed-asset portfolio.

Also, the effectiveness of diversification was measured for the developed naïve portfolios. This is to determine the portfolios' efficiencies or risk reduction benefits. Effectiveness of diversification expresses the percentage decrease in risk realized by having different classes of asset (Olaleye, 2011). Thus, by comparing the risk of portfolio return (R) with the weighted average risk of individual assets (W) as shown in equation 1, the effectiveness of diversification was measured:

$$ED = \left[\frac{W - R}{W}\right] X\, 100 \qquad (1)$$

Where, ED is the Effectiveness of Diversification, W is weighted average risk of individual assets and R is the risk of portfolio return.

The higher the ratio or percentage, the higher the effectiveness of diversification.

The paper further assessed the statistical significance of the results of the naïve portfolios without SP and portfolios with SP. The paper tested the hypothesis that performance of naïve portfolios with SP is better than naïve portfolios without SP. Where the performance of the two types of naïve portfolios are given as μ_1 and μ_2, respectively, the null and the alternate hypothesis are given as follows:

H_0: $\mu_1 = \mu_2$, there is no significant difference between performance of portfolios with and without SP.

H_1: $\mu_1 = \mu_2$, there is significant difference between performance of the two portfolios.

The mean and standard deviation of the difference in the naïve portfolios performance are as shown in equation 2:

$$\mu_{\bar{x}_1 - \bar{x}_2} = 0 \qquad and \qquad \delta_{\bar{x}_1 - \bar{x}_2} = \sqrt{\frac{\delta_1^2}{N_1} + \frac{\delta_2^2}{N_2}} \qquad (2)$$

where sample standard deviations are used as estimates of δ_1 and δ_2,

Thus:

$$Z = \frac{\bar{x}_1 - \bar{x}_2}{\delta_{\bar{x}_1 - \bar{x}_2}} \qquad (3)$$

The results are significant for a two tailed test at 0.05 level (H_1 is accepted) if Z lies outside the critical value of range -1.96 to +1.96. Also, the results are significant at 0.01 level (H_1 is accepted) if Z lies outside the critical value of range -2.58 to +2.58.

Finally in examining the effects of SP in a mixed-asset portfolio, assets efficient frontiers were constructed with the Markowitz Quadratic Programming software. Subsequently, the portfolio weightings of each asset were assessed to ascertain the effects of including SP in a mixed-asset portfolio.

Markowitz quadratic programming method can be expressed mathematically as shown in equations 4 to 7:

$$minimize\sigma_{port}^2 = \sum_{i=1}^{N} w_i^2\, \sigma_i^2 + 2\sum_{i=1}^{N}\sum_{j=1}^{N} w_i\, w_j \sigma_{ij} \qquad (4)$$

Subject to:

$$E(R_{port}) = \sum_{i=1}^{N} w_i \, \mathrm{E}(R_i) \quad (5)$$

$$0 \leq w_i \geq 1 \quad (6)$$

$$\sum_{i=1}^{N} w_i = 1 \quad (7)$$

Where, w_i is weight associated with asset i, σ_i^2 is the variance of asset i, σ_{ij} is the covariance between asset classes i and j, N is the number of asset classes, $E(R_i)$ is expected return of asset class i and $E(R_{port})$ is the expected return of the portfolio.

5. Analysis and Results

The preliminary check for data stationarity (*see Appendix*) showed that the mean values for the assets are consistent over the period analysed. Hence the mean value can be relied upon. Subsequently, the descriptive statistics are presented.

5.1. Descriptive Statistics

Presented in Table 1 is the result of the descriptive statistics for the assets considered for the period January 2000 to December 2013.

Table 1: Descriptive Statistics for Mixed-Asset Portfolio

	T-Bills	*Securitised Property (SP)*	*Shares*	*Federal Bonds*	*State Bonds*	*Debentures*
Return (%)	10.870	3.300	2.610	10.410	13.910	17.220
Standard Deviation (%)	5.100	12.650	9.660	0.860	3.150	4.000
Reward-to-Risk Ratio	2.131	0.261	0.270	12.105	4.416	4.300
Coefficient of Variation	0.469	3.833	3.701	0.083	0.226	0.233
Sharpe Ratio	-0.020	-0.606	-0.865	-0.651	0.933	1.558
Correlation Coefficient						
T-Bills	1.000					
Securitised Property (SP)	0.067	1.000				
Shares	0.059	0.356**	1.000			
Federal Bonds	-0.506**	-0.125	-0.033	1.000		
State Bonds	0.360**	0.114	0.144	-0.288*	1.000	
Debentures	0.121	0.291*	0.131	-0.325*	0.082	1.000

*Note: Correlation is significant at: *0.05 and **0.01 levels (two tailed)*

Result of the analysis in Table 1 showed that while Debentures outperformed other assets on mean return basis with an average return of 17.22%. Securitised property (3.30%) underperformed other assets except Shares (2.61%). The low returns of Shares and SP might be due to increased volatility in the capital market triggered by the financial recession experienced globally during 2008 to 2009. Analysis from Table 1 also revealed that out of all the asset classes, SP was the most risky, while Federal bonds was the least risky; with both having standard deviation values of 12.65% and 0.86% respectively. The high risk associated with SP might also be attributable to market fluctuations in the Nigerian Stock market. The risk adjusted analysis showed that SP, with a risk adjusted value of -0.606 underperformed other assets except Shares (-0.865) and Federal bonds (-0.651). This implies that SP performed below the risk free rate of return during the period under analysis.

The study affirmed previous findings such as Hoesli and Lizieri (2007) and Kovac and Lee (2008) that SP exhibited volatility similar to the equity market. While the results also corroborate the findings of Emele and Umeh (2013) in terms of SP low risk adjusted returns. The results however contradict previous studies such as Chan, Hendershott and Sanders (1990) and Olaleye *et al.,* (2010) which found that SP outperformed the market and other investment media. Thus, based on the excess return to risk ratio, SP might not be expected to outperform other investment assets in the Nigeria investment market. The correlation coefficients of the assets are as shown in the lower part of Table 1. The correlation between SP and Shares (0.356) and between SP and Debentures (0.291) were significant at 0.01 and 0.05 levels respectively. This finding implies that these pairs of assets might have been close substitutes during the period analysed. Thus minimal or no diversification benefit might be expected when these assets are combined in a portfolio, as against when one of the assets replaces the other. The positive correlation between Shares and SP is consistent with the findings of some studies (Cheong, Wilson and Zurbruegg, 2009; Lee and Ting, 2009; Olaleye, 2011; Emele and Umeh, 2013; Olaleye and Ekemode, 2014). The co-movement found between Shares and SP might not be expected as both assets are expected to display segmentation. The result further confirms that SP behaved more like the Stock market, and not like the underlying physical assets.

5.2 Effects of Securitised Property on Choices of Asset Combinations

In analysing the effects of including SP on the choices of asset combinations, the paper examined naively constructed portfolios and optimized portfolios constructed with the aid of *The Investment Portfolio Software,* version 2.5, and

compared the results.*5.2.1 Effects of Securitised Property in Naïve Mixed-Asset Portfolios*

For the naively constructed portfolios, 24 portfolios (18 with SP and 6 without SP) were created. Presented in Tables 2-4 are the percentage allocations of each portfolio, mean returns of the portfolios constructed with and without SP, the risk of the portfolios as measured by their standard deviations, effectiveness of diversification and the reward to variability ratio of the portfolios. The results of the analysis are discussed in two subsections; the first on return enhancement characteristics and the second on risk reduction potential of SP.

Table 2: Asset allocation and performances of constructed naïve portfolio

	SP	Shares	T-Bills	Federal bond	State Bond	Debentures	Return	Risk	EOD	Sharpe
Panel 1: no allocation to SP	0	45	25	10	10	10	8.046	4.749	26.063	-0.601
SP replacing 5% of Shares only in panel 1	5	40	25	10	10	10	8.081	4.566	30.529	-0.617
SP replacing 15% of Shares only in panel 1	15	30	25	10	10	10	8.150	4.465	35.021	-0.616
SP replacing 25% of Shares only in panel 1	25	20	25	10	10	10	8.219	4.728	34.063	-0.567
SP replacing 5% of T-bill only in panel 1	5	45	20	10	10	10	7.668	4.940	27.358	-0.654
SP replacing 5% of FG Bond only in panel 1	5	45	25	5	10	10	7.691	5.028	28.299	-0.638
SP replacing 5% of State Bond only in panel 1	5	45	25	10	5	10	7.516	4.976	27.863	-0.680
SP replacing 5% of Debentures only in panel 1	5	45	25	10	10	5	7.350	4.971	27.489	-0.714
Panel 2: no allocation to SP	0	25	15	20	20	20	10.591	2.985	37.578	-0.104
SP replacing 5% of Shares only in panel 2	5	20	15	20	20	20	10.626	2.877	41.661	-0.095
SP replacing 15% of Shares only in panel 2	15	10	15	20	20	20	10.695	3.083	41.057	-0.067
SP replacing 5% of T-Bill only in panel 2	5	25	10	20	20	20	10.213	3.207	37.843	-0.214
SP replacing 5% of FG Bond only in panel 2	5	25	15	15	20	20	10.236	3.301	38.546	-0.201
SP replacing 5% of State Bond only in panel 2	5	25	15	20	15	20	10.061	3.229	38.577	-0.260
SP replacing 5% of Debentures only in panel 2	5	25	15	20	20	15	9.895	3.210	38.441	-0.313

SP – Securitised property

5.2.1.1 Return Enhancement Characteristics of Securitised Property

Analysis of the naïvely constructed mixed-asset portfolio showed that from Panel 1, Table 2 (column 8), return enhancement benefit was obtained by increasing the percentage allocation to SP while decreasing the percentage allocation to Shares. On the contrast, return enhancement benefits were not obtainable with reduced percentage allocation to other assets within the portfolio. The results from Panel 1 showed that portfolio with no allocation to SP had 8.046% returns. By replacing Shares with 5% of SP, the result showed a minimal increase in return of 8.081% (0.44% increase). Upon increasing the percentage being replaced to 25%, the returns increased to 8.219% (2.14% increase). However, when SP replaced other assets within the panel, the returns were observed to be lower than the return of the initial weighting. In Panel 2, Table 2, when replacing 5% of T-Bills with SP, the portfolio return reduced to 10.213% from 10.591% (3.57% decrease). Similar findings applied to Federal bonds, State bonds and Debentures. Replacing 5% of each at a time led to a reduction in portfolio returns to 10.236% (3.35% decrease), 10.061% (5.00% decrease) and 9.895% (6.57% decrease) respectively. The test of statistical significance gave a Z value of -0.821. The result is therefore not significant. This implies that there was no significant difference between the returns of portfolios with SP and portfolios without SP during the period under study.

Comparing the excess return to risk ratios of portfolios in Panel 1, Table 2 (column 11), just as with the return analysis, higher Sharpe ratio was obtained when SP replaced Shares in the portfolio. While a decrease in Sharpe ratio was observed when SP replaced other assets. The portfolio without SP had a Sharpe ratio of -0.601%. This increased to -0.567% representing approximately 5.7%

gain when SP replaced 25% of Shares. However, when the Sharpe ratio of other asset classes were compared based on 5% substitution with SP, the result showed a decrease in the reward to variability ratio. In Panel 2, Table 2, when SP replaced 5% of T-Bills the Sharpe ratio decreased to -0.214% from -0.104%, representing a decrease of 105.77%. The result of the Z value (0.969) showed that there was no statistical difference in the excess return to risk performance of portfolios with and portfolios without SP.

From the analysis in Panels 3-6 (Tables 3 and 4), the results showed that SP did not enhance returns and excess return to risk ratio, except when replacing Shares in a mixed-asset portfolio. This result therefore confirmed the earlier correlation analysis that SP and Shares were close substitutes during the period of measurement. This lays credence to the study of Olaleye and Ekemode (2014) that both assets are co-integrated in the Nigerian market.

The percentage gains in portfolio returns lied between 0.43% and 63.56% gains, while an increase in Sharpe ratio of between 0.59% and 82.84% might be realized. However, the percentage gain in portfolio returns or increase in Sharpe ratio depended on the percentage allocation to SP and the asset class replaced.

Table 3: Asset allocation and performances of constructed naïve portfolio

	SP	Shares	T-Bills	Federal bond	State Bond	Debentures	Return	Risk	EOD	Sharpe
Panel 3: no allocation to SP	0	10	15	25	25	25	12.277	2.019	45.922	0.682
SP replacing 5% of Shares only in panel 3	5	5	15	25	25	25	12.311	2.057	47.025	0.686
SP replacing 9% of Shares only in panel 3	9	1	15	25	25	25	12.339	2.226	44.386	0.646
SP replacing 5% of T-Bill only in panel 3	5	10	10	25	25	25	11.898	2.213	46.169	0.451
SP replacing 5% of FG Bond only in panel 3	5	10	15	20	25	25	11.921	2.344	45.778	0.436
SP replacing 5% of State Bond only in panel 3	5	10	15	25	20	25	11.746	2.245	46.656	0.377
SP replacing 5% of Debentures only in panel 3	5	10	15	25	25	20	11.581	2.214	46.855	0.307
Panel 4: no allocation to SP	0	20	20	20	20	20	11.004	2.687	40.997	0.039
SP replacing 5% of Shares only in panel 4	5	15	20	20	20	20	11.039	2.616	44.382	0.053
SP replacing 15% of Shares only in panel 4	15	5	20	20	20	20	11.108	2.930	41.429	0.071
SP replacing 5% of T-Bill only in panel 4	5	20	15	20	20	20	10.626	2.877	41.661	-0.095
SP replacing 5% of FG Bond only in panel 4	5	20	20	15	20	20	10.649	3.003	41.616	-0.084
SP replacing 5% of State Bond only in panel 4	5	20	20	20	15	20	10.474	2.920	41.937	-0.146
SP replacing 5% of Debentures only in panel 4	5	20	20	20	20	15	10.308	2.904	41.763	-0.204

SP – Securitised property

EOD –Effectiveness of Diversification

Table 4: Asset allocation and performances of constructed naïve portfolio

	SP	Shares	T-Bills	Federal bond	State Bond	Debentures	Return	Risk	EOD	Sharpe
Panel 5: no allocation to SP	0	20	35	15	15	15	10.558	3.012	38.762	-0.114
SP replacing 5% of Shares only in panel 5	5	15	35	15	15	15	10.592	2.945	41.890	-0.105
SP replacing 15% of Shares only in panel 5	15	5	35	15	15	15	10.661	3.220	40.004	-0.074
SP replacing 5% of T-Bill only in panel 5	5	20	30	15	15	15	10.179	3.122	41.050	-0.231
SP replacing 5% of FG Bond only in panel 5	5	20	35	10	15	15	10.202	3.297	40.142	-0.212
SP replacing 5% of State Bond only in panel 5	5	20	35	15	10	15	10.027	3.212	40.447	-0.272
SP replacing 5% of Debenture only in panel 5	5	20	35	15	15	10	9.862	3.209	40.030	-0.324
Panel 6: no allocation to SP	0	5	5	30	30	30	13.136	1.736	44.731	1.288
SP replacing 4% of Shares only in panel 6	4	1	5	30	30	30	13.164	1.815	44.335	1.247
SP replacing 4% of T-Bill only in panel 6	4	5	1	30	30	30	12.833	1.912	44.467	1.011
SP replacing 5% of FG Bond only in panel 6	5	5	5	25	30	30	12.781	2.060	44.780	0.913
SP replacing 5% of State Bond only in panel 6	5	5	5	30	25	30	12.606	1.958	45.852	0.871
SP replacing 5% of Debentures only in panel 6	5	5	5	30	30	25	12.440	1.908	46.607	0.807

SP – Securitised property

EOD –Effectiveness of Diversification

5.*2.1.2 Risk Reduction Potential of Securitised Property*

The risk reduction potential of SP in the naïve portfolios was assessed by comparing the average portfolio risk; measured by the standard deviation, and the effectiveness of diversification for each portfolio within the panels as shown in Table 2, column 9.

From Panel 1 (Table 2), portfolio without SP had an average risk of 4.749%. However, risk reduction benefit was obtained by continuously substituting Shares with SP. For a 5% substitution, the portfolio risk reduced to 4.566%; and for a 10% and 15% substitution, the portfolio risk is further reduced to 4.47% and 4.465% respectively. These represented 3.85%, 5.87% and 5.98% reductions in portfolio risk respectively. However, for a 25% substitution, the risk reduced to 4.728% (0.44% decrease in portfolio risk); though still comparably lower than when SP was not included in the portfolio. From Panel 2 (Table 2), portfolio without SP had a standard deviation of 2.985. However, upon substituting 5% each of T-Bills, Federal Bonds, State Bonds and Debentures, with SP, the portfolio risk increased to 3.207%, 3.301%, 3.229% and 3.210% respectively; signifying an increase in portfolio risk by 7.44%, 10.59%, 8.17% and 7.54% respectively. This showed that risk reduction benefits were only obtained when SP replaced Shares up to about 20%. Risk reduction benefits were not obtained when SP replaced other assets within the portfolios. Testing the statistical significance of the results gave a Z value of 1.856, implying that the results are not significant at 0.05 level. Thus, there is no significant difference in the risk level of the two types of portfolios. The results were only found to be significant at 0.1 (90%) confidence level.

When portfolios in Panel 1 (Table 2) were assessed in terms of their effectiveness of diversification values (column 10), portfolio without SP had 26.063% efficiency. Upon a 5% replacement of Shares with SP, the effectiveness of diversification increased to 30.529%, representing 17.14% increase. For a 10%, 15% and 20% replacement of Shares with SP, the effectiveness of diversification was 33.502%, 35.021% and 35.152% respectively; representing 28.54%, 34.37% and 34.87% increase in effectiveness of diversification respectively. However, at 25% substitution of SP for Shares, the efficiency dropped to 34.063%. When 5% each of other assets were substituted within the portfolio, the efficiency of diversification increased slightly to 27.358% for T-Bills (4.97% increase), 28.299% for Federal bonds (8.58% increase), 27.863% for State bonds (6.91% increase) and 27.489% for Debentures (5.47% increase). Testing the results obtained for statistical significance, a Z value of 0.399 was found, implying a no significant difference between the portfolios risk reduction profile between portfolios with SP and portfolios without SP.

The analysis above suggests that the risk reduction potential of SP was obtained only when it replaced Shares (except in panels 3 and 6; Tables 3 and 4 respectively). This reduction was however subject to the percentage allocation to Shares and percentage substitution of Shares with SP within the naive mixed-asset portfolios. When substituting other asset with SP, the average portfolio variability increased. The percentage reduction in portfolio risk between 4.55% and 200% might be realized depending on percentage allocation to SP and the asset being replaced in the naïve portfolios.

5.2.2 Effects of Securitised Property in an Optimal Portfolio

Examining the diversification effects of SP in an optimized portfolio, assets combinations were constructed using *The Investment Portfolio Software*. Table 5 and Figure 1 shows the optimal allocation to each asset within the portfolio.

Table 5: Efficient Asset Combinations

Efficient sets	SP	Federal bonds	State bonds	Debentures	T-bills	Shares	Minimum Variance Portfolio (MVP) (%)	Maximum Return Portfolio (MRP) (%)	EOD	Portfolio Sharpe Ratio (PSR)
Set 1	0	81.649	5.439	6.477	6.435	0	0.579	11.067	99.604	0.288
Set 2	0	60.152	7.701	9.173	5.293	0	0.596	11.324	99.573	0.711
Set 3	0	38.177	18.182	21.666	0	0	0.973	12.518	99.450	1.663
Set 4	0	15.882	30.570	42.757	0	0	1.930	14.388	99.313	1.807
Set 5	0	0.002	40.439	59.560	0	0	2.766	15.878	99.243	1.800
Set 6	0	0	16.818	83.182	0	0	3.379	16.659	99.124	1.704
Set 7	0	0	0	100	0	0	3.962	17.216	99.010	1.594

As presented in Table 5 and Figure 1, analysis of the efficient sets showed that percentage allocation to SP was 0.00 percent, implying that SP had no percentage contribution in the efficient sets over the period analysed. The lower left corner

of the efficient sets (set 1) which has the least risk-return value had a risk and return value of 0.579 and 11.067 percent respectively, with a Sharpe ratio of 0.288 and an efficiency of 99.604. While the uppermost right corner of the efficient sets (set 7) which has the highest risk-return has a risk and return value of 3.962 and 17.216 respectively, a Sharpe ratio of 1.594 and portfolio efficiency of 99.010. Based on the Sharpe ratios, the most optimal portfolio along the efficient sets is set 4. This portfolio set has a Sharpe ratio of 1.807, efficiency of 99.313 and a risk return value of 1.930 and 14.388, from this portfolio, it is also observed that SP might not have any significant effect in the efficient sets over the study period as it had no allocation in the efficient portfolio. This result contradicts previous studies such as Anderson and Svanberg (2003), Bond and Glascock (2006) Olaleye (2011) and Falk (2012) which noted that portfolios tend to be more efficient with the inclusion of real estate assets. It however supports the assertion of Lee and Ting (2009) that SP might not offer diversification benefits when included in a mixed-asset portfolio.

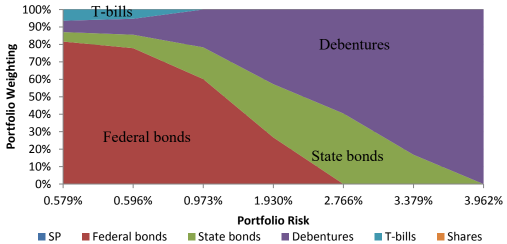

Figure 1: Portfolio Assets Weighting for 2000-2013

Comparing the results of the naïvely constructed portfolios (Tables 2-4) and the Markowitz efficient portfolios (Table 5), the results from the naïve portfolios showed that the most efficient portfolio based on the efficiency of diversification (EOD) criteria has an EOD of 47.025 (Table 3, panel 3), a Sharpe ratio of 0.686, and a return and risk value of 12.311 and 2.057 respectively, with a 5% allocation to SP. However, using the Sharpe ratio criteria, the best performing portfolio (Panel 5, Table 4) has a Sharpe ratio of 1.288, an efficiency of 44.731 and return risk values of 13.136 and 1.736 respectively, with a weighting of 0.00% to SP.

However based on the Markowitz quadratic function, the results from the optimized portfolios showed that based on EOD, set 1 with an efficiency of 99.604, has a Sharpe ratio of 0.288 and a return and risk value of 11.067 and 0.579 respectively. SP has no percentage allocation. Furthermore, while using the Sharpe ratio criteria, the best performing portfolio (set 4) has a Sharpe ratio of 1.807 and an efficiency value of 99.313, with 14.388 and 1.930 as return and risk values respectively. Also, SP has no percentage allocation.

Thus, comparing the findings of the naïve and MPT portfolios showed that in both instances, including SP does not lead to enhanced diversification benefits; neither does it increase portfolio efficiency. As expected, the results showed that optimized portfolios were more efficient than the naively constructed portfolios. This finding is contrary to the findings of Olaleye and Aluko (2007) and Olaleye *et al.,* (2008), that portfolios constructed naïvely might have enhanced diversification benefits than MPT portfolios.

6. Conclusion

Consistency in increasing cross border investments, the seeming strategic role of SP in mixed-asset portfolios, coupled with the fact that most investors; especially in Nigeria seems to prefer naïve method of analysis, the need to investigate the effects of SP in a mixed-portfolio based on naïve and MPT approaches seems compelling. The study found that for a naively diversified portfolio the inclusion of SP in a mixed-asset portfolio offers less diversification benefits and the risk reduction effect was more than the return enhancing benefits. The return enhancement and risk reduction benefits were however dependent on the percentage allocation to SP and other assets within the naïve portfolio and the asset class being replaced. Optimal assets allocation obtained using Markowitz mean variance analysis showed that SP might not be expected to be included in a mixed-asset portfolio as it might not contribute to the portfolio efficiency, perhaps due to its high risk and low returns over the study period.

While empirical evidences from most developed and some developing economies suggest inclusion of SP in a mixed-asset portfolio, the findings from this study suggests otherwise. The results herein presented is slightly in line with the findings of Olaleye (2011) who noted that the diversification effect of SP in a mixed-asset portfolio was dependent on its percentage allocation and the asset class being replaced. Furthermore, the findings somewhat differs from the results obtained from the study of Ramushu (2006) which suggested an optimal allocation of between 10-15 percent to SP asset, as the study suggested that SP ought not have any allocation in a mixed-asset portfolio.

This study has implication for fund managers and investors interested in the Nigerian emerging market given that previous studies have suggested an increased allocation to SP in a mixed-asset portfolio. The paper's conclusion underscores the need for investors/fund managers to exercise caution when including SP in their portfolio. While they might consider allocating some minimal percentage to SP, excessive exposure of the portfolio through increased allocation to SP might erode the expected returns from the portfolio.

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Appendix

Test for Stationarity of Data Sets

In examining if assets mean values were stationary and thus consistent over the study period, the study tested for stationarity of the data sets. The results of the Philip-Perron unit root test as shown in Table 6 indicates that both SP and Shares were stationary at level, while Federal bonds, State bonds, Debentures and T-bills were stationary at first difference. This implies that SP and Shares are mean reverting at level; I(0) while other assets are mean reverting at first difference; I(1). This showed that the mean values for the assets are consistent over the period analysed.

Table 6. Philip Perron Unit Root Test

Variable	Unit Root Static Level	1^{st} Difference	Remarks
SP	-8.358630	-67.05184	I(0)
Federal bonds	-2.018905	-11.01338	I(1)
State bonds	-2.399973	-7.324535	I(1)
Debentures	-1.229405	-4.798153	I(1)
Shares	-7.045116	17.69955	I(0)
T-bills	-1.860758	-7.062864	I(1)

IMPACT OF PROPERTY TAX ADJUSTMENT ON RENTAL VALUE IN NIGERIA

EKENTA, CHUKWUEMEKA

E-mail: emekaekenta@yahoo.com +2348036762802

BARIDOMA, MOSES BARIDI

E-mail: mozito4u@yahoo.com +2348033083163

ABSTRACT

Tax adjustment in every economy is significantly affected by monetary policies, by implication real property taxes. This study examines the effect of property tax adjustments with respect to their impacts on rental value in Nigeria. Data were obtained from 150 respondents. The multiple regression models and SPSS package were adopted for data analysis. The study found out that there is statistically significant relationship between landed property taxation and rental value. The implication is that rental income from property is significantly affected by tax adjustments by discouraging real property investments. It was recommended that tax reform and related institutional reform should entail actions that are of local conditions rather than an attempt to realize abstract principles.

Key Words: Impact, Landed Property, Taxation, Rental Value.

1.0 INTRODUCTION

Rental value is a term that has attracted much attention to real property investors. In an effort to realize the objectives of real estate investment, considerations are made of some forms of property tax which are crucial to rental value.

Igwe-Kalu (1998) while describing tax as compulsory levies, defined landed property taxation as those taxes imposed on real or immovable property. One of the cardinal objectives of government is to provide the populace with basic infrastructure. Without money it is impossible to provide the large scale infrastructures needed, especially in time of dwindling revenue by the Federal Government. Besides, there are different sources of revenue for the provision of infrastructure required, but most of the available sources of revenue are not sustainable (Igwe-Kalu, 2014). For instance the dependence of government in Nigeria at all levels on an exhaustible mono-product raw material oil- for revenue is precarious, unpredictable and dangerous (Alm and Boex, 2002). This will lead the Federal Government to source for new means of generating additional revenue internally through property tax.

The truth, however, is that the theory of shifting of property taxes points to wide range of possibilities; under some circumstances the whole of the tax may be reflected in a reduced rental income (and hence, lower property values) for landlords, while in other situations the tax may result primary in increased rents to tenants, with little impact on market value of property.

With this background, the aim of the study was to determine the joint and individual impacts of property tax adjustments on rental income in Nigeria; while propounding possible policy implications and offering appropriate recommendations.

OBJECTIVES OF THE STUDY

The objectives of the research are;

(i) To determine the short-and long term effects of property tax adjustments on rental value.

(ii) To establish the relationship between landed property taxation and rental value.

(c) To present some empirical findings on the problem of tax adjustment on rental value.

REVIEW OF LITERATURE

Rental Value: Rent is a periodic payment for the use of property. In connection with rent, Ratcliffe, (1978) enumerated parts of rent, via.

(a) Payment for the raw land representing nature's original gift.

(b) Payment by way of return on the capital expenditure on building and works.

(c) An allowance for depreciation of the works and buildings.

(d) Any continuing expenses incurred in occupying and owning the land and building.

In the words of Lawal (1997), rent paid for the use of a unit of real estate for a particular period of time and it may also be defined as the annual or periodic payment for the use of land and building.

Value itself is the amount of money which can be obtained from an interest at a particular time from persons able and willing to purchase it. Ekenta, (2010) defined rental value as the monetary return which may reasonably be expected to be obtained from letting a property at a particular point in time on market value basis. By market value here, we mean that all the parties must be aware of the rent the property will command in the market without compulsion.

Taxation: Tax is a compulsory levy imposed on a subject or upon his property by government to provide security, social amenities and create conditions for the economic well-being of the society (Apah, 2004). Tosun and Abizadeh (2005) says taxes are used as proxy for fiscal policy. However, Abdulrazaq (2003) stated that in simple terms, a direct tax is one, which is demanded from the very person who it is intended or desired, should pay it.

Indirect taxes are those, which are demanded from one person in the expectation and intention that he shall indemnify himself at the expense of the other.

Ola (1985) sees the objectives of taxation as;

i. To raise revenue and ensure that citizens contribute their due to the development of the society.

ii. The need to spread the burden of payment progressively and equitably by soaking the rich to help the poor.

iii. The need to use tax as a tool of economic policy in transferring resources from the private sector of the economy to national use.

In the words of Ogbuefi (2004), these objectives are not comprehensive enough as they do not adequately take care of all the objectives of government fiscal policy.

Several scholars and tax analysts have proffered different objectives that governments intend to achieve through taxation. For instance, Umeh (1972) listed eight.

These are;

i. Revenue raising
ii. Social justice;
iii. Income redistribution;
iv. Resource allocation;
v. Capital formation;
vi. Planning;
vii. Development;
viii. Economic Stabilization;

Landed Property Taxation: Conceptually, land as a factor of production and a source of wealth should be subjected to taxation. According to Ogbuefi, (2004), landed property taxation involves these taxes imposed by law and payable by individuals, corporations and other bodies in respect of interests or estates in real or immovable property.

In its broadest sense, they include – petroleum tax, mining tax, mineral royalties, forest tax, etc (Igwe-Kalu, 1998). In Nigeria, like in most nations under the common wealth of Nation, there exist in the statute books legislations covering the following types of land taxation;

i. Capital Gains Tax
ii. Capital Transfer Tax
iii. Withholding Tax
iv. Value Added Tax
v. Stamp Duty
vi. Tenement Rate
vii. Probate Tax;

In determining the appropriate method of tax assessment, Harvey (2000) Opined that it is usual for local property taxes to be levied ad valorem with Net Annual Value (NAV).

When Net Annual Value is the basis of assessment, it is likely to be determined as follows; gross Annual Value which is the yearly rent that a property mighty reasonably be expected to let on a determined rate and with deductions made for maintenance and insurance and other outgoings to give the net annual value.

Property Tax Adjustment: Property Tax Adjustments (PTA) are fiscal measures designed to impose on landed properties some or all of the tax charged on landed properties and income from landed property. Property Tax Adjustment can;

- Generate Revenue
- Be legally feasible
- Be efficiently executed

Effect of Tax Adjustment on Property Value: The effects of taxation on landed property can be viewed from rental and capital value perspectives.

Basically, owners of assets including landed property would aim at shifting the burden of taxation to the purchase or occupier of the property.

It is a fact that basically all types of landed property taxation in Nigeria have an effect on landed property. If one considers first, the effect of property income tax on rental value, it may be necessary to look at it from the perspective of varying rate nairage in different areas.

The effect of income tax on rental value of landed property may not be easily apparent, as income from landed property like income from any other source is subject to taxation. It is not taxed in isolation. It is part of the amalgam of income of a taxpayer from the various sources that would be subjected to income tax.

Ordinarily, income tax payable for the ownership of landed property constitute a negligible fraction of the totality of income tax payable by the taxpayer and hence, it does not play a critical role in the determination of rents especially in developing countries where the preponderance of property development is individually based (Ogbuefi, 1988). In addition, income tax on landed property is not subject to assessment on the current year, rather, it is based on the preceding year. The implication is that in developing countries where private property owners are in dominance, it may not have as much impact on rental value as in a society where companies are the major actors in the landed property investment especially housing development.

Lean and Goodall (1977) stated that the basic economic effect of tax is that the open market price will increase in the long run if there is higher demand for a good or service. Similarly, the higher the outgoings in form of tax liability, the higher will be the rent that landlord will demand for a given property on the long run. In this regard, where initial capital costs cannot be set off against tax liability whereas maintenance expenditure can be, this will increase additional expenditure on maintenance rather than initial construction. In respect of supply of properties, Harvey (2000) opined that in the short-run the stock of rented houses is fixed while new rates will be borne by owners and the net rent will fall. In the long run, supply of houses will be more elastic since, assuming no planning consent is required, owners will adapt them to other uses or simply not replace them as they wear out, switching to lower taxed and profitable forms of investment. The tax burden is then passed on to the tenants; however, its extent depends upon the relative elasticity of supply and demand.

While according to Harris (2009) every increase in property – tax rate on structures (not land) reduces the desirability of putting capital funds into new buildings, creates an incentive against upgrading quality by new construction, and discourages maintenance. It also leads to the construction of rooms, apartments and buildings somewhat smaller than would be the case in the absence of tax.

RESEARCH METHODOLOGY

The sample size used in this study was 140 respondents that were randomly selected among practicing Estate surveyors in Port Harcourt. The multiple regression analysis was employed to analyze the variables with the aid of SPSS package of descriptive frequencies.

In the view of Owen (2000), Multiple Linear Regression allows the incorporation of more than one independent variables into an equation for the predictions of the dependent variables into an equation for the prediction of the dependent variables. The general mathematical model of multiple regression is expressed thus;

$$\mathbf{Y = a + b_1 x_1 + b_2 x_2 + \ldots\ldots b_n x_n.}$$

Where;

Y = Dependent variable to be predicted

a = A constant, the y intercept

$\mathbf{b_1}$ = The change in y for each 1 increment change in x_1

$\mathbf{b_2}$ = The change in y for each 1 increment change in x_2

x = Independent variables for which you are trying to predict

For this study y variables is the dependent variable (Rental Value), while ($x_1 – x_6$) are the independent variables represented thus;

x_1 = Withholding Tax

x_2 = Capital Gains Tax

x_3 = Tenement Rate

x_4 = Stamp Duty

x_5 = Capital Transfer Tax

x_6 = Value Added Tax

By manipulating the independent variables, the researcher intends to discover which of them have greater influence on landed property taxation in Nigeria and to what magnitude.

ANALYSIS AND DISCUSSION

In analyzing the data, the independent variables were set to determine the relationships between the dependent and guide towards achieving the objectives of the study.

Table 1: Summary of statistics of Mean and Standard Deviation of responses for landed Property Taxation that affects Rental Value in Nigeria.

Table 1.1

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
N	140	140	140	140	140	140
Mean	4.51	3.86	4.06	3.92	3.75	3.80
S.D	0.911	0.899	0.877	1.079	1.215	1.214

Source: Researchers field work.

Table 1.1 shows the mean and standard deviation of the possible forms of landed property taxation that affects rental value in Nigeria which indicates that the respondents were in agreement with all the items. However item 1: “Withholding Tax” (M = 4.51, SD = 0.911)” was rated the highest, this was followed by item 3: “Tenement Rate” (M = 4.06, SD = 0.877) and the least was item 5 “Capital Transfer Tax” (M = 3.75, SD = 1.215).

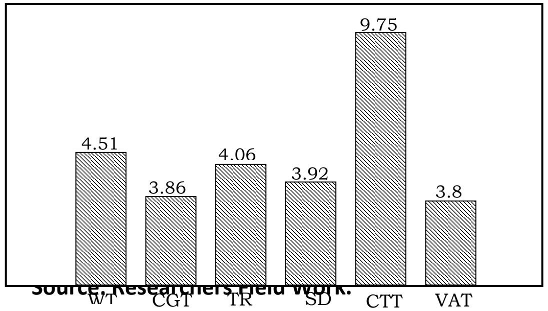
<u>Keys:</u>

TR = Tenement Rate
SD = Stamp Duty
WT = With-holding Tax
CGT = Capital Gain Tax
CTT = Capital Transfer Tax

VAT = Value Added Tax

Property Taxations that Affect Rental Value in Nigeria

Figure 1.1: Graph showing the mean effect of possible forms of landed property taxation that affects rental value due to tax adjustment.



Source: Researchers Field Work.

The graph shows that CTT has the highest mean value of 9.75, which clearly indicates that it is the most form of landed property taxation that affects rental value due to tax adjustment.

Conclusion

It has been observed that taxation is a major means of generating revenue especially during a dwindling economy. The Federal Government of Nigeria should adopt a pragmatic approach to tax implementation by avoiding revolutionary and upward tax adjustments that have failed to succeed. This research believes that the long term solution to property tax problems in Nigeria should not impose huge burden on property occupiers.

Recommendations

Having considered the impact of property tax adjustment on rental values in Nigeria, the following recommendations are proffered.

i. A new tax reform should be given priority if it is the objective of government to generate revenue and to encourage efficient tax administration.

ii. Government should not see landed property taxation as a way of funding infrastructural development

iii. Because of differences in the historic development and current patterns of tax administration among countries, the nature of related institutions tends to vary significantly across countries and even across regions within individual countries. It is the research's view that tax reform and related institutional reform should entail actions that are of local conditions rather than an attempt to realize abstract principles.

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SUSTAINABLE REAL ESTATE: AN ANALYSIS OF OPEN PUBLIC SPACES INCORPORATION IN REAL ESTATE DEVELOPMENT IN KENYA.

MWAI TILDA NJERI, MWIRIGI PAMELA MUKIRI

Undergraduates, Bachelor of Real Estate

University of Nairobi

Email address: tildamwai@yahoo.com, mukirimwirigi@gmail.com

Abstract

Open public spaces are an integral part in sustainable development. The social value that emanates from this interaction within the spaces has been greatly undermined by the economic value of the developments within the country in the recent past. The introductory part of this paper seeks to define public spaces, their value and importance to sustainable real estate. It also seeks to explain the extent to which the spaces have been undermined and the under lying causes for this. The paper further seeks to investigate the conservation techniques applied on the already existent open public spaces in Kenya.

The paper presents an analysis of real estate developments in different parts of the City of Nairobi, Kenya. The essence of the analysis is to give a clear depiction of the extent to which public and private developers have incorporated open public spaces in their developments. The paper analyses the legal framework governing the allocation of open public spaces in developments within the country. In addition, it seeks to analyze best use practices in the world over and how these can be replicated in Kenya.

The paper concludes by making recommendations on how to incorporate open public spaces in real estate developments and their appropriate conservation methods.
Key words: sustainable development, open public spaces, social value, economic value, real estate.

INTRODUCTION

Open public spaces are a vital part of a society. They are planned for in order to meet various societal needs which include social, political, economic and aesthetic needs. Open public spaces are defined as the social spaces that are open and accessible to people mainly for recreational purposes. They can be categorized into city wide, intermediate or neighborhood spaces and individual spaces. The city wide spaces are designated for large populations and are mainly nationally symbolic. Intermediate spaces are within localized portions of the city serving multiple residences. Individual spaces are on a small scale and serve individual buildings for example an enclosed courtyard (Stanley et. al, 2012).

Some of the economic values of

open public spaces are; increase in property values and taxes as explained by the proximate principle according to Crompton (2005), availability of employment opportunities, business attraction and recreation value. The social values are; they are places where communities interact, they provide an identity to the communities, they improve the communities' health and fitness through exercise and meditation, they are places where families hangout and reconnect to improve their bonds through picnics and other activities and they are used are in carrying out cultural and sporting activities. The environmental values are the improvement and maintenance of biodiversity and enhancement of the air quality and control. The aesthetic values are the maintenance of the heritage and beauty of an area and the improvement of the landscape. The political values include the holding of political gatherings and barazas within the spaces.

The main focus of this paper is the incorporation of individual and intermediate spaces in real estate developments.

PROBLEM STATEMENT

In the past decades, the role of public spaces went unnoticed due to the fact that they were dominant as surrounding environments to human beings comprised of forests and large amounts of space. Human beings were therefore accustomed to these spaces and their benefits while remaining aloof to their value. In the recent past we have experienced an upsurge in uncontrolled developments that have taken up those spaces therefore leading to a constant decline in their availability.

The City of Nairobi, Kenya, was established in 1900 with a population of 11,500 people. Over the years this population grew exponentially to an approximate of 3.1million in 2008 when the last census was carried out and it continues to grow at a rate of 2.11 percent annually. The boundary of the city has also expanded from 18 square kilometers in 1900 to 696 square kilometers in 2016. This population growth and provision of key infrastructure including the provision of open public spaces has not been commensurate. The initial city master plan of 1948 was built on the neighborhood concept, allocating 27.5 % of the city to open public spaces serving a population of 250,000 people (Makworo, 2011)**.** The master plan considered the spaces as areas of cultutal interaction, sporting activities and lesiure. It made provisions on the functionality of the spaces by putting an emphasis on their compactness and consolidation (Kangai, 1990).

After 1963, the population within the city increased due to Africanization of the city which was as a result of the newly found independence resulting into uncontrolled urbanization characterized by poverty, unemployment and housing problems. This led to illegal alienation of open public spaces to private developers and the remaining ones deteriorated due to the lack of management. The master plan of 1948 was revised in the 1970s and they came up with the 1973 Nairobi Metropolitan Growth Strategy. It was a long term planning and policy guide with broad long term policy directions, strategies and possibilities for the development of Nairobi City. It captured the conservation and maintenance of the open public spaces through development control and zoning. The building code of 1968 also made provisions for open public spaces through the stipulations on plot ratio and site coverage (Makworo, 2011)**.**

Article 69(1A) of the Constitution of Kenya 2010,gives a stipulation on sustainable exploitation,utilisation, management and conservation of the environment and natural resources and the equitable sharing of the accruing benefits.

However, these provisions are not reflected on the ground as evidenced by the absence of controlled developments and the outright violation of the building code due to the lack of consideration of the plot ratios and site coverage as can be seen by construction of back to back buildings today (UN-Habitat, 2016). In the world today, people value economic benefits more than the social, environmental and aesthetic benefits and therefore tend to make comparisons of the economic benefits of developments to benefits of open public spaces and this has led to developers neglecting the wholesome value of open public spaces to the society. This is very evident in the lack of open public spaces in real estate developments as more developments are put up where these spaces ought to be (Ghanbaran, 2014).

1.2 Research objecti es

To determine the extent to which open public spaces have been undermined in real estate developments in Kenya.

To analyse the underlying causes of undermining of open public spaces in Kenya.

To investigate the conservation techniques applied on the already existing open public spaces in Kenya.

To analyse the best use practices of open public spaces incorporation in real estate developments in the world over.

1.3 LIMITATIONS OF THE STUDY

The Lack of sufficient information on incorporation of open public spaces in real estate developments as researchers tend to lean more on the planning field than the real estate field.

Data collection on land is difficult as the land matter is a sensitive issue within Kenya.

2. LITERATURE REVIEW

2.1 Introduction

Literature review entails reading literature related to the topic of research and from several sources cited by other researchers. It is the analysis of textbooks or manuscripts and involves the works the researcher conducted in order to understand and investigate the research problem. The chapter has been structured as review of past studies.

2.2 Benefit

A benefit is an advantage from something. According to Morris (2003), open public spaces have many benefits such as economic benefits, environmental/ecological and aesthetic benefits, social benefits and political benefits. Some of these benefits are quantitative and can be directly ascertained using market values such as the economic benefits while the others cannot be directly ascertained using monetary units.
Economic benefits:
According to Morris (2003), there are many economic benefits that accrue from the incorporation of open public spaces in real estate developments. Open spaces have an impact in the economy and contribute to the flow of monies to the economy. The incorporation of open spaces increases 'urban greening' which attracts investors, new businesses, tourists and customers. These open spaces have a great impact on real estate values as they do greatly appreciate. The improvement of health, a social value, has a chain effect in the sense that health and healing reduces household incomes spent in treating diseases thus monies can be redirected to other productive uses and healthy people are often more productive than those who are not (regional public health, 2010).
Quality of life is essential for both workers and customers and the presence of open public spaces is an indicator of good quality of life and therefore is beneficial in business attraction and also retention. The spaces increase the values of property within areas where there are situate and thus increases local taxes which are based on values and thus an increase in revenue. Open spaces are often situated on previously neglected land and this promotes renewal and redevelopment. The cost of recreational facilities within private spaces gives an approximate economic value of recreation in the public open spaces.

Social benefits:
According to Morris 2003, one benefit is open air recreation. People get to enjoy the open air within the open public spaces. In New Zealand, the spaces have greatly improved the society providing a sense of belonging and an opportunity to learn from one another and engage in physical activities. It has improved the sense of pride among members of different communities. The spaces allow each member of the communities to participate in environmental conservation actively (regional public health, 2010).
One such group that largely benefits from the presence of open spaces is the children. According to Gharahbeiglu (2007), in the early education of children there is need for free play. Free play is self-motivated, free from direct supervision by adults and quite aimless. This free play is extremely crucial for the growth of children. In the past Iranian neighborhoods and alleys were secure enough for children's play, the fields that were present in the past were maintained and well managed. However, with rapid industrialization the spaces were occupied by developments and the others remain largely insecure. Therefore parents have resigned to keep their children under close supervision disallowing them to engage in play activities and this is a great impediment to their developmental and physical growth and in particular learning the art of independence. They are also essential to the aged in society.
Environmental values:
As climate change impacts become more intense and frequent, there is need for countries to come up with innovative shields against these repercussions in order to protect the wellbeing of their people. One way in which urban places can shield themselves of these effects is through open spaces. There are essential in the provision of clean air and also water. They can aid in the protection of biodiversity, provide for carbon sequestration and cool cities. They increase the resilience of communities (regional public health, 2010).
Political values:
According to UN-Habitat (2015) (UN-Habitat, 2015) (Okaka, 2014), open public spaces promote civic empowerment and have great value politically. They promote people's rights and offer place for political assemblies and political rallies too where people can exercise their freedom of expression. These places allow leaders to meet with those they represent. In Kenya such meetings include barazas and political rallies. Well managed spaces promote governance through cohesion of the people and reduction in crime rates.

2.3 Provisions/Regulation on in orporatio

According to Ireland (2009), there is great need to properly design and locate open public spaces. Local area plans can be used to identify the locations for the larger spaces. Some of the standards in place are the qualitative standards which include design, accessibility, variety, shared use, biodiversity, sustainable urban drainage systems and making provisions for community gardens and also allotments.
According to Cowley (2015), Spain defines quality of its open spaces on the basis of relations between neighbors, civic participation, and cooperation among people which can all be defined as social cohesion. This cohesion is anchored on the configuration of the spaces in terms of multi-functionality, its density and shape. If a space complies with the basics then it is termed as livable. The urban design should create spaces that are attractive, useful, economically successful, safe, socially equitable and environmentally sustainable.
The design should meet user needs which include both passive and also active recreation to meet this, a range of open public spaces should be provided to ensure a variety. The design should ensure the safety of the users through public lighting especially after dark, proper and sufficient supervision, surveillance and boundary treatment. Durable materials should be used in the implementation of the design. According to regional public health (2010), an urban design should be intertwined with the design of open public spaces to ensure that there is a linkage to the open spaces, to ensure that the particular spaces provide a cultural and social interaction platform and that the environment allows and encourages people to be physically active. Green infrastructure should be incorporated in the design too such as natural

means of drainage filtration, bikeways, canopy cover and green freeways.

Open public spaces should be located within ten minutes' walk from the majority of the homes. Playgrounds in particular should be within areas of residence, easily accessible and should be in areas overlooking the dwellings for supervision while ensuring that the playgrounds are not causing any nuisance to the residents. Accessibility should be democratic allowing everyone to reap benefits from the spaces (Ireland, 2009).

The use of Open public spaces should be fully maximized through sharing of the spaces among many users. These users include male and female users, the young and old, and the physically challenged. The spaces should be indiscriminate with facilities for all. Multi use allows different people to use the spaces for example, an open space can provide a play area for children, a garden for seating, a picnic area and a ground for teams to contest and compete.

Open public spaces should be used to reduce runoff impact on the environment. Allotments can be made by authorities to locals for the purposes of cultivation. The spaces should be ecological to promote biodiversity both aquatic and terrestrial. When the open public spaces are large, they should be used to preserve the environment, flora and fauna.

Some of the recommended quantitative standards include allocation of open public spaces on the basis of hierarchy. It suggests the calculation of population in order to balance out community with density. That is the number of residents with the size in terms of area of the open public space and the number of spaces within the total area (Ireland, 2009).

According to Ireland (2009), one of the guidelines on open spaces is that every house should provide an area for open private space behind its building line. The size of it determined by plot widths and the separating distances between buildings. For places where a communal space is provided such as a courtyard then the houses can have a small patio. For apartments, outdoor space is essential. Rear gardens, patios at ground floors and balconies at those above ground, well landscaped areas and roof gardens that are secure can be provided in place of courtyards.

2.4 Management

One of the key issues surrounding open spaces is their management. The management of open spaces should be intertwined with the management of urban growth. The fields associated with the issues of open spaces include urban studies, economics, environmental law, geography, planning, sociology, landscape ecology and political science. Some of the policies that can be adopted to protect open space include, public ownership of the spaces that is in fee simple state, regulation such as cluster zoning, non-transitional zoning, mitigating ordinances, exclusive zoning and large lot zoning. Incentives can also be applied.

Public acquisition of open spaces at both different levels of the government and the management of the spaces by the government adequately deals with the issue of improper management of open spaces and their misuse by public entities. Regulatory approaches also ensure that developers set aside the required areas for open spaces while protecting environmentally sensitive areas. Cluster zoning for instance allows concentrated development on small lots leaving the remainder as open space. The space can then be managed by nonprofit organizations, local governments or private

developers. The use of open public spaces should be well defined to avoid conflict such as those of residents which include; hawking, dumping of garbage, airing of produce such as cereals, colonization by the street families and animal grazing (Okaka, 2014). Some of the problems resulting from mismanagement and poor management of open public spaces are air pollution, congestion, and lack of shelter, insecurity, hawkers' interference, noise, unmaintained facilities and garbage dumping (Akivaga, 2011).

Community led management is an approach that can make the management of the spaces efficient. The concept of community managed open public spaces allows members of the community to participate in the management of open public spaces. This empowers the members of the local communities to be more active in the management of their environment, to be more innovative in approaches of management and to customize the spaces to their local needs.

2.5 Best use practices

Mexico City

According to Scruggs (2016), Mexico's population is so large that the authorities have not been able to determine the exact numbers. This led to the creation of a Public Space Authority (AEP) to ensure that the concept of livability was embraced through improving the quality of urban life. It aims at prioritizing human needs above car needs and infrastructural needs. Parts of the initiatives include:

The introduction of tiny pocket parks in tightly packed neighborhoods. This enhances the quality of social life amongst residents despite the concrete jungle around them.

The closure of major downtown thoroughfares to traffic weekly to allow for strolls on Sunday.

The authority regulates developers' behavior. This is facilitated by, the government through incentives to developers to shape developments' direction and regulations put in place to preserve the open public spaces within the developments.

The transformation of wastelands into open public spaces serviced with WI-FI zones creating public internet spaces. This provides for the people with no internet access.

The authority has facilitated the re-organization of trade in public spaces by creating specific trade areas to increase free foot flow and accessibility in the available open spaces.

These initiatives have gone a long way in ensuring that public spaces are created, maintained and conserved despite the rise of developments in the city. They recognize the value that public spaces yield to human lives and the importance of addressing human needs rather than car needs or infrastructure needs. Mexico is therefore the best case example of conserving open spaces despite the real estate developments that take place.

All the above initiatives can be integrated in our conservation techniques in Kenya to ensure sustainable maintenance of open spaces.

RESEARCH AND METHODOLOGY

3.1 Research design

The main objective of this study was to find out the level of open spaces incorporation in real estate developments. A combination of both the qualitative and quantitative methods of research was employed for the purposes of this study. This dictated the method of inquiry, collection and analysis of data.

The target population was made up of Kasarani area of Nairobi County due to its current upsurge in real estate developments. An observation sheet was developed focusing on the level of open spaces incorporation in real estate developments .The other parameters were premised on the main objective. They included; the management and conservation of the spaces, accessibility and safety. These parameters would determine the functionality levels of the spaces. According to Arleck and Settle (1995), it is seldom necessary to sample more than 10% of the population provided that the resulting sample is not less than 30 and not more than 1,000 units. They recommend a minimum sample of 100 for 1,000 population. A total population of 1000 residential developments in the Kasarani area were considered with the sample size set at 10% of the population, hence 100 samples were considered. The simple random sampling method was used in choosing the samples as the probability of a real estate development having incorporated an open space was a key consideration.

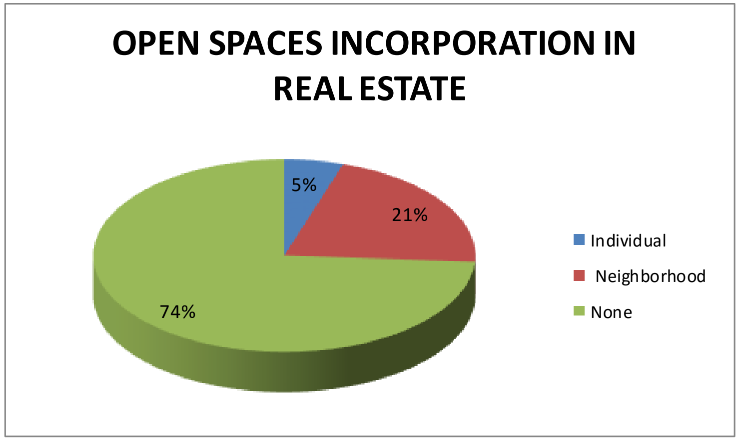
4. Data analysis and interpretatio

The data was analyzed according to the outlined parameters.

4.1 Open spaces incorporation in eal estate

Figure 4.1

Parameter	Description	Magnitude
Incorporation	Individual	5
	Neighborhood	21
	None	74



Source: Field Survey 2016

Of the 100 residential places visited, only 26 had the aspect of open spaces. These were classified as either individual open space; these were the privately owned open spaces with limited access. Neighborhood open spaces were shared amongst the estates making them public and easy to access. .Individual open spaces were found to be only 5 while neighborhood spaces were 21.

4.2 Management and conservation

Management level was mainly determined for the neighborhood open spaces as the individual spaces were all well maintained. The management of the spaces was determined to be either proper or improper. Proper management was defined as those that had a system in place for access, cleaning and use. Those that were properly managed and conserved were also well maintained to maximize on use and were aesthetically pleasing.

Figure 4.2

Management	Proper Improper	14 12

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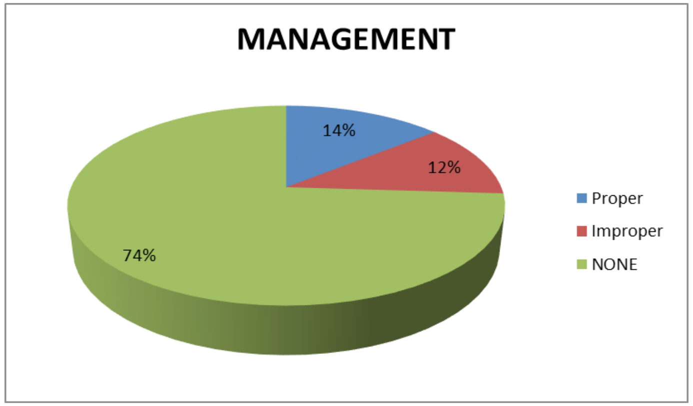

Source: Field Survey 2016

4.3 Accessibility
The open spaces were classified according to their accessibility. The modes of accessibility identified were either restricted or unrestricted. We defined restricted accessibility as that which was not open to all and required some credentials to access them. Unrestricted accessibility was defined as those which were open to all at any time.
Figure 4.3

Accessibility	Restricted Unrestricted	5 21

Source: Field Survey 2016
We noted that all the 5 individual open spaces had restricted accessibility as only the residents in the particular development were allowed to access them while the 21 neighborhood open spaces had unrestricted access.

4.4 Safety
Safety in the spaces was defined through the ease of use, level of activity and type of activity conducted on the open spaces. Safety in the open spaces was also determined during the day and at night.
Figure 4.4

Day	Safe Partially safe Unsafe	15 4 7
Night	Safe Partially Safe Unsafe	3 2 21

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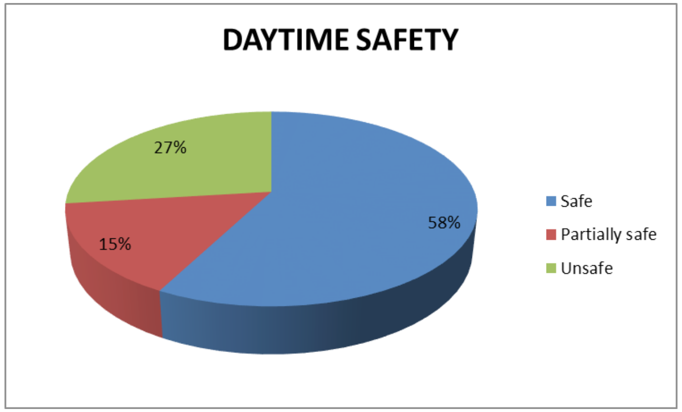
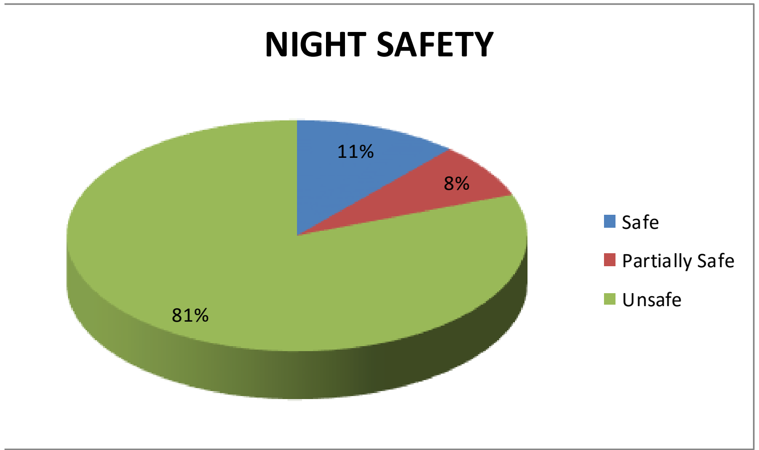


Source: Field Survey 2016

During the day, 58% of the total open spaces considered were considered safe by the users, 15% were considered to be partially safe while 27% were considered not safe and attracted very few users.



Source: Field Survey 2016

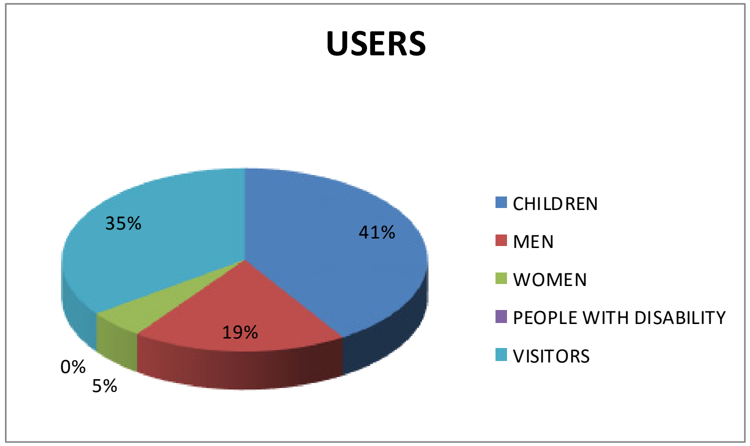
During the night, 81% of the spaces were considered not safe mainly due to lack of lighting and the level of crimes they attracted. 8% were considered to be partially safe while only 11% were considered safe.

4.5 Types of Users

The types of users were determined in order to analyze the ability of the open spaces to be accommodating to all types of users in equal measure.

Figure 4.5

PARAMETER	USER	MAGNITUDE
	CHILDREN	41
	MEN	19
	WOMEN	5
	PEOPLE WITH DISABILITY	0
	VISITORS	35



Source: Field Survey 2016

Of the public spaces considered a majority of the resident users were children at 41%,19% were men,5% were women while people with disability were at 0%.35% of the users were visitors.

5.0 Conclusions

The main objective of this paper was to analyze the level of incorporation of open spaces in real estate developments, using the Kasarani area of Nairobi as the case study, with a view of recommending appropriate means of incorporation of open spaces in real estate developments.

The study revealed that a majority of real estate developments within the Kasarani area have not taken into consideration the provision of open spaces to their residents. While some of the available open spaces have a level of maintenance, security and fitness for use, the majority are largely unmaintained, insecure, not fit for use and short of facilities that would qualify them as indiscriminate to the different types of users. Most of them have been converted into dumping sites or car parks by day and mugging sites by night. Children and adults have resulted to using roads as substitutes for open spaces. However, it was observed that gated estates have taken steps in providing open spaces for their residents though they remain unmaintained. The study observed that the residents were unaware of the role of the available public spaces in their lives and thus made no use of them and this makes them prone to grabbing. The conservation of these spaces has also not been prioritized with no conservation techniques in place. This has been characterized by widespread waste dumping and growth of shrubs on most of the spaces. The neighborhood open spaces identified lacked symbolic elements or specific identifications making it difficult to relate them with specific residential developments hence contributing to the poor management and conservation of the spaces.

Further the research established that the legal and institutional frameworks are inadequate and need to be reviewed. This is in order to ensure that the incorporation is made mandatory.

6.0 RECOMMENDATIONS

Based on the above findings, the paper recommends:
The National Planning and Building Authority of Kenya should ensure the incorporation of open spaces in residential developments in the particulars for building approvals in the Planning and Building Regulations of 2009. This provision should be implemented and enforced through payment of hefty penalties by those who violate them.
Development control should be undertaken through;
Harmonization of the institutional framework of the Ministry of Lands and Physical Planning and the Ministry of Transport, Infrastructure, Housing and Urban Development in Kenya to ensure coordination with regards to planning and development.
Adoption of the cluster zoning, conservation oriented method, to allow for retention of the already existing open spaces. This is through concentrating of developments in specific portions of land while retaining the rest of the portions as open public spaces.
Adoption of the transfer of development rights program as an incentive base by the government. This can be implemented through the sale of development rights to the government by land owners. The government will then focus on conserving the areas.
The adoption of community based management approach through the formation of community based associations. This will be through the development of an outreach program to sensitize people on the value of open public spaces. For the community to take up the responsibility of managing, conserving and defending against grabbers they must attach value to these spaces.
The adoption of better open space designs that reflect the image and identity of the people, that have the necessary amenities such as lighting, that allow flexibility of use and are easily accessible. The design should also incorporate a management plan that will ensure safety and optimum use of the open spaces.

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POTENTIAL RETAIL PROPERTIES IN EAST AFRICA: A PRELIMINARY ANALYSIS

RIAAN PELSER AND CHRIS CLOETE

Department of Construction conomics, University of Pretoria

chris.cloete@up.ac.za

Abstract

Purpose of this paper - To characterize the major factors to be considered in the development of a strategy to enter the East African retail property market.

Design/methodology/approach A preliminary selection of potential geographical markets in East Africa was made based upon size and political stability. Four countries were selected and major cities and towns in these countries were visited on two occasions, to obtain first hand knowledge of the current retail market as well as to identify possible investment opportunities. The four selected countries were ranked according to probable ease of market penetration. Shopping malls in the two most attractive countries were visited and characterized.

Findings
The preliminary study shows that Kenya should be established as springboard for expansion into East Africa, with Uganda earmarked as the second country to invest in. Stores rollout should start in Nairobi with a rapid rollout to key rural cities and towns. Once the operation is stabilized a sales area team with logistics support should be established in Kampala with the focus to grow the footprint rapidly westward.

Research limitations/impli ation
The research is a preliminary survey of factors to be considered in the establishment of a strategy to enter the East African retail property market. Sudan and Somalia were excluded from the study due to political turmoil currently present in these countries while Eritrea, Djibouti, Rwanda and Burundi were excluded due to size.

Practi al implications (if appli able)
Understanding the factors required to enter the relevant markets will increase the potential success of an entrant.

Originality/value of paper Although specific markets in some of the countries in East Africa had been investigated in the past, this is the first systematic study of the strategy required to successfully enter the retail property market in East Africa.

Keywords:* *Clothing retail market, East Africa, growth, strategy, invest

1. INTRODUCTION

East Africa's current growth is boosted by progress made in trade integration, high population growth and stable economic growth prospects. Along with the recent discoveries of oil and coal, the region offers an attractive opportunity for expansion. The question arise which of the countries in East Africa would be the most beneficial to enter as a retailer, or whether the region must be entered as a whole, with a central distribution centre and hubs servicing each country.

Africa's land mass accounts for 20% of the total earth surface but only houses 1 billion people, which is 15% of the world population (the UN projects that Africa will house 2.4 billion people by 2050). This means an almost 5 fold increase in the population since 1950, when there were only 221 million people on the continent. The UN estimates that by 2050 the world population will be just over 9 billion people of which 50% will be in 9 countries, namely India, Pakistan, Nigeria, Democratic Republic of the Congo, Bangladesh, Uganda, United States, Ethiopia and China. Four of the countries are in Africa, therefore any retailer that wants to remain relevant must have a proper strategy for this continent, especially since 50% of the African population is currently below the age of 20 years. (Kgomoeswana 2015).

Ramkhelawan-Bhana and Fauconnier (2014) state that "once touted as the hopeless continent, Africa is now laden with opportunities. But, it is also fraught with challenges requiring meticulous planning by companies operating in, or seeking out, new and exciting markets."

Africa has been able to maintain its strong growth path and with substantial discoveries of carbon resources and an improving political environment, the outlook is positive (Standard Bank 2013) :

- Since 2005, Africa is growing at an average rate of 4.7% which exemplifies its resilience to fluctuation is global growth. Admittedly this can be attributed to Africa's abundance to resources, but the ever expanding middle class is changing Africa's economic landscape.
- After growing at 5.5% over the past 10 years, Sub Saharan Africa is set to expand on average 5.7% in the period 2013 to 2017.

- It is the second fastest growing region in the world, with Asia set to expand by 7.5%.
- Across Africa, income will grow by 30% in the next 5 years (2016 – 2020).
- The key reasons behind Africa's growth surge are improved political and macroeconomic stability and microeconomic reforms.
- The result is consumer driven growth catching up with resources and estimated to be more than double in size by 2020.
- Households with income of more than $5000 per annum is estimated to grow from 85 million in 2008 to 128 million in 2020.
- With the fastest urbanisation rate in the world (there are now more than a 1000 cities in the sub-Sahara Africa) is causing greater economic growth for this respective countries as investors interested are increasing in the cities and urban areas as part of their investment strategy (Oxford economics states that about US 700 billion of the continent GDP is contributed by Africa's most significant cities). As investors flood the market, African cities are becoming more and more expensive, as more goods are still being imported.

East and West Africa is expected to grow at an average of 6.3% and 6.4% between 2014 and 2018, but East Africa could even surpass their forecast if oil and gas activities come into fruition sooner than anticipated (McKinsey 2010) Prudent monetary policy management and peaceful elections in key markets (Kenya 2013) is driving solid domestic demand. Kenya's relative high middle class (45%) and access to ports are factors considered by retailers FMCG and pharmaceutical companies, in deciding to use the country as a hub to service the region. The current growth is expected to accelerate once the significant hydrocarbon resources in the region come into production in 2018 (McKinsey 2010).

Eastern Africa also promises to become the largest integrated consumer market in Africa with population growth driven by Uganda, Ethiopia and Tanzania, reaching almost 10% of world population.

Even though is it undeniable that African infrastructure is lagging the rest of the world, it provides a huge amount of investment opportunities especially for the construction sector. East Africa is currently experiencing a significant number of infrastructure projects that is underway across the region, with most big cities being flooded with investors investing into shopping centre complexes and road

infrastructure projects. Although the recent drop in the oil price may have an impact on the growth prospects of some African economies, in the long run the outlook remains positive.

The objectives of this paper are to identify those countries in East Africa with the most potential for retail development in East Africa and to develop a model for entering those markets.

2. LITERATURE REVIEW

Once touted as the hopeless continent, Africa now offers exciting opportunities to the property investor. However, development opportunities require meticulous planning by companies operating in, or seeking out, new and exciting markets. (Cabot-Alletzhauser, Hu & Matthews 2012).

According to World Bank's Development indicators (The World Bank 2015), Africa is the world's second largest and second most populous continent, with over 30 million km² or 20.4% of the total global land area.

Africa's positive consumer environment can hardly be ignored, with the continent boasting a large and fast-growing population, high levels of urbanisation (estimated to be more than 56% by 2050) and GDP per capita growth, as well as a fast expanding middle class, forecasted to be more than 128 million by 2020 (PWC 2015; Handley 2015; Shimeles & Ncube 2015; Resnick 2015; Thurlow, Resnick & Ubogu 2015).

In various articles in major publications, Africa has recently been proclaimed as "the next Asia". Notably, the entire May 2015 issue of L'Uomo Vogue was dedicated by Franca Sozzani to "rebranding Africa", while "the potential of Africa, both as a producer and ultimately consumer of luxury goods" was discussed at the 2012 IHT Luxury conference. (The Business of Fashion 2012)

The higher end of the market, across the continent's formal retail sector, has seen a major boom, largely driven by the entrepreneurial spirit caused by Mitumba (the branded 2nd hand clothing trade) as well as Kadogo (the term for shrewd economic activities that are stimulating the micro-economic enterprise in East Africa. (The Business of Fashion 2014)

While China, India and Brazil currently offer the greatest growth opportunities as emerging consumer markets, Africa often serves as inspiration for fashion collections. Zara, Mango, Levi and Gap, to mention a few, are already active in Africa, and ASOS (a British online fashion store) provides free delivery to the continent. It is therefore not impossible to think that Africa could become the next frontier for fashion. (The Business of Fashion 2012)

Growth is driven by intra-African trade and investment, with high-profile local companies expanding into regional markets. The development of the retail sector is driven by the growing population and burgeoning middle classes, demanding greater volumes of more varied goods. (PWC 2015)

Defining the middle class (Jacobs 2015)

The African Development Bank (AfDB), in influential paper on ‘The Middle Pyramid: Dynamics of the Middle Class in Africa’ (AfDB 2011) found that over a period of three decades the number of middle-class Africans tripled to 313m. One in three people, equated to 34% of the population are born middle class with a daily consumption between $2-$20, and not the conventional tendency to define the middle class as those individuals with an annual income greater than $3,900.

The AfDB divided the African middle class into three sub-categories, characterised as foilows:

- Middle class (60%)
  - consumption level of $2-$4 per day
  - labelled as the “floating class”
  - individuals who could easily fall below the poverty line of $2 per day, if any unforeseen disaster, expense or unexpected rise in the cost of living occurs
- Lower middle class (25%)
  - consumption level of $4-$10 per day
  - individuals who consumes and saves for inexpensive non-essential goods

- Upper middle class (14%)
  - consumption level of $10-$20 per day

On contract, Standard Bank (2014) examined the middle class in eleven sub-Saharan African countries and found that over half the region’s GDP can be ascribed to only 15 million people. The report estimates middle class in Nigeria to be 11% of the population (4.1 million); 21% of Angola’s households; 14% of Sudan’s and 10% of Zambia’s, and that 86% of the population households remained in a low-income band - an overwhelming 94 million individuals.

The report further identified that although the middle class in Africa expanded rapidly in the past decade, East Africa as lagging behind. Extremely high percentages of low-income households are prevalent in major East African countries: 99% in Ethiopia; 97% in Tanzania and 92% in Kenya.

McKinsey (2010) explains Africa’s income elasticity as follows:

> *…Income elasticity, which measure the change in the quantity of goods demanded in response to a change in real income, affect the type of goods that can be sold in different markets. Food products are usually highly inelastic, while the demand for durable items is more elastic. Importantly, annual household incomes of above US$5,000 represent the level at which individuals begin spending more than half their disposable income on items other than food. Therefore, food products are likely to dominate consumer spending in income brackets less than US$5,000, while durable goods such as clothing and apparel will be more popular above this level…*

Table 1: Income brackets (in cities with a population above 500,000)

					Income brackets (number of individuals)			
Country	**City**	**Population**	**Household consumption**	**<US$ 2,000**	**US$2,001 – US$5,000**	**US$5,001 – US$10,001**	**US$10,000 – US$20,000**	**>US$ 20,001**

			(US$PPP)					
Ethiopia	Addis Ababa	3,191,966	3,516,934,279	2,990,351	174,764	24,817	1,790	9
Kenya	Mombasa	1,083,051	2,592,962,841	679,239	323,047	51,031	22,187	7,320
Kenya	Nairobi	3,795,253	14,599,326,453	1,425,944	1,652,142	510,875	133,756	71,459
Tanzania	Dar es Salaam	4,177,116	6,061,556,995	3,422,710	655,939	83,596	13,814	396
Tanzania	Mwanza	789,748	1,718,843,800	487,934	259,779	32,469	8,560	806
Uganda	Kampala	1,908,336	6,279,949,697	779,856	839,359	214,989	54,662	18,809

Source: RMB: Where to invest in Africa

Data as at September 2014

A more telling indicator for retailers when attempting to define their target markets is LSM (Living Standards Measure) levels. This data is available for developed countries and emerging markets like South Africa, but the rest of Africa (especially SSA) is a work in progress. The most reliable data available is income brackets, which serve as a proxy for a high-level indication of where a retailer's target market lies.

Population density is another good measure of retail opportunities — the more people living in an area, the more consumers that can be reached without too many transport or infrastructure concerns (see Table 2). On average, continental density is expected to increase from 34 to 79 persons per square kilometre between 2010 and 2050.

Table 2: Population density (population of 500,000 and over)

Country	**City**	**Population**	**Land area (km^2)**	**Density ($/km^2$)**
Ethiopia	Addis Ababa	3,191,966	389	8,216.13
Kenya	Mombasa	1,083,051	85	12,671.71
Kenya	Nairobi	3,795,253	557	6,815.58
Tanzania	Dar es Salaam	4,177,116	570	7,330.85
Uganda	Kampala	1,908,336	492	3,877.94

Source: RMB: Where to invest in Africa

Data as at September 2014

With a population of more than 130 million people, East Africa has become an investment destination with vast amounts of natural resources, agricultural land and the promise of economic integration of five states. Following oil and gas discoveries, the respective governments are separately and jointly investing vast amounts of resources into the development of the counties' infrastructure. (How we made it in Africa 2014)

As subsistence agriculture is still very important in these countries, and contributing largely to each country's GDP, urbanisation rates are lower than the rest of SSA. (KPMG 2014)

The construction of multi-million dollar centres in most capital cities, are slowly changing East Africa's shopping landscape, and the East Africa Community (EAC), a federation of Kenya, Uganda, Tanzania, Rwanda and Burundi, has enabled companies to expand beyond national borders and eased the movement of goods and people across the region.

East Africa is the most under-represented area for the South African retail giants, with Shoprite owning two stores in Uganda and two in Tanzania, while Massmart has only one each in Uganda and Tanzania. Shoprite has however recently approved an expansion drive into Uganda.

East Africa's clothing retail is still fairly fragmented and the sale of second hand clothing remains a threat for South African clothing retailers looking to expand in East Africa.

The Programme for Infrastructure Development in Africa (PIDA) was formulated by various African leaders and development agencies in recognition of the fact that infrastructure is a continental rather than individual problem, The Priority Action Plan (PAP), the core of PIDA, lists 51 programmes across four main infrastructure sectors, to be initiated by 2020 (Table 3). (RMB 2015)

Table 3: Overview of East African PIDA PAP programmes/projects

Transport	
Northern Multimodal Corridor	Modernize the high-priority multimodal African Regional Transport Integration Network (ARTIN) corridor in East Africa. Will facilitate travel by people and goods across the borders between Kenya, Uganda, Rwanda, Burundi, and the DRC, with a spur to South Sudan.
Central Corridor	Modernize the priority ARTIN corridor in East Africa and facilitate travel for people and goods across the borders between Tanzania, Uganda, Rwanda, Burundi, and the DRC.
Djibouti-Addis Corridor	Revive the rail system in the high-priority multimodal ARTIN corridor in East Africa and increase the flow of goods across the border between Djibouti and Ethiopia.
Lamu Gateway Development	Develop sufficient port capacity to handle future demand from both domestic sources and landlocked countries, with priority given to the Lamu project in Kenya.
Single African Sky Phase 1	Create a high-level, satellite-based air navigation system for the continent.
Energy	
Uganda-Kenya Pipeline	Establish a 300km pipeline for a lower-cost mode of transport of petroleum products between Uganda and Kenya.
Great Millennium Renaissance Dam	Build a 5,250 MW plant to supply the domestic market in Ethiopia and export electricity to the Eastern African Power Pool market.

Source: RMB: Where to invest in Africa

Data as at September 2014

Regional integration has been ever important in overcoming geographic barriers; Africa has more landlocked countries than any other developing region. It is key in creating economies of scale and facilitating trade and investment. Removal of barriers to trade in goods and services will be bolstering intra-African trade. After SADC, the EAC, consisting of Kenya, Tanzania, Uganda, Rwanda and Burundi, has moved the furthest towards an open trade zone. These countries also all have a Vision 20XX strategy. (see Table 4)

Table 4: East African Vision 20XX strategy

Partner State	Time Frame	Strategic Vision	Priority Areas
Kenya	Vision 2030	Globally competitive and prosperous Kenya with a high quality of life.	To achieve sectoral objectives including meeting regional and global commitments
Uganda	Vision 2035	Transform Ugandan society from peasant to a modern prosperous country.	Prominence being given to knowledge based economy
Tanzania	Vision 2025	High quality of life anchored on peace, stability, unity, and good governance, rule of law, resilient economy and competitiveness.	Inculcate hard work, investment and savings culture; knowledge based economy; infrastructure development; and Private Sector Development.
Rwanda	Vision 2020	Become a middle income country by 2020	Reconstruction, HR development and integration to regional and global economy
Burundi	Vision 2025	Sustainable peace and stability and achievement of global development commitments in line with MDGS.	Poverty reduction, reconstruction and institutional development.
EAC	Treaty	Attain a prosperous, competitive, secure and politically united East Africa	widen and deepen economic, political, social and cultural integration at regional and global levels

Source: RMB: Where to invest in Africa Data as

at September 2014

The question now to be asked is the following: “Can the East African countries realise their full potential by overcoming economic growth barriers?” This question remains to be answered, but the following considerations might give us a glimpse as to the answer:

- East Africa houses some of the fastest growing countries in Africa. Most of these have implemented regulatory reforms to promote growth and increase the ease of doing business. This can be seen from the numerous Foreign Direct Investments (FDIs) and Diaspora Remittances in last decade.
- As the East African economy is on the brink of a new era of opportunities, growth and development, its businesses, entrepreneurs and its leaders are going to play a crucial role in ensuring that the region is ready to take up these challenges. Courage and vision will be required from the leaders to ensure that their economies will play a more prominent role in today’s changing global economic order.
- East Africa is forecast to be the fastest-growing region in the continent. The discovery of oil and gas has boosted this region’s economy, and Kenya is predicted to become the key financial and business hub of Africa.

- East Africa will become an increasingly important food supplier to global markets, with commercial farmers starting to exploit the vast opportunities in this area.
- Looking at the Micro-Macroeconomic environment, inflation (10%), total debt service (12%) and exchange rate volatility (4%) were still high at levels between 2001 and 2010. The year-on-year variance of exchange rate in the region was 13%. Total debt service as percentage of exports for Sub-Saharan Africa (SSA) over the same period was just 7%. Macroeconomic volatility such as these is sure to erode business confidence and slow investment and economic activities.
- Flooding, famine and drought caused by extreme weather conditions over the past few decades has also been the cause for cross-border conflicts and energy and water issues. Global climate changes might affect the economic base of most of the regional states, challenging sustainable growth.
- The continued disappointing economic performance in most historical economic partners of this region is a potential threat to the growth process. USA and EU is struggling to restart and maintain their economic growth stability after the global financial slowdown.
- Continued political uncertainty in this area as well as neighbouring countries may downgrade the growth prospect of the whole region.
- Most East African countries have a large youth population. It is therefore a huge challenge to create enough jobs to absorb the massive youth cohort into the labour markets. However, this also presents an opportunity for these countries to invest in their youth.

3. Methodology

The research was undertaken to determine a strategy to enter the East African clothing retail market. The target countries for this study consisted of East African countries situated within “The Horn of Africa”. Sudan and Somalia was excluded due to political turmoil currently present in these countries. Eritrea, Djibouti, Rwanda and Burundi were excluded due to size, and Madagascar due to it being an island not connected to the rest of the continent.

Extensive literature reviews were done to establish a theoretical base and books, journals and published reports were consulted to determine the following measures used to distinguish between the identified countries:

- Population size and age structure
- Income level
- Current exchange rate
- Inflation
- GDP
- Per Capita GDP
- Status of available financial services
- Current interest rate
- Ranking on “Ease of doing business” scale
- Infrastructure available
- Current status of retail sector
- Availability of government support
- Threat of terrorism

After establishing which East African countries would be the most beneficial to enter, the subject countries were visited to form an own opinion and to compare against data obtained. The said countries were visited on two occasions, with time spent visiting major cities and towns to obtain first hand knowledge of the current retail climate as well as possible opportunities to invest. Informal interviews were done with selected local traders as well as foreign investors already trading in said countries, to compare with data obtained.

Meetings were held with local leasing agents, to obtain insight into the current climate and availability of retail space, as well as with local banks, to obtain knowledge on the availability of the financial infrastructure of the countries.

The data was obtained over a period of 9 months from April to December 2015.

4. FINDINGS

The salient aspects of the selected countries, compiled from various sources, are summarised below.

Ethiopia

Key indicators:

- Population: 103.1 million in 2015, with a growth rate of 2.89%.
- Income Level: Low income.
- Currency Ethiopian Birr (ETB), Nov 2015 exchange rate approximately Br 1.60/ZAR or Br 20.97/$.
- Inflation Sept 2015 at 11.9%. Inflation rate in Ethiopia averaged 18.08 percent from 2006 until 2015.
- GDP 2014 – US$54.80 billion (0.09 percent of the world economy).
- Per capita GDP – $ 315.99/annum. (3% of the world’s average).
- Financial services: poorly developed.
- Interest rate – Prime 5%.
- Ease of doing business (according to World Bank Group index) – Ranked 132nd (2015)

Age structure:

0-14 years: 43.94%
15-24 years: 19.98%
25-54 years: 29.31%
55-64 years: 3.88%
65 years and over: 2.88%

Infrastructure

Ethiopia has a very poor transport infrastructure, with only 17 airports with paved runways, only 13.5% of its total of 44359 km of roadways being paved, and only 681km’s of railway (currently under construction). Ethiopia however has plans to develop the national railway infrastructure with the Ethiopia Djibouti Railway.

Retail sector

Unlike other African countries, which have opened up for foreign retailers, the government is launching a state-owned cash-and-carry wholesaler called Alle that it promises to run along the lines of a private firm. Management contracts have been offered to foreigners outside the retail business in the past, but these have usually been short.

Ethiopia's constitution dictates that the state owns all land and provides long-term leases to the tenants only. The use of electronic payment systems remains limited furthermore complicating the ease of doing business in Ethiopia.

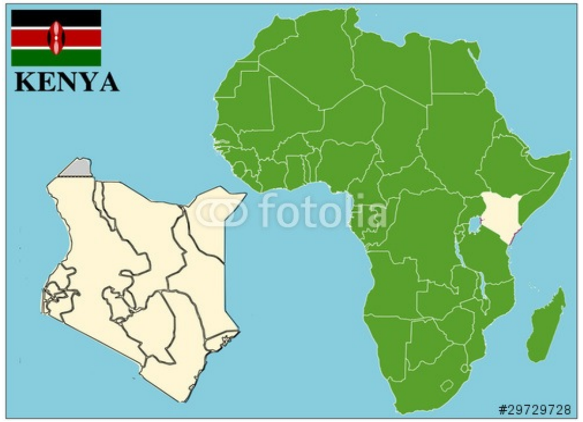
Government support

A five year (2010 - 2015) economic plan has been undertaken by the government that is largely financed domestically. Known as the Growth and Transformation Plan (GTP), it is likely to be followed by another similar programme, and it is questionable whether domestic financing will be able to fulfil its requirements.

Terrorism threat

Ethiopia has the largest Islamic population in this region, and therefore remains a huge terrorism threat. A number of western targets are present, but Ethiopia has a very effective security apparatus in place to ensure its safety. Ethiopia also cooperates closely with the United States on various counter-terrorist issues.

4.2. Kenya



Key indicators:

- Population: 47.3 million in 2015, with a growth rate of 1.79%.
- Income Level: Lower middle income.
- Currency Kenyan Shilling (KES), Nov 2015 exchange rate approximately KSh 7.84/ZAR or KSh 102.50/$.
- Inflation Sept 2015 at 5.97%. Inflation rate in Kenya averaged 10.71 percent from 2005 until 2015.
- GDP 2014 – US$60.94 billion (0.10 percent of the world economy).
- Per capita GDP – $ 648.84/annum. (5% of the world's average).
- Financial services fairly well developed.
- Interest rate – Prime 11.5%.
- Ease of doing business (according to world Bank Group index) – Ranked 136th (2015)

Age structure:

0-14 years: 41.56%
15-24 years: 18.66%
25-54 years: 33.17%
55-64 years: 3.76%
65 years and over: 2.85%

Infrastructure

Kenya's energy infrastructure is currently lagging behind demand, but plans for new US$1.4 billion geothermal power plants is underway, that will add 280MW to Kenya's grid. Road infrastructure is also being upgraded, with a new superhighway constructed between Nairobi and Thika, and plans to improve roads connecting to Mombasa (Kenya's major harbour for exports). Loans have also been secured from China, now Kenya's second-biggest lender after Japan, to support railway and power development projects.

Retail Sector

With its relatively stable political and economic environment, Kenya is starting to be seen as an ideal point of entry for launching retail outlets and consumer goods distribution into East and Central Africa, the outlook for the retail sector is strong. With greater competition and improved infrastructure, consumers are benefitting with a wider variety of goods at lower prices. With nearly 17% of the population falling into the middle class, this has come at an ideal time.

With government protection over import of some products, regional trade policies and preferential tariffs on goods coming from the Common Market for Eastern and Southern Africa or the East African Community, foreign entrants into the market are finding it tough to be competitive.

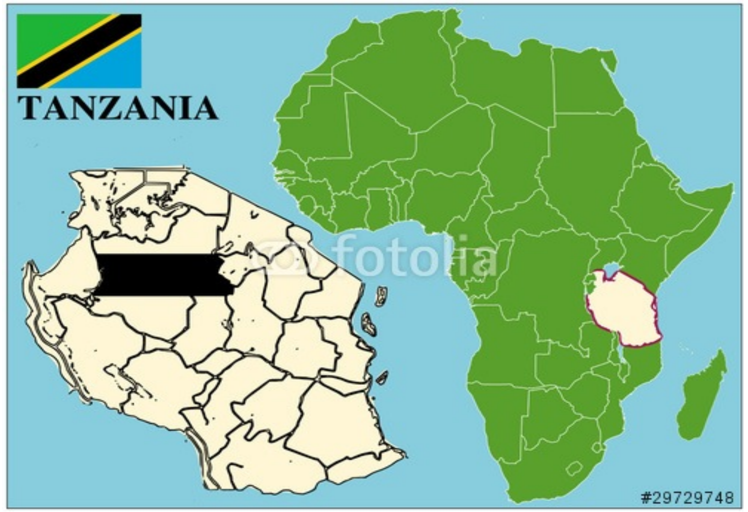
Government support

Access to debt and capital market funding is fairly simple in Kenya, but tax laws are fairly restrictive. Businesses pay up to 44.4% tax which includes a profit tax of 28.1%. Foreign investors receive the same treatment as local investors with Kenya's flexible labour regulations and investment laws.

Terrorism threat

Kenya still remains a soft target with an assortment of Western targets, due to inadequate resources and lack of trained personnel. Kenya is fairly easy to penetrate by sea or through poor border control.

4.3. Tanzania



<u>Key indicators:</u>

- Population: 51.5 million in 2015, with a growth rate of 1.48%.
- Income Level: Low income.
- Currency Tanzanian Shilling (TZS), Nov 2015 exchange rate approximately TZS
  166.82/ZAR or TZS 2182.07/$.
- Inflation Sept 2015 at 6.1%. Inflation Rate in Tanzania averaged 7.49 percent from
  1999 until 2015.
- GDP 2014 – US$49.18 billion (0.08 percent of the world economy).
- Per capita GDP – $ 600.66/annum. (5% of the world's average).
- Financial services fairly well developed.
- Interest rate – Prime 12%.

- Ease of doing business (according to world Bank Group index) – Ranked 131st (2015)

Age structure:

0-14 years: 44.34%
15-24 years: 19.59%
25-54 years: 29.61%
55-64 years: 3.49%
65 years and over: 2.97%

Infrastructure

Infrastructure in Tanzania has witnessed impressive investment in recent years and there is more to come. Transport and utilities infrastructure projects worth US$19 billion are in the pipeline. Improvements to local infrastructure are also expected to have a positive impact on residential house prices. Increased development will lead to greater congestion at the port of Dar es Salaam.

Retail sector

Tanzania's retail sector is set for take-off. As in other low-income African countries, consumers focus on price and availability. Supermarkets are becoming more popular for higher-income Tanzanians and expatriates seeking variety and more sophisticated products. Large retail schemes and smaller retail centres are being developed near up-market residential areas such as Mikocheni, Oyster Bay and Msasani. South African retailers such as Game, Woolworths and Kenya's Nakumatt are operating in Tanzania. Up to 80% of the products of these stores are imported through the port of Dar es Salaam.

Government support

Tanzania's historically government led economy is now more market based but remains hindered by weak property rights. Land in Tanzania is officially government property and can only be leased from the government for 33, 66 or 99 years, depending on its use. However, annual land rentals are relatively low and new legislation gives the lessee first right of refusal to extend the lease when it expires. Recent government reforms have been aimed at establishing a reliable

system of transferring property rights and have been cited as one of the reasons for continued real estate development growth in the country.

Terrorism threat

Tanzania also has a vast coastline and is therefore easily accessible by sea. Outside terrorist groups are also assisted by a small, radicalized Islamic element situated in Tanzania. The United Nations anti-terrorism committee also criticized Tanzania in mid-2003 for failing to submit on schedule a report on terrorist activities in their territory.

4.4. Uganda

Key indicators:

- Population: 41.4 million in 2015, with a growth rate of 2.49%.
- Income Level: Low income.
- Currency Uganda Shilling (UGX), Nov 2015 exchange rate approximately UGX 279.04/ZAR or UGX 3649.90/$.
- Inflation Sept 2015 at 7.2%. Inflation Rate in Uganda averaged 6.92 percent from 1998 until 2015.
- GDP 2014 – US$26.31 billion (0.04 percent of the world economy).
- Per capita GDP – $ 422.36/annum. (3% of the world's average).
- Financial services fairly well developed.
- Interest rate – Prime 16%.
- Ease of doing business (according to world Bank Group index) – Ranked 150th (2015)

Age structure:

0-14 years: 48.47%
15-24 years: 21.16%
25-54 years: 25.91%
55-64 years: 2.43%
65 years and over: 2.04%

Infrastructure

The discovery of oil in Uganda has caused a large upsurge of investment in the country, with large projects currently coming on stream. Even though these discoveries may seem modest in size compared to global production, they are very significant in a regional economic context. Uganda is set to begin oil production by 2018/19.

Retail sector

According to research commissioned by the W-Stores, a clothing retail business based in Tanzania, Uganda has the highest rate of retail business growth in East Africa. Uganda's retail business space has in the five years preceding 2012 been growing at a rate of 20 per cent compared to Tanzania's 15 per cent, and Kenya's less than 15 per cent. Over that period Rwanda and Burundi were growing at between 10 and 5 per cent (Sunday Monitor, January 2012)

Although formal retail is developing well in Kampala, the Ugandan country side is still mainly based on subsistence farming and informal trading. With an estimated urbanization rate of 180% between 2010 and 2030, this is bound to change.

Government support

A surge in public spending and borrowing is beginning to rattle investors in Uganda. In mid-June, finance minister Matia Kasaija unveiled a record budget, detailing a 70% increase in outgoing to $8bn. Following the announcement, the shilling slid to an all-time low amid investor fears of unrestrained spending as elections approach. Much of the spending is allocated to ambitious infrastructure project that are being part-financed by China. Most agree these infrastructure upgrades are vital to jump-start Uganda's economy, but the scale of the spending left many wondering if the debts are sustainable.

Terrorism threat

Uganda hosts two organizations — the ADF and LRA — that the US added to its Terrorist Exclusion List in 2001. There have been numerous attacks by the Christian LRA against civilian targets in northern Uganda in recent years. Although Uganda's Islamic community is relatively small, it is still capable of being radicalized.

4.5 Choosing the country to enter

After analysing the data obtained for the four countries identified in East Africa, it became clear that the whole region should be seen as one entity with a fledgling customs union and increasing regional trade. High economic growth on the back of balanced GDP growth drivers like agriculture and manufacturing, high population growth rates and the development of carbon resources, are all creating a platform for solid double digit growth.

As the establishment of a new business in a new country is costly, mostly due to the high cost of infrastructure needed, the ideal scenario would be to start off with one of the four countries, and then to expand into the other three using the first as base. The four countries were therefore classified in order from most likely to succeed to least likely, using the following table:

Table 5: Comparison between Ethiopia, Kenya, Tanzania and Uganda (rated from 1 = best to 4 = worst: author's rating)

	Ethiopia	Kenya	Tanzania	Uganda
Size of population	1	3	2	4
Population below poverty line	3	4	2	1
GDP	2	1	3	4
Per capita GDP	3	1	4	3

Ease of doing business	2	3	1	4
Government support	4	1	3	2
Urbanization	3	1	4	2
Infrastructure in place	4	1	3	2
Cost of transport	4	1	2	3
Financial services available	4	1	3	2
Availability of suitable retail space	4	1	3	2
Competition (incl. markets)	4	3	2	1
Current rental rates (retail)	2	4	3	1
General safety	4	3	1	2
Total:	**44**	**28**	**36**	**33**

Table 5 would seem to suggest that Kenya is the most attractive country to use as point of first investment into East Africa, with Ethiopia being the worst.

Taking the above information as basis, cities in Kenya and Uganda was subsequently visited to get first-hand information and to develop a retail entry strategy.

In Kenya Nairobi, Mombasa, Kisumu and Nakuru were visited, as these are the only four cities in Kenya with over 300 000 inhabitants, also with well-maintained linking roads (see Figure 1). Kampala, Entebbe, Jinja, Mbarara, Kasese, Fort Portal and Hoima were visited in Uganda, as, even though most are not as large as the cities in Kenya, they form a node with fairly good connecting roads and access to neighbouring countries (see Figure 5).

The following data was obtained:

Kenya:

Figure 1: Towns visited in Kenya

Travel report

Nairobi:

Housing 3.4 million people, Nairobi is by far the largest city in Kenya, already relatively well serviced in terms of modern retail space. Figure 2 indicates the location of malls visited in Nairobi and table 6 is a summary of the shopping centres visited and observations made.

Figure 2: Location of malls visited in Kenya

Table 6: Observations made from shopping centres visited in Nairobi

Name	Observation	Anchor Tenant	Other relevant stores	Target market
Capital Centre	Various clothing stores present selling new clothes at very inflated prices	Uchumi – 15 tillpoints in shop	MRP 4U2 Bata	Middle income earners
Nakumatt Mega	Anchor tenant also selling clothing at very inflated prices	Nakumatt Department store – trading 24 hours		Middle income earners
Jamia Mall	Local traders selling 2nd hand clothing as well as new clothes at higher than average price		Various local traders	Middle to lower income earners

Tusky's T-Mall	Anchor tenant selling new clothing at an average price	Tusky's Supermarket		Middle to lower income earners
Highway Mall	Anchor tenant as well as various clothing stores selling clothing at inflated prices	Nakumatt Department Store – trading 24 hours	MRP MRP Home Woolworths	Middle to high income earners
Westgate Mall	Mall was closed due to terrorist attack, but has subsequently re-opened.	Nakumatt	Various local and international traders	Middle to high income earners
Jamaa Supermarket	Anchor tenant also selling clothing at higher than average prices	Jamaa Supermarket – 7 tillpoints in shop	Stanbic Bank Barclays	Middle to high income earners
Baffalo Mall Tuskers	Anchor tenant selling new clothing at an above average price	Tusky's Supermarket – 7 tillpoints in supermarket		Middle to high income earners
The Village Market Lifestyle Centre	Oldish mall situated in the more affluent part of town. Phase 2 development planned	Nakumatt $6000m^2$	Bata Toy World	Middle to high income earners

Nakumatt Junction Mall	Anchor tenant as well as various clothing stores selling clothing at inflated prices	Nakumatt Department Store – trading 24 hours	MRP Truworths Woolworths Babyshop	High income earners
Nairobi CBD	With offices and universities situated on the first floors and up in the CBD, the ground floors of most high-rise buildings are used as retail space. The challenge will be to find store space that will be big enough to house a proper offering.		Most local and international retailers present.	Low to middle income earners

It is clear that the retail penetration is very formalised in Nairobi. Most of the well-known South African and international brands are already present, which means that competition will be fierce. The label prices found inside stores were on average 1.8 times higher than in South Africa.

The CBD of Nairobi is vibrant and retail potential is extremely good (see Figure 3). The challenge however will be to find decent sized shops to trade from at the right rentals, as these spaces are currently subdivided into small (30 – 80m²) shops out of which local tenants trade at very high rental levels. It is not uncommon to pay up to $100.00/m² for these spaces.

Figure 3: Mapping of areas with high foot falls in Nairobi CBD

Figure 3: Mapping of areas with high foot falls in Nairobi CBD

Table 7 lists a number of current and future developments in Nairobi.

Table 7: Current and future developments in Nairobi

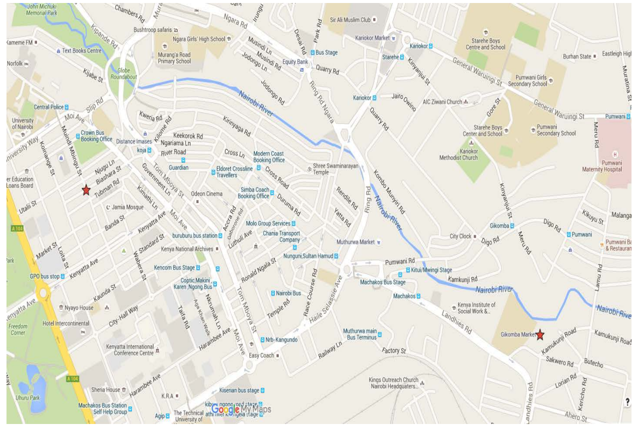
Name	**Detail of development**	**Anchor Tenant**	**Other relevant stores**	**Target market**
The Village Market Lifestyle Centre	Phase 2 of existing mall planned, with Game as possible 2nd anchor. Comprising 52 000m² retail space once complete.	Nakumatt Game	Mixture of local and international retailers	Middle to high income earners
Two Rivers Mixed Use Development	Retail (47 000m²), entertainment and lifestyle centre catering for the affluent market in Nairobi. Will include hotels and	Carrefour	A host of foreign Retailers targeting the affluent market	High income earners

	residential apartments.			
Garden City Mixed use developme nt	Retail (50 000m²), entertainment and lifestyle centre catering for the middle to high income market in Nairobi. Will include hotels and residential apartments.	Naku matt Game	Mixture of local and internatio nal retailers.	Middle to high income earners
The Hub	±20 000m² shopping centres currently under construction.	Carref our	Woolwor ths Bata Deacons	Middle to high income earners

Downtown retail is mainly done from Biashara Street (see Figure 3), which is lined with independently-run baby stores, as well as the second-hand clothing markets. The prices appeared high, but it is difficult to determine the real value as assortment is limited.

The second-hand clothes market, Gikomba (see Figure 4), is well developed and backed by formal financing from banks and is there to stay. Kenya imports abo u 100,000 tons of second-hand clothes a year, providing the government revenues from customs duties and creating tens of thousands of jobs.

Figure 4: Locality of Biashara Street and Gikomba Market in Nairobi



Mombasa:

Mombasa is the 2nd largest city in Kenya, and is East Africa's largest Port. Buildings look much older than in Nairobi, and are poorly maintained. Despit the "worn" look of the town, the malls visited are in good condition and a lot opportunities for clothing retail are available.

Kisumu and Nakuru:

Respectively the third and fourth largest towns in Kenya, they both support t key grocers in town and have clearly defined commercial nodes. These town can easily support a number of formal clothing retail outlets. A number of n property developments, including strip malls are planned for the nearby futu

Conclusions

Ample opportunities are available in Kenya for clothing retail development, v Nairobi already relatively well serviced in terms of modern retail space. The climate is however very competitive, with Nairobi becoming the hub for seco hand clothing, sold in bulk shipments to the continent. In addition to this, lo traders are very territorial.

Uganda:

Figure 5: Towns visited in Uganda

Travel report

Kampala:

With a population of 1.7 million people, Kampala is the capital city of the Republic of Uganda, and houses all government departments and the Uga parliament. Embassies and consulates of many countries, including most / states are well represented in Kampala.

Kampala is the industrial hub of Uganda, being the main manufacturing ce and hosts breweries, cold drink bottlers, food processors, biscuit manufact

as well as paper and coffee processors. It is also the financial hub, and is the head office of all major banks.

Kampala hosts several large universities, colleges and a multitude of international and local education schools. Educational expenditure, fees, uniforms and materials account for a large part of household expenditure.

Subsequent to the CHOGM money scandals, followed by several incidents whe donor funding was misappropriated, and also fuelled by grey money flooding t capital from South Sudan and the western DRC, land prices have rapidly escalated with one acre (4,046 square meters) currently being offered at arour UGX 800 million (ZAR 3,2 million). This is evident when looking at existing mall and plans for new ones to be built, with developers tending to leverage land u: into multi-story developments in order to multiply potential rentals. Developments often feature very limited parking.

The road between Entebbe and Kampala, as well as most roads within the CBD are very congested, and it is not uncommon to be trapped in traffic jams for hours at a time. Most locals make use of transport through small motorcycles avoid the traffic, but this is only causing even more congestion on the roads.

Figure 6 indicates the location of malls visited in Kampala and Table 8 is a summary of the shopping centres visited and observations made.

Figure 6: Location of malls visited in Kampala

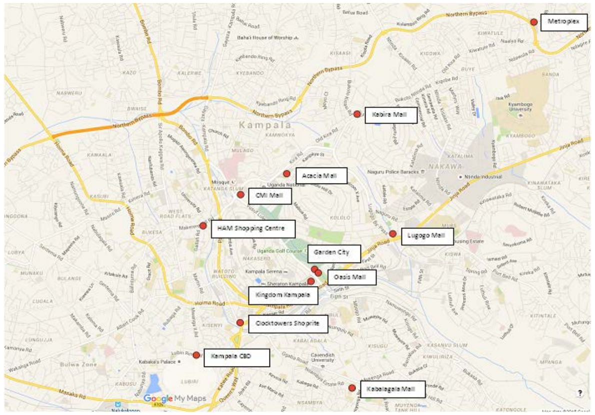


Table 8: Observations made from shopping centres visited in Kampala

Name	Observation	Anchor Tenant	Other relevant stores	Target market
Garden City Mall	One of the older malls in town, this once busy mall is in need of revival. The anchor is also situated on the ground floor, with retailers on the other floors battling to survive.	Used to be anchored by Uchumi, but Uchumi recently closed down due to bankruptcy. Expected to be replaced by Shoprite.	Woolworths Spur	Middle income earners
Oases Mall	Situated next to Garden City Mall, this mall almost looks like an extension of the first. Also housing an anchor on the ground floor, with other retail on floors above.	Nakumatt	MRP Bata Cinemas	Middle income earners
Lugogo Mall	Developed by Shoprite and Game, this is the only mall currently in Kampala that resembles a South African strip centre.	Shoprite	Game	Middle income earners
Metroplex Mall	Poorly designed, this, what only can be described as a "hanger", used to house Shoprite, but even they could not make this development work.	Currently without anchor	Woolworths Bata Cinemas	Middle to Lower income earners
Acacia Mall	A smallish mall built on 4 levels; this is slowly becoming the social gathering point of Kampala.	Nakumatt	Woolworths MRP KFC	Middle to Higher income earners
HAM Shopping Centre	A poorly designed convenience centre, with the anchor situated on the outside of the mall.	Tuskys		Middle income earners

Clocktowers Shoprite	A Shoprite development that is well located, but, due to no parking availability, is battling to keep afloat.	Shoprite		Lower to Middle income earners
Kampala CBD	With most banks present in the high streets, ample opportunities are available to trade from. Finding large enough spaces seems problematic as local traders occupy small stores out of which they sell clothing as means of survival.		Most Banks Bata	Lower to Middle income earners

The retail penetration is not as formalised as it is in Kenya, with very few international brands present. Most trading is done from 5pm until 10pm at night, with people trading on the roadside, and customers using flashlights a headlamps to find their way. Most malls have therefore also amended their trading hours to accommodate this. A steady rise in the feetfall through the can be seen as customers start to get used to the formalised trading environment.

Noteworthy is the number of small grocery stores (400 – 500m²) scattered a along the major roads. They are specifically placed there to provide product their customers on the route on which they commute daily. Customers ther do not need to spend extra money on taxis to do their daily shopping. A mis some developers have made in Africa, is to think that big malls situated on t outskirts of town (were large enough stands are readily available) will entice

customers from far away to frequent their development. As most of Africa' inhabitants are quite poor, the additional transport cost to get to these mal unaffordable.

Table 9 lists a number of current and future developments in Kampala.

Table 9: Current and future developments in Kampala

Name	Detail of development	Anchor Tenant	Other relevant stores	Target market
Kingdom Kampala Mall (see Annexure E)	Multistory hotel, office and mall complex	Shoprite	A host of international brands targeted	Middle to high income earners
Chestnut Mall	Single storey mall planned close to centre of CBD. (Not much detail available yet)	Possible Shoprite	Some international and local brands	Lower to Middle income earners
Kabira Mall (see Annexure F)	Single storey strip centre, elevated to provide parking under, will be well situated in the northern part of Kampala	Anchor not confirmed yet	Local tenants	Middle to high income earners
CMI Mall (see Annexure G)	Single storey strip centre, well located north of the CBD	Possible Shoprite	Local and international brands	Middle to high income earners

Kabalagala Mall (see Annexure H)	Single storey strip centre, with basement parking, will be well situated to the east of the CBD	Anchor not confirmed yet	Local and international brands	Low to high income earners

The CBD host a large market where second hand clothing is sold. Most peopl this area seem to be very poor, and this is definitely not an area that will be targeted for formal retail.

Entebbe:

Entebbe International Airport serves as the main point of entry by air, into Uganda. Being a major tourist attraction, Entebbe features a number of upmarket hotels.

Victoria Mall is currently the only mall in Entebbe and hosts a number of well known retailers, with Nakumatt, a department store with a large grocery component, as anchor. There is currently very little space available in this ma and it does not seem likely that space will become available soon.

Jinja:

Jinja is situated at the origin of the river Nile which is the only drainage syste for Lake Victoria. Asian expulsion led to a rapid decline in the town as a tradi and industrial centre from which it has never fully recovered.

Due to its favourable proximity to the main logistical route as well as raw materials and electricity, a number of industries have been established durin the past 15 years and Jinja is expected to make a full recovery over the next t years. Most major banks are also already present in Jinja.

Mbarara

Located in Western Uganda, 290 kilometres south west of Kampala, on the m road servicing Rwanda and the DRC, Mbarara is the main municipal, administrative and commercial centre of Mbarara District and the location of

district headquarters. It is also the largest urban centre in Western Uganda. Mbarara is an important transport hub.

Mbarara has the largest number of milk processing plants in Uganda. The majority of milk processed is transported to Kampala and other major cities in Uganda.

Educational institutions include Mbarara University of Science & Technology, Uganda Martyrs University, Uganda Management Institute and Bishop Stuart University as well as several secondary and primary schools.

Nakumatt is already present in this town, but in an awkward position, with very little parking. All major banks are also already present.

Kasese

Kasese is situated approximately 350 kilometres west of Kampala, near the Rwenzori Mountains and Queen Elizabeth National Park. The town originated around the copper mine in the area that later turned to cobalt mining.

Kasese town is one of the fastest growing municipalities in Uganda due to increased trading with the Democratic Republic of the Congo and the employment provided by the Hima Cement Factory located approximately 29 kilometres north from Kasese.

Fort Portal

Fort Portal is an important market town situated between Rwenzori Mountains, Kibale National Park and Queen Elizabeth National Park approximately 320 kilometres west of Kampala. It is linked to the DRC by a two-lane tarmac highway.

Fort Portal houses the headquarters of the Kabarole District Administration as well as all major banks. It also boasts a number of universities and two hospitals.

Hoima

Being the main municipal, administrative and commercial centre of Hoima District in Uganda, Hoima is located approximately 225 kilometres northwest of Kampala.

Recently an estimated oil deposit of between 2 billion to 2.5 billion barrels have been discovered in the Hoima and neighbouring Buliisa District. In order to benefit from value addition, the Ugandan Government is determined to refine the crude oil locally and export refined products. A mini refinery is therefore planned to be constructed near Hoima.

Most banks are already present in Hoima, with international hotels also under construction. As the boom is expected to peak by 2017, it would be good to secure space to trade from before then.

Conclusions

Kampala is the major industrial and financial hub in Uganda. As such it offers a number of opportunities for retail development. In addition, the towns of Entebbe, Jinja, Kasese, Mbarara and especially Holma offer considerable retail expansion possibilities.

5. RECOMMENDATIONS

Once the decision has been made to enter East Africa as a new market, the following points need careful consideration:

5.1 Understanding the market

Whether the affluent market or the middle class is being targeted, the criteria to define customer needs to be well defined in order to determine how big the target market actually is. The following points as highlighted by Longman (2015) therefore need careful consideration when establishing your consumer segmentation model:

- *It is critical to use a consumer segmentation model that fits the products and services you sell.*

- *As most sub-Saharan African countries have large informal economies, with people being reluctant to declare their real incomes to government agencies, the official income data could very possibly be largely skewed. It is therefore vitally important to obtain first hand data by visiting the regions yourself before making decisions.*
- *Lifestyle and living standards needs to be studied as it provides a good indication of how the consumer market is growing. Living standards also predict income changes. It is more accurate to track changes in lifestyle and living standards, than to see how economic growth filters down to consumer income at the household level.*
- *Electrification, particularly in rural areas, is transforming households. In the past five years, the number of households with electricity has more than doubled in Tanzania and Mozambique.*
- *Rapid urbanization is bringing more consumers within reach, and the rise of online retail and the growing supermarket sector are transforming access to goods and services. It is therefore becoming cheaper and easier to join the middle class.*
- *As living standards and lifestyles keep changing it needs to be monitored closely and regularly, with your consumer segmentation model adjusted accordingly.*
- *Lastly, be wary of forecasts as forecasts are mostly done from data which currently cannot even be described as accurate.*

5.2 Exploit the opportunity timeously

Retailers who act early and target the right market in these fast growing countries stand to benefit from long-term gains. By establishing brand loyalty at an early stage, large gains can be realised through the growth of the African consumer.

Most capital cities in East Africa can be classified as “mega-cities”, with a large population, strong emerging middle class, good infrastructure and political and currency stability. These cities can be used to enter the countries’ market and first establish the brand before expanding into the less populated and rural areas. For brands that prefer to avoid the capital investment and risks involved in opening their own stores, distribution can be done through established local stores, like Nakumatt, to first gain gauge consumer response to their brands and products and gather real market data to support any future ambitions. Another option is to first enter a country through a franchise model and then, once the brand has been established, to convert back to corporate owned stores. The downside to this is that the customer has to pay more for the product initially due to the higher franchise costs, which might give them a negative sentiment towards your brand.

5.3 Know all relevant local regulations

Many hopeful business people have started and then found themselves grappling with regulations and bottlenecks that would have been visible if only they had done a proper investigation. Knowledge of the regulations, tax, and pricing trends before embarking on doing business in a certain market or industry will avoid unnecessary complications.

Unfortunately many regulations in African countries may be subject to sudden changes, like the SI33 regulation introduced a few years ago in Zambia, forcing all Landlords to implement leases in local currency only. This had a huge impact on developers' decisions to develop in that country, as most banks were still only prepared to provide finance in US dollars. Zambia therefore revoked the SI33 soon afterwards. Angola is currently (2015) also in the process of imposing a regulation similar to the SI33 of Zambia. Only time will tell if this will be more successful.

5.4 Standardisation of small shopping centres

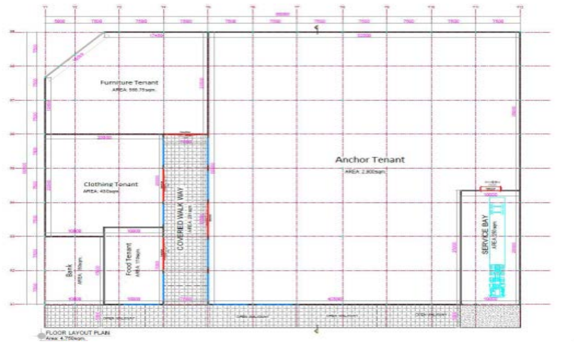
As proper sized and reasonably priced retail space in East Africa seems to be problematic, partnering with strategic partners to develop malls definitely needs further exploration. The recommended approach would be to purchase small plots of land in areas with high population densities (close to where residents stay, or on route to their work) and develop small shopping centres (at most 5000m²) with all tenants being partners in the development. A standardised mall design, with fixed rentals can thus be derived that can be rolled out to adjacent countries and rural areas once refined (hence the name "Cookie-cutter" concept).

The tenant mix of such small shopping centres should include a food anchor (for example Shoprite who recently approved an expansion program into Uganda), a

food tenant (KFC recently opened its first drive-through store in Uganda, and is keen to further expansion possibilities into East Africa), a bank (most banks are already well established in East Africa, but to become development partners might entice some to become part of such an expansion model) with the rest of the mall filled with one or more clothing tenants and perhaps a furniture retailer.

Figure 7 illustrates how such a typical mall design could look like, with minor adjustments that can be made to adapt to the size and topography of relevant sites obtained to be developed.

Figure 7: Typical "Cookie-cutter" mall design



It is clear that opportunities to do business in East Africa are plentiful and very promising, but not without risk. Therefore if enough planning is done and the right approach is followed, the likelihood of success can be greatly improved.

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DISPOSITION OF STOOL LAND IN PERI-URBAN GHANA: THE CONSTITUTIONAL REQUIREMENT AND COMPLIANCE IN THE EJISU-JUABEN MUNICIPALITY

***ALEXANDER SASU [1], LEWIS ABEDI ASANTE [2] AND JOSEPH KWAKU KIDIDO [3]**

[1,2] **Department of Estate Management, Kumasi Polytechnic, Kumasi, Ghana, [3] Department of Land Economy, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana**

** E-mail of the corresponding author: alexandersasu85@gmail.com*

Abstract

Article 267 (3) of the 1992 Constitution of Ghana provides that stool land disposition or development must be consistent with the planning scheme approved by the Town and Country Planning Department (TCPD) of the area in which the land is situated, without which traditional authorities are not expected to dispose same to prospective allottees. The study sought to address the questions: (a) '*to what extent does stool land disposition and development in peri-urban Ejisu Juaben Municipality complying with Article 267 (3) of the 1992 Constitution of Ghana*'; (b) '*what are the driving factor(s) for compliance or non-compliance with the constitutional provision'*. Data were gathered from traditional authorities(Chiefs), allottees and officials of Town and Country Planning Department (TCPD) and Public & Vested Land Management Division (PVLMD) of Regional Lands Commission (RLC). The study showed a high rate of non compliance to the constitutional provision. This scenario is occasioned by conflicting relations between the traditional authorities, TCPD and PVLMD coupled with high cost of base map and planning scheme preparation. The study recommends a partnership between the traditional authorities and metropolitan, municipal and district assemblies (MMDAs) in the preparation of base maps and planning scheme aimed at regulating land disposition and development. The MMDAs should also directly support the chiefs both financially and technically to ensure easy adherence to the constitutional provision and in so doing guarantee the preparation of planning schemes ahead of development.

Key words: *Constitution, Development, Stool land, Stool land disposition, Land Use Planning, Ghana*

1.0 Background of the Study

More than half of Ghana's population currently lives in urban areas (Ghana Statistical Service, 2012). This high rate of urbanization has accelerated the demand for land to meet the needs of urban dwellers in Ghana (Amoateng et al., 2013). No wonder studies by Irwin and Geogeghan (2001) and Durand-Lasserve (2005) have argued that customary lands, which hitherto was purely put to agricultural use and seen as a common asset to each member of the land-holding group, is gradually being commoditized. This trend, coupled with increasing population and higher land values at the urban core, has led to an increase in the demand for land for residential, commercial and industrial use in peri-urban areas in Ghana where there are large quantities of undeveloped lands. According to Opoku Nyarko and Adu-Gyamfi (2012), high demand for lands has been the main cause of the massive land development in peri-urban Ghana. However, the challenge is that majority of peri-urban areas in Ghana are characterized by unplanned physical growth and development (Amoateng et al., 2013). Can this observable fact be seen as solely Ghanaian , or it could be extended as a common attribute to developing countries. Annapurna (2005) orated that, in India, the spreading urbanization to peri- urban areas of India, is gradually changing land use from agricultural to residential and industrial; yet such areas lack the institutional capacities and governance structure to enable them respond to the land use change in a positive manner. This problem is normally associated with indiscriminate and fragmented disposition of peri-urban lands by custodians without any recourse to a planning scheme. Having realized that the dynamics of peri-urbanization in Ghana is likely to be perpetual, policy makers have enacted land use planning laws that aim at regulating customary land disposition and development. Prominent amongst such laws is Article 267(3) of the 1992 Constitution of the Republic of Ghana, which states that '*there shall be no disposition or development of any stool land unless the Regional Lands Commission of the region in which the land is situated has certified that the disposition or development is consistent with the development plan drawn up or approved by the planning authority for the area concerned*'.

Using Ejisu Juaben Municipality in Ashanti Region as a case study, this paper aims at answering the questions (a) '*to what extent does stool land disposition in peri-urban Ejisu Juaben Municipality complying with Article 267 (3) of the 1992 Constitution of Ghana*'; (b) '*what are the driving factor(s) for compliance or non-compliance with the constitutional provision'*. There is a good amount of literature on the management of peri-urban customary lands in Ghana (Opoku-Nyarko and Adu Gyamfi, 2012; Senu, 2014). Nonetheless, the focus of these studies have been on the effect of peri-urbanization on peri-urban land use change pattern (Appiah et al., 2014); the nature and extent of physical development in peri-urban areas and the factors contributing to the rapid development of peri-urban areas (Amoateng et al., 2014), how land administration systems in peri-urban areas are adapted to the tenure and institutional framework of customary tenure systems (Arko-Adjei, 2011). However, little attention has been given to customary land disposition in peri-urban areas. This emphasizes the importance of this research to literature and stakeholders of customary land management. The paper is structured into five sections. Section one introduces the research. Section two reviews existing literature on the topic. A description of the study area, concept and research methodology is shown in section three. Section four focuses on the findings and discussions. The conclusion and recommendations are presented under section five.

2.0 An Overview of Customary Land Management : Disposition Perspective.

2.1 Customary Land Tenure and Management in Ghana

According to Fiadzigbey (2006), customary lands are lands owned and controlled by stools and skins (ethnic groups), clans or families where traditional and customary norms and practices govern their tenures and administration. The customary land sector controls roughly 80% of the land holdings in Ghana (Kasanga and Kotey, 2001). These lands are governed by customary laws and the rights and interests range from allodial (freehold), through usufructuary, common law freehold to tenancy (Fiadzigbey, 2006). Customary law is by nature "procedural"

and not codified. It does not define each person's rights, but the procedures by which access to resources is obtained (Chauveau, 1998). The world bank estimates that across Africa only between 2% and 10% of land is held under formal land tenure (Deninger,2003). This percentage underlines the limited spread of statutory or formal lands in Africa. This trend in the African continent can be attributed to the existence of customary norms and practices for customary land management prior to western colonization.
An allodial title is the highest interest that can be held in land in Ghana. Woodman (1996) averred that all the members of the land holding community hold the allodial title collectively, although the exercise of the powers relating to the land is vested in the recognised head of the community, which constitute the chief and his council of elders. Agbosu (2000; 2003) argued that despite the differences in traditional norms and practice, traditional authorities in Ghana seem to share some common attributes relating to customary land ownership and management. Salient amongst these commonalities is the fact that the land is seen as a common asset and each member of the land holding group has an inherent right to the benefits that may accrue.

Additionally, Otubu (2008) noted that among the tribes of Yoruba's, Ibo's and other southern Nigerian tribes land is customarily owned as a corporate property. He added that, the individual rights in land are limited to use and enjoyment of the land allotted to him. Though such right is transmissible and devisable, the concerned individual cannot alienate the land without the consent of representatives of the corporate unit recognized as such under customary law. A similar arrangement prevails among the Akans and most parts of southern Ghana (see Benneh, 1995; Gildea, 1964). However, the work of Amanor (1999) found that profits earned are usually shared with other elders in the lineage for development. He further added that the allocation of land within the lineage is not equitably shared. The actors in the customary land ownership arrangement do not all operate on same level. Some chiefs are more powerful than others (Ubink, 2008), with some virtually graduating from being trustees to actual owners and hence

solely allocating agricultural lands for residential use and keeping the proceeds (Asiama, 2008; Yeboah and Oppong, 2015).

Moreover, usufructuary (also known as customary freehold) may best be described as freehold interest held by members of land owning group as of right by fact of first cultivation or construction or allotment by the larger land owning community (Kuusaana, 2007). The holder of this kind of freehold has the right of beneficial and exclusive occupation of the land concerned and which may be held *ad infinitum*, so long as his successors survive. (Kuusaana, 2007). Common law freehold is an interest in land that arises out of a grant in the nature of a freehold made by the holder of the allodial title by way of sale or gift. Nevertheless, the 1992 Constitution under article 267(5) has curtailed the granting of freehold rights in stools and skins. The same Constitution under article 266(3) prohibits non-Ghanaians from holding freehold interest. It is worth mentioning that restriction of land ownership to foreigners is not limited to Ghana. In Tanzania for example, foreigners are not entitled to resource use but rather land rights only (Cotula et al, 2009)

Over the years, management of customary lands has evolved in most developing countries, especially in Africa. This spans from the era where its land use was only managed for the purpose of farming and hence seen as a common asset for members of the land holding group to the current era where due to commodification, land is seen as a commodity for sale to mainly strangers (people who are not members of the land holding group) for other land uses like residential and industrial. Briggs and Mwamfupe (1999) proved this by averring that, as the Tanzanian economy started to stabilize, households saw the peri-urban zone as an investment opportunity for residential development; as a result, land in the peri-urban zones of Dar-es-Salem has increasingly become a desired commodity for housing construction by investors. In Vietnam for example it was estimated by the World Bank that nearly 1 million hectares of farmland was converted to non-agricultural uses between 2001 and 2010 of which residential land use was prominent (World Bank, 2011)

The question is, why is land currently being seen as a commodity than a public good to be shared by members of its holding group? Hughes et al. (2011) suggested that chiefs' right to administer communal land has been subjected to significant reinterpretation amidst the rising population pressures, growing demand from commercial investors, and consequent increases in land values. Population pressures and ever-growing interest in large scale commercial investment have increased demand for land of which Ghana is not an exception, particularly in peri-urban and fertile rural areas (see Berry 2001; Ryan 2006). Kasanga and Kotey (2001) found out that communal lands are fast changing into individual ownership and changing hands from indigenous people to migrants in the form of limited leaseholds. Even for indigenous people, ownership is shifting from customary freehold interests, along with the secured tenure they provide, to more insecure leaseholds.

Fiadzigbey (2006) noted that customary and state laws play an important role in the management of customary lands in Ghana. She, however, stressed that the nature of the communal tenure and the rights therein, along with too much statutory interference, have complicated land tenure and management in Ghana. The scenario where customary tenure rules and statutory laws co-exist complicated with multiple bodies through which land disputes are resolved has come to be known as legal pluralism (Larbi, 2006; Crook et al., 2007). Bruce et al (1994) established that, customary land tenure arrangement provides just much tenure security as government issued title. The question is, what are the likely effect of such co-existence of laws? Scholars have argued that due to this legal pluralism, statutory laws regulating transfer of lands are mostly not complied with by customary heads. Additionally, Delville (1998) argued that, legal pluralism, deriving from the colonial era and the way West African states were set up, causes a degree of uncertainty about land rights and leads to conflicts for which many different arbitration bodies (customary, administrative and judicial) are unable to find lasting solutions. He further argued that, legal pluralism causes uncertainty over rights, not because land-use rules and rights are ambiguous as far as local stakeholders

are concerned, but because they are likely to be challenged - and canceled - through resort to State law (or to State authorities). (Delville, 1998)

The transfer of land rights is mostly governed by the decisions of stools, family heads and individual landowners is fraught with a lot of imperfections and distortions (Kasanga et al.,1996). These imperfections and distortions have the tendency of creating a poor customary management practices and its associated challenges. Fiadzigbey (2006) asserted that chiefs (traditional heads) who are the administrators of lands and hold the authority to allocate and lease lands do not have maps as evidence of lands given out. They hardly coordinate any land transaction with other institutions involved in land management such as the Town and Country Planning Development (TCPD) of the Metropolitan, Municipal and District Assemblies (MMDAs) and the Lands Commission (LC) (Yeboah and Oppong, 2015). The prospective allottee or lessee can be given land anywhere in so far as that land is vacant and alienable. This scenario is clearly contradictory to provisions in article 267(3) of Ghana's constitution.

It is against this background that, the on-going land reforms in Ghana dubbed Land Administration Project (LAP) set up Customary Lands Secretariats in some districts to help in the management of customary lands. However, the question is, are such secretariats helping in the adherence of statutes governing customary land management especially with respect to disposition? Senu (2014) averred that "*the overwhelming land dispute situation in the Odupong Ofaakor (town in the Central Region of Ghana) raises more questions as to the effectiveness of the interventions made so far by the Land Administration Project. The area has benefited from... Yet the situation of multiple sale and encroachment of land abound*". The argument here is, why the non-compliance of statutory laws governing customary land management? Lund (2000) answers this question by placing the reason to the lack of link between authorities (Chiefs, Imams etc) and uncertainty over who may deliver sometimes contradictory and fluctuating laws. This scenario, as per Lund's submission, leads to a situation where no laws can be recognised and accepted. Can this assertion be the main reason for non-compliance in Ghana?

2.2 Peri -Urban Land Market Dynamics and The need for Land Use Planning

Ravetz et al. (2013) have described peri-urban as an area where the urban structure transits into the rural landscape so that it can be a significant territory in area terms that must be looked at in the context of the wider transitioning between dense urban cores and rural hinterland. It can as well be seen as a transition area moving from strictly rural to completely urban, related to a high pressure towards urban development (Bertrand, 2007). It is often argued that the nature of peri-urbanisation found in most developing countries, of which Ghana is not an exception, can be best seen as a frantic growth city, where such growth is characterized with high land conversion rate (Ravetz et al., 2013). As a result, in most peri-urban areas, rural activities and modes of life are in rapid retreat, with an extensive urban land use transition (Amoateng et al, 2013). Peri-urban land markets are the most dynamic and most diverse in Sub-Saharan Africa (Wehrmann, 2008). Like all markets, supply generally reacts to demand. It is against this background that Durand-Lasserve (2005), as cited in Wehrmann (2008), asserted that customary institutions are gradually adapting to changes in demands of the people, thereby transforming customary into neo-customary land delivery systems, mainly because of commodification of land for profits. This, he argues, makes access to peri-urban lands dependent on purchasing power and no longer on criteria of social membership.

United Nation Population Fund (2007) provided that the space taken up by urban localities is increasing faster than the urban population itself. They further added that between 2000 and 2030 the world's urban population is expected to increase by 72% while the built-up areas of cities could increase by 175%. This would consequently leads to land use changes whereby potential agricultural land in the periphery of cities is gradually converted into built up areas (Adriana, 2003). Since the dynamics of the peri-urban lands especially with respect to land use conversion

is unlikely to change, there is a greater need to provide a corresponding land use policy to help avoid fragmented land disposition and development as well as depletion of lands for other use (Mugisha and Nyandwi, 2015). The dynamics of peri-urban land market coupled with uncontrolled development in peri-urban areas have the potential of resulting in lack of infrastructure and environmental damage (Wehrmann, 2008). Land use planning refers to the process by which land is allocated between competing and sometimes conflicting uses in order to secure the rational and orderly development of land in an environmentally sound manner to ensure the creation of sustainable human settlements (Thomas, 2001).

Thomas' view point on land use planning shows how integral it is to peri-urban land disposition and development, especially from the view point of land sustainability, protection of property rights and enhancement of orderly development. It is against this background that legal and institutional arrangements are made to help streamline the land conversion and development process. In Vietnam the state has formulated legal arrangement under the Land Law 2003, to regulate their land conversion process (Phuc et al, 2014). Additional, In Tanzania, standards for planning schemes are provided for under the Town and Country Planning (Space Standards) Regulations of 1997 (Tanzania, 1997). (Kironde, 2006). These examples underscore the importance of legal arrangements for land conversion; disposition and development in most developing countries of Africa and Southeast Asia.

However, despite such legal and institutional arrangements, Senu (2014,) has shown that, most agricultural lands are rapidly being developed into buildings for various uses in the peri-urban areas of Ghana. According to him these developments are not subjected to approved planning schemes by the institutions responsible for effective planning of these areas. Importantly, most parts of his study area had no planning scheme (layout). All these happen in the land development process of Ghana as noted by these researchers despite the existence of the statutory provisions that seek to ensure sound land development and land use arrangement. Can it be that the statutory legal provisions regulating stool land disposition in itself is the challenge; on the grounds of its rigidity or its adherence requires a great deal of funds? Arko Adjei (2011) had argued for legal flexibility, with the pretext that, tenure systems are dynamic and technical, human and financial capabilities are inadequate, invariably making it difficult to cope with rigid legal arrangements. Deninger (2003), on the other hand, argues from affordability perspective. He averred that, the cost of carrying out formalization activities should be minimal. Kironde (2006) also argues that, the regulatory framework adopted in many urban areas of developing countries has been blamed for their unrealistically high standards. This trend, as per kironde's assertions, puts land and shelter out of reach of poor households. Dowall (2003), as cited by Kironde, (2006), noted cases from Asia and Latin America where excessive land use conversion and development controls tend to drive up the cost of shelter and reduce affordability.

2.3 Legal and Institutional Arrangement for Stool Land Disposition

There are a number of legal and institutional arrangements that are provided to regulate customary land management in its larger sense in Ghana. However, for the purpose of this paper, prominence is given to those aimed at regulating stool land disposition in Ghana.

2.3.1 The 1992 Constitution of the Republic of Ghana

The 1992 Constitution is the supreme law of Ghana and any other law found to be in conflict with its provisions shall be declared null and void. Under the stool and skin lands and property segment of the Constitution, Article 267(1) stipulates that '*all stool lands in Ghana shall vest in the appropriate stool on behalf of, and in trust for the subjects of the stool in accordance with customary law and usage'.* This advocates that, the Constitution recognizes that ownership and usage of stool lands in Ghana shall be the preserve of traditional authorities. However, Blocher (2006) indicated that, the Constitution has charged two institutions with the mandate of overseeing the management and administration of stool lands. These institutions constitute the Lands Commission and the Office of the Administrator of Stool Lands. Blocher (2006) asserted that most controversial role of the Lands Commission in stool land administration is that of providing consent and concurrence to the disposition of stool lands. This is captured in Article 267 (3) of the Constitution. Kasanga and Kotey (2001) are of the opinion that this provision

has given the state the power to control and monitor administration of stool lands in Ghana and thus ensures disposition goes hand in hand with development.

Although the statutory arrangement set up by the Constitution is a good one, Blocher (2006) purported that the constitutional provisions, especially Article 267(3) is barely complied with. His reasons are that duplicate grants and freeholds continue to spread unabated, as chiefs have consistently and effectively resisted government attempts to define what transaction they can and cannot carry out; transaction costs and turnaround time of consent and concurrence are not merely expensive and frustrating but also insurmountable in some cases.

This provision albeit its usefulness to land use planning, lacks legal flexibility, since the usage of customary lands through customary laws is equally recognised under article 267(1). Kasanga and Kotey (2001) have argued that the logical effect of article 267(3) is to tie the hands of custodians of stool lands in respect of their legitimately held lands. Can it be that statutory laws formulated did not pay adequate attention to traditional authorities' bundle of rights as per customary laws or it did not heed to the need for their consultation as per article 267(7) of the same constitution.

2.3.2 The Local Government Act, 1993 (Act 462)

Section 48 of Act 462 stipulates that an approved district plan shall be complied with by the person, body or organ in the district responsible for or connected with the implementation of the plans. Additionally, section 49(1) also provides that a physical development shall not be carried out in a district without prior approval in the form of written permit granted by the district planning authority. Also section 61(1) of the same Act stipulates that *"an allocation of land shall be null and void if the purpose or use for which allocation is made is contrary to the provisions of an approved development plan"*. In effect the plans captured in the sections aforesaid is similar to the "*development plan draw up or approved by the planning authority*..." mentioned under Article 267(3). This suggest that every MMDA, through its TCPD , is mandated to prepare approved district plans which is expected to guide all physical development in the area.

2.3.3 The Survey Act, 1962 (Act 127)

Section 6(1&2) of Act 127 requires the use of no unqualified person to survey land for the purpose of preparing plans or certify plans. Such a qualified person has to be an official surveyor or licensed surveyor. Base maps and cadastral plan are heavily relied upon in the preparation of planning schemes which is a requirement for any stool land disposition as enshrined under article 267(3) of the 1992 constitution of Ghana. Juxtaposing the relevance of base maps with the provisions of article 267(3), can it be concluded that such technical service is readily available and affordable to traditional authorities? The question of availability and affordability is important because several scholars and international bodies emphasize professional services availability and affordability as crucial factors that determine the success of conventional land administrative system (Deininger, 2003).

2.4 Procedure for Stool Land Conversion and Disposition in Ghana

Owusu and Asamoah (2005) have indicated that disposition of land in Ghana becomes necessary when there is change of use or rezoning. They argued that whenever surrounding villages at the urban fringe and urban periphery become part of a statutory planning area, the TCPD requests the Survey and Mapping Division (SMD) to survey the lands in the said areas or settlements and use same for the preparation of base maps. As per current events, can one say the argument being made by Owusu and Asamoah (2005) still persist, as far as request for base maps by TCPD is concerned? Quayson and Boateng (2015) asserted that SMD and TCPD are unable to provide the service of preparing base maps and layouts because they lack adequate funding and human resource. As a result, traditional heads have no option than to engage private surveyors for base maps preparation.

It is imperative to add that, for traditional heads (TA's) whose lands are merging into an existing planning area and the total land size of the land in question

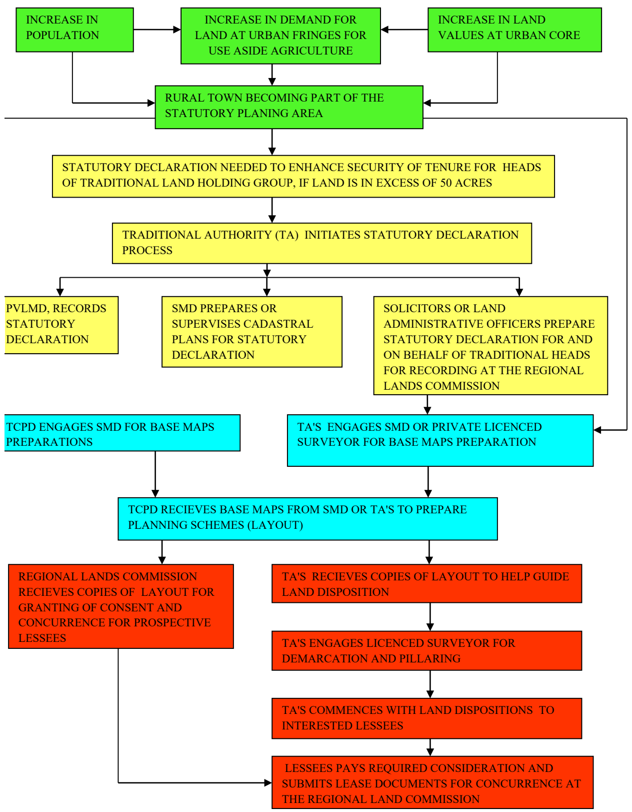
xceeds 50 acres, statutory declarations are prepared to eliminate the possibilities f counter claim to ownership. Upon completion of the base maps, the TCPD repares layout for the area, detailing out the various land uses, subject to the pproval of the statutory planning authority. Upon approval, copies of such layouts re given to the traditional heads of the stool in question and relevant divisions of ie Regional Lands Commission (RLC). The traditional heads then engage official or censed surveyors to demarcate the various land use with the aid of pillars, eflective of the bearing and distances on the scheme. Once the setting out is ompleted, the disposition of lands by the stool in question through its lawful eads and principal elders can commence. **Figure 1** shows the disposition process.

.0 Study Area and Research Methodology

he Ejisu Juaben Municipal Assembly (EJMA) in the Ashanti Region of the Republic f Ghana was adopted for the study. EJMA was found to be suitable because the iunicipality is generally characterized with peri-urban towns and rural towns with iost of its native inhabitants being farmers. Additionally, most of the iunicipality's farm lands at its peri-urban towns are being converted to residential, ommercial and industrial uses. According to the 2010 population and housing ensus, the population and housing stock at peri-urban EJMA are 143,762, and ,059 respectively (Ghana Statistical Service, 2012), whilst that of the 2000 opulation and housing census recorded 77,013 and 4,227 respectively. (Ghana tatistical Service, 2002) Comparing these figures suggest a percentage increment f 87% and 91% in the population and housing stock respectively. From the oregoing percentages, it could be deduced that stool land disposition and evelopment is ongoing at peri-urban EJM.

hree peri-urban towns (Adako-Jachie, Besease and Manhyia) were purposely elected from the EJMA as the study areas. These communities were chosen ecause most of their stool lands were farm lands in terms of land use. However, iey are currently changing to residential with few commercial and industrial use. hey thus provided an appropriate area within the Municipality to examine the level of compliance to the constitutional provisions in this on-going use conversion process. **Figure 2** shows the location of study areas.

Figure 1: **Stool Land Disposition of Ghana**



Source: **Authors' Construct**

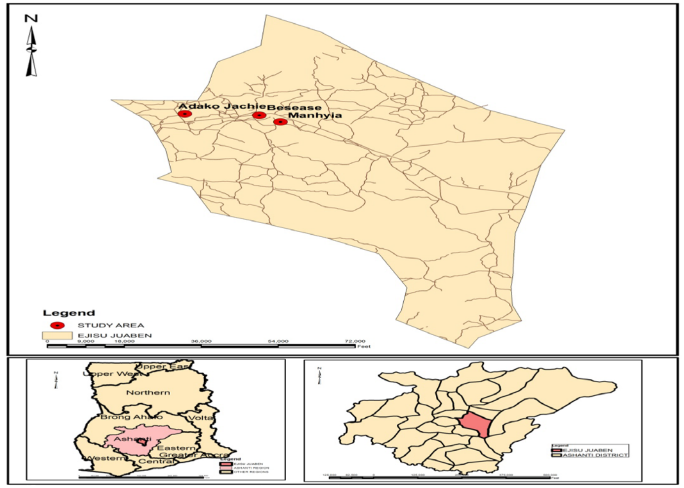


Figure 2. A Map indicating the study areas and the boundaries of EJMA
Source: Survey and Mapping Division of the Regional Lands Commission.

This study was conducted between August and December, 2015 and the data presented reflect the stated time frame. A mixed method approach was adopted. According to Yin (1994) as cited in Amos and Gadzekpo (2016), this permits researchers to address more complicated research questions and attain higher reliability and validity of the research. In line with this, a semi-structured interview guide and questionnaire that gave a good balance of open and close ended questions were adopted. Issues collated qualitatively from the review of literature and preliminary survey were developed into a questionnaire as well as an interview guide for the main study.

The study is conceptualized by adopting the 5th dimensional frame work factor developed out of the Peri Urban Land Use Relationship (PLUREL) project. The dimension in question thus focuses on governance and policy responses (legal and institutional arrangement as per this study) to changes and transition (land conversion and disposition within the context of the study areas) in the peri urban zones (Miljkovic et al., 2012; Ravetz et al., 2013). Ravetz et al.(2013) asserted that even though this policy aims at solving problems relating to changes and transition in the peri urban zone; the policy can also become part of the problem which it aims at solving.

Drawing from these propositions, the need for policy response through legal arrangements to regulate the ongoing stool land conversion and land use planning as a whole is inevitable. This is more important when commodification of lands is leading to the translation of hitherto agricultural lands into a more residential and commercial land use pattern at the peri-urban zones. Article 267(3) of the 1992 constitution was formulated to control stool land disposition and in so doing enhance land use planning in Ghana. The question is; is the application of this constitutional provision becoming part of the problem?

With this concept in mind, traditional heads and professionals from institutions mandated to assist in customary land management, of which land disposition is pivotal were purposively selected. Convenient sampling was used in selecting allottees who have been granted parcels of lands by traditional heads for various uses. Questionnaires were sent to 240 allottees of which 183 were attained. Interviews were also conducted with professionals from the Town and Country Planning Department (3 in number), Public and Vested Lands Management Division of the RLC (4 in number) and Survey and Mapping Division of the RLC (3 in number). The traditional heads of the three selected towns were interviewed as well. The use of interviews gave us a great deal of freedom to probe various areas and to raise specific queries during the course of the interview (Naoum, 2007). The interview guide designed focused on four thematic discussion areas, namely:

- General awareness level of the constitution provision [article 267(3)] guiding this research
- The extent of compliance of article 267(3) as far as ongoing land disposition in the study areas are concern
- Rational for non compliance or compliance by traditional heads
- Possible challenges and effects associated with bullet 3.

To ensure confidentiality, pseudonyms were adopted, the abbreviations [LC = was adopted for any professional working with the Regional Lands Commission, PO = for those coming from the Town and Country Planning Department and TA= for traditional heads] Also, their number of years of experience were considered as well. The abbreviation [LE = Allottees] was used for the allottees and their ages were equally added. Data collected were edited, sorted, and coded [those from interviews]. The analytical tools used in analyzing the responses from the survey focused on the use of relative importance index (RII). This statistical tool was used to rank challenges and effects allottees were encountering regarding land disposition and development as well as reasons for non compliance or otherwise on the part of key stakeholders sampled . Respondents were asked to score the challenges and effects on an ordinal or likert scale of 1 to 5 where '1' is strongly disagree, '2' is disagree, '3' is neutral, '4' is agree and '5' is strongly agree. Based on the various scores provided by each respondent, it was possible to analyze and rank them accordingly, as shown in **Tables 2 and 3**. These rankings made it possible to compare the relative importance of the challenges ranked by the allottees. (Megha and Rajiv, 2013; Sasu et al., 2016). The nearer the value of importance index is closer to unity (1), the more significant that factor is. Below gives an insight to the formulae used in ranking the factor

Relative Importance Index (RII) = $\frac{1n_1 + 2n_2 + 3n_3 + 4n_4 + 5n_5}{5(n_1 + n_2 + n_3 + n_4 + n_5)}$

Where n_1 = The number of respondents who answered 'strongly disagree'
n_2 = The number of respondents who answered 'disagree'
n_3 = The number of respondents who answered 'neutral'
n_4 = The number of respondents who answered 'agree'
n_5 = The number of respondents who answered 'strongly agree'

Adopting content analysis advanced by Powell and Renner (2003), abbreviations (codes) were assigned to responses from respondents interviewed. This aided in summarizing data into emergent coherent categories or themes with emphasis on agreement and disagreements between the various respondents from the sampled professionals and traditional heads. This paved the way for quantitatively counting the number of times a particular theme or category comes up and by so doing, establishing a general pattern from the data collected.

4.0 Results and Discussions

4.1 General Characteristics of Respondents

Table 1 shows the characteristics of a total of 193 sampled respondents constituting 183 allottees, 10 officials from the relevant state agencies and 3 traditional heads. As indicated in Table 1, eighty four percent (84%, ***n=153***) of the allottees respondents were between the ages of 25 to 46 and were either employed or self employed. This attribute suggest that majority of the respondents were economically active. In a country where an individual's status in society is arguably measured by the number of houses they own, it is not surprising that most of the respondents build their houses at an age when they are economically active. In Ghana, such economically active persons include persons in paid employment, self employment, contributing to family business, not working but had jobs to return to as well as those who are unemployed but hopeful of finding a job (Ghana Statistical Service, 2012). Although the sampled allottees cut across the working class, forty two (42%) of them were self-employed. This finding is consistent with the outcome of the 2010 Population and Housing Census, which

revealed that sixty percent (60%) of economically active persons in Ghana are self-employed (Ghana Statistical Service, 2012). Findings also revealed that majority (80%, ***n=146***) of the respondents had qualifications that were higher than high school certificate. This characteristic can be attributed to the general increase in access for tertiary education through the influx of private universities over the past decade. This correlates with the 2010 District Analytical Report for Ejisu Juaben Municipality, which showed that 5.4% of the municipality's population had attained tertiary education as compared to 2.7% over the past three years and beyond. (Ghana Statistical Service, 2012). Additionally, we found that seventy seven percent (77%, ***n=140***) of allottees were non natives of the study area and were mostly urban residents who wanted to leave the rental market. This confirms the assertion made by Kasanga and Kotey (2001) that communal lands are fast changing into individual ownership, specifically from indigenous people to migrants in the form of limited leaseholds. Our conclusion point to the fact that access to peri-urban lands is now dependent on purchasing power and no longer on criteria of social membership (Durand-Lasserve, 2005; Wehrmann, 2008). Sampled officials from the state agencies had worked for at least 3 years with state institutions mandated to regulate land disposition and hence provided very important information for the study. All sampled traditional authorities had also ruled for more than 10 years.

Table 1. Characteristics of Sample Respondents

CHARACTERISTIC	*Allottees*			*TOTAL(n=183)*
	Towns			
	Manhyia	Besease	Adako Jachie	
Age	(n=63)	(n=69)	(n=51)	
25 – 35	14	25	18	57
36 – 46	32	38	26	96
47 – 57	11	5	4	20
≥ 58	6	1	3	10
Native and				

Non Natives Profile				
Natives	21	13	9	43
Non Natives	42	56	42	140
Profession				
Public Servants	12	13	11	36
Civil Servants	8	8	7	23
Private Sector (services)	16	18	14	48
Self-employed	27	30	19	76
Education				
High School	12	15	10	37
Bachelors/HND	23	29	18	70
PGD	3	2	1	6
Masters	17	18	14	49
PhD's	8	5	8	21
	Professionals Sampled			***Total (n=10)***
	PVLMD	SMD	TCPD	
	(n=4)	(n=3)	(n=3)	
Years of Experience				
1 – 5 years	1	-	1	2
6 – 10 years	-	2	2	4
Over 10 years	3	1		4
	Traditional Heads			***Total (n=3)***
Location	Manhyia	Besease	Adako Jachie	
Period of Reign	(n=1)	(n=1)	(n=1)	
Less than 10 years	-	-	-	
Over 10 years	1	1	1	3

Source: Field Survey (2015)

4.2 Awareness Level of Legal Arrangements for Stool Land Disposition [Article 267(3)]

Although eighty percent (80%, ***n=146***) of the allottees had attained a minimum of bachelors' degree or higher national diploma, only thirty six percent (36%, ***n=53)*** of the said number were aware of Article 267(3) of 1992 Constitution and other statutory arrangements regulating land disposition in Ghana. Consequently, many (87%, ***n=159***) of the respondents acquired their lands without finding out if the area in which the land is located is covered by a planning scheme. The few who displayed high awareness and demanded for the planning scheme prior to the acquisition of the land, were of the opinion that the planning scheme is important for the planning of an area. According to one of the allottees, "*the planning scheme shows the different uses on the land and ensures orderliness in development and in the event of fire outbreak, access to affected properties becomes easier*" [LE, 39 years]. It was also established that planning scheme ensures that an area is easily accessible to both vehicles and pedestrians. In this regard, an allottee commented that "*the planning scheme prevents encroachment of areas earmarked for roads and streets, which makes it very easy for us to access our parcels of land*" [LE, 42 years]. Furthermore, findings also revealed that allottees had some difficulty registering lands which are located in areas that are not covered by a planning scheme. One allottee said that "*the planning scheme is very important because without it registering the land is difficult. My lease document is currently stalled at the Land Commission because by their records, the land I acquired is not covered by any planning scheme* " [LE, 33 years].

All three traditional heads interviewed for the study were aware of the Constitutional provisions for stool land disposition and its importance to land use planning. This can be inferred from their responses'. One of the traditional heads remarked that "*I am aware of Article 267(3) of the Constitution and I think that it is a provision that when strictly adhered to, will help me as a Chief, my community, the land sector agencies, the government and Ghana as a whole*" [TA, 17 years; interview, November 21st, 2015]. Another stated that "*development will be haphazard without a planning scheme*" [TA, 20 years; interview, November 21st, 2015]. The response from [TA, 20 years] is consistent with the argument made by Quaye (2005); where he argued that, the provision is used as a tool in land management to ensure orderly development of land. From the foregoing, it can be concluded that the awareness level of the constitution provision and its benefits from the point of view of the traditional heads is not in doubt. Awareness of the legal arrangements enacted to regulate land disposition is however low among allottees, with a few appreciating the importance of a planning scheme.

4.3 Stool Land Disposition and Compliance with Article 267(3)

If the procedure for stool land disposition is anything to go by, then statutory declaration is needed for all lands in excess of 50 acres, without which issues of variance with respect to rightful grantors is likely to occur. All three traditional authorities interviewed for this study made no statutory declaration. The issue of statutory declaration is not paramount in Ashanti, this is due to the cohesive single traditional authority, which eliminates issues of security of tenure on the part of grantors. Therefore, it should come as no surprise that traditional heads do not have to undertake statutory declaration prior to disposition. However, in other regions of Ghana, the procedure provided to that regard may be applicable. Although all the traditional heads are aware of the procedure for stool land disposition in Ghana, study findings revealed that only one traditional head fully ensured planning schemes were approved by Town and Country Planning Department before lands were disposed. The traditional head in question averred that "*there is a planning scheme covering all lands I am currently disposing and it was approved by the Town and Country Planning Department in 2008*" [TA, 17 years; interview, November 21st, 2015].

For some traditional areas, disposition had been done based on an old planning scheme, which needed some corrections to reflect the situation on the ground. In this regard, one of the traditional heads remarked that *"a portion of our land is covered by a planning scheme which was prepared about 20 years ago. We visited the office of the TCPD and we were advised by the officials that portions of the planning scheme needs to be rezoned"* [TA, 11 years; interview, November 21st, 2015]. In some traditional areas, disposition and preparation of planning scheme were being done simultaneously. This was a deduction from the response of a traditional head who commented that "*only a portion of our land is covered by a planning scheme. For the new areas, we are in the process of preparing a planning scheme to cover them but we are encountering some problems. We were informed that the base map was incorrectly done. TCPD said that the base map falls within the statutory mandated 100ft stretch of land that is required to be reserved for a railway line.*" [TA, 20 years; interview, November 21st,2015]. **Figure 3** shows the said railway line in question.

Figure 3: An out of service railway line which was erroneously added in the Base Map Preparation request by [TA, 20 Years.]

Source: Field Survey (2015)

Findings, based on the responses of officials from the PVLMD and TCPD, revealed that, less than 40 percent of all lands in the EJMA are covered by a planning scheme. An official at the PVLMD of the RLC said that "*only about 35% of peri-urban EJMA are covered by planning schemes. Usually where the plot of land* *presented for recording is not covered by a planning scheme as per our records, we write to the TCPD for planning comments. The usual response has been that the plot will be captured in future schemes. But in practice, the TCPD does not do what they have committed themselves to do. So currently, we discontinue the recording process if the lease presented falls within an area not covered by a planning scheme"* [LC, 20 years; interview, November 18th, 2015]. At the TCPD of EJMA where the planning schemes are prepared, officials gave the same percentage of planning schemes. However, they added that- *"hitherto these communities had small schemes which have not been revised or rezoned"* [PO, 20 years; interview, November 19th, 2015].

Clearly, as per the above, although dispositions at some sectors were in adherence to legal arrangements, same cannot be said for the majority of such sectors under study. Senu's (2014, p.118) argument that most agricultural lands are rapidly being developed into buildings for various uses without any planning schemes is collaborated by these findings in the EJMA. The begging question that needs answering is, can the state institutions halt such dispositions? An official from the TCPD in an interview in Ejisu opined that *"the fact that chiefs are custodians of lands limits them in their quest of enforcing the law"* [PO, 20 years; interview, November 19th, 2015]. An official from the PVLMD also noted "*despite the existing statutory laws, the chiefs have rights as per customary norms which is equally recognised by the Constitution, that makes it challenging at times, especially where their core mandate is to manage statutory lands and not customary lands. Additionally, the constitutional provision does not favour built up areas or old towns where developments have taken place with very old schemes or no scheme at all. An amendment with an element of flexibility to embrace all developed and developing areas is inevitable going forward*" [LC, 12 years; interview, November 18th, 2015].

This finding confirms what Kasanga et al. (1996) asserted 20 years ago, that in spite of the fact that laws that govern land transfer are clear they are mostly not complied with. The transfer of land rights is mostly governed by the decisions of stools, family heads and individual landowners and is fraught with a lot of

imperfections and distortions. The irony is that 20 years past and there is still no clear cut solution to disregard and non-compliance with statutory provisions governing land management in the country. The multiple legal regimes in the customary land sector in Ghana appear not to be yielding the desire results. Despites the interventions by the state in customary land management through the enactment of the various legislations, in practice, the customary authorities continue to administer land as if there were no laws regulating their land management practices.

4.4 Reasons for Non Compliance of Constitutional Provision For Stool Land Disposition.

The main reason for non-compliance of the provision under article 267(3) as depicted in table 2 is the cost involved in the preparation of base maps and planning scheme. This reason was ranked 1st with a RII of 0.85. The issue of cost was so much of a concern that, traditional heads who have managed to pay for the preparation of planning schemes still mourn about the amount spent. In this regard a traditional head retreated . *"I had no option than to engage the service of a licensed surveyor to prepare a layout for and on behalf of my traditional secretariat. The amount paid as at 2008 was equivalent to ($ 950*[1]*). In addition, an amount of $380 was paid by way of approval fees. Despite my meeting of the provision, the cost component was way too expensive".* [TA, 17 years; interview, November 21st, 2015]. For some of the traditional heads, the cost component is the reason for their over reliance of unlicensed surveyors. A traditional head remarked that "*Due to the cost demanded by most licensed surveyors, I had no option than to engage a surveyor who is not licensed. Upon completion of the base maps, I presented the maps to the TCPD, only for me to be told the base maps are full of errors. TCPD were demanding $789 in addition to two plots before the error could be corrected".* He added that it would cost him between $3,300 to $ 5,000 to have all his entire lands covered with a layout". [TA, 20 years; interview, November 21st, 2015].

[1] Using Bank of Ghana Daily Interbank FX Rates, as of Wednesday 13th January, 2016, $1 = GH¢3.83. This rate was adopted for all subsequent conversions.

As at the time of the interview the traditional head had not paid the amount being demanded. Another traditional head collaborates; *It is very expensive to prepare a base maps and layout and that discourages most chiefs from preparing layout before disposition of lands. He provided a cadastral survey of a 58-acre land which he intends allocating to a real estate developer and for which cost him $2,300. He added that, by the time i am done with the layout preparation process. I would be spending close to $ 5000. This to me, is way too expensive".* [TA, 11 years; interview, November 21st, 2015].

The issue of cost was not only highlighted by the chiefs, an official from the PVLMD argued that, "*the main reason for non-compliance of the constitutional provision is as result of cost*" [LC,4 years; interview, November 18th, 2015]. This official from TCPD also agreed to this by saying that *"professional surveyors fees are high and so chiefs resort to the services of the quacks who charge low".* [PO,4 years; interview, November 19th, 2015]

Additionally, some officials argued that although prospective grantors are expected to engage the services of licensed surveyors as per legal arrangements for cadastre survey, the service charges at times become a disincentive. In this regard an official from the Survey and Mapping Division noted that *"due to the provisions in the Survey Act (Act 127) and the LI (Legislative Instrument) 1444 the need for cadastre survey is imperative. However, I believe my fellow surveyors are charging way too expensive fees for their services"* [LC,14 years; interview, November 18th, 2015].

This findings give an idea of why only 35% of peri-urban areas of EJMA is covered with an approved planning scheme. As noted by Deininger (2003) the cost of carrying out formalisation activities should be minimal. However, evidence from the Ejisu area shows that, the formulation process through the provision of cadasters and other important land management data are expensive. This creates the fertile grounds for the customary authorities to engage sometimes quack professional in land use conversions thus creating haphazard uses which do not conform to statutory planning requirements.

The issue of initiation for layout preparation seemingly becoming the responsibility of traditional heads was one of the main reasons for non-compliance of the provisions under article 267(3). This reason was ranked 2nd by the respondents with an RII of 0.80. Most of the traditional heads believed that officials of TCPD at Ejisu are not proactive in discharging their duties or are deliberating stalling responsibilities for financial gains. A traditional head, justified his reason by saying that," *TCPD is not proactive in discharging their responsibilities as an institution. They are always waiting for the traditional authorities to come notify them of their intention to allocate lands in their area, and go ahead to engage surveyors to prepare base maps on their behalf. I believe the reverse should be the case and that could be more helpful*". [TA,20 years; interview, November 21st, 2015]. An official from the PVLMD during the interview averred that *some district planners intentionally delay development so as to enrich their pocket.* [LC, 20 years; interview, November 18th, 2015]. However, TCPD suggested inadequacy of funds and human resource as the major reason why traditional heads are mostly asked to take the initiative for planning scheme preparation. An official from the TCPD in Ejisu provided that "*The extent to which smaller towns are catching up with existing statutory planning areas is so swift that our existing human resource and funding cannot respond accordingly. This is why i believe the chiefs must take the initiative.* "[PO, 4 years; interview, November 19th, 2015]

Findings discussed reveals that currently, base maps are being done by Traditional heads using a surveyor [licensed or unlicensed] at fees paid for by the traditional heads. This is in contrary to claims made by Owusu and Asamoah (2005) that whenever surrounding villages at the urban fringe and urban periphery become part of a statutory planning area, the TCPD requests the SMD to survey the lands in the said areas or settlements and use same for the preparation of base maps for their perusal. Section 46(2) of Act 462 mandates the planning authorities to perform any planning functions conferred on them by any enactment. The role of local planning authorities to effectively plan in consent with the Town and Country Planning Department is lacking. This is partly due to funding and logistical constraints, Quayson and Boateng (2015) argued that SMD and TCPD are unable to provide the service of preparing base maps and layouts because they lack adequate funding and human resource. Also Quaye (2005) provided that, there is infrequent update of the maps as a result of inadequate funding and low capacity. Although one can argue that, with the ongoing LAP, issues of staff and resources is not as prevailing; it cannot be overlooked either. This challenge had forced traditional heads, who understand the significance of a proper disposition to pay huge fees or exchange service for plots in order to attain the required layouts. For those traditional heads who find the amount expensive, they go ahead and dispose off plots to allottees on the grounds that, officials as per legal arrangements are expected to prepare layouts for their perusal.

In summary, the three main reasons accounting for non-compliance of Article 267(3) constitute financial constraints, layout preparation seemingly becoming the responsibility of traditional heads and the existence of a dual legal system for customary land management. **Table 2** however, provides other reasons having a RII ≥ 0.5. Such reasons as per their index are equally strong reasons for non compliance.

4.5 Challenges Faced by Allottees Due To Non Compliance of Constitutional Provision By TA's

The issue of unsecured property right due to difficulty in attaining title deeds was the main bane facing allottees. This challenge was ranked highest with a RII of 0.91 as revealed in **table 3**. Within this context an allottee stated that, " *After spending so much to acquire a lease, i was told the area in question is not covered by a planning scheme. I have sent letters to the TCPD for planning comments on my intended use for the allotted land but i haven't heard from them. Is been almost three months now since i submitted the lease for registering [recording] at the RLC".* [LE,41 years].

Table 2: Reasons for Non Compliance from the Perspective of TA's, PVLMD,SMD and TCPD

TA's, TCPD, PVLMD and SMD's REASONS	***LIKERT SCALE***					***RII***	***Rank***
	Strongly disagree	***Disagree***	***Neutral***	***Agree***	***Strongly Agree***		
	1	2	3	4	5		
Cost involved in preparing base maps and schemes .	0	2	0	4	7	0.85	1
Unreasonable demands from Planners and Surveyors	0	6	1	0	6	0.69	5
Procedure for Approval of Schemes too complex	1	3	1	4	4	0.71	4
Rigidity of Constitutional Provision	7	4	1	1	0	0.34	8
Lack of Stakeholders Involvement before laws relating to disposition are enacted	3	4	0	2	4	0.60	7
Process for layout	2	1	0	5	5	0.8	2

preparation seemingly becoming the responsibility of TA's						0	
Existing of Dual legal system for customary land management	3	0	0	4	6	0.75	3
TCPD deliberating limiting itself to the office instead of the field	3	4	0	1	5	0.62	6

Source: Field Survey (2015)

Although, Agbosu (2000) argues that the ultimate responsibility lies with the allottees to carry out a search at the RLC on the status of the intended land being acquired before the payment of any consideration, failure on the part of TA's to abide by the constitutional provision is affecting property rights of allottees. This is because the granting of concurrence certificate by the RLC is tied to the availability of a development plan in the area concern and the intended land use must be in conformity to the planning scheme prepared for the area. Thurman (2010) argues that whilst land use regulatory policies and laws make sense in theory, they fall short of their intended purpose in practice. In most cases, where lands have been allocated without recourse to an existing layout, allottees have difficulties in recording their acquired interests' at the RLC. This creates issues relating to unsecured property rights and fragmented development (Thomas, 2001)

Secondly, the issue of allottees bearing the cost for drawn future planning schemes aiming at incorporating existing developments was ranked 2nd amongst allottees.

This challenge yielded a RII of 0.88. An allottee for example justified his ranking for this challenge by claiming that, *"The Chief of this town asked us to pay $52.00 per an allottee; so as the area could be properly surveyed in a manner where the statutory mandated 100ft stretch of land that is required to be reserved for a railway line is adhered to. Since i needed the layout to enable me regularise my interest in the land and rely on same to acquire development and building permit for my already completed building; i had to comply."* [LE, 42 years].

In summary, the two main challenges facing allottees are those raised above. Table 3, however shows other equally worrying challenges, especially for those whose RII is ≥ 0.50.

Table 3: Allottees Challenges

CHALLENGES ENCOUNTERED BY ALLOTTEES	***Strongly disagree***	***Disagree***	***Neutral***	***Agree***	***Strongly Agree***	***RII***	***Rank***
	1	2	3	4	5		
Difficulty in attaining building and development permits	0	14	10	98	61	0.83	4
Property Rights and Security of Tenure Affected , since Deed registration is difficult	0	0	6	68	109	0.91	1
Difficulty in identifying parcels of lands granted over some number of years	63	30	28	16	46	0.55	6

Cost of Future layout drawn to incorporate developments transferred on allottees/lessees	5	10	2	60	106	0.88	2
Encroachments and multiple Grants on the part of grantors	54	49	1	38	41	0.56	5
Haphazard development affecting easy access to parcel(s) of land acquired	5	8	13	59	98	0.86	3

Source: Field Survey (2015)

5.0 Conclusions

This paper has shown that although awareness level on the part of Allottees is very low, TA's displayed high awareness of the constitutional provision but failed to adhere to same. This is drawn from the fact that, 65% of statutory planning areas in the municipality were not covered by planning schemes. TA's and professionals working with institutions mandated to regulate stool land disposition attributed the rational for non compliance to, cost involved in preparing base maps and schemes; process for layout preparation seemingly becoming the responsibility of TA's; existing of dual legal system for customary land management; procedure for approval of schemes being too complex and unreasonable demands from planners and surveyors. From the foregoing, it can be inferred that the absence of flexibility and affordability in the application process of the constitutional provision under referenced, is invariably, becoming part of the problem which the legal arrangement aimed at solving.

This paper recommends a partnership between MMDA's and TA's where the MMDA's would assist the TA's in the preparation of base maps and planning schemes; and equally provide for the setting out and demarcation, pillaring and provision of utilities. The TA's in return pays an agreed percentage of the total consideration sum accrued from the dispositions to the MDDA's. This would create a win win situation for all stakeholders involved in the disposition process. Also, since the third face of the ongoing LAP focuses on issues relating to land use planning, any new enactments regulating land use planning that is to be proposed, must focus on its flexibility and affordability with respect to its application.

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COMPARISON OF MASS APPRAISAL MODELS FOR EFFECTIVE PREDICTION OF PROPERTY VALUES

YACIM, JOSEPH AWOAMIM

PhD Candidate in Real Estate
joseph.yacim@up.ac.za

BOSHOFF, DOUW GERT (PHD)

Senior Lecturer in Real Estate
douw.boshoff@up.ac.za

Department of Construction conomics, Faculty of Engineering, Built Environment and Information echnology, University of Pretoria, South Africa

Abstract

There are a number of models that are used for mass appraisal of properties. However, the choice of a model is predicated on a number of criteria. Notable among these is to compare models predictive accuracies relative to the property market context where appraisal is undertaken or being contemplated. This study focuses on comparing predictive accuracies of mass appraisal models with a dataset of 3494 single-family property transactions in the city of Cape Town, South Africa, from 2012 - 2014. Five mass appraisal models including back propagation (BP) trained artificial neural networks, multiple regression model, M5P trees, support vector machine optimise with sequential minimal optimisation and additive nonparametric regression were used for the simulations. Waikato Environment for Knowledge Analysis (WEKA) explorer; an open source data mining software was used to pre-processed property data to normalised values and model property prices. The analysis shows that BP trained artificial neural networks (BP-ANNs) and M5P trees utilised in this study predicted better results with root mean squared error and mean absolute error within the acceptable threshold of 5%. But M5P trees demonstrate distinctiveness in predicted results between normalised and absolute values which require further examination. The other three mass appraisal models including multiple regression model, additive nonparametric regression and support vector machines with sequential minimal optimisation predicted results with RMSE that are higher than 5% acceptable threshold. Furthermore, contextual application of results with other studies reveal that BP-ANNs and M5P trees do not have power of universal acceptability because of varied results in other context. Therefore these models are particularly relevant to mortgage lenders, valuation offices, etc. in South Africa, but should the scope be extended to other context, application should be based on the property market features.

KEY WORDS: Mass appraisal models, Predictions, Accuracy, Market values, Properties

1.0 Introduction and study background

Mass appraisal is the estimation of values on large numbers of properties at a specified time period through application of standardised techniques (d'Amato & Kauko, 2008: 280). Inherent in this definition is the fact that standard techniques including statistical and machine learning tools are used in assessment of market values of a number of properties, than the usual conventional pricing manual models (comparison, cost and investment). Although, these models could as well be used in the ascertainment of market values of a number of properties, their benefits are profound when used for single appraisal of property (McCluskey, Deddis, Marris, McBurney & Borst, 1997: 453). Again, using conventional assessment models escalate valuation errors due to valuers subjective judgment over a number of properties (Adair & McGreal, 1988: 18); increase time of assessment; additional cost and professional responsibilities (Wiltshaw, 1995: 160). According to Thompson (2008: 26-28) the manual conventional pricing techniques was used in the 30s to capture property information and quickly ascribing values for large numbers of properties. But increase development in the USA property sector coupled with availability of more computers with capabilities of handling extensive data in the 60's and 70's led to emergence of computer computations such as multiple regression model (MRM).

This technique has capability of modelling relationship between myriads of properties independent and dependent variables thereby predicting market values of properties. However, despite its capabilities, the study of Peterson & Flanagan (2009: 147) reports that MRM is exposed to pricing errors owing to the way mean are extrapolated from large samples causing significant sampling errors. Additionally, Isakson (2001: 425) opine that important appraisal tools such as MRM can produce enormous errors swiftly as they yield significant results. These mistakes arise from convolutions and data requirements of MRM such as imprecise applications, inaccurate conclusion and unsubstantiated clarifications of results which can be committed during mass appraisal of properties. The need to mitigate limitations of MRM in the assessment of properties has led to the introduction of other models including additive nonparametric regression (ANR), M5P trees, support vector machines (SVMs), fuzzy logic (FL), expert systems (ES) and BP trained artificial neural networks (BP-ANNs). These models all have proving capabilities of effectiveness in different fields. Their application into the field of mass appraisal of properties spans a period of one to three decades. However since their introduction, it appears the dominant use of these models is confined only to the property markets of developed countries as suggested in literatures (Zurada, Levitan & Guan, 2011; McCluskey, McCord, Davis, Haran & McIlhatton, 2013).

Although there are variations in property market contextual settings of different countries, a restriction should not be placed on uniform application of model(s) without testing its effectiveness on other geographical context. The guidance notes on international mass appraisal and related tax policy (IAAO, 2014); and international valuation standards (IVSC, 2005) should however support appraisal undertaken in any country. Additionally, there is need to measure market efficiency and maturity relative to a particular geographical context where appraisal is undertaken or being contemplated. The study of d'Amato & Kauko (2008: 281) argued that designing a methodology for mass appraisal is very important to emerging markets than well-established ones. The markets in the developed countries including USA, UK etc. are fully established and thus have mass appraisal models fully embedded into their appraisal practice. But this is not the case in emerging markets which have not fully introduced these models into their appraisal practice. For instance a number of emerging markets in Africa imposed value based ad valorem taxes on properties. Mortgage lenders interest on ascertainment of current values of mortgage backed securities have also escalated; more so dissolved companies distribute resources among shareholders and creditors; sharing of assets among dissolved couples married in the community of properties are among issues that should resonate the need for automating the appraisal process.

However there exist conflicting results in the appraisal process about which model predict values that reflects market price that is acceptable to property tax payers and administrators, mortgage lender, etc. Sometimes literature search does not provide a simple way of determining models predictive accuracies without empirically testing a range of models or algorithms.

Therefore this study becomes relevant as it represents a first attempt of comparing predictive accuracies of different mass appraisal models in an emerging market of South Africa. This will particularly bring to context each model in the light of the property market dynamics of both emerging and developed economies. This study is organised into five sections namely section two reviews literature on single and mass appraisal models; section three compares predictive accuracies of different mass appraisal models; section four contains the empirical analysis of mass appraisal models and finally, section five deals with the implications of research and conclusion.

2.0 Single and mass appraisal models

The main distinction between single and mass appraisal models is in term of scale otherwise both appraisal models are used for all categories of appraisal (McCluskey, *et al.,* 1997: 453). Single appraisal models are suitable for appraisal of few numbers of properties. This is a situation in which an appraiser/valuer manually analyse each property's dependent and independent attributes to arrive at the market value. Adequate pricing in this case is influenced by property market dynamics (interest rates, gazumping etc.) which the appraiser/valuer must have vast knowledge of in fixing prices. Single appraisal models have the limitations of subjectivity, delay in reporting if size of properties is large and sometimes accuracy arising from enormous responsibility of manual computations.

Single appraisal models have being in used by appraisal/valuers for a very long time until limitations mentioned earlier were observed. Consequent upon this are what led to emergence of models that have less subjectivity and capacity to handle mass appraisal of properties (McGreal, Adair, McBurney & Petterson, 1998: 57). The next few paragraphs briefly explain the underlining philosophies behind these models.

2.1 Comparison/market approach

This model operates under the premise that requires comparison between properties that are sited in same vicinity with adjustment made on observable differences in designs, number and arrangement of rooms, topography, location of the property etc. Adjustment of these constituent elements involves intuition by appraisers/valuers which is the reason why an appraisal/valuation prepared by two or more experts may sometimes have conflicting value estimates. Therefore, care must be taken by valuers when subjectively dealing with attributes that constitute market values, particularly, if sufficient numbers of properties to compare with are unavailable.

How does market approach works? As an illustration suppose it is required to ascertain the market value of a five bedroom duplex located at Pretorius Street, Hatfield with external dimensions of 16 meters by 24 meters. There are three comparable duplexes located within 200 metres radius that were recently sold. The Duplexes A, B and C have external dimensions – 400m^2, 350m^2 and 390m^2 respectively. These comparable properties were sold for R1,560,000.00, R1,800,000.00 and R1,400,000.00. In fixing value for the subject property, the appraiser/valuer is concern with the property that was recently sold, age, design etc. in selecting a suitable comparable to estimate the amount sold per square metre. This is reflected in the formula:

$$Market\ value\ per\ square\ metre = \frac{Market\ value\ of\ property}{External\ dimensions\ of\ property} \qquad (2.1)$$

Let us assume the appraiser/valuer after careful analysis of all factors responsible for market value determination selected duplex A, the market value per square metre is R3,900. This value is therefore used to estimate the market value of the subject property as follows: 384m^2 @ R3,900 = R1,497,600.00.

2.2 Investment/income approach

This method relies on income from properties to estimate market value. Income from properties are capitalised with appropriate years purchase yield to arrive at the market value in a property submarket where comparison is difficult. Difficulty in comparing two or more properties arises due to their heterogeneous nature. Although, appraisers/valuers make adjustment for differences between subject properties with comparable properties, this is only possible if differences are minimal, but difficult if differences are profound (Adair & McGreal, 1988: 18). The best approach for an appraiser/valuer is to capitalise the rental income passing on properties within the submarket with an appropriate yield to arrive at the market value. Again, comparison approach cannot be completely ruled out of the investment method. This is because the yield that is use in capitalising rental income of subject property is a product of previous rental and sale values of properties within the immediate precinct of the submarket. Mathematically, this is demonstrated in the following formula:

$$capitalisation\ yield = \frac{Net\ rental\ income}{Capital\ or\ market\ value}\ x\ \frac{100}{1} \qquad (2.2)$$

Net income is the rent passing on a recently sold comparable property, while capital value is the actual amount the property sold for in the market. For instance if a comparable 4 bedroom duplex in Hillcrest, Brooklyn, Pretoria let for R12,000.00 per month (R144,000.00 per annum) was recently sold for R1,800,000,000, utilising comparison approach will give a capitalisation rate of 8%. This rate is applied to subject property (a duplex in the same vicinity as comparable property) with say a rental income of R150,000,00 per annum. The differences in rental values might be the result of observable variances between comparable and subject property. Utilising capitalisation rate of 8% in perpetuity will give a market value of R1,875,000,00. The assessment of capitalisation rate via comparison method appears to be a good tool of assessment because it is predicated on the flow of rental income from property which is paid to reflect potential income of the property over its useful life.

2.3 Cost/contractor's approach

This is also known as depreciated replacement cost (DRC) method. The central idea of cost method is to assess market value from current cost of construction making provision for depreciation. It is a method that is based on an estimate of replacement cost of property value having regards to constituent elements that contribute to determination of value such as land and improvement. Cost method provides at a glance what a property worth after a split is made between cost of land and improvements. According to Zhang & Chen (2009: 255) the rationale behind cost approach is that a client(s) should not pay more for an existing property than what a comparable land and property provides in the market. How does cost approach work? The current costs of construction of building, less depreciation at certain rate per cent, add the value of land. Mathematically this is represented in the following equation as used by Zhang & Chen:

$$C_v = \pi LQ(LV + RCN - PQ_D) \qquad (2.3)$$

here *LV* is land value, *RCN* is the replacement cost of the new property, PQ_D is the ualitative element of location and time. The capital value is given as C_v. This is djusted by property appraiser/valuer after careful assessment of the market onditions M_t^c to arrive at an acceptable market value (MV), given in the form:

$$MV = M_t^c \, x \, C_v$$

raditionally the class of special purpose properties that are valued with cost pproach are hospitals, purpose built schools, police station, stadium, museum, osque, church etc. In using cost approach, current rate of construction per meter quare is obtain from local builder/quantity surveyors to apply to the dimension of ubject property. The method does not support usage on income producing roperties because there exist market for them. However, despite the underlying hilosophy cost approach can be used in the assessment of market values for all land hat has improvement on it.

.4 M5P trees

ccording to Zurada, *et al.,* (2011: 357) M5P trees are normal decision trees with near regression models at the leaves that based its decision on predictions when bservations have reached the leaf. It was originally formulated as model tree by uinlan (1992) as a technique for dealing with continuous class learning problems. odel trees incorporate a conventional decision tree with linear regression unctions at the leaves. But Wang & Witten (1997: 4) observe that handling numerated attributes and missing value are not clearly defined in Quinlan's idea. his led to their proposition for an improvement to earlier work particularly as it oncerns real-world datasets. In their modification and clarification of how this might ffectively be utilised with real-world data, M5P was introduced. M5P regression algorithm is developed by Wang & Witten (1997) to process data different from model tree, essentially, in the selection of attributes. It is an improvement to classical model (M5) trees (Quinlan, 1992) in that M5P utilises attributes that predict or forecast results different from the normal theoretic metrics that classical model tree utilises.

In 1999 the study of Holmes, Hall and Frank modify this algorithm to generate rule from datasets. Holmes, *et al.,* (1999: 7-8) reports that M5P apply separate and conquer method to create sequence for its numeric predictions which is accentuated through one rule off reading approach. Effective implementation of M5P is a three pronged approach namely splitting the initial tree, pruning the tree and smoothing the tree (Wang & Witten, 1997: 2-3). The first approach requires a splitting criterion which treats standard deviation as a measure of error at each node of the class values. By testing attributes of each node, important attributes that have potential of maximising reduction of error is selected. The equation used in calculating standard deviation reduction (SDR) is given as:

$$SDR = sd(T) - \sum_i \frac{|T_i|}{|T|} X \, sd\,(T) \quad (2.5)$$

where *T* represents a set of training instances that reach the node with a set of attributes used for every training case, T_i are subsets that result after splitting the instances that touch the node according to the selected attribute.

The second approach is pruning the likely error that might ensue from each node of the test data. In this stage, a difference between predicted and actual values is averaged for each of the training instances that reach the node. Though this sometime falls below the expected error for unexplained cases, they are compensated by multiplying a factor (*P'*) as follows:

$$P' = \frac{(n+v)}{(n-v)}$$

where *n* is the number of training instances that touch the node and *v* is the number of model parameters that signifies the class value at that node.

Finally, the third approach in building M5P trees is smoothing process that compensates for severe discontinuities that often occur between nearby leaves at the node of the pruned trees. The smoothing process is given in the formula:

$$P' = \frac{np + km}{n + k} \quad (2$$

where p' denotes the estimated values that move up to the higher node, *p* depicts the predicted values that move to the node from below, *m* is the model predicted value at this node, *n* is the total number of training instances that reach the node from below and *k* is a constant which usually has a value of 15. The purpose of smoothing is to enhance accuracy of predictions.

M5P has over the years become a very useful model in predictions. The real estate and valuation profession has also taken advantage of this data mining tool in prediction of property values. Specifically, few studies involving M5P in mass appraisal of properties are Graczylk, Lasota & Trawiński (2009) and Zurada, Levitan & Guan (2011). Graczylk *et al.,* (2009) used three (3) different data mining tools for six different algorithms. The study found M5P to perform well in prediction of property values in Poland. Again using different scenarios, the study of Zurada *et al.,* (2011) found M5P to predict well in all scenarios. This reveals that M5P is a promising model in mass appraisal of properties.

2.5 Support vector machines (SVM)

There are several mass appraisal models that are designed with abilities to recognised patterns among variables. Support vector machine (SVM) is a creation of Vapnik (1995) as one of the tools that solve pattern recognition by not necessarily having to solve a more herculean task immediately. Zurada, Levitan & Guan (2011: 361) opine that SVM achieve this through changing nonlinear input data space to a high dimensional feature space to form a nonlinear classifier in the former elements space. This is referred to as maximum boundary hyperplane that gives a higher split-up to decision classes in the former feature space. Furthermore the higher edge hyperplane that has the closest training instances is referred to as support vector. SVM is applied to the case of classification and regression. In the case of regression approximation, $y \in R$ a linear function is constructed in the feature space so that training cases do not extend beyond an error matrix of 0. This is represented as a quadratic programming problem which reflects the chosen kernels as follows:

$$y = b + \sum a_i y_i K(x(v), x), \quad (2$$

where kernel function is given as *K(x(v),x)*. Several kernels exist in practice, however, the choice of kernel lies with the objective of the appraiser. The appraiser's decision on kernel function is what informed the overall outcome. For classification case, Zurada *et al.,* (2011: 361) gave an example of an input/attribute space x with unknown distribution *R(x,y),* in which y is a binary number having two values 1, 0. The binary decision classes is separated with a hyperplane as represented in equation:

$$y = w \cdot x + w_0, \quad (2.9)$$

where *x* is the input vector, w is the weight vectors, and *y* is the output target data. According to Cui & Curry (2005) the separating hyperplane is represented in the following equation:

$$y = b + \sum a_i y_i x(i) \cdot x, \quad (2.10)$$

in which y_i is output of training instance represented as $x(i)$, parameters b and a_i are determined by training algorithm and test case is *x*. The study of Shevade,

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Keerthi, Bhuttacharyya & Murthy (2000: 1188) reports that SVM has the capability of enhanced speed and easy to operate during computational procedures. The easy computation and speed operations are compelling forces to its utilisation by machine learning and programming community. But the study of Zurada *et al.,* (2011: 362) reports that despite its versatility initial acceptability was inhibited by the training algorithm-quadratic programming (QP) solver until this was overcome through a series of disintegrating large quadratic programming problem into small sets and subsets. But a notable breakthrough on its training algorithm came through the work of Platt (1998) who introduced sequential minimal optimisation (SMO) to optimise SVM without QP algorithm. SMO has capability of reducing the problem into sub-problem with analytical answer. According to Platt (1998: 41) the extent of memory needed for SMO is linear which boost its ability to handle large training datasets. Thus SMO avoid large matrix calculation scaling at any place between linear and quadratic in training set size for various investigation problems. This feature makes it considerably different from a standard projected conjugate gradient (PCG) algorithm because PCG scale anywhere between linear and cubic in size of training set.

Its use in mass appraisal is relatively new. For instance, Lam, Yu & Lam (2009: 215) reports that this model has been applied with plausible results in pattern recognition, regression valuation and predictions. In effect their study with datasets of 4143 and 21 previous property transactions in Hong Kong and Nanjing, Mainland China respectively show that a combination of entropy and SVM demonstrates high performance in predicting property prices. Most recently the study of Wang & Hong (2015) proposed a combination of minimal description length principle (MDLP) binning and SVM to improve its classification of residential prices. Four (4) different kernel functions with varied parameters were built in their study and concluded that linear kernel is found fit for dataset. Again the study of Zurada, Levitan & Guan (2011) used SVM-SMO with good performance indices for mass appraisal of properties in

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Louisville, Kentucky. In this study we used support vector machines with sequential minimal optimisation regression (SVM-SMO) to predict property prices.

2.6 Multiple regression model (MRM)

This model can handle many factors/characteristics affecting values of properties (Mark & Goldberg, 1988: 91; Isakson, 2001: 424). The model usually takes the following form:

$$Y = a + b_1x_1 + b_2x_2 \dots b_nx_n + \varepsilon \qquad (2.11)$$

where Y is property sale price, a depicts a constant term, $b_1b_2 \dots b_n$ are regression coefficients that show influence of independent variables $x_1, x_2, \dots, x_n$ on the property selling price. This model has over the years been a dominant appraisal model in the developed economies, but its application to the South African property market is limited in scope (Boshoff & de Kock, 2013: 9). Nonetheless, the method has been widely criticised because of its intrinsic methodology like functional form specification, nonlinearity, multicolinearity and heteroskedascity (Mark & Goldberg, 1988: 90; Do & Grudnitski, 1992: 38; Worzala, Lenk & Silva, 1995: 185).

2.7 Additive nonparametric regression (ANR)

This model is designed to ameliorate challenges faced by MRA in mass appraisal of properties. While MRA is rigid in handling functionality, ANR is flexible in the choice of functional form of regression through the smoothing splines it introduces. Again, ANR is built to handle nonlinear relationship between variables which in most MRA assessment result in prediction errors. Lin and Mohan (2011:226) report that its major objective is to modify the linear function b_ix_i of the independent variables by an unexpressed nonlinear simple function to secure equation 2.12:

$$Y = b_0 + \sum_{i=1}^{p} f_i(X_i) + e \qquad (2.12)$$

Where *Y* is the property sale price, X_i is a set of property independent attributes; f_i is the nonlinear smooth functions which is arbitrary and having an unlimited shapes. In ANR, the independent variables make little contribution to the response which need not be rigid to the inputs. In practice, the specific regression curve this should take is not foreknown because ANR has the ability to give a form of regression curve that is flexible (Lin & Mohan, 2011: 226). Also, penalised splines are used to model effect of continuous covariate and time trend while spatial order is used within the framework to specify intercepts of the discrete spatial effects.

2.8 Artificial neural networks (ANNs)

This model as an aspect of Artificial Intelligence (AI) was designed to also handle the shortcomings of both conventional method and multiple regression analysis (MRA) (Do & Grudnitski, 1992: 38; Tay & Ho, 1992: 534-535; Worzala *et al.*, 1995: 185). However, the working of ANNs is unique because of its ability to mimic the human brain. The human brain has the cognitive ability to learn from experience and apply the knowledge to solve problems. Like the human brain; ANNs is designed with such ability of learning from history of previous property transactions and model relationship that exist between them. Although, ANNs use similar variables with MRA when predicting property values, they are highly "adaptive and generally nonlinear" (Bishop, 1995: 16). Their ability to deal with nonlinear data makes it possible for them to solve problems in a property environment characterised by complex, noisy, sometimes imprecise data and partial information (Do & Grudnitski, 1992: 38).

For a typical mass property appraisal as shown in Figure 2.1, the input node is supplied with linear and nonlinear property data x_o, x_1, x_2, x_3,…x_n and corresponding weights w_0, w_1, w_2, w_3,…w_n. Tay and Ho (1992:532) reports that processing starts by multiplying each input variable with its corresponding weight as follows: $x_0(w_0)$; $x_1(w_1)$; … $x_n(w_n)$. The actual net input *S* is the ∑ (summation) of all products of property input variables and their corresponding weights as $x_1w_1 + x_2w_2 + x_3w_3 \ldots x_nw_n + b(x_0(w_0)) = s$. The summing junction and transformation via sigmoid activation function is done at hidden node of the network. After these operations, the results are presented in the last node. It is at the last output node that estimated/predicted sales price or market values are presented. This is usually compared with actual sale/market price of properties to determine models capability using test statistics.

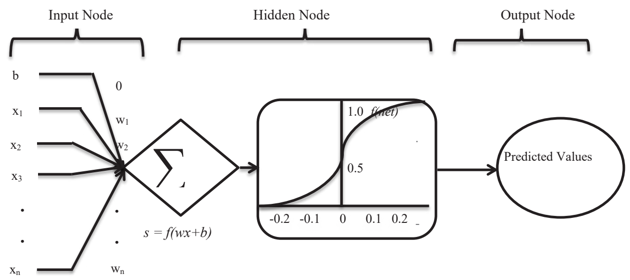

Figure 2.1: A typical operation of ANNs with BP training algorithm

Several algorithms are used for its training-back propagation, Levenberg-Marquardt, quasi newton and conjugate gradient descent. But the most widely used training algorithm is back propagation (BP) otherwise known as gradient descent search algorithm. This method designed by Rumelhart, Hinton & Williams (1986) utilises the

analogy of forward and where necessary backward pass. Backward pass can however, be activated only if the results are not in harmony with actual market price of property resulting into a Root Square Mean Error of over 1.000. Again the essence of backward pass is for the network to correct errors to a minimum of 0.001. Where a minimum error of 0.001 is not achieved it raises concerns to experts because results realised might be fraught with errors.

The gradient steep descent method has been blamed for network's inability to sometimes minimise errors and reach optimum. The study of Yacim & Boshoff (Forthcoming) notes that other fields of study that uses artificial neural networks modelling has since been able to deal with culpability of gradient descent back propagation through development of hybrid models and utilise cuckoo search algorithm which has been found to optimise the network faster and search for weights from global space and train with Levenberg-Marquardt. Alternatively the study also reports that training can thus be undertaken using back propagation but network should be optimise with cuckoo search algorithm to enhance its predictive capabilities.

2.9 Expert systems (ES)

This model has it origin from artificial intelligence to expand the rule based system in mass appraisal of properties (Rayburn & Tosh, 1995: 431). While ANNs is flexible, ES is rigid to certain rules set by an expert. Like the ANNs, they are designed to copy thought processes of human beings in solving complex problems through set rules. But unlike ANNs, expert systems do not generalise nor instruct "itself" through history of previous transaction involving properties but work rigidly under set rules. The implication of this, is when a transaction has reach optimal level in the market that require prompt execution of sales, ES will not execute until the set limit by an expert has reach before execution.

For an optimal performance of ES, the expert must readily be available to ensure accuracy in execution of this model for mass appraisal of properties. Indeed, Rayburn & Tosh (1995: 431) reports that ES are really not artificial intelligence since they cannot generalise or correct abnormality except to the extent of the set rules. If there are no specific rules on how a task could be executed, expert systems would give incomplete results. For instance in a property market such as Hatfield, South Africa where dynamics and volatility of property market is very profound utilising expert systems requires high knowledge and understanding by valuers who will conditioned the systems to irregular condition of the market. In Hatfield there is high prevalence of gazumping elicited by choice location. Consequently, if the set condition necessitates selling of a detached house for say R1,500,000,00 at Hatfield, Pretoria once negotiations between market participants reaches the target, expert systems will execute sale notwithstanding further negotiations that might surpassed the set target..

Further literature search reveals that its empirical application in the field of property valuation was first executed by Boyle (1984: 281). Boyles study was criticised by Gronow & Scott (1986: 395-397) to be MRA in disguise rather than a true ES because of the way model was statistically developed with analysis of past sales. ES involves modelling the proficiency of a valuer and then exerts that model to comparable sales evidence in order to appraise value in a similar approach as a human valuer. Gronow and Scott (1986: 396) note that ES normally operates “rule based” reasoning akin to “IF, THEN” …. Example of its rule based reasoning operation is: “IF the property is in a good state of repair, THEN do not request for an outgoing fee.”

The study of McCluskey & Anand (1999: 232) gave additional insight into it’s used. McCluskey *et al*., used 412 sample properties by dividing into two sets of data, ⅓ as hold out samples and ⅔ for training to estimate property values. Also Kilpatrick (2011) did a study with ES and found it very useful in mass appraisal properties, particularly when small data set is used.

2.10 Fuzzy logic (FL)

Another mass appraisal model designed to handle vagueness of variables is **fuzzy logic (FL)**. This model was introduced by Zadeh (1965) to represent similitude which an object shares with another using a function whose values with other memberships are in a range of $0 < m < 1$. Fuzzy logic operates using fuzzy-rule based systems (FRBSs), which is a crucial step in its operation. Set rules are designed in the form “if” a particular state of affair occurs, “then” the result will be …. In the real world, solving a problem relating to property appraisal will require a valuation expert setting rules that might follow the pattern:

- “If” the property is located in a high density area with variables that marginally influences consumer preference, “then” the property value will be low.
- “If” the property is cited in low density vicinity with variables that appeal to consumer preference, “then” the property value will be high.

In the above set rules, location and other key variables are germane to determination of property values. Quite naturally, in any given appraisal assignment, experts usually put this into consideration. Mathematically, “if” and “then” rule format for FRBSs is set out in the following equation:

$$if\ x_1\ is\ P_1 and \ldots and\ x_n\ is\ P_n, then\ y_1 = m_1 \cdot x_1 + \cdots + m_n \cdot x_n + m_o \qquad (2.13)$$

where x_1 are sets of input property attributes, P_1specify meanings of fuzzy sets, $m_1$are coefficients of the equation and $y_1$is the target variable. According to Gonzalez (2008: 185) the output of fuzzy system is calculated as a weighted average of the distinct rule outputs with the corresponding degree between inputs and the previous portion of each rule.

Fuzzy logic model will reduce appraisal/valuers subjectivity and increase precision having regard to the model’s ability to handle large number of properties with noisy variables. But fuzzy logic does not train itself as ANN does, how can this model determine fuzzy set and rules? Combining fuzzy logic with ANNs or Genetic Algorithm (GA) will aid in its training phases (Cordón, Harrera, Hoffmann & Magdalena, 2001: 86).

3.0 Comparison of performance and predictive accuracies of mass appraisal models

The objective of comparing two or more items should be with the purpose of discovering the best among several options. Consequently, the goal of comparison in this study is to discover a model(s) that generate minimal errors between actual and predicted value of properties. However, while it is acceptable to verify models performance within a given location, a lot of clog might follow similar assessment should this be done among different geographical contextual settings if the property market dynamics are not considered. d' Amato & Kauko (2008: 290) notes that in most African countries a substantial portion of land do not have formal recognition leading to paucity and unreliable real estate data in the economy. Therefore appropriate application of mass appraisal models in this region must be based on the type of information that is available. According to Grover (2016: 196) mass appraisal can only be carried out provided relevant and reliable data on transaction prices and property attributes are available. Interestingly the South African property market offers viable real estate information that makes model application a possibility. But what criteria should be used for comparing models? Kryvobokov (2004: 221) proposed five criteria for evaluating a model for land valuation in Ukraine. These criteria are: (i) clearness of method; (ii) measurability of the result; (iii) relevance of the result; (iv) market orientation of the methods; and (v) simplicity rather than accuracy of the method.

With this understanding, d' Amato & Kauko (2008: 293-294) extended the scope and proposed nine criteria for selecting suitable mass appraisal model(s). These are grouped under institutional and methodological criteria as follows: a. *institutional criteria,* (i) suitability of methodology to the property market context; (ii) specific

path-dependence; b. *methodological criteria,* (i) accuracy of independent valuations; external or out-sample validation; (ii) conceptual soundness; (iii) analysis of valuation variation; (iv) internal consistency of the model structure/predictions; internal or in-sample validation; (v) nature of the adjustment; (vi) reliability and robustness of the model; and (vii) feasibility. In effect the criteria advocated by d' Amato & Kauko (2008: 293-294) has direct relationship with the objective of this current study and hence will form the basis for our assessment of models. However, there are considerable studies that compare the predictive accuracies of different mass appraisal models. Most of these studies compare the performance of MRM with ANNs in different geographical locations. Accordingly, ANN models performed better than MRM in Tay & Ho (1992: 536) in Singapore; Do & Grudnitski (1992) in San Diego, USA; Brondino & Silva (1999) in Sao Carlos, Brazil. Again, Nguyen & Cripps (2001) in Tennessee, USA; Limsombunchai, Gan & Lee (2004) in Christchurch, New Zealand; Mora-Esperanza (2004) in Madrid, Spain; Peterson & Flanagan (2009) in Wake County, NC, Raleigh-Cary Metropolitan Statistical Area; Selim (2009) in Turkey; Meelun, Whittal & Evans (2011) in Cape Town, South Africa; and Nŭňez, Caridad & Ray (2013) in South of Spain all found ANNs to outperformed MRM in mass appraisal. But the study of Worzala, Lenk & Silva (1995); Lenk, Worzala & Silva (1997) in Fort Collin, Colorado, USA, found conflicting results that do not support ANNs superiority over MRM. The study of Lin & Chen (2011) in Taipei city, Taiwan utilises ANNs and Support Vector Regression (SVR) for mass appraisal predictions and found that SVR performed better than ANNs. However, observations made from literature suggest that size of datasets might have a direct effect on model performance. For instance, Nguyen & Cripps (2001: 333) reports that MRM outperform ANNs when dataset is small but a good network configuration will enhance ANNs performance. It is noteworthy to stretch that despite the geographical context of the property markets in most of these studies, ANNs consistently performs better than MRM. The goal of this current study is to attempt a comparison of predictive performance of five mass appraisal models including ANNs, SVM-SMO, ANR, MRM & M5P trees in an emerging market. The main motivation is to see if capabilities of models that work well in developed market could be replicated in an emerging market of South Africa. More recently, there are limited studies on comparison with more number of models than the usual traditional comparison of MRM and ANNs. Graczyk, Lasota & Trawiński (2009) evaluates the effectiveness of ANNs, radial basis function neural networks (RBNN), M5P trees, M5Rules, MRM and SVM in Poland. The study found that all models predicted results that area plausible. Zurada, Levitan & Guan (2011) compares the performance of MRA, ANNs, additive regression (AR), M5P trees, support vector machines with sequential minimal optimisation (SVM-SMO), radial basis function neural networks (RBNN) and memory-based reasoning (MBR) in Louisville, Kentucky, USA. The results show that non-traditional regression models (AR, M5P trees, SVM-SMO) outperformed other models in all five simulated experiment, particularly with homogenous data, while artificial intelligence (AI) models (ANNs, RBNN and MBR) performs better with less homogenous datasets.

In Amherst, New York, Lin & Mohan (2011) compares performance of three mass appraisal models including MRM, ANNs and additive nonparametric regression (ANR) and found that ANN models consistently outperforms MRM and ANR models in both training and testing/validation datasets. Also, McCluskey, Davis, Haran, McCord & McIlhatton (2012) in Lisburn, Northern Ireland investigated the predictive abilities of ANNs and three regression functions (OLS, semi-log and log-log) and found the three regression models to outperformed ANN models. In another study, McCluskey, McCord, Davis, Haran & McIlhatton (2013) compares the predictive accuracies of different mass appraisal models namely: (i) MRM, (ii) simultaneous autoregressive models (SAR), (iii) geographically weighted regression (GWR) and (iv) ANNs, it was found that GWR outperformed all other models. Furthermore, a notable feature in the last four studies that relatively utilises more number of models reveals that absolute datasets were used in their simulations; however, this study employed both absolute and normalised datasets to avoid over-fitting and observe relationship and interpretation of market values.

4.0 IMPLEMENTATION AND RESULTS

4.1 IMPLEMENTATION

This study utilises a datasets of 3494 single-family residential properties that were sold between 2012 and 2014. The datasets was supplied by city valuation office, the city of Cape Town, South Africa. This dataset became suitable for analysis after it was cleansed from default and incomplete transactions. The analysis was implemented using an open source machine learning software: Waikato Environment for Knowledge Analysis (WEKA) explorer. The data was first pre-processed to CSV in excel and a further pre-processing to normalised values suitable for ANNs analysis was implemented in WEKA. The simulations were effected with five mass appraisal models, namely back propagation trained artificial neural networks (BP-ANNs), M5P trees, support vector machine simulated with sequential minimal optimisation (SVM-SMO), additive nonparametric regression (ANR) and multiple regression model (MRM).

Analysis was carried out using both absolute and normalised values in order to observe differences if any between predicted results. The root mean squared error (RMSE), coefficient of determination (COD), root relative squared error (RRSE), mean absolute error (MAE) and relative absolute error (RAE) were used to compare the predictive capabilities of models. These tools are briefly summarised in the following equations:

$$RMSE = \sqrt{\sum_{i} (\hat{y}_i - y_i)^2 / n}, \quad (4.1)$$

$$MAE = \frac{\sum_{i=1}^{n} |\hat{y}_i - y_i|}{n} \quad (4.2)$$

$$RRSE = \sqrt{\frac{\sum_{i=1}^{n} (\hat{y}_i - y_i)^2}{\sum_{i=1}^{n} (y_i - \overline{y})^2}}, where\ \overline{y} = \frac{\sum_{i=1}^{n} y_i}{n} \quad (4.3)$$

$$RAE = \frac{\sum_{i=1}^{n} |\hat{y}_i - y_i|}{\sum_{i=1}^{n} |y_i - \bar{y}|} \quad (4.4)$$

$$COD = 1 - \frac{\sum_{i-1}^{n} (y_i - \hat{y}_i)^2}{\sum_{i-1}^{n} (y_i - \bar{y}_i)^2} \quad (4.5)$$

where n is number of properties evaluated, y_i is actual price for which properties were sold and $\hat{y}_i$ is the predicted price of properties. COD is the square correlation coefficient (COC) between independent and dependent variables. In assessing models predictive performance, this study utilised the root mean squared error of less than or equal to 5% as reported in Nguyen & Cripps (2001: 332-333) and Ogisi (2006: 20) as acceptable good fit for most investors.

In this analysis, 16 variables in all were used for our simulations. These included an output (target) variable (property sales price) and 15 input variables including living area, number of stories, main area, terrace-balcony, basement, carport, garages, swimming pool, actual number of bedroom and servant quarters. Others are property view, condition, building styles, traffic noise and security. These last five variables have dummy variables formed, which, for ease of analysis were coded into binary scale.

4.2 EXPERMIENTAL RESULTS AND DISCUSSIONS

This section deals with analysis of normalised and absolute property datasets using all models. The South African official currency (Rand) is the property selling price. This is used for all absolute values predicted with mass appraisal models as shown in Table 4.1.

Table 4.1: Predicted results of mass appraisal models

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MEASUREMENT	MRM	M5P	SVM-SMO	ANR	BP-ANNs
COD a. Normalised Values b. Absolute values	0.3443	0.5328 0.4272	0.3249	0.3424	0.708 5
RMSE a. Normalised values b. Absolute values	0.0529 36510 82**	0.0449 34129 74**	0.0563 388759 9**	0.0531 36638 30**	0.035 3 24354 67
MAE a. Normalised Values b. Absolute Values	0.031 21399 68**	0.0273 19630 05**	0.0283 195381 7**	0.032 22084 15**	0.023 6 16260 11
RAE% a. Normalised values b. Absolute values	81**	71** 74**	74**	83**	61
RRSE% a. Normalised values b. Absolute values	80**	68** 75**	86**	81**	54

**Significantly more than BP-ANN @ α = 0.05

1 USD = 15 Rand

The results reveal a significant performance of BP-ANNs over other mass appraisal models. BP-ANNs predicted a lower RAE and RRSE errors between actual and predicted values of properties. In effect, the results show that BP-ANNs has a RAE 20% lower than MRM; 10% lower than M5P trees; 13% lower than SVM-SMO and 23% lower than ANR. Again the RRSE estimates show a significant lower error rate

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when compared with other models. The BP-ANNs has RRSE that is 26% lower than MRM; 14% lower than M5P trees; 32% lower than SVM-SMO and 27% lower than ANR. The RMSE and MAE of BP-ANNs are significantly lower than all other mass appraisal models in this study. Figure 4.1 reveals the RMSE and MAE of all mass appraisal models used in this study.

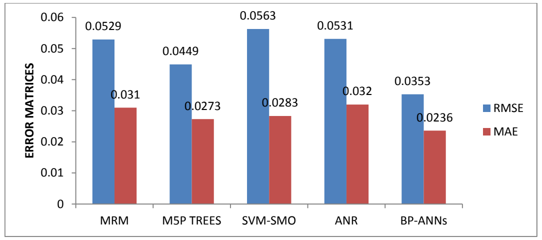

Figure 4.1: Performance of different mass appraisal models

Results in Figure 4.1 shows that BP trained ANNs (BP-ANNs) and M5P trees have RMSE of 0.0353 and 0.0449 respectively. These models predicted results that are within the acceptable threshold of less than or equal to 5%. Results also show that other models (MRM, SVM-SMO and ANR) utilised in this study predicted results that have RMSE above the acceptable threshold of 5%. Specifically, MRM, SVM-SMO and ANR predicted results with RMSE of 0.0529, 0.0563 and 0.0531 respectively.

Furthermore, Figure 4.2 reveals the results of all models in terms of their R^2 or COD. The COD provides correlation that exists between input and target variables towards the determination of market values in this analysis.

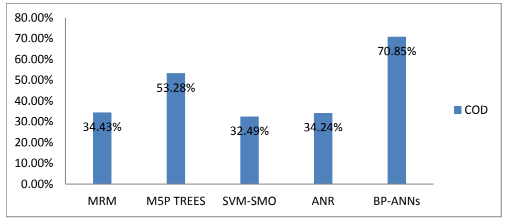

Figure 4.2: Coefficient of determination (COD) of all mass appraisal models

A cursory look at Figure 4.2 reveals that BP trained ANNs and M5P trees have goodness of fits that are above 50%. Consequently, this explains that there is a strong relationship between variables used for this analysis. Perhaps the South African property market context shows that these two models are particularly suitable for mass appraisal of properties in the region. This result however, should not be construed to mean that other models used in this analysis are not useful for mass appraisal. These two models (BP-ANNs and M5P trees) are feasible, reliable and consistently performed well in the light of the criteria set out by d' Amato & Kauko (2008: 293-294). However, to generally support models suitability, we reflect on the contextual perspective of studies undertaken in a developed market environment in relation to this study. Accordingly, the studies of Lin & Mohan (2011: 236); Zurada *et al* (2011) in the USA; McCluskey *et al* (2013) in the UK and Graczyk *et al* (2009) in Poland are cases for consideration.

In the USA, the study of Lin & Mohan (2011: 236) utilised ANNs, ANR and MRM on 33,342 dataset divided into 80% training and 20% cross-validation for 2009 transactions, while Zurada *et al* (2011) used MRM, SVM-SMO, ANR, M5P trees, ANNs, RBNN and MBR on 16,366 dataset for transactions between 2003 - 2007. Lin & Mohan (2011: 228) used 10 property variables including property price, living area, parcel (main area) size, depth of parcel, age of building, number of bedroom, number of baths, number of fireplace, building style with 12 dummy created and neighbourhood with 66 dummy created. Zurada *et al* (2011: 356) used 8 variables including sale price, presence of central air, number of baths, lot type (main area), construction type, garage type, wall type, basement type, basement code and garage type. These were increased to 18 on account of dummy variables created from some of the variables. While few of the variables used are similar with current study there is great dissimilarities among variables. For instance, in this current study there are variables such as living area, number of stories, terrace-balcony, carport, swimming pool, servant quarters, property view, condition, traffic noise and security, previous studies in the USA under consideration did not utilised them. In terms of models performance, ANNs consistently predicted lower estimation errors than ANR and MRM in the study of Lin & Mohan (2011: 236). In ranking models performance in Lin & Mohan, these models stood as ANNs (1); ANR (2) and MRM (3). Also the models performance in Zurada *et al* (2011) shows that ANR, SVM-SMO and M5P trees outperformed all other models with homogenous data but when heterogeneous data was used ANNs, RBNN, MBR performed better. Interestingly this current study and Lin & Mohan found that ANNs outperformed other models while Zurada *et al* (2011) found that M5P trees have good performance. But MRM did not perform well in the three studies.

We also compare results of this current study with McCluskey *et al* (2013) in the UK. The models used are MRM, SAR, GWR and ANNs on a dataset of 2694 properties for 2002 and 2004 transactions. The adjusted sale price, size of property, garage, number of storey, age of property, property type, average travel time to work, class of property, type of glazing, number of bedroom and location are variables used for analysis. Again although there are dissimilarities among variables used with the current study, two models namely (1) MRM and (2) ANNs are similar in both studies. Comparing their results show that GWR which was not used in our study outperformed other models. ANNs only performed well in relations to predictive accuracy but not favoured because of its black box nature. Again, the study of Graczyk *et al* (2009) in Poland used ANNs, RBNN, M5P trees, M5Rules, SVM and MRM on a dataset of 1098 properties for 2001 and 2002 transactions. Five variables

namely: area of plot, number of storey, age of building, floor on which property is located and property selling price were used in their analysis. Three data mining tools including KEEL, WEKA and RapidMiner were used for simulations. Results reveal that apart from ANNs implemented in RapidMiner, all models predicted estimates within the acceptable threshold of less than or equal to 5% RMSE (see Figure 4 in Graczyk *et al* (2009: 806)). Therefore comparing results of this current study with previous studies of Graczyk *et al* (2009); Lin & Mohan (2011); Zurada *et al* (2011) and McCluskey *et al* (2013) might not be with the context of similar property market but universal performance of model on any geographical setting.

While it appears that performance of some models such as BP-ANNs and M5P trees are good in this current study, this can safely be compared with studies of Lin & Mohan for ANNs and Zurada *et al*. for M5P trees in the USA; and Graczyk *et al*. for ANNs and M5P trees in Poland. But results of this current study cannot be safely compared with model performance of ANNs in the UK study. This generally shows that a model that work well in a particular geographical context might not work well in another, therefore it is difficult to demonstrate superiority of one mass appraisal model over others, especially when they are applied to different context. Furthermore, a notable distinction was observed in the predicted results of M5P trees between absolute and normalised datasets as shown in the R^2 or COD, RAE and RRSE. In all simulations carried out in this study other mass appraisal models yielded consistencies in the predicted results between absolute and normalised datasets but M5P trees revealed otherwise. This development makes it grim to support and interpret results for application within the appraisal community; therefore, further examination of M5P trees is needed for acceptability despite its high predictive capabilities.

5.0 IMPLICATION OF FINDINGS AND CONCLUSION

This study is a first attempt at comparing a variety of mass appraisal models in the South African property market context. Since property appraisers/valuers in emerging markets of developing countries are being commissioned by mortgage institutions, local tax authorities etc. to assess the market values of large number of properties, a study like this has become very imperative to demonstrate the usefulness of these models so as to better appreciate a paradigm of a model suitable for the South African property market. Several simulations were carried out utilising MRM, M5P trees, ANR, BP-ANNs and SVM-SMO. The results predicted by each model show a superiority of BP-ANNs over all other models tested. Specifically the RMSE of BP-ANN in this study is 0.0353. This is closely followed by M5P trees with a RMSE of 0.0449. These two models (BP-ANNs and M5P trees) predicted market values of properties that are less than 5% threshold acceptable to the appraisal community.

Surprisingly, M5P trees predicted a higher COD of 53% when simulated with normalised dataset than a COD of 43% when simulated with absolute dataset in this analysis. It might be that to achieve optimal result, there is a need to change absolute to normalised datasets when using the technique, hence, the need for caution when utilising M5P trees for mass appraisal of properties. To evaluate the usefulness of these two models we compare results with property market geographical context of USA, UK and Poland. Results of previous studies from USA and Poland reveals usefulness of ANNs and M5P trees for mass appraisal but study from UK did not support results of the present study. Thus the results show that the property market context exerts great influence on the predictive ability of a model. But with the proving accuracy of ANNs in the USA, Poland and South Africa, the model is particularly useful in mass appraisal of properties.

Therefore, findings of this research have shown that for effective predictability and defensibility of mass appraisal estimate, the BP-ANNs is favoured for used by the appraisal community. ANNs has demonstrated consistency in the South African, USA and Poland property markets. However, this result does not suggest that other mass appraisal models are not useful because when used in the property market context of other regions these models are found to be useful. Furthermore, it is noteworthy that any region that contemplates the introduction of a mass appraisal model into

their appraisal process, should visit the criteria advocated by d'Amato & Kauko (2008: 294) and in addition several models should be tested until a model that matches the local property market context is established.

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UNDERGRADUATE REAL ESTATE EDUCATION IN ZIMBABWE: A COMPARATIVE STUDY

PARTSON PARADZA AND CHRIS CLOETE

Department of Construction conomics, University of Pretoria, South Africa

chris.cloete@up.ac.za

ABSTRACT

Purpose The aim of this study was to establish if there is a national consensus on the real estate body of knowledge in Zimbabwe and to benchmark Zimbabwean property programmes with similar RICS curricula in Africa.

Design/methods followed/approach Purposive sampling was used to choose participating institutions. Relevant documents were obtained from either websites of selected institutions or requested by email from relevant officials.

Findings The study established that while real estate curricula in Zimbabwe are diverse in nature, they do exhibit a number of similarities. Property programmes in Zimbabwe also compare well with RICS accredited curricula in Africa but there were notable variations on names of programmes, number courses covered and course credits.

Research limitations/impli ations This study was limited to real estate programmes which are offered up to Honours degree level in Zimbabwe and similar RICS accredited programmes which are offered in Africa. Results might be different if one is to consider all RICS accredited real estate programmes. Data was obtained only from document analysis and internet survey, a more detailed results could have been obtained through key informant interviews, questioner survey or focus group discussions.

Practi al implications Results of this study can be used to standardise real estate education curricula in Africa.

Originality/ Value of work Though research on real estate education improved over the past years, this study is the first to consider Zimbabwean curricula in detail.

KEYWORDS: ***Real estate, comparison, progress, curriculum, consistency, diversity.***

INTRODUCTION

The aim of this comparative study was to establish if there is a national consensus on the real estate body of knowledge in Zimbabwe and to benchmark Zimbabwean programmes with RICS accredited curricula in Africa. Consistency can be defined as not containing any logical contradiction (Smith, 2001). In this study the comparison criteria was based on the following variables; admission requirements, departments where the programme is housed, programme names, number of credits allocated to courses and programmes, teaching method, duration of study as well as student assessment criteria[1]. Currently there are six tertiary education institutions offering real estate in Zimbabwe. Of the six, three are universities (University of Zimbabwe, Lupane State University & National University of Science and Technology), two are polytechnics (Harare Polytechnic & Bulawayo Polytechnic) and one is a professional institution (The Real Estate Institute of Zimbabwe). Quality assurance for all university curricula in Zimbabwe is done by the Zimbabwe Council of Higher Education (ZIMCHE). For new curricula to be accredited by ZIMCHE, universities are supposed to do wide consultations with industry and other stakeholders. Even though real estate programmes in Zimbabwe are approved by ZIMCHE, none is accredited by the international real estate bodies like The Royal Institution of Chartered Surveyors (RICS) or the Federation for International Surveyors (FIG). This study is based on the recommendations of Eply (1996) and Cloete (2002), who called for a study to establish the current state of real property curricula as a step towards standardisation of real estate education.

[1] Address on how is consistency defined and measured and the comparison criteria

LITERATURE REVIEW

Real estate education evolved over a long period of time going through various stages in different countries. Dasso and Woodward (1980:404); postulated that formal property education at tertiary level was first introduced in Amer-ica at the University of Wisconsin in 1892 by Richard Ely. On the contrary the first BSc degree in the UK was offered at the University of London in 1918 (Yu, 2001:80). Small and Karantonis (2001) states that in the continental state of Australia real estate education can be traced back as far as 1927. In its evolu-tionary trend, real estate education spread globally after the Second World War (it was introduced in 1968 in Singapore and in the late seventies and early eighties in New Zealand and Australia respectively) (Dasso & Woodward, 1980:407; Yu, 2001:80). They also noted that real estate received its profes-sional recognition in the 21st century. Given the long-time which it evolved, one might be tempted to conclude that the period could be considered as long enough for real estate to be an established profession and to have established a body of knowledge.

Two main philosophies exist in real estate education that is the investment ap-proach and the survey approach. In the United States of America (USA), real estate training is housed under the faculties of business or finance; and in the United Kingdom (UK) real estate has its ‘roots’ in architecture (Boyd, Amidu, & Smith, 2013:06; Chikafalimani, 2010:27; Dasso & Woodward, 1980:405; Jay, 2011:2; Schulte, Schulte-Daxbok, Holzmann, & Wiffler 2005:1; Yu 2001:79). Yu (2001:81) noted that as pioneers of formal real estate education, UK and USA models had a great impact on shaping modern day real estate curricula world-wide. The survey approach was adopted in most former British colonies and commonwealth countries which is an indication that history has an influence on the approach which is followed from one country to the other. Accordingly the ideology which a country is following determines the faculty where the property programme is housed.

Other scholars classify real estate paradigms into three main categories instead of two. Schulte *et al* (2005:1) and Schulte (2001a) classified real estate education approaches into three which are; the survey approach (which is practised in the United Kingdom and the British Commonwealth countries), the investment and finance approach (which is mainly practised in the USA) and the inter-disciplinary approach (which is practised in the Continental Europe). This shows that due to globalisation some countries have blended the survey and investment approach to come up with a hybrid or combined approach to real property education.

Unlike other academic fields like finance and economics, real estate struggled to establish consensus in the "basic content of knowledge and skills at both the undergraduate and postgraduate level" (Eply, 1996). As noted by a number of scholars there is no universally accepted real estate body of knowledge that constitutes what should be taught in all programmes (Eply, 1996; Boyd *et al*, 2013:06; Chikafalimani, 2010:27; Dasso & Woodward, 1980:405; Jay, 2011:2; Schulte *et al* 2005:1; Yu 2001:79; Weeks & Finch, 2003). Such a state of affairs has resulted in differences in the way real estate education is done in different countries. This has been observed by Mooya (2007) as well as Dasso and Woodward (1880) who pointed out that the differences exist because real estate developed differently in various nations. Boyd [2] *et al* (2013) and Yu (2001:82) are of the view that lack of consensus in the real estate body of knowledge can be attributed to the diverse and dynamic nature of the property industry. As noted by Weeks and Finch (2003), lack of standardisation in real estate curricula is also caused by property stakeholders who advocate for diverging directions in real estate curriculum development. Stakeholders in the property industry include tenants, land lords, property agents, and government institutions all with conflicting interests.

Eply (1996) shared the same sentiments and supported his argument by giving examples of various presentations at real estate annual conferences where presenters researched on widely diverse topics.

Despite variations in real estate education across the globe, there exists a common goal which is highest and best use of land (Mooya, 2007:11; Boykin, 1985:349). The widely used indicator of highest and best use of land is economic value.

[2] Address on what are the causes of lack of uniformity apart from history of programs

The institution's philosophy can also contribute to the differences in real estate curricula. Standardisation of real estate curricula facilitates transfer of students from one institution to the other as they would have gained similar competencies. However standardisation of property curricula has its own weaknesses - it can stifle innovation. For example, universities can be inhibited to offer unique curricula in order to attract students. Also, universities' curricula are designed to address challenges in the specific local environment, hence heterogeneity in real estate curricula might be an indication of variations in stakeholder preferences and local challenges.[3]

In Africa, the approaches to real estate education is a replica of the practices used in USA and UK. This ids evidenced by the diverse and multidisciplinary nature of real estate curricula in the Africa region (Viruly & Hopkins, 2014:11; Serfontein, 2014; Kampamba, Nkwae & Tembo, 2015; Mooya, 2007). According to Mooya (2007:14), property education is not very new to Africa as indicated by numerous examples of African universities where real estate education has been in existence for many years. The examples of such universities include; University of Science and Technology in Ghana, Copperbelt University in Zambia, Ardhi University in Tanzania (former Ardhi Institute), the University of Nairobi in Kenya and Obafemi University in Nigeria (ibid, 2007).

Nzioki, Kariuki, & Marigu (2006) stated that Kenya is one of the pioneers of formal real estate education in Africa. The first degree in land management in Kenya was introduced in 1956 at the then Technical College of East Africa now University of Nairobi, the degree curriculum was modelled after the RICS curriculum (ibid, 2006). According to Groenendijk *et al* (2013:1) the curriculum content of land administration degree programmes offered in East Africa are generally similar in nature and broad in coverage. The first real property degree in Ethiopia was introduced in 2004 at Bahir Dar University, and Rwanda's first real estate degree was introduced in 2012 at the INES-Ruhengeri Institute of Applied Science (Groenendijk *et al*, 2013).

[3] Address on – Are there benefits to the lack of uniformity? And What would be lost if we standardise?

Real estate training in Nigeria started in 1957 at the then Nigerian College of Arts, Science and Technology, Enugu campus (now Enugu campus of the University of Nigeria). The curriculum was modelled after that of Britain with a focus in the built environment and surveying to prepare students for the RICS examinations (Ashaolu, 2012; Ezema, Oluwatayo, Adewale and Aderonmu, 2014). This is in resemblance to how the first real estate curriculum was designed in Kenya. Other universities who were among the pioneers of real estate education in Nigeria include, among others, University of Ife (now Obafemi Awolowo University) in 1970, University of Lagos in 1982 and the Federal University of Technology (ibid, 2012). Real estate education in Nigeria is standardised due to the fact that there are prerequisite courses which a real estate programme must cover for it (the real estate programme) to be accredited by the National Universities Commission (Ezema *et al*, 2014). Serfontein (2014:40) established that Nigeria has more universities offering real estate education in Africa with approximately fifteen universities, followed by South Africa with seven universities and the rest of the African countries which have between one and two universities offering real each.

As observed by Kampamba *et al* (2015), there is no standardisation of real estate education curricula in Botswana. They also noted that real estate programmes in Botswana offer diverse subjects with some notable similarities in courses offered. Such a scenario is also found in South Africa as noted by Mooya, 2007:15. Both Kampamba *et al* (2015:116) and Mooya (2007) agree that lack of standardisation in real estate education curricula is an indication that there is no national consensus on the real estate body of knowledge.

Cloete (2002:377) noted that in the Southern African region very few educational institutions offered real estate education at that stage, especially at postgraduate level. He did note, however, that recognition of real estate as a profession gained momentum over the last decade of the twentieth century and this saw countries like South Africa introducing formal real estate programmes at Universities and Technikons (now Universities of Technology). Mooya (2007:13) and Jay (2011:02) noted that real estate programmes in

South Africa are housed under the construction departments and the educational system in South African curricula is typically Eurocentric in nature. This may be explained perhaps by the fact that South Africa inherited education philosophies from its former colonial master. Though South Africa introduced formal real estate education later than other African countries, it managed to make remarkable progress over the past two decades. Consequently it is one of the few African countries offering RICS accredited programmes (RICS, 2008; RICS, 2012), and to offer real estate programmes up-to Doctorate degree level (Mooya, 2007:15; University of Pretoria (UP), 2015b; University of Cape Town (UCT), 2015c. The MSc (Real Estate) degree introduced by the University of Pretoria in 1990 was in fact the first master's degree by coursework in Real Estate *per se* in Africa, as well as the first Master's degree in Real Estate in Africa to be accredited by the RICS.

In Zimbabwe the recognition of real estate at universities gained momentum in the past six years. Nevertheless none of the existing curricula is accredited by international real estate institutions like RICS. With the current trends where education has gone global, academic institutions in Zimbabwe need to work towards offering internationally recognised curricula. Offering internationally accredited real estate programmes can give Zimbabwean real estate education institutions a comparative advantage in attracting students across the globe. Given the fact that Zimbabwe is currently 'exporting' most of its labour to regional and international markets it is important to benchmark existing real estate curricula with internationally accredited programmes. Kampamba *et al* (2015); noted that graduates of real estate programmes are mobile and can be employed in other countries which justifies the need for accreditation of local curricula by international bodies. It is essential to note that real estate business has gone global, hence real estate education institutions must aim to produce internationally proficient graduates Schulte *et al* (2005). RICS accredited programmes which are offered by African education institutions were used as a yardstick for benchmarking Zimbabwean curricula.

Why RICS accredited programmes in Africa? According to Schulte *et al* (2005), RICS has managed to spread operations internationally and has managed to collaborate with national and regional real estate institutions. RICS[4] accredited programmes are accredited using the five quality principles which are: student selection, research and innovation, teaching quality, curriculum, and graduate output (RICS, 2012). Where partnership exists between RICS and universities, quantifiable and measurable standards are set as a yardstick to measure if the five principles are met (ibid, 2012). In this study the comparison criteria were based on the following variables: student admission criteria, department where the programme is housed, programme name, course content, course credit hours, student assessment criteria and duration of study.

Although[5] research on the real estate education has increased over the past years (Jay, 2011; Kampamba *et al*, 2015; Schulte *et al*, 2005, Mooya, 2007, Ezema *et al*, 2014; Chikafalimani, 2010, Cloete, 2002), there is limited empirical research on property education in Zimbabwe. Schulte (2002) conducted a study in real estate education worldwide. Although it was comprehensive, it was done at a time when most real estate programmes were not yet introduced in Zimbabwe. Furthermore the South African Qualification Authority (SAQA) (2012) conducted a study on real estate education in Africa but even though by that time real estate was introduced at university level, the study was internet based while most institutions in Zimbabwe were yet to fully make use of information technology. From that study SAQA only managed to get data on the real estate programmes which were offered by international educational institutions. The institutions include the Commercial Real Estate Institute and the College of People Management and Development as well as the Certified Commercial Investment Member Institute. However most if not all of these institutions are not formally registered as educational institutions as required by Zimbabwean laws.

The results of the SAQA (2012) study might be attributed to the fact that since the research was internet based and at that stage websites of most academic institutions were still developing or were yet to be developed, less or no rele-

[4] Address on comparison criteria
[5] Address on – identifying the contribution that this work could make to the existing literature.

ant data were obtain from public institutions of higher learning. Furtherɿore, Chikafalimani (2010) did a comparative study of real estate curricula ʋhich covers Zimbabwe but since his study was focused on postgraduate real state programmes, Zimbabwean undergraduate real estate programmes ʋere not covered. More recent studies were done by Serfontein (2014) as well s Kampamba, Nkwae and Tembo, (2015). Serfontein (2014) did not manage ɔ obtain relevant data on existing real estate curricula in Zimbabwe. She only oted a programme which was introduced by NUST in 2014 and failed to get ıformation on the real estate programmes which are offered by UZ, REIZ, ·PTC and BPTC. She explained that no relevant data was obtained from Zimabwe due to poor questionnaire response and as a result programmes from imbabwe were not included in her study. A study by Kampamba *et al* (2015) ʋas broad and comprehensive. They covered undergraduate real estate curicula in Zimbabwe but their results did not provide detailed information bout existing Zimbabwean real estate programmes as their main focus was eal estate curricula in Botswana.

he present study seeks to answer two key questions: Is there a national consensus in the real estate body of knowledge in Zimbabwe and are Zimbabwean eal estate curricula comparable to similar RICS accredited programmes in Afica?

ESEARCH APPROACH

his research consisted of internet research and document analysis. Data on eal estate education institutions which offer RICS accredited programmes ʋere obtained through internet research. The researchers used their nowledge of the problem under study to select real estate education institutions in Zimbabwe and relevant documents were obtained either from websites of selected institutions or were requested by emails from relevant auıorities.

ata management and analysis was done continuously as a way of identify merging themes and developing them with further study. The limitation of ıis strategy was that there were challenges when analysing the findings.

RESULTS AND ANALYSIS

The study took a descriptive research design approach. According to Kothari (2004), descriptive design is mainly used when describing the present state of affairs of the subject under study and it includes comparative and correlation research methods. Since the aim of this study was to establish and describe the state of existing real estate curriculum in Zimbabwe, the descriptive approach was the appropriate design. A triangulation research approach with main emphasis on qualitative research methods was adopted. According to Spillman (2014), the advantage offered by mixed methods is that they provide complementary data. The findings of this study were based on data collected through internet survey and document analysis. Programme prospectus, course outlines and study guides from websites of selected institutions and in other cases they (study guides & programme prospectus) were request through email from relevant officials.[6] Table 1 below displays real estate programmes offered in Zimbabwe.

Table 1: Departments where real estate programmes are housed in Zimbabwe

Institution	Department/Division	Programme name	Duration of study	Delivery mode	Admission requirements
University of Zimbabwe (UZ)	Rural and Urban Planning	Bachelor of Science Honours Degree in Real Estate Management	4 years	Full time	Two Advanced level subjects
National University of Science and Technology (NUST)	Department of Landscape Architecture and Urban Design	Bachelor of Science Honours Degree in Property Development and Estate Management	4 years	Part time	Two Advanced level subjects
Lupane State University (LSU)	Department of Accounting and Finance	Bachelor of Commerce Honours Degree in Real Estate Management	4 years	Part time	Two Advanced level subject
Harare Polytechnic colleges (BPTC)	Civil Engineering Division	Certificate and Diploma in Valuation and Estate Management	4 years	Full time	Five Ordinary level subjects
Bulawayo Polytechnic	Civil Engineering Division	Certificate and Diploma in Valuation and	4 years	Part time	Five Ordinary level subjects

[6] Address on research approach

college (BPTC)		Estate Management			
Real Estate Institute of Zimbabwe (REIZ)	Professional body	Diploma in Real Estate	2 years	Part time	Five Ordinary level subjects
Estates Agents Council of Zimbabwe (EAC)	Professional body	Certificate in Real Estate	1 year	Part time	Five Ordinary level subjects

Source: (UZ, 2015; NUST, 2015; LSU, 2015; HPTC, 2015; REIZ, 2015; EAC, 2015; BPTC, 2015).

A) IS THERE CONSISTENCY IN THE REAL ESTATE BODY OF KNOWLEDGE IN ZIMBABWE?

With reference to Table 1 it can be noted that real estate educators in Zimbabwe do not agree on the department where real estate must be housed, name of real estate programmes and delivery mode. Standardisation of real estate curricula can also be established by comparing course contents. Figure 1 below compare real estate curricula offered in Zimbabwe at Honours degree level.

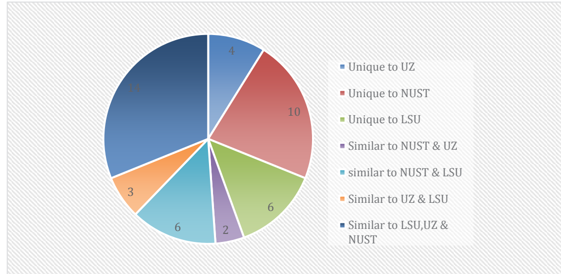

Figure 1: Comparison of Honours degree course content. Source: UZ (2015), NUST (2015), LSU (2015).

Real estate programmes offered at Honours degree level in Zimbabwe cover forty-eight (48) courses. 30.23% of the courses which are similar at all universities, 9.30% are offered by UZ only, 23% are unique to the NUST curricula and 13.95% are unique to the LSU programme. 6.98% of the courses are similar to UZ and LSU, 13.95% are similar to LSU and NUST, while 4.65% are similar to UZ and NUST. A total of 56% of the courses are offered by at least two universities and 44% of the courses are offered by only one university when combined. Figure 2 below is a comparison of Zimbabwean real estate diploma programmes.

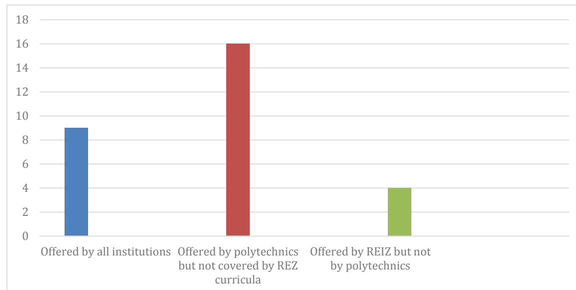

Figure 2: Comparison of Zimbabwean diploma in real estate curricula. Source: (REIZ, 2015; BPTC, 2015; HPTC, 2015).

At National diploma and certificate level 39% of courses are similar while 61% are different. When compared separately academic programmes offered by polytechnics have 100% similarities while those offered by professional bodies have 100% similarities as well. Table 2 below compares Zimbabwean real estate courses offered at National Certificate level.

Table 2: Comparison of real estate curricula at certificate level in Zimbabwe

No	Course	Institution		
		HPTC	**BPTC**	**EAC**
1	Valuation 1	√	√	√
2	Law for valuation 1	√	√	√
3	Town planning (Town planning 1 & 2)	√	√	X
4	Technical drawing	√	√	X
5	Construction technology/building construction 1	√	√	√
6	Mathematics	√	√	X
7	Accounts/book keeping & finance	√	√	√
8	Building construction 1	X	X	√
9	Commercial law	X	X	√

At certificate level nine subjects are offered of which 54% of the subjects are offered by polytechnics, 31% of the courses are similar at all institutions and 15% is offered by EAC alone.

B) HOW DOES REAL ESTATE CURRICULA IN ZIMBABWE COMPARE WITH SIMILAR RICS ACCREDITED PROGRAMMES IN AFRICA?

This study established that South Africa was the only African country with universities which are offering RICS accredited real estate curricula in Africa. It[7] is important to note that quality assurance for higher education in South Africa is done by the South African Council for Higher Education, which is similar to the Zimbabwe Council of Higher Education. The philosophies followed by quality assurance institutions can also have an impact on real estate curricula diversity. For example these institutions can dictate that for a real estate curricula to be approved, it must be housed at say the built environment department and have a minimum of say 300 credits whilst being offered over a duration of say four years. South African real estate programmes which were considered for this study are the Honours degree programmes offered by the University of Pretoria (UP) and the University of Cape Town (UCT) and a Diploma offered by the Cape Peninsula University of Technology (CPUT). Figure 3 below is a summary of how these real estate programmes compare with Zimbabwean programmes in terms of course coverage.

[7] Address on institutional differences

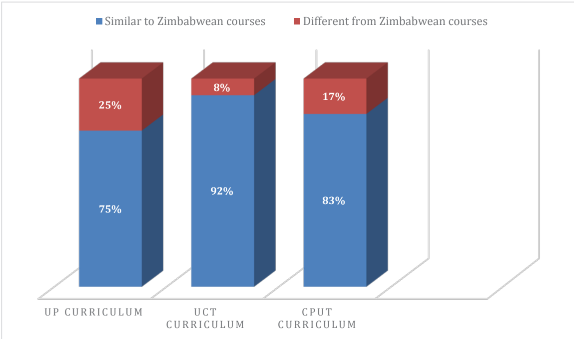

Figure 3: Comparison of Zimbabwean real estate programmes with similar RICS accredited curricula in Africa by course coverage. Source: (UP, 2015a; UCT, 2015a & b; UZ, 2015; NUST, 2015; LSU, 2015,HPTC, 2015; BPTC, 2015; EAC, 2015).

1. **CURRICULA SIMILARITIES**

i) ***Course content***

Ninety-two (92%) of UCT courses and 75% of UP courses are similar to those covered by Zimbabwean universities. Eighty-three percent (83%) of the courses which are offered at CPUT are similar with the ones offered in Zimbabwe. This indicates that diploma curricula which are offered in Zimbabwe compare well with RICS accredited curricula in Africa. This supports the findings of Serfontein (2014) that real estate programmes which are offered in Africa compare well.

ii) ***Student admission requirements***

Admission requirements for entry to a real estate qualification are similar for all institutions. The UP, UCT and CPUT, require a National Seniors Certificate which is equivalent to a General Certificate in Education (Advanced level) in Zimbabwe.

iii) ***Duration of study***

There is 100% agreement between local universities as well as UP and UCT on the duration of study for an Honours degree programme. Real estate educational programmes at all of the five institutions (UP, UCT, NUST, UZ and LSU) are offered over a duration of four years.

iv) ***Student assessment criteria***

There is a total agreement on student assessment criterion which include writing of tests, assignments, presentations, internships as well as conducting an academic research study to name but just a few. This supports the findings of Kaoulizos (2006).

2. **CURRICULA DIVERSITY**

i) ***Names of real estate programmes and courses***

There was 100% disagreement on the names of the real estate programmes which are offered at Honours degree level locally and those offered by RICS accredited institutions in Africa. Locally all existing programmes do not agree on the programme name (at UZ it is called BSc Honours degree in Real Estate Management, at NUST it is called BSc Honours degree in Property Development & Estate Management while at LSU the programme is called BCom Honours in Real Estate Management). On the other hand a similar curriculum which is offered by UCT is called BSc Honours degree in Property Studies and at UP it is called BSc Honours degree in Real Estate. This is an indication to the fact that real estate education institutions are not in agreement on the most appropriate name for a real estate programme at Honours degree level.

UP courses with names similar to Zimbabwean courses are twelve (12) while eleven UCT courses have similar names with those offered in Zimbabwe. A comparison of UCT and UP course names shows that only four courses have similar titles and each of the two universities has seventeen (17) courses with names which are neither similar to Zimbabwean courses nor to each other. However a closer scrutiny of the results revealed that similar courses are named differently by different universities. A good example of a course with the same contents which is named differently is that of research. At UZ and LSU the course is called dissertation, at NUST it is called property studies research project, at UP it is called research report and at UCT it is called treatise.

ii) ***Course composition***

There is a 100% disagreement on the number of courses covered by real estate programmes. In Zimbabwe each of the three universities which offer real estate has a curriculum which covers different courses in terms of number and credits. The UZ curriculum covers thirty-two (32) courses, at NUST real estate covers forty-one (41) courses, LSU curriculum covers forty-three courses while at UCT real estate is comprised of thirty-seven (37) courses. The UP programme is comprised of sixty-four (64) courses. For the sake of comparison the percentage content of the major real estate courses were considered for each of the five universities (UZ, NUST, LSU, UP & UCT). Table 3 below is a comparative summary of Honours degree curricula composition.

Table 3: A comparison of Zimbabwean and internationally accredited real estate curricula in terms of percentage of course content

Course	Institution & course percentage in the curriculum				
	UZ	NUST	LSU	UCT	UP
Investment and finance	16%	12%	22%	2%	11%
Marketing	-	3%	3%	-	3%
Valuation/ appraisal	13%	10%	11%	7%	9%
Law	6%	8%	6%	17%	5%
Land economics	16%	10%	8%	2%	2%
Development	6%	7%	3%	2%	11%
Estate agency	3%	-	3%	-	-
Property management	6%	5%	8%	7%	3%
Construction	9%	20%	8%	12%	31%
Other	25%	25%	28%	50%	25%
Total	100 %	100 %	100 %	100 %	100%

Source: Adopted and modified from Mooya (2007:14).

As shown on Table 3 above there is total disagreement on the percentage of course composition for real estate programmes. For example, even though all institutions offer property development at Honours degree level, the percentage of the course in the total curriculum varies (6% at UZ, 7% at NUST, 3% at LSU, 2% at UCT and 11% at UP).

At UCT real estate curriculum consists of compulsory and elective courses while in Zimbabwe real estate consists of only compulsory course subjects. In this case Zimbabwe can learn from UCT as introduction of elective courses may help in easing the course composition gap as programmes which are not offered by other universities may be introduced as elective courses. This might bring uniformity in real estate education. The UP programme is more similar to those offered in Zimbabwe in that it does not have elective courses.

On the other hand, Zimbabwean universities put more emphasis on internship as shown by the fact the whole year is dedicated to work related learning whilst at UCT there is no provision for internship. Though internship is a requirement for a student studying real estate at UP, the time which that student is required to spend is less as compared to what is expected of a student studying the same course in Zimbabwe. The importance given to work related learning by Zimbabwean Universities is in line with the recommendations of Callanan and McCarthy (2003 cited by Jay, 2011:62) that students must have work related learning through internship at an approved property company for at least 450 hours over a 12-month period. The importance of combing professional experience with classroom learning in real estate education was also stressed by Rabinski (2003:25) as well as Haynes and Nunnington (2009).

Courses which are offered by UCT and UP curricular but which are not covered by Zimbabwean universities include housing, business law, property finance and property information systems. All Zimbabwean universities do not offer housing as a subject despite the fact that housing shortage is considered to be one of the major challenges facing the nation at the moment (Government of Zimbabwe, 2012; Mangudya, 2014). The fact that housing which is considered as important by the Government of Zimbabwe is not part of the existing property curricula might be an indication that the existing undergraduate real estate curricula in Zimbabwe are 'divorced' from the knowledge requirements of the property industry.

iii) Department where programme is housed

While real estate offered at Honours degree level are offered by a unique department at each of the three universities in Zimbabwe, real estate at UCT and UP are housed under more or less similar departments. At UCT real estate is offered by the Department of Construction Economics and Management and at UP the same programme is offered under the Department of Construction Economics. However Zimbabwean polytechnics offer a standardised curriculum which is housed under an engineering department. In contrary at CPUT a real estate curriculum similar to those offered by polytechnics in Zimbabwe is offered by the Unit of Applied Economics. Disagreements in departments housing real estate education in Africa were also noted by other scholars (Chikafalimani, 2010; Kampamba *et al*, 2015; Viruly and Hopkins, 2014).

iv) Duration of study

Unlike the case with real estate which is offered by universities, real estate courses which are offered at national diploma level vary in length. In Zimbabwe at polytechnics the diploma is completed after a minimum of four years while the same qualification is offered by REIZ over a period of two years. At CPUT a National diploma in real estate is offered over a period of three years. The main difference between the CPUT programme and those which are offered by Zimbabwean polytechnics is that it is not mandatory at CPUT for students to gain practical exposure through internship.

v) Teaching methods

In Zimbabwe real estate programmes which are offered by polytechnics and universities require at least one year of internship. This goes in line with what was noted by some scholars (Callanan and McCarthy, 2003 cited by Jay, 2011:62; Haynes & Nunnington, 2009; Rabinski, 2003:25). However, this is not the case with similar programmes which are recognised by RICS as there is less emphasis on requirements for work related learning as evidenced by the UP, UCT and CPUT curricula. This means that students from UCT and CPUT lack practical professional experience upon graduation as compared to graduates from Zimbabwe. Lack of emphasis on practical experience by South African real estate programme was also noted by Jay (2011) and Chikafalimani (2010).

vi) Allocated credits

There is a total disagreement on credits allocated to real estate programmes (at UZ 516 credits are allocated to real estate, at UCT 576 credits are allocated while at LSU 188 credits are allocated and at UP real estate consists of 500 credits). No information was available on credits allocated to real estate at NUST. These variations in credits allocation are an indication that there is no consensus on the weight of real estate courses locally and regionally. This might pose a challenge for students if they wish to transfer their credits from one institution to the other. It can be noted that lack of agreement on real estate credits might not be unique to Zimbabwe alone but it appears to be a regional if not an international challenge.

vii) Delivery mode

In Zimbabwe real estate is taught either on a part-time or full-time basis. At NUST, LSU, REIZ, BPTC and EAC real estate is offered on part-time basis while at UZ and HPTC the same qualification is offered on full- time basis. At UCT and UP real estate is delivered on a full-time basis while at CPUT real estate is a part-time programme.

CONCLUSION

This paper established that real estate curricula in Zimbabwe are (a) not standardized and (b) are multidisciplinary in nature with a bias towards engineering courses. At most institutions real estate programmes are housed under survey related departments. Honours degrees in real estate in Zimbabwe have 56% of their courses which are similar and 44% of course subjects are different. At National diploma and certificate level 39% of courses are similar while 61% are different. When compared separately academic programmes offered by polytechnics 100% have similarities, while those offered by professional bodies have 100% similarities as well. Real estate programmes which are offered at certificate level cover nine subjects of which 54% of the subjects are offered by polytechnics, 31% of the courses are similar at all institutions and 15% is offered by EAC alone. This study concluded that, to a greater extent there is consistency in existing real estate curricula in Zimbabwe. However, there are also notable variations in real estate programmes which are currently offered in Zimbabwe as shown by differences in programme names and allocated credits just to point a few areas of variations.

There were notable similarities and differences between real estate curricula locally and when compared to RICS accredited curricula. Notable agreements were noted on course contents where 92% of subjects offered at UCT and 75% of UP curricula are similar to those offered by Honours degree programmes in Zimbabwe. Also 83% of courses which are offered at CPUT are similar to those offered by local diploma programmes in Zimbabwe. Furthermore, there were total agreement on student admission requirement, teaching methods and duration of study for Honours degree real estate programmes.

There were however differences in the number of courses, number of credits, programme and course names and well as the departments where programmes were housed. Variances between RICS accredited real estate programmes and Zimbabwean programmes were also noted in the duration of a National Diploma in real estate. In Zimbabwe the period of study is four (4) years while at CPUT it is three (3) years. The difference in study duration might be as a result of the fact that Zimbabwean requires one year work related learning (internship) which is not part of the CPUT curriculum.

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NON-REFERRED PAPERS

EXPLORING REAL ESTATE INVESTMENT TRUST (REIT) AS A HOUSING FINANCE OPTION IN NIGERIA.

1.0 INTRODUCTION:

1.1 REAL ESTATE FINANCE AND ITS LOCAL SOURCES

The Real Estate delivery process entails the combination of construction resources to produce structures by which land-centred proprietary interests are held. One central ingredient in this process is finance upon which, every other requirement can be denominated. Walmsley (2007) posited, however, that the quantum of capital outlay required in real estate delivery is usually beyond the medium and low income earners in the society could afford. Therefore, various approaches had been fashioned to finance housing in Nigeria. The ‘modern’ approach involves sourcing from formal institutions including the Federal Mortgage Bank of Nigeria (FMBN) as apex authority, Commercial banks, Merchant banks, specialised Development Banks, Pension Fund and Insurance Companies. There are also financing options from the informal sector, corporate bodies and developers or contractors. However, Nubi (undated) catalogued lots of constraints in accessing finance from these sectors. The several other identified sources, notwithstanding their suitability posture, had also made little impact on housing finance in Nigeria till date.

By its nature, real estate development is capital intensive just as the product enjoys long economic life span. These two, out of the several attributes of the real estate investment, make the product delivery system particularly susceptible to a specialised form of funding; large quantity, the amortisation of which can be spread over a reasonably long period of time. This calls for the availability of a sustainable pool of funds which enjoys long term repayment while new requests continue to be accessed. One investment strategy which can fit into this requirement, while at the same time

reward the investors, is the Real Estate Investment Trust (REIT) vehicle.

Walsmley (2007) recognised REIT as a unit trust invested in real estate. It is essentially, a form of property securitisation (Newell and Fife, 1995). REITs can be publicly or privately held. Public REITs, however, are listed on the public stock exchange like shares of common stock in other companies.

As some REITs combine capital fund from many small or/and big investors for their operations, they provide the opportunity for a wide range of investors to participate in the ownership of ventures spanning a broad spectrum of portfolios (www.reits.com). Known for being relatively liquid and transparent instruments, REITs typically pay regular and predictable dividends to investors and offer high yields of 4%–7%. This is attractive compared with equity or fixed-income instruments (www.financeasia.com). REITs are mostly given different country-specific names in different nations. Thus we could talk of J-REIT in Japan, LPT in Australia, SIIC in France, and

SICAFI in Belgium. The origin dates back to the American Congress REIT Act in 1960. By this Act, such business trusts are exempted from federal tax on income shared to stockholders. The REIT philosophy enables the retail investors to have small holdings in a broad-based and professionally-managed real asset market for a share of profit commensurate with the respective holding power.

1.2 Types of REIT

REITs come in three types; The Mortgage REITs, Equity REITs and Hybrid REITs

The Mortgage REITs (MREITs) are essentially mortgage lenders usually with at least 75% of their invested assets in mortgages secured by Real Estate. Equity REITs (EREITs) holds 75% of its assets in the ownership of commercial, industrial and residential properties. The Hybrid REITs combine both mortgage and equity characters. REITs are structured in one of three ways: Traditional, UPREIT and DownREIT. A traditional REIT owns its assets directly rather than through an operating partnership. Traditionally, REITs are not partnerships but, as in the case for other corporations, REITs use partnerships to engage in joint ventures. (www.InvestinREITS.com). REITs can be close- or open-ended. A close-end REIT is that which does not issue more shares after the initial stock offer.

2.0 SOME INTERNATIONAL EXAMPLES

US REITs

In the US, to conform to American Internal Revenue Code and qualify as a REIT, the organisation is expected, among other things to:

be a corporation, business trust, or association

have a board of directors or trustees

must have at least 100 shareholders, with not more than 50% of the shares held by five or fewer persons

must derive at least 75% of its gross income from real estate. This would include rents, mortgage interest, gains from selling Real Estate and dividends from investing in other REITs.

not be involved in short-term property holdings that are sold for quick profits

share at least 95% of its annual income to shareholders

The US REIT must derive at least 75% of its gross income from real estate and at least 90% of the gross income from the combination of real estate and its securities portfolio. The REIT, additionally, may not hold more than 10% of the outstanding voting securities of any one issuer. Furthermore, not more than 5% of its total assets may consist of the securities of any one issuer, unless that issuer is another REIT.

The US REIT was also precluded by tax rules from obtaining more than 30% of its income from the sum total of securities held for less than one year. This constitutes a further limitation, the intention of which is to restrict its ability to compete with developers and brokers (who are taxable) by building/acquiring properties for sale or/and engaging heavily in securities trading. (Campbell & Sirmans, 2002).

In addition to these general rules, US REITs are encased in structure, financing and operation to reduce 'unfair' competition with taxable organisations.

Most of US REITs are public organisations majority of which are listed on the NY Stock

Exchange. The most fundamental distinction for US REITs is that between Equity and Mortgage REITs. While Mortgage REITs originate and/or hold mortgages, Equity REITs invest directly in properties. The equity REITs, by current (early 21st century) estimate, outnumber mortgage REITs in the membership of National Association of REITs (NAREIT) in US (Campbell & Sirmans, 2002)

AUSTRALIAN REITs

Australia REITs were known as Listed Property Trusts (LPTs). This came in two forms; the pure real estate portfolio investments and 'staple securities'. The 'staple securities' usually tie up direct property investments with that in a fund manager and/or a property development company (www.overseaspropertymall.com). This, according to the source, was an attempt to overcome the country's relative shortage of potential real estate investments by diluting the pure real estate LPTs portfolios.

The REITs listed on the exchange were classified as Listed Property Trusts (LPTs) while the private ones were known as Unlisted Property Trusts. However, these have since (March 2008) been collectively renamed Australian REITs (A-REITs) to conform to worldwide identification format.

2.3 UK-REITs

The fear of US REITs' cross-border operations in the ongoing global setting was one of the reasons which geared up the establishment of REITs especially in UK. Hamson (2001) reiterated how UK property company culture came under criticism, among other things, for losing ground to US companies in particular. The introduction of REIT to Europe was also earlier limited to two countries: Belgium and The Netherlands before recent developments in other parts (Campbell and Sirmans, 2002).

A new UK REIT tax regime was introduced by the Finance Act 2006 (Nathanson, 2006). This was the result of twenty years lobbying of the Legislature by the UK real estate industry (kpmg.co.uk/industries/cm). January 1, 2007 marked the formal take-off of REITs in UK. Thus on Tuesday the 2nd day of January, the transformation of existing property Investment Company was championed by nine listed British companies namely Land Securities, British Land, Hammerson, Liberty International, Brixton, Great Portland Estates, Primary Health Properties, and Workspace & Slough Estates (www.telegraph.co.uk/money). It was provided that a REIT would distribute at least 90% of its property rental business profit in each accounting period. Apart from this, there was a provision for entry charge of 2% of the gross market value of the properties involved in the property rental business at the beginning of the first accounting period for which the company becomes a REIT. Furthermore, while enjoying corporate tax advantage on its ring-fenced assets, a REIT will be required to withhold tax at the basic rate of 22% from distributions to shareholders paid out of profits which have benefited from a tax exemption.

According to the KPMG group, a UK REIT may be subjected to tax charges without the loss of REIT status, if it breaches an interest cover test (a limit on the ratio of profits to interest of 1.25) or has investors with substantial shareholdings (of 10% or more)

2.4 GERMAN REITs

REITs did not start early in Germany for the reason of lack of facilitating legislation as in many parts of Europe. German investors, on the alternative, had been investing in open real estate finances which were not operated as stocks (www.reits.com). The law setting up German REITs (G-REITs) was enacted 1 June, 2007, and made retroactive to 1 January, 2007. The introduction, as in UK, was sequel to the fear of losing investment capital to other countries. Nonetheless, there still was political resistance to these plans, especially by the Social Democratic Party ('SPD'). **(**www.edinformatics.com/investor_education/reits.htm) . The legal details seem to adopt much of UK-REITs regulations (taxation, public listing, etc.).
According to Hughes (2005), an analysis prepared by Germany's Centre for European Economic Research (ZEW) and the European Business School (EBS) estimated that $140 billion of corporate and $130 billion of unleveraged residential real estate could be spun off into REITs.

2.5 REIT in Canada

The Limited Partnerships as well as open-ended and close-ended mutual funds were thriving in Canada by the time REITs were already booming in US. The first Canadian REIT was listed on the Toronto Stock Exchange in 1993 (Deloitte, 2004). Subsequently, many REIT companies have been listed just as some mergers have taken place. In Canada, investors allowed REITs to operate more like traditional real estate companies by a process of local adaptation in which many of the imposed restrictions were loosened. The Canadian REITs market was considered matured and developed so much that unit holders show willingness to accept variations from the 'rigid standards' established at the beginning of its operations (Deloitte, 2004). The strict disclosure rule is adopted in Canada. They are required to disclose in their financial statements, the net income per unit of investments.

REITs are also known to have been embraced, though at various levels and dimensions, in many other societies of the world economy including Hong Kong, India, Japan, Malaysia, Singapore, South Korea, and Taiwan. In many instances, however, the institutionalisation of REITs sprang as a response to the control of home real estate market by foreign concerns especially the US. Similarly certain more liberal regulations quite at variance with the original 'strict' US benchmark were specified.

3.0 BENEFITS OF REITs

In general, the advantages inherent in the operations of REITs can be summarised as including the following:-

3.1 The tax shelter it o ers.

No corporate taxes are expected to be paid as long as up to 95% of profits are distributed as dividend to investors. Taxation occurs only at shareholder level in the form of income tax. This translates to having more profits to distribute to shareholders. Each dividend distribution (per share) is referred to as Property Income Distribution (PID) (www.telegraph.co.uk/money).

3.2 Por olio diversifi atio

REIT shareholders have ownership at least in part, in a portfolio of Real Estate equities. Whereas an investor in Real estate syndicate has his fund put on one property or the other, the REIT investor has his (however small), spread over many properties which may include office buildings, apartments, shopping centres, and industrial facilities.

3.3 Liquidity in real estate

While a regular investor in Real Estate cannot sell part of his holding, REIT's shares are tradeable in major exchanges making room for part-ownerships and instant liquidity of investment

3.4 Professional management.

REITs enjoy professional management. The management combines professional real estate skills with financial and business expertise. The investors therefore do not need to posses specialist knowledge in its operations to enjoy an opportunity for high level investment performance.

3.5 A vehicle for privatis tio .

REIT was perceived as a tool for privatising the ownership of real estate. Campbell and Sirmans (2002) identified REITs as an appropriate vehicle for the privatising of large quantities of rental housing which were held in the hands of government and government non-real estate corporations in countries like Germany, Finland and Sweden.

4.0 APPLICABILITY IN NIGERIA

Researchers including Nubi (2007) attested to the state of housing finance in Nigeria as distraught. Even the provisions of the National Housing Fund (1992) for the funding of the mortgage system were scuttled partly by administrative bottlenecks and logistics. Sanusi (2003) cited that while fund mobilisation as at September 2000 was in the order of N5.8 billion from about 1.8 million contributors, a meagre sum of N375 million, was disbursed to 631 contributors through 20 Primary Mortgage Institutions because of the bureaucracy of documentation and the likes.

REIT could possibly complement the available provisions for real estate finance. Even then, the sectors with seemingly idle pools of fund (insurance and pension funds inclusive) are not empowered to 'over-invest' in real estate for many reasons including the sensitivity of their funds and the cautions not unrelated to sector risks. While Pension Funds, for instance are not empowered to engage in Corporate Debt Securities (including, but not limited to REITs & Mortgage Backed Securities) beyond 30% mark, their current assets structure shows an investment of about ₦469 million representing 0.48% (measured against the recommended 30%) in this sector (PenCom, 2008). This source however, projected that given a growth rate of 20%, Pension Funds are capable of providing a significant portion of the required mortgage financing required by 2020.

The non-banking sub-sector of the formal housing finance market in Nigeria comprises a wide range of security-market arrangements including the Security and Exchange Commission; The Stock Exchange; and the Discount Houses. The REITs phenomenon, being a securitisation issue, depends on the proper functioning of this sub-sector among other things.

4.1 Some Germane Considerations

In consideration of policy implications of structural options in the bedevilment of REITs in Europe, Campbell and Sirmans (2002) examined certain issues. Some of these, which are also relevant in the institutionalisation REITs or REIT-like vehicles in Nigeria include:

4.1.1 Restriction on concentration of ownership

What should be the guidelines for determination of minimum membership number? If REITs are created with the purpose of spreading participation, small groups of economically or politically powerful people should be precluded from wholly owning REIT organisations. The US situation prescribed a membership of not less than 100, the largest five of which must not control as much as 50% of holdings. This is commonly called the “5-50” rule thereby effectively limiting the average maximum participation of any REIT investor to about 9% or less. Bearing in mind the Nigerian situation in which most sectors of the polity had suffered varying grades of highjack by a few persons, should this “5-50” rule be considered okay, expanded or tightened?

4.1.2 The case of institutional investors

Should institutional investors (e.g. pension funds, mutual funds organisations, etc) be subjected also to this “5-50” rule or be allowed to hold large stakes? It would be recalled that REITs are essential vehicles designed primarily to allow small investors to co-own investments in diversified real estate portfolios rather than the already large institutions which ordinarily can invest directly in real estate.

4.1.3 The percentage of earnings required to be paid out

The US REIT arrangement required payment of at least 90% of earnings as dividend. However, it has been found that they paid well over 100%, the excess resulting from difference between real and book value of investments as earlier explained. REITs in The Netherlands and Belgium were required to pay 95% and 80% respectively. Bearing in the Nigerian socio-economic environment, what percentage payment would be appropriate and what criteria would dictate this?

4.1.4 The issue of leverage

There exists a possibility that REITs may carry large quantities of debt in the bid to achieve growth in earnings especially during times of expansion. However, Campbell *et al.* (2001) claimed that this can result in early liquidation. Evidences, they claimed, abound to support that over leverage may be an important factor causing REIT mergers or REIT liquidation. Bearing in mind the collapse of Nigerian primary mortgage institutions in the 1990s and the extent of leverage involved in operations then, what margin of leverage is likely to be allowed in Nigerian REITs market? In Belgium, claimed Fickes (2001), a ceiling of 50% debt-to-assets ratio was allowed.

4.1.5 Information disclosure order

The need is strong for transparency in this regard. In Nigeria where the implementation of the ‘Freedom of Information’ law obtains mainly in theory, what special disclosure requirements would be necessary to ensure that the REITs system is not abused?

4.2 The Nigerian Stock Market Situatio

Notwithstanding the several rebuttals of the effect of the world global meltdown on the Nigeria sub-market, prices of stock had been noticed as dwindling since early August 2008 before the big crash which followed. The Nigerian stock market had,

however, been plagued with series of problems. The case of inappropriate pricing, price fixing and share manipulation had been witnessed in Nigerian stock trading on shares of oil and gas companies, banks and so on. Problems of round-tripping too had been monumental just as private placement and public offers suffer delays in issuance of Certificates and money returned cases (Odunlami & Mukwuzi, 2008). These and other peculiarities of he Stock Exchange were compounded by the controversy regarding margin trading. This entails the operations of some brokers, fund managers and hedge fund operators taking bank loans to buy shares for resale to make quick profits (Okiti, 2009). The market swings at the Nigerian Stock Exchange for some randomly selected companies on particular dates (as depicting investors’ reactions) can be captured in the Table 1 below. It shows the plunge in the stock market even before the official entry of the global meltdown and the situation thereafter. It further traces the development to 2009 and compares these with the current (2016) situation.

Table 1: Trends in Nigerian Stock Market

Some selected companies	Share as at Dec. 7, 2007	Share as at Aug. 19, 2008	Share as at April 17, 2009	Share as at July 1, 2013	Share prices as at March 30, 2016
(i) Agriculture					
Livestock feeds plc	3.24	3.80	1.10	5.11	1.12
Okitipupa Oil Palm plc	2.35	7.35	6.53	NA	NA
(ii) Banking					
Diamond Bank	16.98	12.00	4.38	6.10	1.30
Skye bank plc	29.50	19.63	6.00	4.70	0.99
(iii) Building materials					
Ashakacem plc	50.50	29.95	8.50	NA	24.00
Benue Cement plc	49.15	46.00	21.00	NA	NA
(iv) Conglomerates					
A.G.Leventis Nig plc.	4.46	9.88	6.79	1.53	NA
UAC N plc.	45.02	40.00	30.50	54.12	20.48
(v) Mortgages					
Union Homes Savings & Loans	6.90	5.51	1.54	NA	4.50
Aso Savings and Loans		2.21	0.90	0.50	NA
(vi) Real Estate					
UACN Property Devt.	20.95	25.18	18.16	14.81	4.61
(vii) REITs					
Skye Shelter Fund plc		116.85	105.46		NA
UPDC REIT				10.00	NA
Union Homes REIT	51.50				45.22

Source: Compiled from** Business Day* ***Vol 6, No 246 (December 10 2007), Vol. 7 No. 423 (August 20, 2008), Vol. 7 No 596 (April 20, 2009), Vol. 11, No 129 (July 1, 2013), Vol. 14 No 64 (May 30, 2016). www.businessday online.com. NA stands for Not Available

The figures quoted above are in Nigerian Naira. Generally, with the exception of some companies at the conglomerates and agriculture groups, stock prices which plummeted about mid-August 2008 had further fallen by April 2009. Variegated improvement and depressions were recorded in 2013 just as the figures fell further in 2016. Generally, this shows quite a long stretch of capital and income loss with heavy casualties recorded within the Nigerian economy. This scenario does not present an encouraging pedestal for thriving stock-oriented investments like REITs for now.

5.0 CONCLUSION & RECOMMENDATIONS

5.1 CONCLUSION

Finance is the nub of housing delivery. Both the traditional and the modern modes of housing finance in Nigeria are prone to the respective sector inadequacies. While research works may highlight housing procurement factors from various researchers' perspectives, a close look shows that the central issue can be denominated on finance. The inadequacies of the current domestic methods of housing financing, which highlights the extent of housing poverty in Nigeria, deserves a paradigm shift especially in the direction of REIT. Examples from the international community exhibit the need for, and the viability of REIT.

As the REIT market is a new one in Nigeria, the level of its awareness is low. Again, some questions arise in these considerations in Nigeria. For instance, is the focus of REIT specifically on boosting housing delivery or enhancing investors' return? Furthermore, does it really release much money into housing delivery in the face of its provision for little plough-backs? An attempt to plough back substantial portion of the profit may result in low dividends. The misinterpretation of this as a fall in earnings or/and cash flow can send out distress signals.
The need to broaden the investment profile may lead to lowered profitability which could result in panic from investors comparing earnings therefrom with similar investments. The response to these, among several other considerations, would make or mar the operation of REITs in Nigeria. It is not advisable that the foreign structure REITs be imported wholesale; rather a home–grown REIT or Nigerian adaptation would be preferable for success to be achieved without having to relive the nightmare in the form of the erstwhile massive collapse of mortgage institutions in the 1990s.

5.2 RECOMMENDATIONS

While there are various types of REITs as well as structures thereof, efforts at learning by Nigeria from the other lands in a globalising world, should take the respective local peculiarities into consideration. The requisite infrastructures needed for REIT to survive have to be put in place and nurtured in Nigeria. The stock exchange, in this respect, deserves shoring up, and injection of transparency
A REIT regulatory institution is desirable in Nigeria. This would address the framework necessary for its operations, the accompanying tax provisions/reforms as well as the several other posers raised in this study. The ownership structure, for instance, deserves a clarification especially along the "5-50" rule. Additionally, the operations of REITs have to be specifically defined and supervised to steer them clear of shortcuts (like commodity trading and related activities), which ruined the mortgage arrangements in the 1990s.
Furthermore, specific structural adjustments are required to prevent fraud (especially
as REITs do not pay corporate tax) and in the pursuit of transparency and strict disclosure.

In most research works on REITS, the focus had been on that of investment viability and not strictly on release of funds for housing delivery. Further research works are essential to be channelled in the direction of housing delivery while not totally relegating viability issues. Further studies are also needed on modalities for home-grown REITs taking account of the peculiarities of Nigerian investment environment.

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SOCIAL NETWORKS AND SALES TRANSACTIONS IN SOUTH AFRICAN OFFICE MARKETS

NALUMINO AKAKANDELWA[1], STEVEN DEVANEY[2] AND KATHY PAIN[3]

1PhD Candidate, School of Real Estate and planning, Henley Business School, University of Reading, UK

2Associate Professor, School of Real Estate and Planning, Henley Business School, University of Reading, UK

3Professor of Real Estate Development, School of Real Estate and Planning, Henley Business School, University of Reading, UK

Contact author: Nalumino Akakandelwa n.akakandelwa@pgr.reading.ac.uk

ABSTRACT:Scarcity of information on office transaction opportunities contributes to office markets being illiquid. Asset and vendor identity is problematic since information is privately held and highly localised in geographically dispersed markets. DiMaggio and Louch (1998) and Rangan, (2000) demonstrate how social networks resolve market uncertainty where conversional mechanisms which rely on publicly available information are not practical. The research question is how social networks are used to resolve uncertainty in commercial office sales markets.

Methodology: The paper adopted an exploratory research approach. Data was collected through in-depth face-to-face interviews with opportunistically sampled commercial real estate brokers in Johannesburg, South Africa. Data was organised using NVivo (1999) ® and employed constructivist theoretical thematic analysis.
Findings: Social networks seem relevant in high-value office sales transactions involving sophisticated clients. Brokers use social networks to access private information on clients' acquisition and disposal criteria, manage information on transaction activity as per clients' interests, pool potential buyers, channel business opportunities, and build relations and trust. Transaction are likely to be publicly marketed when they involve unsophisticated clients or unknown buyers.

Research limitations: There is descriptive validity threat relating to factual validity of respondents' accounts. There are also interpretive validity threats on accuracy of respondents' interpretation of contexts, and researcher's interpretation of responses. Introducing non-mainstream real estate concepts and using an opportunistic sample presents a theoretical validity threat of a plausible theoretical framework associating social networks to office sales transactions.

Research implications: This paper contributes to understanding how social networks address information asymmetry in sales transactions where conventional mechanisms are not able to cost-effectively do so.
Originality: This paper is extracted from the first author's PhD research on liquidity in commercial real estate markets. Social networks have been explored in business and built environment, but there are no previous studies that have sought to understand social networks in office sales markets.

INTRODUCTION

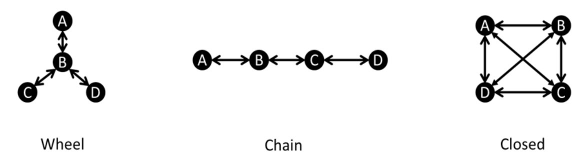
Social networks are argued to be necessary in economic exchange where the identity and quality of assets and exchange partners is problematic. Such markets are likely to be prone to information asymmetry risk and potential opportunism. Studies by Podolny (2001) and Rangan (2000), for instance, suggest that real estate transactions fit the description of economic exchange that warrant the intervention of social networks to address uncertainty. This paper explores the role of social relation in commercial office sales transactions in Johannesburg, South Africa - an emerging market with an active office market. The paper is organised in four sections which are understanding social networks, methodology, findings and conclusions.

NATURE OF SOCIAL NETWORKS

In simple terms, networks are connected systems of flow. A network comprises nodes – a set of actors - and ties that directly or indirectly connect them. The pattern of ties and positions that nodes occupy generates a particular structure (Borgatti and Halgin, 2011). Networks of human interaction, which are the concern of this paper, are resources that provide access to diverse and instrumentally useful information, as well as means by which actors gain access to potentially influential [members] (Campbell et al., 1986). They are guided by principles on information exchange, responsibilities and outcomes between members (Chinowsky et al., 2008). Networks have been regarded by economic sociologists and organisational scholars as the *'[bridging ties] of the market'* through which market information about exchange opportunities, and transaction of goods and services flow between actors (Podolny, 2001). The basic social network components are resource direction, information content and strength of ties (Haythornthwaite, 1996). Ties not only convey resources but their presence or absence also provide information cues to make inferences about the quality of actors and ease with which information flows between them. Social ties are believed to reduce pre-transaction information asymmetry, and discourage post-transaction opportunism by imposing social obligations and effective sanctions on the seller (Baker and Faulkner, 2004). Borgatti et al. (2009) state that exchange partners in a social networks become homogeneous as a result of experiencing and adapting to similar conditions.
Social networks are patterns of social relations and interactions between individuals or organisations referred to as social actors (Borgatti et al., 2009, Haythornthwaite, 1996, Marin and Wellman, 2011). BarNir and Smith (2002) describe social networks as relations and contacts that provide means for identifying opportunities, obtaining access to, or facilitating utilisation of resources or emotional support. Borgatti and Halgin (2011) maintain that nnetwork structure and positions are associated with choices that shape group behaviour or performance.
Plickert et al. (2007) identify three fundamental types of social network which provide a general description sufficient for delineating this study. These are emotional networks such as religious, and support groups, companionship networks of peers, or social media, and economic networks that involve information and/or material exchange. The rest of the discussion in this paper refers to social networks for economic exchange. Granovetter (1985) argues that [economic] actors do not behave in isolation of a social context nor do they strictly adhere to prescribed interaction of social categories they occupy, but their purposeful actions are embedded in the system of social relations. DiMaggio and Louch (1998) also maintain that the social organisation of consumer markets has been largely ignored.

SOCIAL NETWORK COMPONENTS

Davern (1997) identifies the fundamental components of social networks as structure, resource, and normative components. Structure components are geometric patterns which show configuration and connectedness, as well as position of identical roles between social actors (Reagans and McEvily, 2003, Borgatti and Halgin, 2011). Structural components indicate routes of resource flow, actors with intermediary roles, and actors who occupy information roles yet to be identified (Haythornthwaite, 1996). Some patterns of network structure as shown in Figure 1 below are wheel networks which are centralised, chain networks which are linear, and closed circle networks which are decentralised (Borgatti et al., 2009).
Figure 1: Types of Network Structures



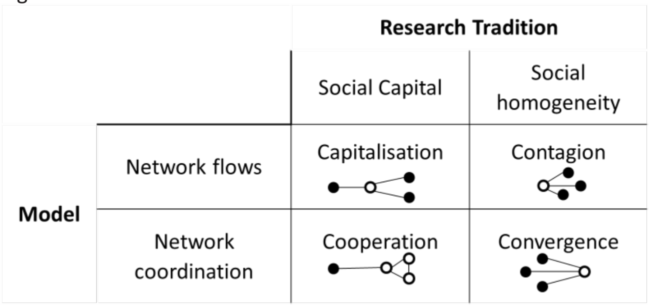
Source: adopted from Borgatti et al. (2009)
Resource components identify an actor's access (range), position (prominence) and resource control (leverage) in a network (Haythornthwaite, 1996). Prominence describes the influence a social actor exerts in a network, that is, whether one has dissemination and filtering role or is an isolate on the receive-only end (Adamic and Adar, 2005). Range shows the scope of resources at an actor's disposal to access other network resources. Leverage is the '*betweenness'* of an actor who plays a significant information role to the network by filling untapped information intermediation opportunities. An actor may not have many ties but can have control over critical information access and dissemination (Otte and Rousseau, 2002).
Normative components are norms, regulatory rules and tacit sanctions, such as reciprocity and trust, which govern the behaviour of actors within a network (Bonchi et al., 2011, Mizruchi, 1994). Trust enables 'efficient' functioning of the market without significant scrutiny of network members, and where it is not strong, there can be a high transaction cost.
Social network, in short, illustrate how information is shared (Rosa and Spanjol, 2005), that is, pattern of connections (ties) through which information flows, control

of information flow and regulation of behaviour. The importance of social networks lies in their relevance to influencing information exchange, actor credibility and network governance.

CLASSIFICATION OF SOCIAL NETWORK FUNCTIONS

Borgatti and Halgin (2011) provide a useful framework for understanding network functions. They identify network functions by the way network models and research tradition shape output. Network models are either flow-based regarding ties as channels such as Podolny (2001), or coordination-based viewing ties as bonds like Burt (1992). Research traditions mentioned are social capital which relates to performance, and social homogeneity emphasising choices. The ensuing classifications of social network functions are capitalisation, contagions, cooperation, and convergence as illustrated in Figure 2 below

Figure 2: Classification of social network functions



Source: Adapted from Borgatti and Halgin (2011)

Social capital research tradition explores how network resource flow, or coordination relates to group or individual performance and rewards. Coleman (1988) describes social capital as a kind of resource with elements of social structures that facilitate certain actions making it possible to achieve certain ends that in its absence would not be possible. Capitalisation represents achievement through flow-based networks where position in a network provides access to resources. Cooperation facilitates bond-based achievement where the combination of actors results into units that exclude others and exploit divisions among them.

Social homogeneity research tradition aims at how network resource flow, or coordination influences conformity in choices of behaviour traits, attitudes, beliefs or internal structural characteristics. Social homogeneity relates to group identity. It refers to the extent to which individual preferences among group members tend to be similar (Gehrlein, 1987, Simon and Pettigrew, 1990). Contagion is a flow-based explanation of choices when actors influence each other in diffusing or adopting traits. Convergence is a bond-based explanation of similarity of choices resulting from actors with similar structural environment adapting to their environment.

When Networks Matter

Granovetter (1985) and BarNir and Smith (2002) argue that economic activity cannot be analysed without considering the social context in which it is embedded. Economic institutions are socially construed and are affected by the characteristics and motives

of those that construe and run them. Social interaction in an economic institution is fundamental to achieving its goals. Bonchi et al. (2011) demonstrate increasing business application of social network analysis in operating, and management processes. While there seems to be a convincing case of the role of social relations in economic action, the question that arises is whether it is necessary for all transactions.

Baker and Faulkner (2004) maintain that social networks are likely to be used in economic transactions that involve high risk and uncertainty. Risk in economic action as described by DiMaggio and Louch (1998) is the likelihood of an inferior exchange transaction outcome arising from information asymmetry, and potential opportunistic behaviour. Uncertainty arises when a trader anticipates a counterparty to be withholding important information regarding the market for the goods or service from the other (Yinger, 1981). Uncertainty depends on asset specificity, that is, whether specialised investments are required to produce measurable service.

Relating to real estate transaction, asset specificity can be understood as how proximity of interacting actors, complexity of system of interaction, and sophistication of interacting human capital influence information flow on exchange opportunities. Specialised investment relates to creating techniques of acquiring localised market information that is not easily transferable between markets or actors. DiMaggio and Louch (1998) finding of different levels of broker usage in high value but low volume consumer transaction such as real estate tending to require brokers with specialised knowledge compared to high volume and low value transactions like car sales involves human specificity. Asset specificity generates bilateral dependency, and opportunism among actors (Menard, 1996). Baker and Faulkner (2004) argue that these risks and uncertainties in economic action described by Yinger (1981) and DiMaggio and Louch (1998) can be reduced using nonmarket relations through social networks. DiMaggio and Louch (1998) and Rangan (2000) maintain that the significance of social networks in explaining economic action and outcomes lies in spheres of economic activity where the establishing the identity and quality of potential exchange partners are important but problematic. Podolny (2001) identifies two types of information sets that tends to be sought in an exchange transaction, namely, information a vendor needs to ascertain the marketability of the asset (see also Yinger, 1981), and information the purchaser requires to be sure of the utility of the asset. Information on transaction volumes, margins and spatial distribution of market activity is privately and disproportionately held among buyers, sellers and brokers, hence exchange opportunities are not responded to with the same speed (Genesove and Han, 2012). Potential buyers are cautious about the quality of goods or services, and vendor's future performance (Kollock, 1994), as well as potential of downside effect of the transaction being large and costly to reverse (Rangan, 2000). Social networks matter in such markets, where information on the identity and quality of products, and potential transaction partners is problematic.

Uncertainty over transaction quality is critical in service transactions like legal advisory and real estate brokerage. Service relationships often involve significant human specificity – expertise and relations - which is not easily replaceable without significant costs (DiMaggio and Louch, 1998). In such markets, social networks are crucial to dealing with uncertainty. Röper et al. (2009) for instance finds that the tendency of buyers to seek more detailed information through a diverse social networks than renters is influenced by the potential cost of making a bad transaction decision.

Cultivating social relations in economic exchange

BarNir and Smith (2002) show how social networks can be used to enhance vendor identity through four network properties they identify as propensity to network, network scope, tie strength and network prestige. They explore how membership to high status networks indicates subscription to good governance mechanisms hence enhances credibility. One of the key findings is that executives with strong ties to friends, colleagues or business professionals appeared to have exceptional advantage that facilitated lucrative partnerships. They also find alliances to be negatively associated with network scope. Alliances involved not only sharing resources but also information risk that information could be accessed by some actors before they are supposed to. The overall finding was that quality of network partnership was more important than quantity. Battilana (2006) finds similar associations on individual and organisational status.

Baker and Faulkner (2004) demonstrate how combining social and asocial deliberation reduces risk of capital loss. Their study aims at understanding conditions under which non-market relations link consumers to engage in transactions by examining how social networks influenced investors' exposure to opportunism. They identify search embeddedness and within-network types of social relations that influence consumer transactions. In search embeddedness, consumers rely on social relations to identify and access the reliability of potential exchange partners with whom they do not have direct or close social ties. They create social relations to reduce information asymmetry about the product or service to be exchanged, the identity of the potential exchange partner, and prior performance. Within-network exchange actors use pre-existing social relations to select exchange partners. The expectation is that consumers are likely to rely on social relations when they transact in assets that rarely transact, and less standardised. They find investors that relied on non-personal sources of information had the highest risk of capital loss (79%) while investors that used social ties and conducted due diligence were least exposed to capital loss (14%).

Real Estate market characteristics and Social Networks

Yinger (1981) states that real estate brokers are uncertain about the market size a listing would attract in a given period, and finding matching buyers because of the many distinguishing attributes of assets and potential buyers. Difficulties of ascertaining asset and exchange partner identity and quality, and large and costly to reverse downside risk of bad transactions are real estate market characteristics that indicate a potential role of social network to address information asymmetry and potential opportunistic behaviour. The ensuing research issue is how social networks are used to resolve uncertainty in office sales transactions. Unlike residential sales, commercial sales opportunities tend to have less visibility and the downside risk of a bad transaction is likely to be large and costly to reverse.

METHODOLOGY

The paper adopts an interpretivist research paradigm. It is assumed that human beings create realities to make the world intelligible to themselves and to others. Individuals can construct meaning of a situation formed through interacting with others. They may work together to create a shared reality which is a subjective construction typically created through interaction but capable of disappearing as soon as its members cease to sustain it as such (Morgan and Smircich, 1980). Interpretivism argues that the researcher needs to understand the differences between human beings in our roles as social agents which we interpret according to the meaning we give to these roles, and interpret the roles of others according to our set of meanings (Saunders et al., 2009). This paper seeks establish perceptions of how market uncertainty in office sales transactions are resolved.

Data was collected from an opportunistic sample of eight commercial real estate brokers in Johannesburg, South Africa through face-to-face interviews. Interview questions were semi-structured and contextual to encourage in-depth descriptions of how brokers went about interacting with clients in commercial office sales transactions. responses were digitally captured, manually transcribed, and electronically organised using NVivo 11® by the researcher. The unit of analysis was the firm, and brokers involved in commercial office sales transactions were the units of investigations. Research ethics were observed to ensure non-vulnerability, anonymity, rights to privacy, informed consent, and beneficial research output.

Themes were identified through a three-stage coding process of open, axial and selective coding. Constructive theoretical thematic analysis (CoTTA) was developed by the researcher from Braun and Clarke (2006) to analysis the emerging themes for patterns in how brokers used social networks in commercial office sales transactions. Thematic analysis is a method of identifying, analysing and reporting patterns within qualitative data. Theoretical thematic analysis is driven by the researcher's theoretical perspective hence emerging themes are influenced by the researcher's theoretical knowledge. Though it tends to be less rich in data theoretical thematic analysis provides detailed analysis of some aspects of data. Constructivist thematic analysis assumes meaning and experience are socially constructed rather than embedded in individuals. Analysis seeks to theorise sociocultural context, and structural conditions that facilitate the individual accounts that are provided. Constructivists theoretical thematic analysis is for the purpose of this paper described as a method influenced by a researcher's theoretical perspective to identify, analysing and reporting patterns of socially constructed meanings and experiences of reality.

The research is subject to descriptive validity threat relating to factual validity of respondents' accounts. There are also interpretive validity threats on accuracy of respondents' interpretation of contexts, and researcher's interpretation of responses. Introducing non-mainstream real estate concepts and using an opportunistic sample presents a theoretical validity threat of a plausible theoretical framework associating social networks to office sales transactions. Low-inference descriptors, participant feedback and pattern matching were used to address threats to validity.

FINDINGS AND ANALYSIS

The fundamental research question for this paper is how social networks are relevant to commercial office sales transactions. Findings are presented under three thematic areas, namely, understanding how office sales markets operate, the role of social networks in commercial sales transactions, and how social networks in commercial office sales markets are built and maintained.

Understanding how markets operates

This theme presents the perceived context under which office sales transactions take place. CRB-1 hints on the importance of understanding how markets operate in the following quote:

"when I first came to South Africa I did not understand the way that a commercial brokerage worked in South Africa … I have to say that the way the Johannesburg and South African investments generally work, I have done it the way it needs to be done in order to be most effective …"

The emerging sub-themes about how office real estate sales market in the study area operates are understanding privacy of transaction information, participation preferences, effectiveness and socio-economic nature of transactions.

Privacy of transaction information

Transaction information privacy can be described as exclusive (bond-based) access to information on transaction opportunities. Privacy of transaction information seemed to be associated with market player and asset type. CRB-5 stated that '*bigger property players'* did not want the market to have information about their acquisitions and disposals. CRB-1 indicated that advertising was effective for end-user type of assets, but was not the way to disseminate information about opportunities on high-end real estate assets. CRB-2 reiterated the importance of aligning information availability to market player and asset type in the following quote:

"interestingly [x] a big law firm in South Africa, their new premise is currently developed by [y]. I see now there is a big signboard on the building saying 'Building for Sale' and that is slap bang in the middle of Sandton CBD. So it will be interesting to see how long it's going to be on the market." (CRB-2)

Privacy of transaction information was perceived to protect the interests of market players by accommodating the seller through *"not disclosing too much of the information around the property to the full market"* when seeking purchasers (CRB-6). In the absence of privacy to transaction information, vendors could be exposed to unsolicited agency offers. The identity of a property owner can be known through property descriptions without the knowledge of the owner. An advertised transaction opportunity reveals the identity and intention of the owner in the descriptions of the location, size and price. Being the nature of the business, a broker with access to such information could locate the property, establish the owner's details and offer to sell the property (CRB-2). CRB-6 also stated that in markets where brokers sought mandates, exposing a transaction opportunity would certainly direct competing brokers to the owner to solicit sale mandates too.

Privacy of transaction information was believed to also avert potential asset stigmatisation. Institutional investors were believed to be concerned of the impact transaction publicity would have on portfolios performance. They apparently believed that the public would perceive offloading properties to be an indication of the concerned

institution *"taking pressure"*, and that could trigger unitholders taking short positions (CRB-3). An asset seen on the market for some time or introduced by multiple brokers would also get a "*reputation"*. Potential purchaser could be concerned of whether there was something wrong with the property for it not to be snapped quickly, but instead marketed by several brokers (CRB-5). A property could also get "*tainted"* the transaction opportunity was publicised but bids fell below the expected value (CRB-8). Whereas, if sale information was withheld, the asset continued to produce income for distributions to unit holders (CRB-5).

PARTICIPATION PREFERENCES

Participation preference is a choice aligned to investor values on how to participate in transaction opportunities. Market players tend to be identified by investment preferences such as core, value-adding or opportunistic styles, which are also associated to sophistication, and financial capacity. Small private investors and end-users are viewed to be unsophisticated. Institutional investors are perceived to be sophisticated, and have deep market understanding. They are known to not pay more than market value, and believed to have a perception that unsophisticated players distort the market and drive prices beyond reasonable values. Hence they are unlikely to participate in publicised transaction opportunities. It was not that institutional investors feared competition, but they would prefer going to a bidding process of two or three people. (CRB-5). CRB-2 maintained that flooding the market with information just made it "*murky*". Consequently, institutional investors apparently preferred competing amongst themselves to open competition as stressed by CRB-3 that:

"*they [institutional investors] at least [want to] know who their competitors are. … You cannot have a low-grade investor on this side and a high-grade investor on this side, competing against each other. It doesn't work that way. A high-grade investor would not want to be trading on the lower-graded 'mystic', who may not be strong, who does not have a strong financial basis to conduct transactions."* (CRB-3)

It appears institutional investors sought conformity in how they participated in transaction opportunities. Hence, it would be important to understand how the way an opportunity is marketed is associated with who would participate in transaction opportunities.

MARKETING EFFECTIVENESS

Marketing effectiveness is the ability to use the least resources to achieve the desired outcome. As CRB-4 stated, the natural competition created in the market was to identify potential buyers quicker than competing brokers and get a sale agreement on the table with the seller fastest". There has to be an effective strategy of information processing to beat completion. Simply distributing information to the market would not favour the seller who does not have ample time to conduct the due diligence to ascertain whether to enter into a transaction or not (CRB-2). Rather knowing the market and how to pair up a seller with a purchaser would

"*circumvent going to 20 purchasers, 15 of them probably would not be able to perform financially, and the other five will have a good crack at it and actually have the money to conduct the transaction. Otherwise, [you] would be running down that road, and getting it the wrong way*" (CRB-3).

Effective marketing is probably the central premise of understanding how markets operate. It would include identifying a geographical area of interest, knowing its stock, and understanding market players (CRB-1, CRB-5, CRB-7). An appropriate strategy that requires less resources to pair seller to buyer is essential, as CRB-8 emphasises, when time to act is a constraint.

Socio-economic nature of transactions

The socio-economic nature of transaction is described as understanding the role of social influences in economic action as posited by (Granovetter, 2005). Commercial real estate markets appear to have an inextricable social and economic interaction. CRB-2 finds property industry to attract 'very social' type of people. CRB-7 maintains that social interaction builds that trust and relationships that enable one to get information directly from clients. Relationships matter to people and are important to getting a result because ideally "*people buy from people*" (CRB-3, CRB-4). Relations reflect how one handles negotiations and maintains confidentiality of information from clients is not distributed into the market (CRB-4).

Given this understanding of how commercial real estate sales markets operates in South Africa, the next theme presented is how social networks are associated with transactions.

ROLE OF NETWORKS

The three sentiments below highlight how networks are necessary in certain, but not all sales transactions. CRB-1 as stated earlier stressed the importance of understanding how to market certain types of real estate assets which appeal to particular types of investors. CRB-6 used internet social media, signboards, canvassing and personal networks to access clients but stress that with larger corporates – the blue chips – "*marketing slightly changes … it is more network based*" (CRB-6). CRB-8 claimed to hardly advertise prime real estate unless instructed by clients because the generally had readily available investors on their books. These statements indicate that networks were necessary for high-end and not entry-level sales transactions.

Five roles of networks in commercial sales transactions have been identified. They include accessing private information, manage information in clients' interest, pooling potential buyers, channelling business opportunities, and building trust.

Accessing private information

Networks are used to access private information on both disposal and acquisition opportunities. The purpose of networks would be to access vendor-side and buyer-side private information.

Accessing vendor-side information – disposal opportunities

The purpose of accessing vendor-side information is to establish private information on the identity of an asset with transaction potential and its vendor. Disposal opportunities emerge when a vendor intends or decides to exit an asset. Such information may not be known to the public. Networks facilitate access to such information through relations earlier than competition while the rest of the market would not know about it (CRB-2, CRB-6). Information can be channelled through ego-networks (broker's own connections) or alter-networks (networks of broker's connections).

Ego networks facilitate access to private information through continuous interaction with vendors. Such interaction could lead to opportunities to access properties, detailed information, and marketing appointment through private or business functions (CRB-2, CRB-3, CRB-4, CRB-6, CRB-7).

CRB-7 highlights the rationale for business functions by stating that landlords host business functions strategically to expose brokers to marketing opportunities on underperforming properties they would be struggling to dispose of.

Alter networks facilitate access to private information outside one's own network through alters' channels. CRB-2, for instance, uses prominence by being "*an armory amongst [one's] peer group*" to access private information available to the network alters. CRB-1 networks with groups that have international franchises to accesses information on international clients seeking to exit [domestic] investment opportunities.

Accessing buyer-side information – acquisition opportunities

Buyer-side information is sought mainly to establish acquisition criteria. CRB-3 stressed the importance of acknowledging that clients were unique and interested in different aspects of transaction opportunities. Networks provide information channels to understand what clients are looking for and know their financial and technical resources to conclude transactions (CRB-2). CRB-7 emphasised that through relationships with potential buyers one could know who would be looking for what developments, and who to approach. CRB-1 encouraged proactive interaction with potential buyers to understand their investment strategies and spend time not waiting for properties to roll in but source properties for them. The importance of identifying potential buyers through understanding their acquisition criteria was demonstrated by CRB-5 and CRB-3 in the following passages:

"*We go to great lengths to understand each buye*
r's acquisition criteria. … Once we understand the asset, that defines who our potential list of buyers because we know what they look for" CRB-5.

"*We took on a project with some very credible landlord in a very strong area, … going through my most recent interactions with [potential buyers] … I've already introduced it to two property funds because I know that they both have the ability to do it. On the one fund, it is strategic for them because it is right next to an existing property that they wish to develop. For the other one, the piece of property and the rights on that piece of property are so very well suited to a most recent development that they have done …*" CRB-3

Networks can therefore be understood to facilitate access to privately held vendor-side information on asset and vendor identity. Networks also provide access to buyer-side private information to understand acquisition criteria in order to know who to approach for an available opportunity.

MANAGING INFORMATION TO SERVE CLIENT INTERESTS

Managing the availability of information of disposal or acquisition opportunities

serves a number of client interests. Notable client interests established from field data are operation, participation and negotiation interests.
Operation interest are intentions to manage property occupants' response to knowledge of a potential disposal or acquisition decision. This could be a case where an end-user would prefer to restrict knowledge of information of a potential transaction from the work force (CRB-4). It could also be a situation where there could be a lease in place, and the staff of the current tenant or the current tenant are not aware of the risk profile that they carry to the landlord (CRB-6).
Participation interest relates to willingness to be involved with a potential transaction opportunity. Bigger property players do not want the market to know their acquisitions or disposals. Hence they opt to not participate in released sales lists or auctions (CRB-2, CRB-5).

Negotiation interest refers to preference to maintain bargaining positions in a transaction by controlling how information about an opportunity is disseminated. Flooding the market with information is perceived to affect negotiations in two ways. It could attract unsophisticated participants that drive transaction price to unreasonably high levels. Seasoned participants who understand markets would not be able to negotiate prices to near what they perceive as fair value (CRB-5). The second effect of flooding the market with information would the potential negative reputation an asset could acquire that when multiple brokers present it to the same potential buyers. It could raise suspicion about the opportunity for brokers to desperately present it to everybody (CRB-2, CRB-3, CRB-5, CRB-8).

By managing how information is disseminated, the operations of the asset would continue contributing to the performance targets, while attracting interested potential clients that would retain the property's 'deserved' place in the market.
Pooling

Pooling can be described as assembling the risk set from which observations can be drawn. Networks contribute to ring-fencing potential buyers by understanding how market operates, such as privacy of information, competition preference, and how economic transaction are socially-embedded. Networks also indicate accessibility to buyer-side private information about acquisition criteria, and the nature of client interests with respect to participation and negotiation. With the identity of a trading asset known, fundamentals can be matched with conversations, to identify specific potential buyers for whom the asset and transaction conditions are known to meet their acquisition criteria. Target-pooling potential buyers known to have the criteria and capacity to transact on such an asset shortens the negotiation time on specific transaction. Respondents emphasised that it was pointless to present an opportunity to many clients when only a handful would have the interest or capacity to acquire it (CRB-2).

The three roles of social networks discussed above, namely, private information accessibility, managing private information and pooling, contribute to pre-transaction background information and activities. The next two roles, which are, channelling business opportunities, and building trust are post-transaction roles associated with

transaction outcome, and information flow in subsequent transactions.
Channels for business opportunities

Networks can provide transaction opportunities through repeat business or referrals. The two channels of business opportunities that have been identified are preferential treatment over other competitors, and lucrative partnership attained through a position within their network and 'excluding' competitors.

PREFERENTIAL TREATMENT
Preferential treatment is earned when a broker demonstrates not only from an impressive track record but also having a relationship with a client. CRB-7 indicated that clients responded differently between brokers that successfully concluded transaction with them and those with whom they did not have relationships. CRB-3 emphasised that preferential treatment needed to be nurtured by constantly keeping in touch to be on top of a client's mind. CRB-5 also stresses that regularly contacting clients and presenting them with opportunities, even ones that may not fit their criteria, was essential for a broker to be on a client's top list. Continuous interaction with clients and successfully completing transactions with them within set time frames develops relationships that would most likely lead to further potential transactions (CRB-2, CRB-4, CRB-8). CRB-1 highlighted that clients expected a broker deserving preferential treatment to demonstrate not only an understanding of investment commercial property, but can also add value through a network which would provide them with opportunities and solutions in ways that other brokers would not. CRB-6 reiterated that establishing relationships and adding value facilitated easier fulfilment of mandate than would be without them.

LUCRATIVE PARTNERSHIPS
Lucrative partnerships emerge when a client develops confidence in broker's ability to serve their interests. The confidence could be based on performance coupled with experience, brand or individual prominence in the market or among peers. CRB-6 attributed their flow of repeat business and referrals to years of strong relationships with landlords. Ability to successfully complete transactions led to referrals from satisfied clients (CRB-5) or even being a preferred broker in specific areas (CRB-7).
Lucrative partnership is also attributed to brand and/or individual prominence. Clients that identified a broker playing in a particular sphere would believe that a good broker had access to listings, and other brokers that could bring listings. (CRB-1) indicated that they were directly by clients, and other brokers with sale listings because of the prominence of their specialised services and brand visibility. CRB-2 alluded to peer networks as potential channels of lucrative partnerships through peers with access to inside information about imminent transaction opportunity. CRB-7 put it that knowing 'right people' in the decision making positions through building relationships outside of the office led to potential business opportunities.
Building Trust
Trust may be described as a belief by one person that the other person will act as expected. In network-based commercial sales transactions, trust hinges on a bro-

ker's demonstration to manage clients' interest which includes not only resources to handle a transaction, but also ability to manage the dissemination of information on the transaction.

Trust in business relations is associated ability to manage privately accessed information. As a broker builds relationships and earns trust, clients open-up direct access to information (CRB-7). The following statement from CRB-3 shows how relations and trust relates to access to information and ability to conclude transactions.

"I know relationship is the first thing and it counts. Making that person feel comfortable with me and my skills, and trusting me and knowing that I have the better interest at heart … If they [clients]do not know you, it becomes very difficult to get any information out. You will get nothing They do not know you, you do not have credibility, you do not have good status, and you do not come from a strong background in terms of the company. They do not give you anything at the end of the day; you'll never ever do a transaction." (CRB-3)

Trust developed through relationships also facilitates business flows through preferential treatment or lucrative partnerships. CRB-5, for instance, who operate non-market business model and rely on networking make the following claim:

"*We have [probably] been more successful because of our discretion. We would [sell] a lot of assets because [clients] know they can trust us, we are not going to go far and wide with this ... the reason why people do not want you to do that is if an asset has been around the market and everybody has seen it once or twice, [that] can destroy value. [It] starts to get reputation.*" CRB-5

Good relationships with a landlord matter when a case has to be made for preference over other competitors. CRB-3 claimed credit for good relations with landlords to their ability to introduce strong clients and conclude successful good deals with them. The trust created earned them favour from landlords because the quality of introductions assured landlords of good deals. CRB-6 indicated that they owed their access to information about specific opportunities before others to business relations and trustworthiness by not misrepresenting clients or market facts.

The emerging roles of social networks in commercial office sales transactions can be summarised as (1) providing access to private information on vendor and asset identity, and potential buyer's acquisition criteria (2) understanding client's interest in information availability (3) pooling potential buyers (4) channelling business flows through preferential treatment and lucrative partnership, and (5) building trust to influential positions of controlling network information flow. Network position seems to be associated with proven competence in concluding transactions [in ways that serve clients' interests] and depth of relationships with landlords, buyers and brokers, in a particular location and market. Local market dominance is attributed to marketing and concluding successful transactions with notable market players in a geographical area (CRB-1, CRB-7 CRB-8).

Having established how the operation of commercial real estate sales markets is understood, and the role of networks in such transactions, the final theme presented is how networks are built and maintained.

Building and maintaining network relationships

Network relationship building is described as identifying other actors with whom one has constituent expectation, which includes demonstration of competence and expected behaviour, over a common object. Maintaining network relationship involves

activities that sustain mutual agreement and/or constituent expectation.

CRB-4, in the following except, outlines how networks are built and maintained:

"there are various angles that you [have to] use. You [have to] identify who you [want to] build a relationship with and focus on that. It does not happen overnight. You [have to] be there and you [have to] be consistent … people [want to] hear facts and figure, honesty and integrity. So that is the kind of thing you [have to] work on. You [have to] set goals on who you [want to] meet and over time, as long as you focus on that, and set goals, eventually you are able meet those people and the more you speak to them over a period of time and if you're able to do a successful transaction with them that relationship just builds and … it is quite easy to pick up a phone and have a chat with that person you know or pop around for a cup of coffee … [but] if you [want to] approach a senior person within a fund just for a cup of coffee, I think you [will] struggle to get first time with that person. If you have that strategic property, the doors will open for you quite easily." CRB-4

The statement highlights some fundamental aspects of network building and/or maintenance, which are purpose – to access opportunities - and approach – demonstrating competence and behaviour. Three emerging approaches are canvassing, interaction, and referrals.

CANVASSING

This is a networking approach used to gain knowledge of unfamiliar stock and market players. Canvassing is a way of building [new] relations by directly or indirectly approaching clients to acquire market information or present transaction opportunities.

Direct canvassing involves physically accessing buildings and making contact with clients to acquire information about market activity in a particular geographical area (CRB-5, CRB-7, CRB-1). Indirect canvassing is more like 'virtual' market access. Clients are contacted using non-personal media such as telephone calls or emails (CRB-2, CRB-3, CRB-6). CRB-4 highlighted that canvassing is an effective access-negotiation strategy when accompanied with an opportunity likely to appeal to a client. To get favourable response, the introduction information content needs to be concise and captivating even with the knowledge that it might not be for them. It simply demonstrates that one has the desire to serve the client's interest.

INTERACTION

Interaction can be categorised into 'formal' and 'informal' interaction. In 'formal' interaction there is what may be described as organised event, while informal interaction is a dynamic activity in a natural setting.

FORMAL INTERACTION

Three themes of formal interaction that emerge are business interaction, as well as professional and business events.

Business interaction

Business interaction is described as formal one-to-one interaction to explore business opportunities where there is an existing relationship with a client. Such interaction has clear business purpose. It could involve providing market information (CRB-2), site visits (CRB-3) or regular office meetings (CRB-8). Continuous business

interaction enables brokers overcome exclusivity barriers to access private information on available opportunities (CRB-3, CRB-4). Business interaction provides cues to understanding clients' acquisition or disposal needs, and *'transaction leads'* or *'a pipeline'* (CRB-8). CRB-1 emphasised these outcomes in the following statement:
"one of my biggest clients now is somebody who 7 years ago when I started didn't have an extremely big portfolio but now buys R50-60m [assets]. So I met him when he was buying he bought from me a [mom and pop] res1 with office rights uh building for R1.4m and we are dealing in R50-60m [assets]. His experience has grown with my experience; his market penetration has grown with mine. So it is just about the more you are in the market the more active you are starting with smaller things and meeting with business people the more your network grows." (CRB-1)

PROFESSIONAL EVENTS
Professional events are functions where providers of professional services interact to know each other and exchange information on professional practices. The South African Property Owners Association was cited by two respondents as a professional network that brings together various players in the commercial property supply-chain. CRB-1 indicated that the forum did not yield 'much' business because of conflicts in business remunerations among brokers. CRB-5 indicated that most participants at the forum had prior business interaction, hence used it simply for informal interaction.

BUSINESS EVENTS
Business events are activities organised by clients to promote opportunities and provide an environment for interaction. Business events offer opportunities to engage with 'right' role players in the market in a more relaxed environment than in time- and topic-constrained boardroom meetings (CRB-4, CRB-7). This is where informal relationships are established or strengthened which lead to potential business (CRB-6, CRB-7). They are opportunities to know landlords and stock that is available on the market. Some examples of events ground-breaking functions, buildings launches, leasing opportunities, and office-welcoming function for new projects re-developments, or introducing market entrants (CRB-2, CRB-3). Business events are also used expose marketing opportunities and facilitate conversations on properties that landlords would have had difficulties offloading (CRB-7). Often invitations are extended to brokers and other clients who the host has or would like to explore relationships with (CRB-3, CRB-4, CRB-6, CRB-7).

INFORMAL INTERACTION
Informal interaction is described as social interaction episodes that take place in non-business environment. Being socially involved with clients, over and above demonstrating competence and integrity, provides direct access to strategic information source and helps to circumvent formal barriers and outstrip competition.
… I've been in sales my whole life. I know … relationship is the first thing … and I do whatever I can to make sure that I become socially involved with [clients]. It has definitely helped me in my business because I can circumvent pew of tech people and go straight to that source which makes my deal turnaround time and succession to what the client wants a lot quicker, which outstrips my competition (CRB-3)

The purpose of informal interaction is to maintain channels of information. Some informal interaction approaches are demonstrated in the following statements:
"… personally I use golf as an opportunity to improve relationships with strategic people. If there are some senior role players that enjoy a game of golf, I try to get them onto a golf course. You've an opportunity to have a bit of one-on-one time and often discussions are held there that you would not have access to at all." (CRB-4)
"… taking out a person for a cup of coffee [is]… not because you have to; [It's] because you want to get some insights over a cup of coffee or at a lunch and that might trigger a thought in terms of "I read about this building and my people say, this business that is in a bit of trouble, … I know the owner of the properties so maybe we could look at ... trying to structure a transaction …' " (CRB-2)
"*we sort of [use]a bit of a tracking tool to when we last spoke to somebody. We try and make contact with people on special events be them birthdays or somewhere along those lines. and then … engage them on specific opportunities*." CRB-5
Conversations can sometimes incorporate personal information like family or personal possessions which would not be the subject in formal interaction. The ability to seek information outside work environment appears to be associated with the nature of conversation that can be borne in that given environment. CRB-2 and CRB-3 demonstrate in the quotes below that personal information is 'appropriate' when social relations have been developed and maintained over a reasonably long period and essential when accessing to business information or decision is critical.
"… I know I can phone a fair amount of landlord representatives or property managers after hours … because I have been in the game for a long time. I have networked properly … and if I'm in need [of] some information [as soon as possible] that means the difference between me doing the deal or not doing the deal, and I have to phone … or text them and they will come back to me, and that I have purely put down to getting to know the people that you are working [with] …" (CRB-2)
"*… continuation of contact based on the relations … 5, 6, 7, 8 or 10 years, is an automatic social relationship with that person, and when you meet those people you talk about private things, you know, private life before you go to business. 'Yah how're doing? How's the [family] and then' oh what happened with that building and everything.' … [by] understanding how corporate companies work, it is very easy to get a foot [in]*" (CRB-3)
Referrals
Relationships are also built through referrals from clients who would have been satisfied with the demonstrated competence (CRB-5, CRB-6). Referral also come through peer networks. A peer who is aware of a potential opportunity, could give a lead, '*phone these guys. they might be looking …'*" CRB-2
In summary, the findings of this paper indicate that office sales transactions in Johannesburg, South Africa exhibit socio-economic exchange attributes appropriate for the use of social networks to address market uncertainty. However, the relevance of social networks as applied in the context appears to be confined to transactions involving institutional investors.

DISCUSSION
The attributes of social network role in economic exchange are identity, quality, and downside risk. Social networks are relevant in economic exchange where identity

and quality of assets and exchange partners are problematic, and the downside risk of a wrong decision is large and costly to reverse. On this basis, the findings suggest that social networks would be more relevant in high-end transactions than in entry-level sales. this position seems to be associated with the nature of market players that participate in transactions of such assets. High-end assets include core assets with long-term cash flows and low or no vacancies. Brokers indicate that such assets tend to attract sophisticated institutional investors that understand the market very well. Institutional investors prefer that information about their acquisitions and disposal activities should not be in the public domain. Hence they tend not to participate in transaction opportunities that are publicly marketed like through outdoor signboards or auctions. For two main reasons. Firstly, institutional investors believe that publicly marketed opportunities tend to close at above-market prices because they attract unsophisticated investors who do not fully understand markets. Secondly, participating in publicised opportunities is viewed to be an indication of desperation to fend off market pressure, and could have downside risk on their portfolios. That is how they do it! Institutional investors would rather compete with a couple of other 'heavy-weights'. The fundamental implications of the stance institutional investors have on participating in transaction opportunities is that the identity of assets and vendors becomes problematic. Brokers need to access information on acquisition and disposal criteria of institutional investors in order to know who they could introduce the opportunities to. This is consistent with Rangan (2000)

The broker's performance and behaviour on a transaction opportunity influences their accessibility to more private information and participate in more transactions. brokers appear to go through a social network lifecycle. The starting point is seeking to reduce [pre-transaction] information asymmetry and establish market position through canvassing market players who they do not have prior interaction. This is consistent with DiMaggio and Louch (1998) search embeddedness Canvassing not only enhances broker knowledge of available stock but also their identity through demonstrable competences as registered brokers. This is consistent with capitalisation output – performance effect of network flows, and contagion output – conformity effect of network flows respectively. At this point, a broker's network structure could be described as more or less a wheel network.

Table 1: Social networks lifecycle

	Social capital	Social homogeneity
Network fl ws **Channels** **Search embeddedness**	Capitalisation Information asymmetry *Structural holes*	Contagion Competence *Professional subscription*
Network coordinatio **Prisms** **Within-network**	Collaboration Information control *Market status*	Convergence Behaviour *Industry subscription*

Sources: Borgatti and Halgin (2011), DiMaggio and Louch (1998), and Rangan (2000)

Broker behaviour is demonstrated on how clients' interests are managed. Such comments as 'they won't take it seriously' or 'that's how it is done' show that there are tacit industry norms of how transaction opportunities should be introduced to certain types of investors. Since institutional investors are concerned about the downside risk of public knowledge of their market activities, they are particular with how opportunities are marketed. Contravening this norm not only disadvantages the vendor from accessing 'deserving' buyers but also exposes brokers to sanctions of not receiving preferential treatment or access lucrative partnerships. This is consistent with the conformity effect of network coordination. Demonstration of competence and compliance with industry norms earn brokers [post-transaction] trust among institutional investors because they know the broker would not go far and wide in marketing an opportunity. Information would be disseminated only to potential buyers within the broker's network that would be deemed to have acquisition criteria for which the opportunity is suitable. With trust comes greater social interaction and access to 'exclusive' information on acquisitions or disposals. A broker would have earned status in the network that vendor would trust their ability to package an opportunity, and potential buyers would trust the quality of an introduced opportunity. This is consistent with the collaboration output of performance effect of network coordination. At this point, potential institutional buyers in a broker's network are likely to know each other, hence the broker would be in a somewhat closed network. The same framework can be used to understand how social relations in commercial sales transactions are built and maintained. Table 2 below how performance is associated with interaction and conformity with events.

Table 2: Building and maintaining social networks

	Social capital	Social homogeneity
Network flows – vendor side	Business interaction – *capitalisation* – visit clients, introduce opportunities	Professional events – *contagion* – meet other brokers, investors
Network coordination – buyer side	Social interaction – *cooperation* –invite client for coffee/ lunch, golf, they begin to talk	Business events – *convergence* –get invited to meet 'right role players' in less formal environment, build social side

Sources: Borgatti and Halgin (2011), DiMaggio and Louch (1998), Rangan, (2000) and field data 2015

These findings presented in this paper are consistent with social network concepts but extend how social networks are relevant in commercial real estate sales markets. the paper reveals that information privacy in commercial real estate markets is exacerbated by institutional market players' perception of downside risk of information availability. In such a context, social networks are necessary to address information asymmetry, manage downside risk of information availability, and identifying potential buyers prior to transacting. Social networks are also used to avoid post-transaction opportunism by enforcing tacit norms to earn trust and access to exclusive information.

CONCLUSION

Social networks in economic exchange are interactions that provide access to information resources on transaction opportunities. They are useful in tackling pre-transaction information asymmetry and dealing with possible post-transaction opportunism by imposing tacit sanctions. Social networks are built and maintained through personal interaction or organised events to enhance performance and ensure conformity respectively. This kind of interaction is necessary when the identity and quality of the trading asset and exchange partners is problematic, and the downside risk of making a wrong decision is large and costly to reverse. Though literature suggests that real estate sales markets have characteristics that necessitate social networks, the paper finds that in commercial real estate sales markets, social networks are relevant when transactions involve institutional investors, hence high-end assets. Since institutional investors are concerned about the downside risk of public knowledge about their market activity on asset values or portfolio performance, they prefer to participate in transaction opportunities that are not publicly marketed not only to avert negative publicity but also to purse transaction homogeneity. Consequently, brokers use social networks to identify available transaction opportunities, understand institutional investors' acquisition and disposal criteria, and identify potential buyers. Brokers also use social networks to demonstrate conformity with both professional practice and industry norms in order to demonstrate competence and earn trust. consequently, brokers establish some market status which gives them preferential treatment and access to lucrative business partnerships. These findings contribute to better understanding of how office real estate sales markets operate particularly on how private information is accessed.

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THE IMPACT OF RELIGIOUS CAMPS DEVELOPMENTON RESIDENTIAL PROPERTY VALUES: A CASE STUDY OF LAGOS - IBADAN EXPRESSWAY, NIGERIA.

BAMIDELE OGUNLEYE, PH.D , ADENIRAN, Y. OLUSEGUN,M.SC.

Department of Estate Management, Federal University of Technology, Akure. Nigeria

e-mail: ogunleyedelem@yahoo.com; Mobile: +2348037099310

Department of Estate Management and Valuation, Shaki ast Local Government, Shaki, Oyo State, Nigeria

e-mail: niransegun@gmail.com; Mobile: +2348035528169

Abstract

This study examines the impact of religious camps developments on residential property with reference to selected areas along Lagos/Ibadan Expressway in Nigeria with a view to guiding property investors on the viability of residential property development in close proximity to religious camps. It assessed the types of residential property developments, rental values obtainable from such properties between the years 2005 -2015 and the impacts of these camps on the rental values of the residential properties. The register available at the Ogun State Branch of the Nigerian Institution of Estate Surveyors and Valuers were used to determine the population of registered firms of Estate Surveyors and Valuers practicing in Ogun State within the proximity of the study area which amounts to twelve (12) in numbers. Since they were manageable and could be traced, they were all taken for the study upon which structured questionnaires were administered. Data collected were analyzed using descriptive statistics and regression analysis. The study revealed that most of the investors prefer to build tenement buildings as it provides more accommodation that can house many population; findings also showed an upward trend in the values of residential properties as a result of the presence of religious camps developments. The regression analysis result revealed that religious camps development has significant impact on residential property values as the p-value (0.004) shows that the presence of religious camps development in close proximity of residential neighbourhood influences the rental value obtainable from such residential apartments. The study recommended that since religious camp sites developments brings about increase in property development; investors are employed to invest more and encourage seeking the guidance of Estate Surveyors and Valuers on the type of property development to embark on.

Keywords: Estate Surveyors and Valuers, Religious Camps, Rental Value, Residential Properties.

1.0. INTRODUCTION

. In Nigeria, several religions exist; a result of which religious organizations are becoming enormous and consequently creating religious camps which often serve as places of refuge and prayer for members and trading for many marketers and companies who usually display their products during routine gathering of people. These frequent events lead to the influx of people to these camp areas and neighbouring towns to reside.

There has been a controversy as to whether the externalities exhibited by religious centres are positive (amenities) or negative (nuisance or disamenities) in several societies (Do, Wilbur and Short, 1994); this was corroborated by Babawale and Adewumi (2011) that external factors can have either positive or negative effects on property rental value. Carroll, Clauretie and Jensen (1996) asserted further that there is usually the belief that neighbourhood religious camp, particularly the large ones, impact negatively on the values of properties in close proximity. Thus, externalities constituting a nuisance would adversely affect values of properties within close range in proportion to the distance from it. In the developed countries effective zoning regulation has curtailed indiscriminate location of religious property (Carroll *et al*, 1996). However, in developing nations like Nigeria, several religious centresare often sited arbitrarily which in turn affect property values either positively or negatively.

Conversely, individual property owners may wish to know how their property value is affected by compatible land uses or otherwise. Property managers, estate surveyor and valuers thus have a challenging assignment. The challenge therefore ranges from the determination of dimensions on which religious centres create pleasant or adverse public perception, define the boundaries of the area in which this positive or negative public perception is likely to affect property value, select appropriate comparable sales, and determine whether other adjoining land uses positively or adversely affect property values. Therefore, the study aimed at examining the impacts of religious camps on property values along Lagos/Ibadan Expressway in Nigeria with a view to guiding property investors on the viability or otherwise of residential property developments in close proximity to religious camps

2.0 STATEMENT OF RESEARCH PROBLEM

Religious camps are becoming increasingly popular and are positively and negatively affecting the value of the surrounding properties (Hoernig, 2006). The impact of these camps is not only a matter of apprehension to the owners of adjoining properties, but also to the real estate community, financial institutions and developers.

Recently, there is increase in number of religious camps in many parts of Nigeria, among which is the Lagos/Ibadan expressway. Sitting of these camps is done without recourse to incompatibility in use and negative spill-over effects emanating to adjoining properties from religious camp development. Recai, Evert and Smith (2007) pointed out that there has been concern over property market impacts from nearby nonconforming land use. Nelson (2003) also affirmed that nauseating noise level in an area can contribute to violence and so disturb valuable activities as well as having adverse effects on health and in turn reduce efficiency and quality of life. Religious centres in Nigeria are prone to unrivalled enthusiasm, excitement, loud singing, clapping, and bell ringing, drumming which in some cases are with loud speakers mounted on roof tops. Religious centreson service days and other special events are faced with traffic congestion, `attendant parking problems, pollution from automobile exhaust; and sometimes robbery attack within the vicinity. This may negatively affect the ability of nearby residents to use and enjoy their property and as well create obnoxious public perception which may reduce the marketability and, therefore, the value of properties. Consequently, this study became imperative to examine how the presence of religious camps affects the rental value of nearby properties. Therefore, the study aims to evaluate the impact of religious camp developments on residential property values along Lagos/Ibadan Expressway.Sequel to problems identified above, the following research questions are addressed:

What are the rental values of residential property for a time frame of ten yearsspanning 2005 - 2015 and what impact do these camps have on property rental values in the study area?One null hypothesis was postulated for the study:i.e.;

H_0: Religious camps development has no significant impact on residential property values along Lagos/Ibadan Expressway.

H_1: Religious camps development has significant impact on residential property values along Lagos/Ibadan Expressway.

3.0 JUSTIFICATION OF THE STUDY

In spite of the emergence of numerous numbers of religious camps in Nigeria, their impacts on adjoining properties have not been seriously investigated or given serious attentions in the literature. The few studies that have been carried out in the United States of America (USA) on the subject include Do *et al*., (1994). Some of these research works presented controversial findings, positive or negative relationship between religious centres and property rental values.

Do *et al*., (1994) examined the externalities of neighbourhood churches on housing value in Chula Vista, California, a city located in the south western part of the greater San Deigo metropolitan area between 1991 and 1992 where the primary land use is residential and revealed that the effect of churches on sales price is negative up to approximately 850 feet. The study however, only examines the externality effects of neighbourhood churches on nearby single-family dwellings. Nevertheless, the effects of religions centres on other types of properties may be different. This study would for that reason improve on this. In contract to the study of Do *et al.*, (1994) above, Carol *et al.*, (1996) analysed the impact of neighbourhood churches on residential property value by investigating nearly 5,000 residential property transactions in Henderson, NV, between January 1986 and December 1990 and found out that proximity to churches creates positive externalities on housing value. Large churches in particular increase neighbourhood housing values than small churches. This study is thus essential to avoid generalization of findings from previous empirical work.

Ooi (2004) examines the effect of several different religions facilities – a Christian church, Chinese temple, Muslim mosque, and Hindu temple – on multi-family dwelling units in highly dense residential areas in Singapore and found out that the negative effects of the religious facility resulted from noise, pollution from exhaust, and the presence and use of the church by people who ask for charity. On the other hand, positive externality effects of the place of worship on high-rise apartment value extend out to a radius of 650 meters and are more pronounced within 200-300 meters. The survey however, did not consider religions camps as well as other types of property. However, in Nigeria, Iroham, Oloyede and Oluwunmi (2010) researched on the analysis of worship centres locations on residential property value in Ota, Nigeria; the study revealed that the location of religious centres had a significant impact on the rental values of residential property. The study only investigated the influence of just one camp site development in Ota, OgunState and not several religious camps development upon which the premise of this study is based.

Babawale and Adewumi (2011) researched on the impact of neighbourhood churches on house prices of selected areas in Lagos metropolis using hedonic model. The study however was based on empirical study of one form ofresidential apartments and not on various forms of residential properties which this research aimed to examine. Many of the aforementioned studies emphasized the effects of the church on rental values of properties generally, with little consideration given to religious camps developments and their effects on rental value of residential properties. Therefore, as a result of the shortcomings of the previous studies, this study investigates the impact of religious camps development on residential property values on Lagos/Ibadan Expressway. This research will present a frontier of knowledge both in practice and academics. It will assist the government as well as the administrators of the camps on proper and strategic planning of their activities for the well-being of their host communities and it will also provide a database for practicing Estate Surveyors and Valuers on the various forms of residential properties in close proximity to religious camps along Lagos/Ibadan Expressway.

Finally, the research will also guide property investors on residential property investment in close proximity to religious camps development along Lagos/Ibadan Expressway and their rental values.

4.0 THE STUDY AREA

Lagos/Ibadan expressway is one of the major controlled-access highways in the northern part of Lagos city as it serves as inter-state highways to Oyo and Ogun States respectively. About 20% of the length of the expressway falls within Lagos State, 60% falls within Ogun state and the remaining 20% falls into the Oyo state territorial boundary (Society Business and Economic News, 2012). Prior to the construction of the Lagos/Ibadan expressway, the Lagos/Sagamu/Ijebu-Ode old dual carriage-way was the only route used as entry point to Ibadan and some other South Western States ofNigeria. In order to reduce recurrent accidents and other hardships which were on high prevalence along that road, and given the importance of Lagos as the then capital of Nigeria, the new expressway was constructed.

The origin of religious camps along Lagos/Ibadan expressway dated back to 1983, when the Redeemed Christian Church of God (RCCG) began the construction of her permanent camp site located at kilometer 46 along the expressway. Before this time, many Pentecostal churches made use of various mountains and hills tops as their prayer camps and these places were not easily accessible by many of their members. RCCG decided to site her camp along Lagos/Ibadan expressway in order to make it easily accessible to their members. Few years later, many other religious camps like Mountain of Fire and Miracle Ministry (prayer city), Deeper Life Christian Ministry Camp, NasrulLahi-ilFathi Society of Nigeria (NASFAT) Camp, just to mention a few, sprang up along the expressway, thereby bringing several socio-economic developments into the study area which have great effects on property rental values.

The location map of the study area is as shown in Figure 1.

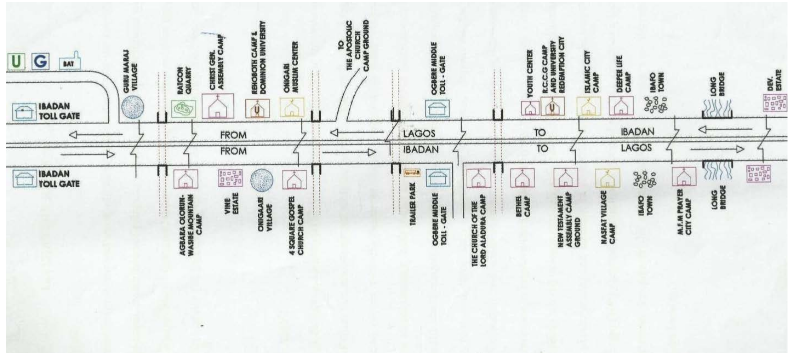

Figure 1: Locational map showing religious camps developments and other landmarks along Lagos Ibadan Expressway

Source:Author's Fieldwork (2015)

5.0 LITERATURE REVIEW

While the tremendous positive benefits of religious centers may greatly outweigh the adverse effect on property rental values to the property owners, larger churches can cause impacts similar to commercial uses if they operate throughout the week and into the night. The presence of these religious camps may create a favourable or an adverse public perception which can increase or reduce the marketability and, therefore, the value of properties in the neighbourhood of the religious camps (Boyle and Katherine 2001). Chalmers and Scott (1993) pointed out that an adverse public perception regarding a property with some type of environmental defects and crime may exact a penalty on the marketability of the property and hence its value.

In certain situations, the pattern of real estate development for an entire area may be traced to a single, dominant land use (Bouvier*et al*, 2000). For instance, the location of the religious camps may possibly motivate all manner of commercial activities; warehouses, hotels, restaurants and the like - that may be desirable in terms of their effects on nearby property rental value. Thus, proximity to a religious centre has a significant impact on surrounding housing rental values. Furthermore, both the religious camp and supporting commercial real estate development generate demand for road and highway improvements to accommodate the increased vehicular traffic load that may further affect housing prices (Flynn, MacGregor, Hunsperger, Mertz, Johnson, 2004).

Weber, Bhatta, and Merriman (2007) attributed the majority of property value appreciation to demand increases created by a growing amenity base. According to Carroll *et al* (1996), real property values decrease, at a decreasing rate, as distance from neighbourhood church increases. On the contrary, Danderson (2003), pointed out that the traffic and tourist caused by religious centres cause property to lose their value. Though, religious centres by themselves do not detract neighbourhood property values, but the large size and the elaborate nature of temples is the detriment.

Nevertheless, Crompton (2001) asserts that the value of a specified amenity is at least partially captured in the price of residential properties proximate to it. Assuming that property locations adjacent or near to a religious centre are considered desirable, the extra money that home buyers are willing to pay to acquire such a residence represent a capitalization of the land into proximate property values. Additionally, there is evidence that proximity to a disamenity, even if that disamenity is not visible and is not so close as to have obvious nuisance effects, may still decrease a home's sales price, as has been found to be the case for landfills (Thayer, Albers and Rahmatian, 1992). According to Chan (2001), disamenity is a loss to property value due to the presence of a risk perception-driven market resistance, which not only affects contaminated property, but can also affect the value of properties in close proximity to sources of contamination. Proximity to worshippingplace may have different effects in different parts of an urban area or even in different parts of a large municipality (Aliyu*et al*, 2011).

Do *et al* (1994), Simons and Saginor (2006) identified religious center as source of externalities and confirmed that externality-induced changes can have either a

negative or positive effect on prices. Religious centers exhibit some of the same characteristics found by other externality studies to produce measurable effects on nearby residential property values. Positive externalities arising from land include neighbourhood schools (Cloffelter, 1975) and greenbelts (Correll, Lillydahl, and Singell, 1978). Carroll *et al*., (1996) pointed out that some religious centres create positive externalities to nearby property values.

Do *et al*., (1994) examined the externalities (effects) of neighbourhood churches on housing value in Chula Vista, California. The study revealed that the effect of churches on sales price was negative up to approximately 850 feet radius to their locations. Carroll *et al*., (1996) analysed the impact of neighbourhood churches on residential property values by investigating nearly 5,000 residential property transactions in Henderson, NV, between January 1986 and December 1990. The study found that churches created positive externalities on housing values as amenities. Findings emphasised that large number of churches concentrated in particular area and increase neighbourhood housing values when compared to small number of worship centres.

Ooi (2004) examines the effect of several different religious centres - Christian church, Chinese temple, Muslim mosque, and Hindu temple – on multi-family dwelling units in highly dense residential areas in Singapore. The study found negative effects of the religious facility resulted from noise, pollution from exhaust, and the presence and use of the church by people who ask for charity. On the other hand, positive externality effect of the place of worship on high-rise apartment values extend out to a radius of 650 meters and are more pronounced within 200-300 meters. The study however, did not consider religious camps as well as other types of property.

In Nigeria, Iroham, and Oloyode (2010) studied location of worship centres and its effect on residential property values (a case of LivingFaithChurch, Ota). The study revealed that the location of religious centres had significant positive impacts on the residential rental values. The study however compared only mean of residential property values before and after the sitting of the churches and used only statistical mean in the methodology to compare their results. Babawale and Adewumi (2011) conducted research on the impact of neighbourhood churches on housing prices on selected areas in Lagos metropolis, using hedonic model. The study however, based its empirical study only on rented apartments and as well on churches located within residential neighbourhood. The study revealed that there were positive as well as negative effects of churches on their immediate environments, particularly the study area.

Many of the aforementioned studies emphasized the effects of the church on rental values of properties generally, with little consideration given to religious camp and its effects on rental values of properties. Therefore, considering the shortcomings of the previous studies, the emerging sitting of camps in Nigeria, and the uniqueness of this subject, there is the need for further studies.

6.0 RESEARCH METHODS

The target population comprises the practising Estate Surveyors and Valuers who are members of the Nigerian Institution of Estate Surveyors and Valuers (NIESV) and duly registered with Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON), empowered by Decree No. 24 of 1975, saddled with the responsibility of determining the value of all descriptions of property and of various interests existing therein and are involved in real property transactions within the study area.

The study relied on the primary data and the secondary data collected.Primary lata were obtained through the administration of questionnaires coupled with oral nterviews from Estate Surveyors and Valuers, and residents of the study areas. The econdary data were obtained from the records of; Directorate of Land Information ystems in the Lands Bureau, Abeokuta (who allocates and manages Ogun State Government properties), Ogun State Property and Investment Company (OPIC), GatewayCity and Ogun State Urban and Regional Planning Board, Abeokuta OSURPB). The number of houses in the study areas was obtained from the Directorate of Land Information Systems in the Lands Bureau, Abeokuta (who allocates and manages Ogun State Government properties); and OSURPB, Abeokuta, who are in charge of Building Plan approval.

A census method was adopted relying on the register available at the Ogun State Branch of the NIESV. This was used to determine the population of registered firms of Estate Surveyors and Valuers practicing in Ogun State within the proximity of the study area which amounts to twelve (12) in number.A well structured questionnaire survey instrument was developed as the first stage of the data collection process in this study. The questionnaire was administered to registered Estate Surveyors and Valuers for the purpose of identifying the rental values of residential properties and the impact of the religious camps on adjoining properties.

Regression analysis was used to assess the impact of religious camps on property rental values in the study area. The dependent variable is the rental value (RENT) while the independent variables are the other factors as presented in the operationalization of variables shown in Table 1. The regression equation employed for achieving the objective 4 is modelled as:

$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 \ldots\ldots\ldots\ldots + b_nx_n \ldots\ldots\ldots\ldots$ equation (xi)

Where

Y = dependent variable (RENT)

a = constant

b = coefficients of variable

x = independent variables (see Table 1)

Hence, RENT= F(NOPOLL, AIRPOLL, TCONGEST, POPINC, CRIME, EMPLOYMENT, INDUSTRIES, TOURIST, PROMOTION, DPPTYVALUE, HAPHAZARD, INPPTYDEV, INFRASTRUCTURE)…………. equation (xii)

The $R^2$and t-statistic values were used as performance metrics. The $R^2$is the square of the residuals of the data after the fit; it reveals what fraction of the variance of the data is explained by the fitted trend line. R^2value close to 1 indicates very good fitted trend; however, the statistical significance of the trend is determined by its t-statistic. The t-statistic is a diagnostic statistic used to indicate how well the model fits the data. The general indication that the model's performance is reasonable is when the t-statistic is close to zer

7. 0 ANALYSIS AND DISCUSSIONS

Table 1:Analysis of rental values of block of flats in the study areas

	2005	2004	2005	2006	2007	2008	2009	2010	2011	2015	Mean
Shagamu Rental Value (p/a) (₦'000)	35	50	55	65	70	80	100	100	120	180	85.5
Mowe Rental Value (p/a) (₦'000)	50	50	80	90	110	120	140	140	180	250	121
Ibafo Rental Value (p/a) (₦'000)	45	70	70	85	100	120	160	160	200	250	126
Isheri Rental Value (p/a) (₦'000)	80	100	100	120	130	150	180	180	250	250	154

Source: computed from field survey, 2015

Table 1 presents the analysis of rental values of block of flats in the study areas from 2005 to 2015. The mean rental values of the properties in the study areas are ₦85,500;₦121,000;₦126,000; and ₦154,000 for Shagamu, Mowe, Ibafo and Isheri respectively.

Table 2:Analysis of rental values of tenement building in the study areas

	2005	2004	2005	2006	2007	2008	2009	2010	2011	2015	Mean
Shagamu Rental Value (p/a) (₦'000)	4.5	6.0	7.5	9.5	11.0	12.4	14.4	14.4	18.0	36.0	13.7
Mowe Rental Value (p/a) (₦'000)	8.5	8.5	10.0	11.0	12.5	14.4	18.0	18.0	36.0	45.0	18.19
Ibafo Rental Value (p/a) (₦'000)	8.5	10.5	10.5	12.0	12.5	14.4	20.0	20.0	40.0	45.0	19.34

Source: computed from field survey, 2015

Isheri Rental Value (p/a) (₦'000)	12.0	15.0	15.0	18.0	20.0	24.0	36.0	36.0	48.0	60.0	28.4

Table 2 presents the analysis of rental values of tenement buildings in the study areas from 2005 to 2015. The mean rental values of the properties in the study areas are ₦13,700;₦18,190;₦19,340; and ₦28,400 for Shagamu, Mowe, Ibafo and Isheri respectively.

Table 3:Analysis of rental values of detached house in the study areas

	2005	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2015**	**Mean**
Shagamu Rental Value (p/a) (₦'000)	60	65	65	80	90	100	120	120	150	200	105
Mowe Rental Value (p/a) (₦'000)	80	80	100	115	130	140	160	160	200	300	146.5
Ibafo Rental Value (p/a) (₦'000)	85	110	110	125	140	160	180	180	220	300	161
Isheri Rental Value (p/a) (₦'000)	130	150	150	175	190	220	240	240	300	320	211.5

Source: computed from field survey, 2015

Table 3 shows the analysis of rental values of detached house in the study areas for the period under study. The mean rental values of the properties in the study areas are ₦105, 000;₦146,500;₦161,000; and ₦211,500 for Shagamu, Mowe, Ibafo and Isheri respectively.

Table 4:Analysis of rental values of Semi-detached house in the study areas

	2005	2004	2005	2006	2007	2008	2009	2010	2011	2015	Mean
Shagamu Rental Value (p/a) (₦'000)	55	55	60	75	80	90	100	100	120	180	91.5
Mowe Rental Value (p/a) (₦'000)	60	60	70	75	95	100	120	120	180	220	110
Ibafo Rental Value (p/a) (₦'000)	65	75	75	90	100	120	150	150	200	220	124.5
Isheri Rental Value (p/a) (₦'000)	95	125	125	145	160	180	200	200	250	250	173

Source: computed from field survey, 2015

Table 4 presents the analysis of rental values of semi-detached houses in the study areas for the ten year period. The mean rental values of the properties in the study areas are ₦91,500;₦110,000;₦124,500; and ₦173,000 for Shagamu, Mowe, Ibafo and Isheri respectively.

Table 5:Analysis of rental values of duplex in the study areas

	2005	2004	2005	2006	2007	2008	2009	2010	2011	2012	Mean
Shagamu Rental Value (p/a) (₦'000)	80	95	100	120	130	150	180	180	200	250	148.5
Mowe Rental Value (p/a) (₦'000)	120	130	145	155	170	180	200	200	250	320	187
Ibafo Rental Value (p/a) (₦'000)	100	120	120	135	150	180	200	200	260	320	178.5

Isheri Rental Value (p/a) (₦'000)	150	200	200	230	250	300	320	320	380	400	275

Source: computed from field survey, 2015

`Table 5 shows the analysis of rental values of detached house in the study areas from 2005 to 2015. The mean rental values of the properties in the study areas are ₦148,500;₦187,000;₦178,500; and ₦275000 for Shagamu, Mowe, Ibafo and Isheri respectively.

Tables6, 7 and 8 revealed the result of the test conducted using both the independent and dependent variables in the study area. Table 12 displays the R, R squared, adjusted R squared, and the standard error. R is the correlation between the observed and predicted values of the dependent variable. The values of R range from -1 to 1. The sign of R indicates the direction of the relationship (positive or negative).

The absolute value of R indicates the strength, with larger absolute values indicating stronger relationships. R squared is the proportion of variation in the dependent variable explained by the regression model. The values of R squared range from 0 to 1. Small values indicate that the model does not fit the data well. The sample R squared tends to optimistically estimate how well the model fits the population. Adjusted R squared attempts to correct R squared to more closely reflect the goodness of fit of the model in the population.

Table 6: Model summaryof religious camps development impact on property rental values

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967	.935	.933	.117

Source: Analysis of Field Survey, 2015

Table 7

Analysis of varianceof religious camps development impact on property rental values

Model	Sum of Squares	Df	Mean Square	F
Regression	71.196	13	5.477	402.832
Residual	4.921	362	.014	
Total	76.117	375		

Source: Analysis of Field Survey, 2015

Table7 shows the performance of the model indicating that R^2 statistics is 0.935 indicating that 93.5% of the sampled variables in factors determining the impact of religious camps development on residential properties rental value is attributed to the independent variables. The computed F statistics (F = 402.832) in table 13falls in the rejection region. The data provides that at least one of the model coefficients is non-zero.

Table 8: Regression coefficientson the impact of religious camps development on property rental values

Impacts	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

(Constant)	1.276	.127		10.013	.000
NOPOLL	-.012	.013	-.018	-.935	.000
AIRPOLL	-.032	.010	-.079	3.191	.002
TCONGEST	-.171	.025	-.225	6.912	.000
CRIME	-.492	.021	-.817	-23.602	.350
TOURIST	-.372	.025	-.570	14.822	.078
POPINC	.213	.020	.414	10.553	.004
PROMOTION	.065	.029	.064	2.281	.063
EMPLOYMENT	.072	.021	.122	3.364	.001
INDUSTRIES	.071	.021	.121	3.373	.001
DPPTYVALUE	.136	.019	.193	7.218	.000
HAPHAZARD	.125	.025	.180	4.912	.000
INPPTYVALUE	.012	.015	.025	.831	.004*
INFRASTRUCTURE	.021	.018	-.034	-1.191	.000

Source: Analysis of Field Survey, 2015

Table 8 shows that five of the variables were absolutely significant at 0.00 and these variables are noise pollution (NOPULL), traffic congestion (TCONGEST), haphazard development (HAPHAZARD) and attraction of infrastructural facilities (INFRASTRUCTURE). Other variables such as generation of employment (EMPLOYMENT), attraction of industries (INDUSTRIES) reveals that these factors are significant at 0.001 while air pollution (AIRPOLL) is significant at 0.002. The variable crime (CRIME), promotion of moral values (PROMOTION), and tourist attraction (TOURIST) are not significant to the model; hence these factors could not have influence on rental values of residential properties.

Thus the model is written as: $Y = \alpha + \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_7 + \ldots\ldots + \beta_nx_n + e$

RENTAL VALUE = 1.276 – 0.012NOPOLL – 0.032AIRPOLL – 0.171TCONGEST + 0.213POPINC + 0.072EMPLOYMENT + 0.071INDUSTRIES + 0.136DPPTYVALUE + 0.125HAPHAZARD + 0.012INPPTYDEV + 0.021INFRASTRUCTURE

The hypothesis (H_{01}) of this research was investigated using the regression analysis employed in achieving the objective of this study. The hypothesis (H_{01}) stated that religious camps development has no significant impact on residential property values. Therefore the regression analysis shows that the hypothesis is not true, hence, the stated hypothesis is therefore rejected as the p-value (0.004) denote that the presence of religious camps development in close proximity of residential neighbourhood influences the rental value obtainable from such residential apartments. Statistical analysis suggest that when the p- value is less than .05 such values is significant to the findings but when it is greater than .05 such values is not significant to the findings. This finding on the hypothesis using the regression analysis in Table 14 implied that the p-value (0.004) obtained connotes that religious camps development brings about an increase in property values.

The summary statistics of the analyzed variables are presented in Tables 6 - 8. F-statistics for the model is highly significant at the 1% level, and R^2 values are high which suggest that a veryhigh significance could be placed on the results. A number of the variables (noise pollution,airpollution, traffic congestion, and crime and tourist attraction) exhibited unexpected signs in theircorrelations with property rental values. The t-value column provides theindividual significance of each independent variable in the regression equation and tells whether the variable ismaking statistically significant contribution.

A variable must have a significant value of less than 0.05 to makesignificant unique contribution.The regression analysis results revealed that religious camps development has significant impact on residential property values as the p-value (0.004) shows that the presence of religious camps development in close proximity of residential neighbourhood influences the rental value obtainable from such residential apartments.

8.0 CONCLUSION AND RECOMMENDATIONS

This study examined the effects of religious camps along Lagos/Ibadan express way on residential property values in Isheri, Ibafo, Mowe and Shagamu study area. Rental values of residential property types have been analyzed over a period of ten years (2005 to 2015) in the study area.The presence of the religious centres in the areas under study was observed to have influenced four major factors which include generation of employment (majorly trading), population increase, attraction of infrastructural facilities and increase in property rental value. It can be inferred from the results of the study that the presence of the religious centres along the Lagos/Ibadan expressway helps to decongest Lagos as more young adults are settling down in Isheri, Ibafo, Mowe and Shagamu due to the economic and religious advantages the religious camps are creating in these areas

Based on the above, since religious camp sites developments brings about increase in property values, property investors are employed to invest more and encourage to seek the guidance of Estate Surveyors and Valuers on the type of property development to be embark on.

Property developments in close proximity to religious camp sites should be strictly monitored to ensure that town planning laws and building codesare adhered to in order to curtail haphazard developments of buildings.Government should encourage the development of more residential properties around the religious sites in order to cater for the population increase. .

Government should also assist in the provision of more infrastructural facilities to these neighbourhoods.The government should address the problems of noise and air pollutions in the communities by enacting strict laws that would check the activities of the industries and the users of these camps developments.

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AN EVALUATION OF THE INVESTMENT MATURITY OF PROPERTY MARKETS IN SOUTHWESTERN NIGERIA

CLEMENT, C. C,

Department of Estate Management, Obafemi Awolowo University, Ile-Ife

O.A. OGUNBA,

Department of Estate Management, Obafemi

AWOLOWO

University, Ile-Ife, Visiting t the Department of Estate Management, Federal University of Technology, Akure, Nigeria –

Corresponding author segogunba@yahoo.co.uk

T. T. DUGERI,

Senior Lecturer & Head, Department of Estate Management, Kaduna State University, Kafanchan, Nigeria

ABSTRACT

Purpose: Studies on the maturity status of sub-Saharan African property markets are scanty. The absence of such studies appear to have made African property markets - such as the Nigerian market - unattractive to foreign investors who require market information to assess the viability of proposed investments. This paper explores the maturity status of selected city property markets in Southwestern Nigeria (that is, markets in the capital cities of Lagos, Ibadan and Osogbo), with a view to providing information for enhanced property investment in Africa.
Design/Methods: The study adopted and expanded on property market maturity paradigms suggested by Keogh and D'Arcy (1994), Akinbogun (2012) and Jones Lang LaSalle (2014) to measure the maturity status of the property markets in the Nigerian cities. In achieving this objective, the study sampled players in the markets - estate surveyors and valuers, public land administrators and financiers (represented by commercial banks), using questionnaire surveys and structured interviews. The responses were classified by means of a five-point classification scale which expanded on the initial scale developed by Dugeri (2011).
Findings: The three property markets were found to exhibit varying maturity characteristics (with weighted mean scores of 3.07, 2.71, 2.51 respectively), representing emerging, emerging and immature stages of evolution on the maturity path.
Practi al Implications: The study concluded that the Ibadan and Osogbo markets require substantial remodeling to make them attractive to international investors
Originality/Value: The value of the paper is in providing much needed information for enhanced property investment in Africa

Keywords: Globalization, Maturity characteristics, Property Investment, Nigeria

1.0 Introduction

Globalization is an undisputable phenomenon of the 21st century whose impact has been felt in many sectors including the real estate sector. Globalization has been characterized - among other things - by the expansion of ownership of real estate organizations from domestic to multi-national and the enhanced opportunities to invest overseas (Baum and Murray, 2011). Globalization has accordingly resulted in increased flow of foreign direct investment to emerging countries as well as enhanced opportunities for international investors to diversify their investments across the globe. However, the international investors need to understand the real estate market in the target countries before investing. This is particularly true when they invest in markets of developing countries. In particular, risk averse investors are interested in determining if the market structures in the developing markets would put their prospective investments at risk. In other words, international investors need to assess the level of property market maturity and transparency of target investment markets (Newell, 2008). As global investment in real estate markets develop, investors are calling for increase in the maturity of developing markets to reduce the risk of their investments and improve the credibility of the market (Lee, 2001).

The concept of property market maturity came into existence in the early 1990s. Market maturity is used to identify the stage of development or evolution reached by a property market. Studies on property market maturity were pioneered by Keogh and D'Arcy (1994). The Keogh and D'Arcy (1994) study was an attempt to investigate requirements frequently considered essential by international real estate investors who needed to understand the market structures of various target markets across Europe in the wake of the globalization of real estate industry.

The point addressed in property market maturity studies is that prospective international investors are risk averse and cannot afford to risk losing their investments through immature market structures.

A notable example in this regard is the pension funds of Europe and Asia who cannot afford the high risk of losing their subscriber's retirement savings. Such international investors believe that the more mature a market is, the lower the level of risk. Unfortunately, property markets in African countries are perceived as emerging, with the possible exception of South Africa, which is the only African country considered mature (Jones Lang LaSalle, 2014). Not much of extensive research has been carried out to clarify the aspects of immaturity in Africa so that corrective actions can be taken to attract foreign direct and indirect investment. This paper attempts to fill this gap by examining selected city property markets. State capitals in Southwestern Nigeria were selected as an example of how African city property markets score on the maturity scale.

But then, some might ask - given earlier studies on the topic - whether the maturity assessment gap has not already been filled in the Nigerian context. There have been a few studies on market maturity in Nigeria. These include: Olaleye (2007), Ajibola (2010), Dugeri, (2011); Akinbogun, (2012), Thontteh (2013), Olapade (2014) and Dugeri, Omirin and Ogunba (2014). However, most of these studies largely focused on the commercial property market. Studies on the residential property market in Nigeria are scanty. Moreover, most of these studies did not actually discuss market maturity with the comprehensive Keogh and D'Arcy (1994) frameworks (indicators) of maturity. For example, the maturity studies of Olapade (2014), Olaleye (2007) and Ajibola (2010) focused on data availability which is just one of the indicators for measuring market maturity. The findings of such data-availability-focused maturity studies are useful in demonstrating that data deficiency is a major challenge facing the Nigerian property market (which have resulted in low valuation accuracy and low foreign direct investment) and that there is need for a detailed policy response to the problem of deficiency of information flow. However, notwithstanding the usefulness of their results, one indicator is not sufficient to comprehensively describe the maturity situation of property markets, and this papers such as this are needed to provide a more holistic assessment.

The Dugeri, Omirin and Ogunba (2014) study employed the Keogh and D'Arcy (1994) frameworks (indicators) of maturity but focused only on the major (first tier) property markets of Lagos, Abuja, Port-Harcourt and Kano. There is a need to also consider the maturity of second and third tier property markets so as to evaluate their attractiveness as investment destinations.

The paper is structured into six sections; the first section introduces the paper. The second section reviews literature on property market maturity. Section three describes the study area while section four elaborates on the research methodology. Section five discusses the findings from the questionnaire survey and the last section presents the concluding remarks.

2.0 Empirical Literature on Property Market Maturity

Market maturity frameworks (or indicators) have been adopted by several researchers in developed and developing countries to measure city property market maturity. Researchers have attempted in various ways to apply maturity assessment frameworks to their city property markets first in Europe and then in other parts of the world.

The pioneer research was conducted on property market maturity by Keogh and D'Arcy (1994) in response to the question frequently asked by investors who sought to understand the market and the performance of such city markets in Europe. Keogh and D'Arcy (1994) came up with the initial six frameworks to assess property market maturity. These frameworks included existence of a sophisticated profession with its associated institutions and networks, extensive information flow and research activity, flexible market adjustment in both the short and long, market openness in spatial, functional and sectoral terms, standardization of property rights and market practice and accommodation of a full range of use and investment objectives. Keogh and D'Arcy, (1994) used these frameworks to measure the maturity level of office property market in three European cities: London, Barcelona and Milan. Their findings showed that the London market was a mature market while Barcelona and Milan markets were at emerging status. However, their methodology in assessing these markets was largely qualitative. There was no statistical means to back up the maturity assessments of the city markets. Moreover, this study was conducted in European cities. There was a need to carry out similar studies in emerging property investment destinations in Africa.

Armitage, (1996) was probably the first to apply the frameworks developed by Keogh and D'Arcy (1994) outside of Europe. Armitage examined the maturity of some selected Southeast Asian prime office markets. His paper provided a qualitative overview of progress in maturity of property markets in the selected prime cities. However, the research had no specific conclusions regarding the maturity status of the markets considered. Moreover, the researcher did not elaborate on the qualitative methodology adopted.

A study by Lee (2001) also focused on the Asian region. Lee examined the maturity (which he called transparency) of investing in real estate markets in selected Asian countries using Gordon's (2000) risk criteria rather than Keogh and D'Arcy (1994) frameworks. Gordon's criteria included maturity indicators such as presence of public and private performance indices, quality of market fundamental research, availability of reliable financial statements, alignment of interest among directors, managers and investors/shareholders, taxes, penalties and restriction on cross border transactions. The findings showed that China, Vietnam, Indonesia, Korea and the Philippines were at an emerging state of maturity. However, the author's methodology involved a largely qualitative assessment. There was no quantitative statistical basis for the assessment conclusions. Moreover, the generalized focus on countries meant that there is no detailed assessment of the maturity of property markets of individual cities.

A further study was conducted in South Asia by Chin and Dent (2005) who investigated the level of maturity in the selected Southeast Asian cities. The authors modified Keogh and D'Arcy (1994) frameworks into 14 factors. These included a sophisticated and sound financial structure, accommodation of a full range of use and investment objectives, provision of an the extensive property information and property intermediaries with high level of property professionals, a wide range of the investment opportunities, a liberalized financial market environment, an updated and well-developed public infrastructure, low risk and return, high quality property products, accurate financial and market information, standardization of property rights and market practice, flexible market in both the short and long run, stable economic environment, stable development environment and large pool of skilled workers. However, only nine of the factors were used to measure the property markets. The authors used 10-point Likert scales to determine the extent at which these variables are inhibited in the market (1 represented least developed and 10 most developed). The research findings concluded that the Hong Kong and Singapore markets were mature while others cities were still at an emerging state. However, the ranking criteria used in classifying these markets from the likert scales was not explained.

In Nigeria, Dugeri (2011) conducted the first comprehensive research on property market maturity with a focus on four city property markets. The selected markets were the prominent cities in Nigeria where most of economic activity takes place - Abuja, Lagos, Port Harcourt and Kano. The researcher sampled estate surveyors, estate developers/investors, public officers with land administration, land use and development control and asset/fund managers through structured questionnaire and interview guide to elicit information for the study. The assessments were measured using likert scales. The author used five of Keogh and D'Arcy (1994) six frameworks to assess the markets including market openness, professional presence, market capital liquidity, state of information and property market transparency. The findings showed that the city property markets were open to investors but failed in the other indicators of property maturity such as sufficiency of property professionals, level of capital liquidity and adequacy of information for real estate decision making. The author concluded that the Nigerian city property markets were immature but were evolving out of immaturity towards an emerging property market. However, the author used only five out of the six Keogh and D'Arcy indicators.

Moreover, though the author covered the four ('first tier') most economically prominent cities in Nigeria other ('second or third tier') cities which could also be investment destinations were not considered. There is still a gap with regard to less prominent markets.

Akinbogun, (2012) examined the maturity status of residential markets in Nigeria. He used eight frameworks in assessing this market, expanding on the Keogh and D'Arcy (1994) frameworks. His frameworks included accommodation of a full range of use and investment objectives; flexible market adjustment in both long and short term; existence of sophisticated property profession with its associated institutions and networks; market openness in spatial function and sectoral terms; standardization of property rights and market practices, high level of compliance with master plan, state of economy, accessibility to adequate residential housing finance. His study concluded that the Nigerian residential property market was immature. However, unlike the studies of Keogh and D'Arcy (1994) and others, the frameworks developed by the researcher were not used to measure the maturity level of a specific residential property market in Nigeria; the generalization of the paper to all markets in Nigeria obscured understanding of individual markets. Moreover the paper was based on a qualitative assessment; there was no evidence that the author administered questionnaire in cities across Nigeria.

In, Thontteh (2013) examined market maturity the property market in Lagos, Nigeria using questionnaire which were administered on property consulting firms. Five indicators of maturity were adopted: market openness, flexible market, land title registration, standardization of property and skilled workers. The findings suggested that the Lagos property market had little evidence of maturity due to 'unsound financial and economic structure', 'inadequate strength and stability of the economy', low market openness, low level of professionalism, low information availability and inadequate standardization and culture. However, the methodology adopted by the researcher in arriving at these conclusions was also open to question.

For instance, the study population was restricted to property firms, while the techniques adopted for analysis including the basis for maturity assessments were not properly explained. It is accordingly unclear whether the paper was able to reach acceptable conclusions.

Rothacher (2013) compared the maturity levels of South African and Tanzanian real estate markets. The author did not use the Keogh and D'Arcy framework but adopted the Jones Lang LaSalle benchmarks that was used to fast track the maturity of China real estate market in 2010. These benchmarks included market transparency, connectivity with international capital markets, commercial building offers and domestic and international corporate bases to measure the level of maturity of the property market. The author administered questionnaire on the AfRES members through electronic media in Tanzania and South Africa. The total number of people sampled in both countries were 44, comprising of 28 in South Africa and 16 in Tanzania. The markets were categorized into mature, developing, emerging and nascent. The findings showed that South Africa was at its emerging state while Tanzania was at the nascent stage. He concluded that Sub-Saharan Africa has a great opportunity of evolving to maturity status in the long run. The indicators used by the author to measure the South African and Tanzanian markets were benchmarks used to fast track the china property market. However, the basis of ranking those markets was subjective as it does not specify qunatitative maturity classifications employed in measuring maturity levels.

Cohen and Galiniene, (2014) attempted to evaluate the level of maturity of commercial property market in Lithuania. The Keogh and D'Arcy (1994) frameworks for market maturity was adopted. The target population was categorized into three groups. It included developers of commercial property, institution and experts. Questionnaire was used to elicit information. The author used the five point Likert scale to determine the maturity level where 1 meant absolute disagreement with the features and 5 meant absolute agreement. Cronbach's alpha reliability coefficient was used to determine the accuracy of the results.

The findings showed that the commercial property market were still in maturing phase or emergent. The respondents judged the markets to have developed in terms of professional services, investment opportunities, information flows, flexible

market adjustment and standardization of property rights and market practice. The researcher focused on the commercial property market, leaving a gap in the examination of the residential property market.

Jones Lang LaSalle (JLL 2012, 2014) examined the real estate transparency of several countries of which Nigeria included. Their findings showed that the Nigerian property market and indeed most of African property markets were opaque/very immature. The indicators used in measuring the real estate maturity/transparency of the country included performance measurement indices, data on market fundamentals, governance of listed vehicles, transaction process and legal and regulatory framework. However, the researchers for the index appear to have focused on the Lagos market; it is unlikely that they considered first second and third tier city markets before generalizing Nigeria's property market as opaque/very immature. Property markets are highly localized; the findings in one market cannot be generalizable to the whole country. The present study would fill this gap by investigating first, second and third tier markets in southwestern Nigeria.

In the Nigeria, Dugeri (2011) and Dugeri, Omirin and Ogunba, (2014) assessed the extent to which the Lagos and Abuja property markets in Nigeria exhibited market maturity. The authors examined four out of the six of Keogh and D'Arcy (1994) frameworks. The frameworks adopted include state of information/research, professional presence, market openness, market capital liquidity and property market transparency. Questionnaire and interview guides were used to elicit information about these markets from estate surveyors, property investors, public land officers charged with land administration. The study provided a quantitative classification system for the assessments of maturity. The results showed that the Abuja and Lagos property markets exhibited some characteristics of maturity and were progressing from emerging to mature status.

The authors compared the markets and observed that the Lagos market is older than the Abuja property market and had more established market practices. The Abuja property market was relatively new but was a more attractive market, offering different investment opportunities for investors. Both markets had shortcomings of lack of capital liquidity, land use and management policies, lack of property market research and data banks. However, the paper inexplicably did not employ all the six of the initial Keogh and D'Arcy (1994) frameworks.

3.0 The Study Area

The study area was Southwestern Nigeria. Specially, the study focuses on three state capitals in the area which are widely regarded as representing first, second and third tier property markets in Nigeria – the cites of Lagos (Ikeja), Ibadan and Osogbo respectively. These cities are the capital cities of Lagos, Oyo and Osun states respectively.

Lagos, is regarded as the major (first tier) property market in Nigeria, housed in the largest and most important economic city in the country. It is also the capital of Lagos state which was created on 27th May, 1967. Lagos houses the majority of the head offices of many organizations in the country. As a result of its strong economic base, its population has increased considerably. The population of Lagos State as well as its air and sea ports has made its landed property to be very valuable assets. The value of landed property in Lagos was estimated to be up to N3.4 trillion (Tinubu, 2003 cited in Olapade, 2014). This is a pointer to the property market's vibrancy and activity. In the 2006 census, the population of Lagos state was put at about 7,557,050 people with an 82.9% urban population (Dugeri 2011). Lagos served as the commercial and political capital of Nigeria before the amalgamation of the southern and northern protectorates by the British colonial in the early 20th century. Even in this era, Lagos is the location where most of the economic base of the nation was housed. It now rated as the most prominent property market in Nigeria where more than half of the Estate Surveying and Valuation firms in Nigeria have their head offices.

The Ibadan market is regarded in this study as typical of a 2nd tier property market in Nigeria. Ibadan is the capital of Oyo state which was created on 3rd February, 1967. It is recognized to be the largest indigenous city in West Africa having a population of about 5,580,894 people according to the 2006 census. This city was the administrative centre for the former western region of Nigeria. The political status

of this city at the time influenced other aspects of its development. A government reservation area and government secretariat were built in this era. It is recognized as the second most vibrant property market in the southwestern region. It houses the oldest University in Nigeria and the oldest television station in Africa. Diverse industries are located in this area like the cigarettes manufacturing, the processing of agricultural products, Coca cola, Nigeria breweries etc. It also houses several skills and expertise research institutes such as National Institute of Social Economic Research, Cocoa Research Institute Nigeria and International Institute of Tropical Agriculture.

The Osogbo market is regarded in this study as typical of the third tier of city property markets in Nigeria. Osogbo is the capital of Osun state which was carved out of the old Oyo state on the 27th August, 1991, It has a relatively modest population of about 3,416,959 people based on the 2006 census. Osogbo houses some federal government agencies and industries like the Machine Tools Industry and the Osogbo Steel Rolling Mill. Osogbo has a relatively small but increasingly, vibrant and growing property market.

4.0 Research Methodology

The study population in the three study cities comprised of property developers, firms of Estate surveyors, real estate financiers (which are represented by commercial banks) and public land administrators. In the absence of a sample frame of property developers, firms of Estate Surveyors were taken to represent both themselves (Estate Surveyors) as well as property developers.

The method of data collection used was questionnaire administration. In deriving the sample frame for questionnaire administration, the lists of registered estate surveying firms in Lagos, Ibadan and Osogbo was obtained from the 2014 Directory of the Nigerian Institution of Estate Surveyors and Valuers (NIESV) which was supplemented with the lists of registered firms obtained from the various NIESV branch secretariats). Based on these supplemented Directory pieces of information, there were 133, 62 and 20 registered estate surveying firms in Ikeja, Ibadan and Osogbo respectively. The sample frame for commercial banks totaled at 20 based on the records of the Central Bank of Nigeria and National Deposit Insurance Corporation. Public administrators were selected from the government ministries handling land matters in each of the three study cities. Officers at the level of director and deputy director in each these state ministries were selected for questionnaire administration. Total enumeration surveys were carried out on all the units of the study population.

The questionnaire examined property market maturity levels using ten indicators of market maturity. This indicators were derived by aggregating indicators used by previous authors on market maturity including Keogh and D'Arcy (1994) Dugeri (2011), Akinbogun (2012) and JLL (2012, 2014) The resulting eclectic set of indicators included the availability of property investment opportunities, flexibility of the laws governing the market, property professionals in the market, fundamental property market data sources, availability of performance measurement indices, openness of property markets to new investment opportunities availability of fundamental market data sources, regulation of property rights, availability of property finance sources and availability of published macro-economic indices in the market Sub-indicators were generated from literature on each of these indicators..

The measurement of maturity indicators and sub-indicators in the questionnaire were structured on ordinal scales which were subsequently analyzed by means of weighted mean scores. The system of classification of the weighted mean scores drew from both Dugeri (2011) and the JLL, (2012 and 2014) to derive a wider 5- point classification of maturity levels than those employed in these prior maturity studies. The classification is summarized in Table 1

Table 1: Composite Scores

Levels	Composite scores	Maturity status
1	1 - 1.70	Very immature
2	1.71- 2.60	Immature
3	2.61-3.76	Emerging
4	3.77- 4.20	Mature
5	4.21 - 5.00	Very mature

5.0 The Results

The questionnaire was administered in 2015. Table 2 provides details of questionnaire administration and retrieval

Table 2: Questionnaire Administration and Retrieval

State	Respondents	Number of questionnaire administered	Number of questionnaire retrieved	Response rate %
Lagos	Estate Surveying and Valuation firms	133	103	77
	Banks	20	11	55
	Ministry of Land Bureau	2	2	100
Ibadan	Estate Surveying and valuation firms	62	45	72
	Ministry of lands and housing	2	2	100
Osogbo	Estate surveying and valuation firms	20	13	65

	Ministry of lands, physical planning and urban development	2	2	100

In Lagos, a total enumeration questionnaire survey was administered on the 133 Estate Surveying and Valuation firms in Ikeja. A response rate of 77% was achieved in this regard, due to the use of both personal visits to firms as well as questionnaire administration at the 2015 Nigerian Institution of Estate Surveyors and Valuers annual conference which held in Osogbo, Osun state. A total of 20 questionnaire were distributed to the bank officers in the commercial banks, though only 11 of them were retrieved (which indicates a response rate of 55%). This response rate could be as a result of the busy nature of the staff in the commercial banks which did not allow the respondents time to respond to the questionnaire. Two questionnaire each were administered to the Director and Deputy Director of the Land Bureau.

In Ibadan, a total of 62 questionnaire were administered to Estate Surveying firms while 45 (72%) were retrieved. The two questionnaire administered to Director and Deputy Director of Ministry of Lands and Housing were fully retrieved.

In Osogbo, a total of 20 questionnaire were administered to Estate Surveyors in Estate Surveying firms with a retrieval rate of 13 (65%). Here also, the two questionnaire administered to the Ministry of Lands, Physical Planning and Urban Development were fully retrieved.

5.1 Property Market Maturity Levels

As previously stated, the study examined property market maturity levels using an eclectic set of ten indicators. The analysis of the responses to these ten indicators (each with its sub-indicators) are presented in this section.

Indicator 1. Availability of Property Investment Opportunities

Respondents were asked to rate the degree to which property investment opportunities were available in the market by assessing three sub-indicators on a five-point Likert scales. The findings in this regard are presented in table 3.

Table 3: Availability of Property Investment Opportunities

Study Area	Lagos		Ibadan		Osogbo
Number of respondents	116		47		15
Sub indicators	Weighted mean score		Weighted mean score		Weighted mean score
Range of residential properties types	4.55		4.46		4.2
Range of indirect property investment vehicles	2.43		1.84		1.28
Range of property titles	3.68		3.90		3.87
Total	3.55		3.40		3.12

Source: Field Survey, 2015.

Table 3 shows - with regard to the availability of property investment opportunities - that respondents perceived the Lagos property market as emerging (with a weighted mean score of 3.55). The Ibadan property market had a weighted mean score of 3.40 meaning it was also classifiable in the category of emerging. The Osogbo market was likewise rated as emerging with a score of 3.12. Although all the city markets were rated as emerging, the Lagos property market had a higher weighted mean score than the Ibadan and Osogbo property markets. This result is not unexpected since Lagos is the most important first tier commercial center in Nigeria.

Indicator 2. Flexibility of the Laws Governing the Market

Respondents were asked to rate four sub-indicators relating to the flexibility of the laws governing the market. Their responses on the three study markets are presented in Table 4.

Table 4 Flexibility of the Laws Governing the Market

Study Area	Lagos		Ibadan		Osogbo
Number of respondents	116		47		15
Sub Indicators	Weighted mean score		Weighted mean score		Weighted mean score
No laws limit landlords from reviewing rent when rental values rise	3.33		4.04		4.02
No laws limit landlords from regaining possession of property where higher/better uses emerge	4.13		3.72		3.64
No zoning ordinances limit conversion of property use where higher/better uses emerge	3.00		3.40		3.21
Total	3.49		3.72		3.62

Source: Field Survey, 2015

The results in Table 4 indicate that respondents perceived the Lagos property market as emerging (with a weighted mean score of 3.49) with regard to flexibility of the

laws governing the market. In comparison, the Ibadan property market had a weighted mean score of 3.72 which is also within the emerging classification. The Osogbo property market was also rated as emerging with regard to this indicator, having a weighted mean score of 3.62. The analysis pointed to the Ibadan and Osogbo property markets having better (higher) weighted mean scores than the Lagos property market in the evolution towards flexibility of laws maturity. This finding can be explained by the existence in Lagos of a tenancy law that restricts rent review and which stipulates a maximum number of years on which the landlord can collect rent in advance.

Indicator 3. Property Professionals in the Market

The respondents were asked to rate the extent to which property professionals were available to service the respective property markets. The ratings of the respondents are presented in Table 5

Table 5: Property Professionals in the 3 Markets

Study Area	Lagos	Ibadan	Osogbo
Number of respondents	116	47	15
Sub Indicators	Weighted mean score	Weighte d mean score	Weighted mean score
The efficiency of the professional body in registration of members	4.09	4.02	4.05
The professionalism of estate surveyors in discharging their duties	4.15	4.53	4.07

The proportion of estate surveying firms relative to population in the city	3.66	1.06	1.02
The proportion of Estate Surveyors relative to 'quacks' in the city	3.16	1.08	1.04
Availability of a regulatory body to which investors can lodge complaints of negligence	2.97	2.85	2.78
Total	3.61	2.71	2.59

Source: Field Survey, 2015.

The analysis of five sub-indicators on availability of property professionals in Table 5 shows that the Lagos property market is emerging, with a weighted mean score of 3.61. The Ibadan property market is also emerging though with a lower weighted mean score of 2.71. However, the Osogbo property market is rated as immature with a weighted mean score of 2.59. The findings on the Lagos property market are interesting because the directory of the Nigerian Institution of Estate Surveyors and Valuers (NIESV) shows that about 50% of the Estate Surveying and Valuation firms in Nigeria have their head offices or branches in Lagos State. It is noteworthy that the findings on Lagos agree with the earlier findings of Dugeri, (2011) which also rated Lagos as emerging.

Indicator 4. Fundamental Property Market Data Sources

The respondents were asked to rate five sub-indicators on the extent to which data banks are available on property market fundamentals in the property markets. The responses are presented in Table 6.

Table 6 Availability of Fundamental Property Market Data Sources

Study area	Lagos	Ibadan	Osogbo
Number of respondents	116	47	15
Sub Indicators	Weighted mean score	Weighted mean score	Weighted mean score
Availability of published data on real estate prices	2.78	1.38	1.20
Availability of published data on property yields	2.78	1.38	1.20
Availability of published data on property transaction	2.78	1.38	1.20
Availability of published data on vacancy rate	2.78	1.38	1.20
Extent to which the institutions carry-out and published research on demand and supply trends	2.61	2.55	2.40
Total	2.75	1.61	1.44

Source: Field Survey, 2015.

In Table 6, the respondents ranked the Lagos property market as emerging (with a weighted mean score of 2.75) in respect to availability of fundamental property market data sources. The Ibadan property market had a weighted mean score of 1.61 which is indicative of a very immature market with regard to this indicator. The Osogbo property market was also rated as very immature (with a weighted mean score of 1.44). The rating of the Lagos property market could be due to the recent data banks created in Lagos state by the NIESV. This result largely agrees with the findings of (JLL, 2014; Akinbogun, 2012 and Dugeri, 2011) where the Nigeria property market was rated as opaque/immature.

Indicator 5. Availability of Performance Measurement Indices

Respondents were asked to rate the market maturity levels of the three markets in terms of the extent to which portfolio performance measurement indices were available in the markets. The findings are presented in Table 7.

Table 7: Availability of Data Banks for Portfolio Analysis

Study Area	Lagos	Ibadan	Osogbo
Number of respondents	116	47	15
Sub Indicators	Weighted mean score	Weighted mean score	Weighted mean score
Availability of published data on property holding period returns	1.67	1.63	1.43
Availability of published data banks on systematic, non-systematic and total risks	1.67	1.63	1.43
Availability of published data on risk adjusted returns	1.67	1.63	1.43
Total	1.67	1.63	1.43

Source: Field Survey, 2015.

As is shown in Table 7, the respondents rated the Lagos property market as very immature with regard to possession of portfolio performance indices (a weighted mean score of 1.67). The Ibadan property market had a similar weighted mean score of 1.63 which is within the very immature classification. The Osogbo property market was also rated as very immature having a weighted mean score of 1.43. These findings agree with JLL (2014) findings where the Nigerian property market was rated as opaque/very immature on portfolio performance data availability. This low results on this indicator could be the result of the lack of understanding by many institution members of the need for property portfolio performance measurement data.

Indicator 6. Openness of the Property Markets to New Investment Opportunities

The respondents were asked to rate market maturity in the respective city markets in terms of the degree to which the markets were open to new investment opportunities. Their responses are presented in Table 8.

Table 8: Openness of the Property Markets to New Investment Opportunities

Study Area	Lagos	Ibadan	Osogbo
Number of respondents	116	47	15
Sub Indicators	Weighted mean score	Weighted mean score	Weighted mean score
No law restricting property investment to local or foreign investors	3.78	3.55	3.60
Investors are permitted to invest in residential property types	4.19	4.31	4.20
Investors are permitted to invest in all the geographical areas of the state	3.76	4.21	3.80
Total	3.91	4.02	3.87

Source: Field Survey, 2015

Table 8 shows that the respondents rated the Lagos property market as mature on openness to new investment opportunities (with a weighted mean score of 3.91). The Ibadan and Osogbo property markets were likewise rated as mature with weighted mean scores of 4.02 and 3.87 respectively. The maturity levels of all three markets were uniform in demonstrating maturity in terms of openness. This agrees with earlier findings of Dugeri (2011) and Akinbogun (2012) which suggested open investment opportunities in the Nigerian property market.

Indicator 7. Regulation of Property Rights

Respondents were also asked to rate the market maturity levels of the three markets in terms of the extent to which property rights were regulated. The respective analyses are presented in table 9.

Table 9: Regulation of Property Rights

Study Area	Lagos	Ibadan	Osogbo
Number of respondents	116	47	15
Sub Indicators	Weighted mean score	Weighted mean score	Weighted mean score
Availability of courts to adjudicate on land matters	3.28	3.13	2.00
The extent to which the land registry records are accurate	4.62	4.05	4.07
The extent to which Property taxes affect owner's profit	2.34	2.12	2.23
The extent to which property rights are registered with ease	2.82	1.19	1.20
The duration at which property titles are acquired	2.22	1.43	1.07
Total	3.06	2.38	2.14

Source: Field Survey, 2015

In Table 9, respondents' perceived the regulation of property rights in Lagos to be emerging (with a weighted mean score of 3.08). The Ibadan property market had a weighted mean score of 2.38 which is within the immature classification. The Osogbo property market was also ranked as immature with a weighted mean score of 2.14.

The low maturity ratings on this indicator could probably be as a result of the cumbersome land registration process still being experienced. The ratings on the Lagos market have improved since when Dugeri (2011) carried out his research. This might be as a result of the new time reducing policy on land registration in that state.

Indicator 8. Property Transaction Frequency/Time

Respondents were asked to rate the maturity of the market with regard to the time/frequency of letting/sale transactions on the residential market and the extent of property transactions conducted by quacks relative to the property professionals. Their responses are documented in Table 10.

Table 10: Property Transaction Frequency/Time

Study Area	Lagos	Ibadan	Osogbo
Number of respondents	116	47	15
Sub Indicators	Weighted mean score	Weighted mean score	Weighted mean score
The frequency with which letting/sale of residential properties are carried out in the market	4.13	3.74	3.53
Time on the market	2.89	2.66	2.53
The frequency of property transaction conducted by quacks relative to property professionals	2.17	2.14	2.27
Total	3.06	2.85	2.78

Source: Field Survey, 2015

Table 10 shows that the respondents rated the Lagos property market as emerging with a weighted mean score of 3.06. The respondents in the Ibadan property market rated their market as emerging with a weighted mean score of 2.85. The Osogbo property market was rated with a mean score of 2.78 which also falls in the emerging classification. The highest emerging weighted mean score by Lagos could be as a result of the relative attractiveness of the market since it is the commercial nerve centre of the nation.

Indicator 9. Availability of Property Finance Sources

Respondents were asked to rate the maturity level of the markets in terms of the degree to which property finance options were available as well as the ability of investors to meet property loan requirements of the finance options. The results are presented in Table 11.

Table 11: Availability of Property Finance Sources

Study Area	Lagos	Ibadan	Osogbo
Number of respondents	116	47	15
Sub Indicators	Weighted mean score	Weighted mean score	Weighted mean score
Availability of loan facilities in the market	3.66	3.23	2.24
Availability of innovative finance sources in the market	2.93	2.40	2.07
Ability of investors to meet property loan requirement	2.24	2.17	2.00
Total	2.94	2.60	2.10

Source: Field Survey, 2015

In Table 11, the respondents in Lagos ranked the availability of property finance sources in the markets as emerging (with a weighted mean score 2.94). This is not unexpected because Lagos is a first tier market where the head offices of all the financial institutions are located. The respondents in the Ibadan and Osogbo markets perceived their markets to be immature (with weighted mean scores of 2.60 and 2.10 respectively). This could probably be as a result of few financial institutions available in the market to service members of the public.

Indicator 10. Availability of Published Macro-Economic Indices in the Market

Respondents were asked to rate maturity levels of the markets in terms of the availability of macro-economic variables linked to the property market indicators. The results are presented in Table 12.

Table 12: The Linkage of Macro-economic variables to the property market indicators

Study Area	Lagos	Ibadan	Osogbo
Number	116	47	15
Indicators	Weighted mean score	Weighted mean score	Weighted mean score
The linking of macro-economic variables with the property market variables	2.51	2.04	1.85
The linking of the political condition of the state with property market variables	2.80	2.31	2.10
Total	2.66	2.18	1.98

Source: Field Survey, 2015

Respondents perceived the Lagos property market to be emerging with regard to availability of macro-economic variables linked to the property market indicators (weighted mean score 2.66). The Ibadan property market was ranked immature with a weighted mean score of 2.18. The Osogbo property market was also rated as immature having a weighted mean score of 1.98. The very low maturity ratings of the markets suggests low use of macro-economic variables in property decision making.

Aggregate Ratings of the Three Property Markets

Table 13 provides aggregate details of the maturity levels based on the ten indicators of maturity applied in the three cities.

Table 13: Aggregate Ratings of the three Property Markets

	State	Lagos	Ibadan	Osogbo	Entire Study Area
	Number of respondents	116	47	15	178
	Indicators				
1	Availability of property investment opportunities.	3.55	3.4	3.12	3.36
2	Flexibility of the laws governing the property market	3.49	3.72	3.62	3.61
3	Property professionals in the market	3.61	2.71	2.59	2.97
4	Availability of fundamental property market data sources	2.75	1.61	1.44	1.93
5	Availability of performance measurement indices	1.67	1.63	1.43	1.58
6	Openness of the market to new investment opportunities	3.91	4.02	3.87	3.93
7	Property rights regulations	3.06	2.38	2.14	2.53
8	Property transaction process	3.04	2.85	2.82	2.90
9	Availability of housing finance sources	2.94	2.60	2.10	2.54
10	Availability of published macro-economic indices in the market	2.66	2.18	1.98	2.27
	Average Mean Scores	3.07	2.71	2.51	2.76

Source: Field Survey, 2015.

The overall scores of the first tier Lagos property market indicated that it was the most mature market (with a weighted mean score of 3.07) with an overall classification as emerging. This agrees with the findings of Dugeri (2011) where the Lagos property market was classified as evolving towards maturity. This could be as result of the proximity of stock brokers and the stock market in Lagos as well as the emergence of property investment vehicles that are coming up in the market (for instance the real estate investment trusts and the shares in the listed property companies).

Moreover, the new land administration has speeded up property registration. However, one of the main problems associated with its maturity level is the lack of data banks on property transactions.

The second tier Ibadan market had an overall weighted mean score of 2.71 which means the Ibadan property market barely scaled into the emerging status in the maturity classification. This is as a result of the openness of the property market to investors without restrictions and the flexibility of the property market. The main challenges associated with its emerging state are the non-availability of fundamental property market data and the slow processes of land registration.

The third tier Osogbo property market was classified as immature as it had a weighted mean score of 2.51. This market is apparently still evolving towards emerging status, but is strengthened by the openness of its market and the flexibility of the laws governing the market. However major challenges underlying its immaturity level include the slow processes involved in the registration of land, lack of property professionals and lack of data banks for property market fundamentals.

6.0 Concluding Remarks and Recommendations

As earlier stated, the study concludes that the Lagos property market is emerging, the Ibadan property market emerging (albeit on a lower scale) and the Osogbo property market is immature. If these respective study areas are taken as representative of first, second and third tier property markets in southwestern Nigeria, then it may be taken that first tier property markets are emerging, the second tier property markets are also emerging (albeit on a lower scale) and third tier property markets are immature.

The value of the paper is in providing much needed information for enhanced property investment in Africa. The practical implication in this regard is that the first, second and third tier markets (represented by the Osogbo, Ibadan and Lagos) markets require increasingly substantial remodeling (in that order) to enhance their maturity status and make them attractive to international investors. The recommendations of this paper have to do with the specific areas where remodeling is required. The first tier (Lagos) market would need to take measures to remove laws limiting landlords from regaining possession of property where higher/better uses emerge, ensure availability of published data on property holding period returns/risk, reduce the extent to which property taxes affect owner's profit, improve on the extent to which property rights are registered with ease, enhance the ability of investors to meet property loan requirements and ensure availability of macro-economic data that investors can link with the property market indicators in viability studies. The second and third tier (Ibadan and Osogbo) markets have a wider range of investment enhancing improvements to put in place. They would need to expand the range of indirect property investment vehicles, improve on

availability of published data on property transaction, institute the availability of published data on property holding period returns/risk, reduce the extent to which property taxes affect investor profit, improve on the extent to which property rights are registered with ease, improve on time on the market, reduce the high percentage of property transaction conducted by non-property professionals, ensure availability of innovative finance sources in the market, enhance the ability of investors to meet property loan requirement, and ensure availability of macro-economic data linked to the property market indicators

The relevant stakeholders to address these recommendations include the real estate regulatory authorities (NIESV, ESVARBON), state governments, the Central Bank of Nigeria and the Federal Mortgage Bank of Nigeria). For example, it is recommended that the Nigeria Institution of Estate Surveyors and Valuers should established data bank in all states which should contain not just market fundamentals (rental/capital values, yields, construction cost indices etc.) but also performance measurement indices (holding period returns, total risk etc.). Also the regulatory institutions should speed up the registration of members to allow increases in the number of registered members and reduce the pervasiveness of quacks. It is also necessary that state governments should speed up the procedure in the registration of land in order to enhance registration processes. The use of GIS maps and the e-approval could be relevant in this regard.

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ECONOMIC GROWTH AND DEVELOPMENT THROUGH REAL ESTATE MARKET RESEARCH

[i]ESV. (MRS.) ROSE C. OKORO (RSV, ANIVS) & [ii]ESV. JAMES B. EFFIONG (RSV, ANIVS)

[i]Head of Department [ii]Lecturer

Department of Estate Management, Cross River University of Technology, Calabar

Email: roseokoroandpartners@yahoo.com or jamesbassey4real@yahoo.com

Real estate markets are not centrally organized but are organized by existing market outlets where interests, rights, etcetera, in real estates are sold, bought or leased. Major players within the markets are investors, lessees, financiers, buyers and sellers. The markets may be local, national or international, specializing in different types of property. The market possesses special characteristics which make its operations uniquely different from the conventional commodity markets. Success in any investment venture require prior research into the intended business arena to discover the strength of demand, number of suppliers, the goods or services needed and their quality, the market segments and the supply gaps. Most real estate investors, globally, fail to undertake market research to discover the market segments they intend to serve before venturing into them. They employ human intuition for investment decisions. Often these result in entering saturated markets thereby loosing huge investment funds and truncating overall economic development in the process. Prudent economic principles for investment are to discover unexplored or underexplored markets and to design appropriate products and services for economically empowered consumers for good economic returns. This paper examines appropriate real estate market researches that need to be undertaken prior to investment decisions and execution thereof. Survey approach was used to find out how the property investors approach the market research before embarking on developmental investments and the investment outcomes. The place of study encompasses major cities in Akwa Ibom, Cross River and Abia states of Nigeria.

Keywords: ***real estate, market, investors, property, interest, market segment, supply gabs, economic return, renters, Nigeria***

1.0 INTRODUCTION

Economic Development primarily embraces the sustained, concerted actions of government (policy makers) and communities on matters that promote the standard of living and economic health of a community or area (IMF, 2012). It can also be referred to as the quantitative and qualitative changes in the economy. Such changes can include development of human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, security, education, etcetera. Economic growth is remarkably different from economic development even though the two go hand in hand. Whereas economic development deals with policy evolvement by government with the sole purpose of enhancing the socio-economic well- being of the people, economic growth is a phenomenon of market productivity and rise in the Gross Domestic Product of a place. In the real sense of it, economic growth leads to development. Any increase in incomes is spent in some aspects of human development such as education and Medicare. Following from this therefore there is a dependency between the two, and they complement one another. A and Sheffrin, S. M. (2003)

It is usual that the policies of economic development by any government encompass three major areas thus:

1. Broad undertakings by government on economic objectives bordering on price stability, high employment and sustainable growth.
2. Provision of infrastructures and services such as quality roads, recreational parks, affordable housing, security and education.
3. Job creation through business finance, real estate development, marketing, neighbourhood development, workforce development, technology transfer etcetera.

This third aspect is the major concern of economic development professionals. Our concern in this paper is on economic growth which deals with market productivity and its contribution to the GDP of a community.

That is, our concentration is on the activities of real estate investors and their contributions to economic growth using market research.

1.1 Statement of the Problem:

Real estate investment as one of the many avenues of investments opened to investors in the general investment market is capable of generating huge financial benefits to the investors and by extension the country's economy. This expectation will definitely be a mirage if proper and scientific market research is not carried out first to discover the market segment, the strength of demand and market gap in the chosen market place in which the investor intends to invest in. In Nigeria it is a generally observed practice that most real estate investors resort to the use of guess work or rule of the thumb to decide which real estate to develop for investment purposes. Most investors do not bother themselves to carry out any market research before embarking on real estate investment. The resultant effect is that the increased finance which should accrue from such investments for economic growth and attending development is non-realizable. This paper seeks to establish the implication of this action on economic development of the study areas and proffer solutions for its amelioration. Nigeria as an emerging market like other countries have different types of real estate markets or sectors such residential, commercial and industrial real estate markets. Developers are often faced with making decisions on the appropriate sector to invest in that will guarantee them better returns or profit. In doing so, property developers or investors need to undertake a real estate market research or analysis to identify the sector of the real estate market with the highest demand or prospect of good return to invest in. Many developers have failed to achieve maximum return from their real estate investment because of not knowing the market to invest in. This shows how important a real estate market is to the investor before embarking on any property development.

1.2 Aim and objectives of the study:

The aim of this study is to establish the relevance of real estate market research to economic growth and development.

1.2.2 Objectives of the study:

To establish whether real estate developers undertake market research before embarking on real estate investment.

To discover what inform real estate developers on the types of real estate investments they embark on.

To discover how this practice contribute to the economic growth and development of the areas under study.

1.3 Research questions:

Do real estate developers carry out market research before deciding on what type of property to execute for investment purposes?

How scientific is the market research (if any)?

What impact do their investment decision practices have on the economic growth of the area within which they invest?

1.4 Hypothesis

There is no significant impact of investors' market research (modes of investment decisions) on the economic growth of the area within which they operate.

1.5 Significance of the Study:

It is hoped that the result of this work will assist the real estate investors to identify the pitfalls in entering real estate market without making proper market enquiries or investigations. It will also educate the investors on the huge benefits which await them in gathering appropriate information about the market before they make huge financial commitment which is usually associated with real estate investment. Since economic development cannot occur without government policy framework to enhance market productivity, this work will help government to identify the areas

which will need government policy to strengthen the operation of the investment market. This policy will enhance the operation of the market and encourage economic growth.

1.6 The study areas:

These include the capital cities of three states in the southern part of Nigeria. These cities are Calabar in Cross River State, Uyo in Akwa Ibom State and Aba in Abia State. These states are contiguous to each other. Apart from Cross River which is majorly a civil service state, the other two are dominantly commercial centres and quite populous. Please see their geographical maps below:

2.0 Literature Review

2.1 Whereas economic development involves making policies by government with the sole aim of bettering the economic and social wellbeing of people, economic growth is a phenomenon of market productivity which leads to a rise in the GDP of an economy. Economic growth produces heightened incomes earned by people through market activities. These high incomes are spent in bettering the standard of living of the people through better feeding Medicare, education, safe drinking water and general human development. Economic growth also produces additional resources which are utilized in the provision of social services for the people. Summarily economic growth and development supplement one another – growth leads to development and vice versa**.**

2.1 Market Research: **Definition**

Market Research means different things to different circumstances. The terms "Market Research" or "Market Analysis" are used broadly in economics but have a more specific meaning when related to property development. Overall, market research or analysis is the identification and study of the market for a particular economic good or service (Wilkinson and Reed, 2008). Market analysis is the study of a specific market.

It is the collection and dissection of data and conversion of that data to information that can be used for analysis and decision making by an appraiser or analyst. With regards to property development, market research provides a sound basis for determining the highest and best use of a property. In other words, an existing or proposed improvement under a specified use may be put to the test of maximum productivity but only after it has been demonstrated that an appropriate level of market support exists for that use (Wilkinson and Reed, 2008).

Market Research is the process of assessing the viability of a new product service through techniques such as surveys, product testing or focus groups (Investopedia, retrieved 2016). Ogbuefi (2011) is of the opinion that Market research is concerned with the study of the characteristics of the market in order to determine the size and nature of the project that should be executed. Furthermore Investopedia (2016) and Ogbuefi (2011) that market research allows a product/service provider to discover who their target market is and what consumers think about the service or product before it becomes available to the public. Even though scientific market research is expensive, it is better to undertake it rather than complete the production process of a product which the market will eventually reject and losses incurred. Therefore market research is of utmost importance to every investor wishing to commit huge sums of money into real estate investment. This is so because real estate investment is remarkably different from ordinarily commodity investment. The latter requires limited amount of funds, whose markets are not only visible but locationalised. Real estate investments on the other hand have local, national and even international markets. These markets are non-localized with operators who cannot ordinarily be identified on the street and rarely come together except pre-arranged. Operating at any level of real estate market is synonymous with operating in a dark house. It becomes necessary to illuminate the "house" through proper research to identify among other things the following:

(1) The unique characteristics of the market

(1b) The market sector the prospective investor intends to invest in

(2) The operators within the market

(3) The types of property within the market which are likely to be invested in

(4) The taste and desires of the prospective tenants within the market

(5) The strength of demand within the market

(b) The needed gap to be filled within the market

(6) The major suppliers within the market

(7) The likely profit (rate of return on capital to be invested) and capital appreciation,

if any

(8) The riskiness of the market

(9) The level of market activities

(10) The price movements within the market

(11 The level of price changes within the market

2.1.1 Real estate markets are unique in many ways compared with the general commodity market. Some of the unique characteristics of the market include the following:

(a) **The heterogeneity of its product**:

No two units of property within any level of the market is the same even when they are located side by side and in the same design. Each is unique in terms of the location, construction quantity and finishing, orientation to weather elements; age and even financing. This makes it extremely necessary to carry out proper research which will aid an investor to make appropriate decision.

(b) **Immobility of the Product**:

Real estate unlike other commodities cannot be carried about from place to show prospective purchasers or lessees. They are location bound. Except per chance the prospective lessees come across where the property is located and advertised, he will have no clue about its availability. This is also applicable to about its availability. This is also applicable to mobile homes, such that even if the home can be relocated, a plot of land will be required for its new location which also is location bound. Wikipedia (2014) posits that they means that market spatial fixity occasioned by real estate immobility means that market adjustment must occur by prospective tenants moving to dwelling units, instead of the real estate moving to the tenants. This will result in tenants locating where they will prefer to live. Therefore spatial fixity combined with the close proximity of housing units in urban areas suggest the potential externalities in a given location.

© **High Investment Cost**:

Investment in real estate market is capital intensive. It is practically impossible to undertake its investment solely on equity capital. Huge borrowing will be required and cost of finance must be paid for loan capital. No investor wants to lose an investment capital and interest on his/her investment or operate within commensurate profit. Also no investor will like to invest without an immediate return on his investment by way of renting or selling the property immediately as planned. To this end, good market research must be undertaken to note likely pit falls, the market segments to investment and properly manage investment funds to achieve huge profits.

(d) **Slow Pace of Market Mechanism**:

There is much delay within the market – on the supply and demand sides. It takes years to bring properties into the market. Major delay variables on supply side include finance procurement, designing and construction of the properties, failure by major/minor suppliers, site workers turn over, site disasters like flood, collapse of sections of the building, political upheaval which may freeze up

governmental policy on imports of materials, variable costs of building materials etc. On the demand side, these may include change in taste and preference of the prospective tenants, non- availability of credit facilities, low household income, changes in demographic variables, change in government policy on bank interest rate, slash in wages etc. These will impact negatively or positively on demand variables. These cannot be discovered except appropriate researches are undertaken to know the current mechanisms of the market. It is a well-known fact that supply is inelastic to any increase in price change in the short run within real estate market due to this unique characteristic.

(e) **Durability of Product**:

Real estate as an investment product is very durable and resilient.

It can last a century if properly built and maintained. For this reason Wikipedia(2014) modeled it as a stock/flow market. Wikipedia(2014) believes its stock, at any particular time consists of 98% existing buildings and 2% new/renovated development. For Ezenagwu (2000) it is 97% and 3% respectively. Whatever is the case, the real estate supply in any level of market at any one time is determined by the existing stock of the previous year and the entrants of her development in the current year. For an analyst to determine the existing stock, care must be taken to painstakingly analyse the previous year's stock and judging from past behavior of supply into the market, calculate the likely new stock to be brought to the market. He can further investigate the number of suppliers within the market and prospective new suppliers so as to determine the gap to be filled by him/her in order to capture economic returns.

High Transaction Costs: Costs in real estate transactions either in purchase or lease entails much. These costs may include: legal fees (for engrossment of Lease Agreement/Deed of Transfer), Registration fee, Estate Surveyor's fee, search fee (Land Registry,) for search of Title, transportation cost, advertisement cost etc.

In some cases it may take close to 15% to 20% of the sale price, for both seller and buyer (Wiki; 2014).

Dearth of Information within the Market: Transactions within the markets are not published. Such data transactions are carried out in secret. The sellers may not want people to know how much he sold his property so also the buyers. In such a situation buyers into the market do not have ready data/information to guide their offers and counter offers in foreclose transaction where the limit are pegged by the operators. In such a case, the properties are sold to the highest bidder. For successful operation by investors market research is very relevant.

The Real Estate Market Sectors:

Emoh (2004) lists ground rents (secured/unsecured), Agricultural, residential, offices, shops, industrial(warehouse and warehouses, and special properties as possible real estate market sectors. Other sectors include recreational sector. The different sector have sub-sectors and their possible entrant requirements (financially/legal). Their expected yield depends on some salient factors inherent in the sectors. For instance Emoh (2004) postulates 6% for unsecured ground rents, 5-7% for secured ground rent s, Agricultural land (6-10%) farmland 10-14%, Accommodation Land 7-10%; Residential properties have houses (6-8% Tenement buildings (which presently are out of demand) command 9-12% and modern blocks of flat and detached/semi-detached houses - 6-8% , shops of all dimensions range between 6-8% while industrial properties – factories and(warehouses) command 8 – 12%. These yields data are Abuja (Nigeria) based. Regular transactions within the Southern Nigerian property markets will throw up needed yields to guide investors.

Real Estate Market Operators:

The Operators within the real estate market include owners/users, renters, developers, renovators, facilitators (Fallis, 1985). Specifically the operators include on the supply side, new developers creating new buildings; renovators – refurbishing or modernizing old building.

On the demand side – prospective or sitting tenants (lessees) and purchasers. Others include financiers (Mortgage or Commercial banks, real estate brokers, pension funds and Insurance Companies and legal practitioners who facilitate real estate transactions.

The supply gap: In order to establish the gap which a prospective investor must fill, the strength of demand and supply within the market must be studied/established. To do this requires an examination of the demand determinants and their behavioural patterns. These determinants for housing sector include demographic variables (population size, trends, growth, composition, household composition and sizes, the number of first and second children, net migration, non-family household formation, death and divorce rates, number of marriages/year, number of households in a geographical area. The units used in analyzing housing demand are household and not individual variables. These include: household heads, composition, taste, and income (Okoro, 2012), housing prices (Macus, 2008; Kalu, 2002). Ordinarily, the more people are in the economy, the stronger the demand. But there must be further breakdown to discover the ability and willingness of household to lease what type of housing is in the market, This depends on the availability of employment opportunities: quality /size of income(household) available for housing and market absorption capacity (Ogbuefi, 2002)

Total number of real estate properties (housing) supplied must be measured alongside other investors in the market aspire to fill for profit purposes. In establishing the gap at any one time the total supply numbers comprising of stock of existing housing and 3% new entrants(new developments and renovated ones) must be known and from this total demand numbers subtracted to arrive at the gap. The inputs which go to produce housing include land labour, materials and machines. These housing input are costly, The supply of new housing in the market depend on the costs of these inputs, the price of existing stock and the technology of production (Wikipedia, 2014). Usually supply is inelastic in the short run to price or value elasticity. In the long run it is quite high. Fallis (1985) estimates the long- run price elasticity of supply in the region of 8.2. Any investor intending an entrance into any real estate sector must seek to observe the price movement and player's reaction/activities responding to such and the results. Through this he/she will carve the niche he intends to fill.

Taste and Fashion of Real Estate Consumers:

A prospective investor must of paramount necessity find out the current taste and fashion of the consumers in the market. This is to avoid the property going through void at the completion of its (their) construction. There is nothing as frustrating as committing so much funds into an investment which remain unlet or unsold for a long time after completion. The market must be perused to find out the current design in vogue, materials used in construction, orientation of the building, space requirements, facilities/utilities and furnishings. This can only be achieved by adequate market research.

Quantum of Expected Return or Yields:

It is prudent for an intending investor to find out the quantum of return his investment will fetch him. This will depend on four major factors – safety of capital and income, liquidity of investment, level of risk and management costs (Kalu, 2001; Ogbuefi, 2011 and 150-303-415 (Rev.10-2012). This is done through market research.

The Briskness of the market:

Another salient factor is the briskness of the market. This consists of three major variables thus:

(a) The price levels of the properties in question

(b) Price trends and movements within the market and

(c) The levels and volume of market activities

Price Levels:

Prices thrown up in the market place for the properties must be examined to deduce the following:

(a) Their relative relations to costs of new constructions in order to determine the profitability index.

(b) Whether there are variability of rentals/prices for similar properties at different locations

(c) The effects of variables like age, design, space and added facilities of similar buildings on rentals/prices.

The results from the above will assist the investor to know which location to site his investment if (a) above proves a prospective profitability attainment. The third variable will enable the investor to know whether he should provide elaborate facilities or limit them to the barest minimum.

Price Movement:

Need arises to know the movement of the prices in the market and how fast *they are changing. The direction and speed of price changes will indicate how* strong or weak a particular real estate market is. It will also give an indication of the local community's economy. Questions that must be asked and answers proffered are:

(a) Is the price change speeding up?

(b) Is the price change slowing down?

(c) Is the price change stabilizing?

On the whole, if price changes are greater than construction costs changes, it is clear that investors' profit or land prices may be going up. If the reverse occurs then land prices and investors' profit may be under pressure. Real estate prices can be used to compare the trends in general economy. This will provide answers as to whether real estate prices are going up faster than general prices, new construction costs and/or land prices.

Levels of Market activities:

A prudent investor must study to discover the levels of activity in the real estate market he/she intends to explore where prices are generally inelastic to minor shift in supply or demand. They opine that when there is a downward price pressure, buyers will refuse to buy at old prices, sellers refuse to sell at new prices and chose to wait for the bad time to pass thereby causing a fall in sale volume.

Stagnant market presents a decline in sale volume rather than a decline in price. The investor will have to compare the present sales volume with previous periods' volumes to discover whether the current volume in the market is up or down and by how much.

Research into levels of market activities will also involve the length of time properties will change hands in the market. That is the length of time it takes from the listing of a property in the market to the time it eventually get let or sold. Is this marketing time decreasing or increasing, compared to previous periods? Have current prices of properties in the market been cut down to entice buyers into buying? Have owners of listed properties received offers? How high or low were the offers compared to asking prices? What happened to the properties enquirers? Have they returned after their initial visit to view the properties and perhaps settle down to discuss buying or leasing?

Answers to these salient market questions will lay a particular real estate market segment bare for an investor to make his investment decision. Of course a market which does not witness frequent high offers of its listed properties, new viewers of its properties, takes pretty long time in years to dispose of properties listed in it, and cut down on asking prices to propel buyers to even make offers is not a good prospect market to invest in.

A good market research will enhance brisk profit-oriented activities in the market which will in turn heightened the levels of private incomes thereby resulting in economic growth and development.

3.0 RESEARCH METHODOLOGY:

The Research uses a survey method in three capital cities in the Southern part of Nigeria. The cities include Calabar, Uyo and Abia. The survey was carried out in July/August 2015. The three cities are cosmopolitan towns with population in millions of 1.2 (Calabar), 3.5 (Uyo) and (Aba) (2006 Census). Investors in major planned residential estates of these cities were interviewed. Housing Estate (Calabar), Ewet Housing (Uyo) and Federal Low Housing Estate (Aba). The reason for choosing these planned housing estates was purely purposive. The researchers reasoned that investors in planned residential neighbourhoods will be enlightened enough to carry out market research before investing even if their illiterate counterparts may not do so due to knowledge deficit. Three hundred investors were randomly selected and interviewed in each of the residential neighbourhoods. Randomness was achieved through balloting to draw the required number of respondents from the total properties in the areas studied. Questionnaires were administered on the 900 respondents by the researchers assisted by six research assistants (Sample of the questionnaire is in the appendix). Secondary data sources included textbooks, journals and internet sources.

4.0 DATA PRESENTTION AND ANALYSIS

CALABAR DATA PRESENTATION

Table 1a: Percentage of Respondents by Gender

	Frequency	Percent	Valid Percent	Cumulative %
Female	80	26.7	26.7	26.7
Male	220	73.3	73.3	100.0
Total	300	100.0	100.0	

The gender of the respondents in Calabar shows that the male gender dominated the study population with 73.3% while the female gender has 26.7%.

Table 2a: Percentage of Respondents by Age Bracket

Age Bracket	Frequency	%	Valid Percent	Cumulative %
35-45 years	70	23.3	23.3	23.3
46-55 years	100	33.3	33.3	56.7
56-55 years	100	33.3	33.3	90.0
Others	30	10.0	10.0	100.0
Total	300	100.0	100.0	

The age brackets of the respondents as represented above show the age bracket of 46-55 years and 56-65 years to be 33.3% each while 35-45 years was 23.3% and 10.0% went for other age brackets not indicated above.

Table 3a: Types of Property invested in

	Frequency	%	Valid Percent	Cumulative %
Block of flats	50	16.7	16.7	16.7
Detached bungalow	130	43.3	43.3	60.0
Semi-detached bungalow	90	30.0	30.0	90.0
Others	30	10.0	10.0	100.0
Total	300	100.0	100.0	

As shown above the majority of the investors invests on detached bungalows which have the highest frequency and is represented by 43.3%. This is followed by semi-detached bungalows with 30.0%, block of flats with 16.7% and 10.0% for other types of property.

Table 4a: Rent per annum

Annual Rent charge	Frequency	%	Valid Percent	Cumulative %
N800,00-N950,000	30	10.0	10.0	10.0
N1m -N1.5m	240	80.0	80.0	90.0
N1.6m	10	3.3	3.3	93.3
N2.5m-N4m	20	6.7	6.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field data 2015/2016

The table on rents accruing from the properties per annum indicates that most of the rent paid per annum ranges from N1m – N1.5m which is represented by 80.0%, N800,000 – N950,000 with 10.0%, N2.5m – N4m represented by 6.7% and 3.3% for N1.6m respectively.

Table 5a:Basis of Rent Payment by tenants

Basis of Rent payment	Frequency	%	Valid Percent	Cumulative %
Annually	280	93.3	93.3	93.3
Others (2 years, 5 years)	20	6.7	6.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The results on basis of rent payment by tenants show that majority of the rent payment was on annual basis. This is shown above and represented by 93.3% while other forms of payments were either two yearly bases or five yearly bases.

Table 6a: Regularity of rent payment by sitting tenant

Regularity	Frequency	%	Valid Percent	Cumulative %
Very regular	70	23.3	23.3	23.3
Defaulting	110	36.7	36.7	60.0
Regular	120	40.0	40.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

On the regularity of rent payment by sitting tenants, the table above shows that 40.0% pay their rent regularly, 36.7% is defaulting while only 23.3% are very regular.

Table 7a: Reason that inform investor's housing development

Reasons for Development	Frequency	%	Valid Percent	Cumulative %
Leasing to tenants for return	90	30.0	30.0	30.0
For personal occupation	20	6.7	6.7	36.7
For both	190	63.3	63.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

Table 7a above shows that the majority of the investors undertake real estate development for investment purpose and personal occupation (63.7%), while 30% undertake it purely for investment purpose and 6.7% develop for personal occupation.

Table 8a: Do investors undertake Market Survey before investing?

Market survey	**Frequency**	**%**	**Valid Percent**	**Cumulative %**
No	**40**	**13.3**	**13.3**	**13.3**
Yes	**260**	**86.7**	**86.7**	**100.0**
Total	**300**	**100.0**	**100.0**	

Source: Authors' Field Data 2015/2016

The above result shows that majority of real estate investors carry out market survey to enable them discover the market sector to develop. This is shown by the 86.7% 'Yes' responses while only 13.3% of the investors do not carry out any market research.

Table 9a: Information Source for Leasing purpose

Source of information	**Frequency**	**Percent**	**Valid Percent**	**Cumulative %**
Suggestions by friend and family members	20	6.7	6.7	6.7
Personal intuition	130	43.3	43.3	50.0
Market survey/analysis of available data	130	43.3	43.3	93.3
Others	20	6.7	6.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The table above shows how the investors got informed on the type of accommodation the prospective tenants would like to live it. Personal intuition and market survey/analysis of available data each share 43.3% while 6.7% each decided the accommodation type either by suggestions from friends and family members or by other means.

Table 10a: Sector of the market built for

Market sector	Frequency	Percent	Valid Percent	Cumulative %
Young university graduates	20	6.7	6.7	6.7
Young couples	40	13.3	13.3	20.0
Others (family occupation, shops and offices)	240	80.0	80.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above table shows the sector of the market that the investors built for and from the result, others (family occupation, shops and offices) have the highest market represented by 80.0%. This is followed by accommodation for young couples with 13.3% and young university graduates with 6.7%.

Table 11a: Supply gap that existed before investors contribute to existing gap

Supply gap	Frequency	%	Valid Percent	Cumulative %
None	20	6.7	6.7	6.7
Wide	30	10.0	10.0	16.7
Undetermined	250	83.3	83.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above result shows 83.3% of the investors did not determine the supply gap before they entered the market, while 10.0% believed the gap was wide and 6.7% believed there was no gap at all.

Table 12a: How long it took before completion of housing development

Development Period	Frequency	%	Valid %	Cumulative %
6 months-1 year	140	46.7	46.7	46.7
Others (2-6 years)	160	53.3	53.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

From the table above, 53.3% of the investors interviewed took 2-6 years to complete their housing development while the remaining 46.7% undertook theirs between 6months to 1year.

Table 13a: Did the timing of the lease meet investor's expectation?

Meeting investors' expectation	Frequency	%	Valid %	Cumulative %
No	120	40.0	40.0	40.0
Yes	180	60.0	60.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

Table 13a seeks to present if the completion and eventual leasing of the finished development met the investors expectation. 60.0% of the investors said the timing met the expectation while 40.0%'s expectation was not met.

Table 14a: Opinion on what was responsible for untimely lease of the property

Opinion	Frequency	%	Valid %	Cumulative %
Non-availability of strong demand for the property	10	3.3	3.3	3.3
Lack of fund in the economy	140	46.7	46.7	50.0
Unfitting accommodation for enquirers	150	50.0	50.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

From the above responses, 50% of the investors say unfitting accommodation is responsible for late lease of properties, 46.7% say it is lack of fund in the economy while 3.3% say it is non-availability of strong demand for the property.

Table 15a: If invested capital is recouped and profit made

Capital recouped/ profit	Frequency	%	Valid %	Cumulative %
No	200	66.7	66.7	66.7
Yes	100	33.3	33.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The result on whether the investors have recouped the capital invested and made profit shows that 66.7% of the investors have not recouped invested capital while 33.3% have recouped theirs and made profit.

Table 16a: If investment outcome in return meet investors prospect

Return meeting investors' prospect.	Frequency	%	Valid %	Cumulative%

No	210	70.0	70.0	70.0
Yes	90	30.0	30.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The result from table 16 confirms those of table 15. 70.0% of the investors do not realize their prospect while 30% do.

Table 17a: Appraising the contribution to economic development

Contribution to Economic Development.	Frequency	%	Valid %	Cumulative %
Impressive	50	16.7	16.7	16.7
Negligible	30	10.0	10.0	26.7
Marginal	220	73.3	73.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

73.3% of the respondents say the contribution to economic development is marginal, 16.7% feel it is impressive while 10% feel it is negligible.

Table 18a: Ever heard of real estate market survey

Heard of Market survey	Frequency	%	Valid %	Cumulative %
No	30	10.0	10.0	10.0
Yes	270	90.0	90.0	100.0
Total	30	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above results show that majority (90.0%) of the investors have heard of real estate market survey, while 10% say they have never heard.

Table 19a: Necessity of market survey before embarking on investment

Necessity of market survey	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	300	100.0	100.0	100.0

Source: Authors' Field Data 2015/2016

All the respondents representing 100.0% affirm that it is necessary for a market survey to be carried out before an investor embarks on any investment..

ABA DATA PRESENTATION/ANALYSIS

Table 1b: Percentage of respondents by Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	230	76.7	76.7	76.7
Male	70	23.3	23.3	100.0
Total	300	100.0	100.0	

The gender of the respondents in Aba shows that the female gender dominated the study population with 76.7% while the male gender has only 23.3%.

Table 2b: Percentage of respondents by Age Bracket

Age Bracket	Frequency	Percent	Valid Percent	Cumulative Percent
35-45 years	60	20.0	20.0	20.0
46-55 years	110	36.7	36.7	56.7
56-65 years	100	33.3	33.3	90.0
Others	30	10.0	10.0	100.0
Total	300	100.0	100.0	

The age bracket of the respondents as represented above shows the age bracket of 46-55 years to be the highest with 36.7%, 56-65 years to be 33.3% while 35-45 years was 20.0% and 10.0% went for other age brackets not indicated above.

Table 3b:Type of property invested in

Type of Property invested	Frequency	Percent	Valid Percent	Cumulative Percent
Block of flats	180	60.0	60.0	60.0
Detached bungalow	60	20.0	20.0	80.0
Semi-detached bungalow	60	20.0	20.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above table shows the type of property that real estate investors invested in. Majority of the investors invest more on block of flats which have the highest frequency and represented by 60.0%. This is followed by detached and semi-detached bungalows with 30.0% each.

Table 4b: Rent per annum

Annual Rent	Frequency	Percent	Valid Percent	Cumulative Percent
N100,000-N156,000	130	43.3	43.3	43.3
N157,000-N192,000	40	13.3	13.3	56.7
N193,000-N240,000	80	26.7	26.7	83.3
N241,000-N360,000	50	16.7	16.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The table on rents accruing from the properties per annum indicates that 43.3% of the investors receive rent in the range of N100,000 – N156,000, 26.7% receive N193,000 – N240,000, 1 6.7% receive N241,000 – N360,000, and 13.3% receive N157,000 – N192,000.

Table 5b: Basis of Rent payment by sitting tenant

Basis of rent Payment	Frequency	Percent	Valid Percent	Cumulative Percent
Monthly	20	6.7	6.7	6.7
Six-monthly in advance	20	6.7	6.7	13.3
Annually	260	86.7	86.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The results on the basis of rent payment show that 86.7% of the investors receive rent on annual basis while 6.7% each receive on monthly and six-monthly basis.

Table 6b: Regularity of Rent payment by sitting tenant

Regularity of Rent Payment	Frequency	Percent	Valid Percent	Cumulative Percent
Very regular	80	26.7	26.7	26.7
Defaulting	100	33.3	33.3	60.0
Regular	120	40.0	40.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

On the regularity of payment of rent by sitting tenants, the above result shows that 40.0% pay their rent regularly, 33.3% are defaulting while only 26.7% pay rent very regularly.

Table 7b: Reason that informed investors housing development

Reasons for development	Frequency	Percent	Valid Percent	Cumulative Percent
For leasing to tenants for return	200	66.7	66.7	66.7
For both	100	33.3	33.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above table shows the various reasons why real estate investors embark on housing development in Aba. The major reason is for leasing to tenants for return represented by 66.7% and for both leasing and owner occupation represented by 33.3%.

Table 8b: Do investors undertake Market Survey before investing?

Undertake market survey?	Frequency	Percent	Valid Percent	Cumulative Percent
No	110	36.7	36.7	36.7
Yes	190	63.3	63.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above result shows that majority of real estate investors carry out market survey to enable them discover the market sector to develop. This is shown by the 63.3% 'Yes' responses while 36.7% of the investors do not carry out any market research.

Table 9b:Information Source for Leasing purpose

Information source	Frequency	Percent	Valid Percent	Cumulative Percent
Suggestions by friend and family members	50	16.7	16.7	16.7
Personal intuition	120	40.0	40.0	56.7
Market survey/analysis of available data	120	40.0	40.0	96.7
Others	10	3.3	3.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The table above shows how the investors decided on the type of accommodation the prospective tenants would like to live it. 40.0% each uses personal intuition and market survey/analysis of available data, 16.7% uses suggestions from friends and family members while 3.3% uses other means.

Table 10b: Sector of the market built for

Market sector	Frequency	Percent	Valid Percent	Cumulative Percent
Young couples	130	43.3	43.3	43.3
University students	20	6.7	6.7	50.0
Others (family and companies)	150	50.0	50.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above table shows the sector of the market that the investors built for. 50.0%of the investors developed for sectors not specified in the study (companies and big families), 43.3% built for young couples while 6.7%. built for university students

Table 11b: Supply gap that existed before investors contributed to exiting gap

Existing supply gap	Frequency	Percent	Valid Percent	Cumulative Percent
None	60	20.0	20.0	20.0
Wide	90	30.0	30.0	50.0
Undetermined	140	46.7	46.7	96.7
Others	10	3.3	3.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above result shows that 46.7% of the investors did not determine the supply gap before they invested in the market while 30.0% of believe the gap was wide, 20.0% believe there was no gap at all while 3.3% are for others.

Table 12b: How long it took before completion of housing development

Development Period	Frequency	Percent	Valid Percent	Cumulative Percent
1-3 months	40	13.3	13.3	13.3
4-6 months	40	13.3	13.3	26.7
6 months-1 year	170	56.7	56.7	83.3
Others	50	16.7	16.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

For housing development to be completed majority (56.7%) of the investors took 6 months-1 year time, 13.3% each of the investors took between 1-3 months and 4-6 month, and 16.7% took various other unspecified durations to complete.

Table 13b: Did the timing of the lease meet investor's expectation

Lease timing meeting investors expectation	Frequency	Percent	Valid Percent	Cumulative Percent
No	100	33.3	33.3	33.3
Yes	200	66.7	66.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

From the responses above, 66.7% of the investors say the timing of the lease meets their expectation while 33.3% say theirs were not met.

Table 14b: Opinion on what was responsible for untimely lease of the property

Opinion for untimely leasing of property	Frequency	Percent	Valid Percent	Cumulative Percent
Non- availability of strong demand for the property	120	40.0	40.0	40.0
Lack of fund in the economy	90	30.0	30.0	70.0
Unfitting accommodation for the enquirers	30	10.0	10.0	80.0
Others	60	20.0	20.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

From the above responses, non-availability of strong demand for the property is a major factor responsible for untimely lease of properties. This is represented by 40.0% and closely followed by lack of fund in the economy with 30.0%, others with 20.0% and 10.0% for unfitting accommodation for enquirers.

Table 15b: If invested capital is recouped and profit made

Invested capital recouped/ profit	Frequency	Percent	Valid Percent	Cumulative Percent
No	120	40.0	40.0	40.0
Yes	180	60.0	60.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

60.0% of Aba real estate investors say they have recouped their investment capital and made profit while 40% have not nor made profit.

Table 16b: if investment outcome in return meet investor's expectation

Investment return meeting expectation	Frequency	Percent	Valid Percent	Cumulative Percent
Not sure	70	23.3	23.3	23.3
No	60	20.0	20.0	43.3
Yes	170	56.7	56.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The result from the table above shows that 56.7% of the investors say their investment outcome in terms of return has been met, 20.0% say theirs has not while 23.3% are not sure.

Table 17b: Appraise the contribution to economic development

Contribution to Economic Development	Frequency	Percent	Valid Percent	Cumulative Percent
Impressive	60	20.0	20.0	20.0
Negligible	40	13.3	13.3	33.3
Marginal	180	60.0	60.0	93.3
Others	20	6.7	6.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The contribution of real estate investment has been seen to be marginal by 60.0% of the respondents, 20% feel the contribution is impressive, 13.3% say it is negligible while 6.7% is for others.

Table 18b: Ever heard of real estate market survey

Heard of Market survey?	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	300	100.0	100.0	100.0

Source: Authors' Field Data 2015/2016

The above result shows that many real estate investors have heard of real estate market survey as represented by 100.0% 'Yes' response.

Table 19b: Necessity of carrying out market survey before embarking on any investment

Necessity of market survey	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	300	100.0	100.0	100.0

Source: Authors' Field Data 2015/2016

All the respondents, representing 100.0%, affirm that it is necessary for a market survey to be carried out before embarking on any investment.

UYO DATA PRESENTATION AND ANALYIS

Table 1c: Percentage of respondents by Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	100	33.3	33.3	33.3
Male	200	66.7	66.7	100.0
Total	300	100.0	100.0	

The gender of the respondents in Uyo shows that the male gender dominated the study population with 66.7% while the female gender has 33.3%.

Table 2c: Percentage of respondents by Age Bracket

Age Bracket	Frequency	Percent	Valid Percent	Cumulative Percent
35-45 years	70	23.3	23.3	23.3
46-55 years	80	26.7	26.7	50.0
56-65 years	100	33.3	33.3	83.3
Others	50	16.7	16.7	100.0
Total	300	100.0	100.0	

The age bracket of the respondents as represented above shows the age bracket of 56-65 years to be dominant with 33.3%, 46-55 years is 26.7%, 35-45 years is 23.3% and 16.7% for other age brackets not specified.

Table 3c: Type of property invested in

Type of property	Frequency	%	Valid %	Cumulative %
Block of flats	50	16.7	16.7	16.7
Detached bungalow	120	40.0	40.0	56.7
Semi-detached bungalow	60	20.0	20.0	76.7
Others	70	23.3	23.3	100.0
Total	300	100.0	100.0	

The above table shows that majority of the investors (40%) developed detached bungalows,20% developed semi-detached bungalows, 16.7% block of flats and 23.3% developed other types of properties, not specified.

Table 4c: Rent Charge per annum

Annual rent charged	Frequency	Percent	Valid Percent	Cumulative Percent
N60,000-N500,000	60	20.0	20.0	20.0
N600,000-N1.5m	60	20.0	20.0	40.0
N1.6m-N2.6m	80	26.7	26.7	66.7
N2.7m-N3m	50	16.7	16.7	83.3
Others	50	16.7	16.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above table indicates that 26.7% of the investors receive as much as N1.6m – N2.6m annually from their leased properties, 20% each received N60,000 – N500,000 and N600,000 – N1.5m, while 16.7% each receive N2.7m – N3m and other levels of rent not specified.

Table 5c: Basis of Rent payment

Basis of rent payment	Frequency	Percent	Valid Percent	Cumulative Percent
Annually	170	56.7	56.7	56.7
Others	130	43.3	43.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The results on method of payment shows that majority of the rent payment was on annual basis (56.7%) while other basis of rent payments are 43.3%.

Table 6c: Regularity of payment by sitting tenant

Regularity of rent payment	Frequency	Percent	Valid Percent	Cumulative Percent
Very regular	50	16.7	16.7	16.7
Defaulting	60	20.0	20.0	36.7
Regular	80	26.7	26.7	63.3
Others	110	36.7	36.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

Table 6c above shows that only 16.7% of the sitting tenants are very regular in their rent payment, , 26.7% are regular, 20% defaults while 36.7% do not fall into any of the specified areas.

Table 7c: Reason that informed investors housing development

Reasons for development	Frequency	Percent	Valid Percent	Cumulative Percent
For leasing to tenants for return	100	33.3	33.3	33.3
For personal occupation	120	40.0	40.0	73.3
For both	80	26.7	26.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

40% of Uyo investors developed for personal occupation, 33.3% for leasing to tenants for return while 26.7% developed for both reasons.

Table 8c: Carrying out of Market Survey

Market survey	Frequency	Percent	Valid Percent	Cumulative Percent
No	220	73.3	73.3	73.3
Yes	80	26.7	26.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above result shows that 73.3% of real estate investors in Uyo do not carry out market survey to enable them discover the market sector to invest in while only 26.7% do.

Table 9c: Information source for leasing purpose

Information source	Frequency	Percent	Valid Percent	Cumulative Percent
Suggestions by friend and family members	70	23.3	23.3	23.3
Personal intuition	150	50.0	50.0	73.3
Market survey/analysis of available data	40	13.3	13.3	86.7
Others	40	13.3	13.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The table above shows how the investors decided on the type of accommodation the prospective tenants would like to live it. From the above, 50.0% uses personal intuition, 23.3% uses suggestions by friends and family members while 13.3% each uses market survey/analysis of available data and other sources of information..

Table 10c: Sector of the market built for

Market sector	Frequency	Percent	Valid Percent	Cumulative Percent
Young University graduates	40	13.3	13.3	13.3
Young couples	60	20.0	20.0	33.3
University students	60	20.0	20.0	53.3
Others (Family, company)	140	46.7	46.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above table shows the sector of the market that the investors built for and from the result, others such as family and company have 46.7%, young couples and university students have 20.0% each young university graduates have 13.3%.

Table 11c: Supply gap that existed before investors contribute to existing gap

Existing supply gap before devt.	Frequency	Percent	Valid Percent	Cumulative Percent
None	30	10.0	10.0	10.0
Wide	40	13.3	13.3	23.3
Undetermined	160	53.3	53.3	76.7
Others	70	23.3	23.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above result shows that the supply gap that existed in the market was undetermined as represented by 53.3%, others was 23.3% while 13.3% of the respondents believed the gap was wide and 10.0% believed there was no gap at all

Table 12c: How long it took before completion of housing development

Development Period	Frequency	Percent	Valid Percent	Cumulative Percent
1-3 months	40	13.3	13.3	13.3
4-6 months	20	6.7	6.7	20.0
6 months-1 year	100	33.3	33.3	53.3
Others (2 years, 3 years)	140	46.7	46.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

For housing development to be completed, it took majority of the investors 2-3 years which represent others in Uyo as represented by 46.7% for others, 6 months-1 year time followed represented by 33.3% while 13.3% went for 1-3 months 6.7% went for 4-6 months respectively.

Table 13c: Did the timing of the lease meet investor's expectation

Lease timing meeting investor's expectation	Frequency	Percent	Valid Percent	Cumulative Percent
No	120	40.0	40.0	40.0
Yes	180	60.0	60.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

From the responses above, the timing of the lease meets investor's expectation. This can be seen from the 'Yes' response of 60.0% while 40.0% expectation was not met in timing of the leases.

Table 14c: Opinion on what was responsible for untimely lease of the property

Opinion for untimely lease of finished development.	Frequency	Percent	Valid Percent	Cumulative Percent
Non availability of strong demand for the property	50	16.7	16.7	16.7
Lack of fund in the economy	80	26.7	26.7	43.3
Unfitting accommodation for the enquirers	70	23.3	23.3	66.7
Others	100	33.3	33.3	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

From the above responses, other means was a major factor responsible for untimely lease of properties. This is represented by 33.3% and followed by lack of fund in the economy with 26.7%, unfitting accommodation for enquirers with 23.3% and non-availability of strong demand for the property with 16.7%.

Table 15c: If invested capital is recouped and profit made

Capital recouped/ profit	Freque ncy	Percen t	Valid Percent	Cumulativ e Percent
No	190	63.3	63.3	63.3
Yes	110	36.7	36.7	100.0
Tota l	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The result on whether the investors have recouped the capital invested and made profit shows that 63.3% real estate investors in Uyo have not yet recouped their capital while 36.7% have and made profit.

Table 16c: If investment outcome in return meet investor's prospect

Investment return meeting investor's prospect	Frequen cy	Perce nt	Valid Percent	Cumulativ e Percent
No	40	13.3	13.3	13.3
Yes	140	46.7	46.7	60.0
Not sure	40	13.3	13.3	73.3
Others	80	26.7	26.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

From the table above, 46.7% of Uyo investors say the investment outcome in terms of return meet their prospects, 13.3% each did not meet their expectation and are not sure while 26.7% go for other opinions.

Table 17c: Appraise the contribution to economic development

Contribution to economic development.	Freque ncy	Percen t	Valid Percent	Cumulative Percent
Impressi ve	200	66.7	66.7	66.7
Negligibl e	30	10.0	10.0	76.7
Margina l	70	23.3	23.3	100.0
Total	300	100.0	100.0	

Authors' Field Data 2015/2016

The contribution of real estate investment has been seen to be impressive in Uyo represented by 66.7% of the respondents, 23.3% feel the contribution is marginal while 10% feel it is negligible.

Table 18c: Ever heard of real estate market survey

Heard of market survey	Frequency	Percent	Valid Percent	Cumulative Percent
No	120	40.0	40.0	40.0
Yes	180	60.0	60.0	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

The above result shows that 60.0% have heard of real estate market survey while 40.0% have not heard of it at all.

Table 19c: If it is necessary to carry out market survey before embarking on any investment

Necessity of market survey	Frequency	Percent	Valid Percent	Cumulative Percent
No	70	23.3	23.3	23.3
Yes	230	76.7	76.7	100.0
Total	300	100.0	100.0	

Source: Authors' Field Data 2015/2016

In Uyo, 76.7% affirm that it is necessary for a market survey to be carried out before an investor embarks on any business venture while 23.3% do not feel so.

DATA ANALYSIS

Research Question 1

Do real estate developers carry out market research before deciding on what type of property to execute for investment purposes?

In attempting to provide answers to this question, questions 2 and 2 in the questionnaire were asked and responses of the respondents are tabulated in tables 8a,b,c; 9a,b,c; and 11a,b,c above. The tables with an a subscripts are for Calabar, those with b are for Aba and those for care for You.

In Calabar, as indicated on table 8a above, 86% of the investors say they carry out market research but this assertion is rebuffed by the same investors' responses on table 9a on Information Source for Leasing Purpose wherein the number is split 50-50. 50% of the 86% (43%) say they use personal intuition in their decision while the other 50% (43%) say they use market available data. Further probe using table 11a reveal that 83.% of these investors who say they carry out market research now admit they did not determine the supply gap.

In Aba as presented on table 8b, 63.3% of the investors say they carry out market research prior to investment. Table 9b on Source of Information for Investment reveal that personal intuition and suggestions from friends and family members aggregationally contribute to 56.7% of sources of information used by these investors. Table 11b on existing Supply Gap, show that 66.7% of the investors did not attempt to know the market supply gap.

Uyo data which are presented on tables 8c,9c and 11c reveal that 73.3% of the investors do not carry out market research prior to investment (table 8c), This is consistently shown on table 9c as investors source of information for investment come from suggestions from friends/family members and personal intuition (73.3%). Table 11c still shows that 63.3% (Undetermined and None) did not ascertain any supply gap through market research before investing in the market.

Research Question 2

How scientific is the market research carried out by the responding investors (if any)?

Scientific market research entails perusing the market variables on demand and supply sides to discover information such as needed product, the taste of the consumers, the rental levels, the briskness of activities within the market, the different investment yields, the number of market operators on the supply side etcetera as set forth in the Literature Review above.

Answers to Research Question 1 have already established that majority of the investors in all the locations studied did not carry out market research. Their market research methods are personal intuition (guess work) or suggestions from friends and family members. Conclusively therefore they did not carry out any scientific market research which normally will entail forecastings using past and present market information (Ogbuefi, 2002; Emoh, 2004 and Instopedia, 201

Research question 3

What impact do their investment decision practices have on the economic growth of the area within which they invest?

In gathering data to answer this question, questions No 10 of the questionnaire were asked respondents and the responses were tabulated in tables below:

Table 17a: Appraising the contribution to economic development – Calabar

Contribution to Economic Development	Frequency	%	Valid %	Cumulative %
Impressive	50	16.7	16.7	16.7
Negligible	30	10.0	10.0	26.7
Marginal	220	73.3	73.3	100.0
Total	300	100.0	100.0	

Source : Authors' Field Data 2015/2016

Table 17b: Appraise the contribution to economic development – Aba

Contribution to Economic Development	Frequency	Percent	Valid Percent	Cumulative Percent
Impressive	60	20.0	20.0	20.0
Negligible	40	13.3	13.3	33.3
Marginal	180	60.0	60.0	93.3
Others	20	6.7	6.7	100.0
Total	300	100.0	100.0	

Source : Authors' Field Data 2015/2016

Table 17c: Appraise the contribution to economic development – Uyo

Contribution to economic development	Frequency	Percent	Valid Percent	Cumulative Percent
Impressive	200	66.7	66.7	66.7
Negligible	30	10.0	10.0	76.7
Marginal	70	23.3	23.3	100.0
Total	300	100.0	100.0	

Source : Authors' Field Data 2015/2016

Tables 17a and 17b show that the investors' investment practices have marginal impact on the economic development and growth of Calabar (73,3%) and Aba (60%), while those of investors for Uyo has impressive impact (67.7%) as shown on table 17c.

Further insight can be gotten from other relating tables 13a,b,c, 14a,b,c,15a,b,c, and 16a,b,c. on meeting the expectation of investors on timely leasing of the finished development and return on investment; recouping invested capital/ profit and reasons for untimely leasing of investment property. Other relevant tables include Regularity of payment of rent and quantum of rent passing on investment properties.

In Calabar, Aba and Uyo investors expectations on timely leasing of their properties are 60% and 66.7% and 60% respectively. That % s of investors who could not achieve their expectations in timely leasing of the properties give reasons such as unfitting accommodation and lack of fund (Calabar 50%), Non availability of strong demand for the property and lack of fund (Aba), and other reasons (Uyo). On recouping of investment capital/profit, majority of the investors in Calabar and Uyo say they have not recouped their invested capital or made profit as follows : Calabar (66.7%), (63.3%). Only Aba has recouped by 60% of the investors. 70% of the investors in Calabar did not have their investment return expectation met, 56.7% of Aba and 46.7% of Uyo realized their return expectation. All these outcomes are as poor as this due to absence of scientific market research by investors.

4.1 TESTING THE RESEARCH HYPOTHESIS

Ho: There is no significant impact of investors' modes of investment decisions on the economic growth of the area within which they operate.

Hi: There is significant impact of investors' modes of investment decisions on the economic growth of the area within which they operate.

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Investors Mode Of Investment Decision[b]	.	Enter

a. Dependent Variable: Contribution to Econs Growth

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.769[a]	.592	.591	.60879

a. Predictors: (Constant), Investors Mode Of Investment Decision

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	482.732	1	482.732	1302.469	.000[b]
	Residual	332.824	898	.371		
	Total	815.556	899			

a. Dependent Variable: Contribution to Econs Growth

b. Predictors: (Constant), Investors Mode Of Investment Decision

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.167	.060		2.770	.006
	Investors Mode Of Investment Decision	.885	.025	.769	36.090	.000

a. Dependent Variable: Contribution to Econs Growth

4.2 DISCUSSION OF FINDINGS

The correlation coefficient (R) = 0.769
Coefficient of Determination (R^2) = 0.592
$P < 0.05$
The entire Regression Model R^2 is significant with $F_{0.05,\ 1.898}$ Cal. = 1302.469 and $F_{0.05,\ 1.898}$ Tab at P< 0.05 level and d.f. (1,898) = 1.93. The regression model shows that the correlation coefficient (r) was computed at p < 0.05 while the result shows that F calculated is significant at 0.000 which indicates that the predictor variable (investors mode of investment decision) is statistically significant at p-value of 0.000. The Regression coefficient R=0.769 implies a positive correlation between the dependent and the respective independent variables in the study. We therefore reject the null (Ho) hypothesis and accept the alternative (Hi) hypothesis and conclude with 95% confidence there is a significant impact of investors modes of investment decision on the economic growth of the area within which they operate. The results of the study also indicate that real estate investors within the three cities of Calabar, Uyo and Aba have heard about real estate market survey and affirm that it is necessary for investors to carry out market research before engaging in any business venture.

5.0 CONCLUSION AND RECOMMENDATION

The study examined real estate market research and its contribution to economic growth and development. Many real estate investors embark on real estate development without carrying out a market survey to determine the gap in the existing stock of housing and know which sector to provide accommodation for. This study conducted in Calabar, Uyo and Aba has shown that it is necessary to carry out a market research before embarking on any business venture. Though many of the investors have heard about real estate market research, majority of them never embarked on it. The study have also shown that real estate market research if properly carried out and carefully analysed, it contributes positively to the economic growth of a nation. The study concludes by recommendation that investors in real estate should always carry out market survey before they engage in housing development. This will help that know the sector that is in need of more accommodation.

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CONDOMINIUMS, GATED COMMUNITIES AND HOUSING ESTATES: AN INVESTIGATION INTO THE FACTORS INFLUENCING HOUSE BUYING DECISION

A CASE OF DAR ES SALAAM

NANCYMERINA SHAIDI

Dept. Land management and Valuation, School of eal estate Studies , Ardhi University (ARU) P.O.Box 351761, Dar es Salaam, Tanzania.

Email: shaidinancymerina@gmail.com

ABSTRACT

Tanzanians' house ownership cultural practice is dominated by people resorting to build houses on their own in incremental basis from their personal savings and by a small contractor "mafundi". However, about a decade ago real estate developers have introduced modernized residents i.e. condominium and gated communities that are offered for sale through presale arrangement. This contravenes the popular self-built house traditional yet there has been a significant market response. However, recently developers are struggling to achieve sale as prospective buyers hesitate to take part.

Residential developers ought to grasp a better understanding of the interests, perceptions and preferences of their prospective in order to outshine. This study investigates the key criteria that take precedency among house buyers as they make house purchase decision as it is a platform to explain the most probable reason for slow sales. To triumph this aim the study adopts a quantitative research approach administered to 150 homeowners and prospective buyers, accompanied with interviews to developers as well as lending institutions.

Findings reveals that, income level, household size, quality of the house, design of the house, location from the social amenities, mortgage interest rate, investment purposes living condition and government participation to be the most significant factors influencing Tanzanian house buying decision. Thus developer ought to put extreme attention in situation analysis on the significant attributes highlighted herein so as to be able to capture the market.

Keywords: ***house purchase decision; consumer behavior; housing estates; condominium; gated communities.***

Introduction

In the course of addressing the urban housing problems, the government established National Housing Corporation (NHC) through the Act of Parliament No.45 of 1962 charged with the responsibility of building affordable rental residential units such as blocks (Flats) and detached houses. To date the corporation has been able to provide about 2,483 buildings countrywide with about 6,446 residential units in Dar es Salaam solving about 56% of the housing problem. In addition to NHC's efforts, private individuals have also been players in addressing the housing deficit through individual built houses for family occupation and some construct residential units for rent. Yet currently about 200,000 units are demanded annually (Wakuru and Majani, 2006)

In this regard, it is observed that more than 80 percent of urban inhabitants' reside on rental housing Seleki (2005) and practice shows that after significant periods of renting, more than 65% of the people resort to building single detached houses. These houses are built on incremental basis from one's personal savings and by a small contractor "mafundi". The construction is proven to be slow as it takes an average of 3-15 years and is financially expensive. This among many other reasons curtails the supply of housing and therefore adds more to the housing problems,

The above approaches used to deliver housing seem to be inferior hence as part of a solving urban housing problem, the government enacted the Unit Titles Act 2008 and the Mortgage Act 2008 which resulted to the presence of unit properties. This fuels the residential real estate sector as it encourages the government organs, institutions such as pension funds and private company developers together with high net worth private individuals to spend significant amount of capital into constructing residential houses for commercial purpose i.e. letting or sale (National Housing Corporation, 2016).

Developers have introduced new modern forms of residents i.e. condominium and gated communities that are offered for sale with the aim of meeting the demands of those building houses on incremental basis. Such residents comprise both affordable and expensive house design. Buying modernized residents from residential estate developer may be a rather new custom contravening the traditional custom of life yet there has been a great response among the people to purchase such establishments even through pre-sale arrangement (Moore, 2016).

Despite magnificent market response in past two years, the market of developer built residential units is currently facing a hitch as developers' sales teams struggle to achieve clients and close sales deals. The public on the other hand has been hesitating to take part in purchases of such establishment. This struggle for selling these properties among many other indicators can be evidenced by the enormous discounts to encourage purchase and the buyers hesitation could be witnessed by the withdrawal of individuals from purchase were they had already made down payments.

Literature Review

Studying consumer behavior is very crucial for firms as they need to be attuned to their relevant stakeholders in order to respond to the rapidly changing market, first by developing strategies to increase their market share (Kotler & Keller, 2009). And secondly by relying on two mechanisms of enhancing customer satisfaction and/or reducing the customer perceived risks (Koklič, 2011). It is important to know consumers behaviors, opinion, and preferences and how individuals and households make housing decision Quester, Pettigrew, & Hawkins, 2011, This maybe achieved by asking questions like those of Wang & Li, (2009); are price considerations important? What about mortgage rates, accessibility, neighborhood safety and availability of social services? How do people view dwelling attributes, such as type of dwelling, size and layout of the dwelling, etc.? Are they willing to trade one attribute for another? This paper looks into the purchase creteria on housing estates, gated communites and condominiums in dar es salaam.

Housing estates also referred to as row houses and popularly known as "kota" refers to two or more identical houses in a row sharing a side wall or one side of the house wall with its adjacent neighbor.

It consists of rows of individual houses connected with a common/party wall that runs from the ground to the roof where each unit has its own exterior door and the unit is an independent house, Husain, 2008.

Gated communities comprise physical areas that are fenced or walled off from their surroundings. The entrances to these areas are usually prohibited or controlled by means of gates or similar physical obstacles. They are by nature separated and enclosed areas, being isolated from the broader urban environment and enclosed through physical barriers. Besides the main purpose, which enables a specific lifestyle of a group within the enclosed area or to protect the residents from possible intruders, gated communities reflect an urban entity that is physically often socially and economically differentiated from the surrounding urban environment. (OIKODOMOS, 2011)

Condominium, this is a Single, individually-owned housing unit in a multi-unit building. The owner have sole title to the unit, but ownership of land and other common areas such as (elevators, halls, roof, stairs, etc.) is jointly shared with other unit owners. The developer company/corporation in most cases deals with collection of upkeep fees collection for maintenance of the common-areas. Unit owners also pay property taxes of their respective unit and also may rent or sell or mortgage the property with compliance to the law (Carol & Ignatova, 2009)

Residential real estate deveolpers as used in this research implies to a company or coperation or people whose main business is to construct, sell and manage housing units e.g. condominums, estates, or gated comunities to consumers. Majority of these sales are carried out through Pre-sale which refers to commencement of purchase procedures and down payment before the house construction actually begins. Designs of residential units are displayed for prospective buyers to have an insight of the houses to be constructed and thereafter down payment and other purchase processes proceed (Al-Nahd, Ghazzaw, & Bakari, 2015).The house purchase criteria studied were divided in four categories namely; demographic Factors, Marketing Factors, Environmental Factors and Other Factors as tabulated below in table1.

Demographic factors include Household income, age, education, nature of employment, the family size and/or the number of households (Wang & Li, 2009).The buyers' economic situation has great influence on the buying behavior, high income and savings individual is most likely to be willing to purchase more expensive products such as luxurious housing apartment of condominium and vice versa (Rani, 2014). As might be expected, the number of children in the household and the age of those children had proven to have a strong bearing on the kind of main living space participants are looking for (Finlay, et al., (2012). The Level of education directly molds a person's preferences and has an effect that goes beyond through income (Wang & Li, 2009). Age; Studies on residential decisions and mobility invariably point to the importance of age and hence the personal and family life cycle as a factor governing the residential choice and relocation process.

Marketing Factors refers to the incentives or disincentives available from the market that influences one's decision to purchase. The price of houses influences the utility level attained through its effect on the budget constraint, an increase in the price of dwelling brings about reduction in the probability of purchase (Wang & Li, 2009). The volume of information available to an individual has a crucial role in influencing ones purchase decision such that roles of sales personnel, internet and media may be a factor behind one decision to purchase. Distribution; as explained by Setiawan (2014) discourages purchase decision if products or services (houses) do not conveniently reach costumers and vice versa. Lastly area the housing Attributes, type of the house, quality of the house i.e. Structural strength of the house has an influence in the decision making of the buyers. (Nasar & Manoj, 2015) The number and size of bedrooms; (Abelson and Chun, 2005) found that size of houses is one of the factors that affect Australian real estate purchaser's decisions. In addition, a survey conducted by (Al-Nahd, Ghazzaw, & Bakari, 2015) found living space to be one of the most important factors Saudi real estate purchasers.

Influence of Environmental factors include locational factor as Nasar & Manoj, (2015) defended location as the proximity to desirable or undesirable facilities which

has effect on consumer decision of residential buyers. (Wang & Li, 2009) Also elaborated on the living conditions in the purchased dwelling unit as an influent factor, this includes issues like property management, whereby presence/absence of management fee may affects a respondent's willingness to purchase. Example people in Chinese cities have become aware of the importance of estate management; respondents are willing to pay for property management for the upkeep of their homes. Good local amenities were important regardless of renting a home or buying (Finlay, Pereira, Smith, Charlton, & Hughes, 2012) as well as reference groups; like coworkers, friends neighbors, relative or any other affects consumer behavior whether intentionally or not (Sangkakoon et al., 2014. Public Service; as studied from Chinese consumers is one of the most important factors in choosing housing Martz, et al., (2006).

Table 1 Variables involved in the study.

House Purchase Factor	Components of the Factor
Demographic Factors	Gender, Age, Occupation , Level of Education Income Level, Household Size and Accommodation Expenses
Marketing Factors	Price, House type, House design, Quality of the house, The number and size of bedroom, the role of sales team and Confidence on the Developer
Environmental Factors	Location from the social services, Distance from public transport, Reference groups living conditions and Aim is to pass to family,
Other Factors	Mortgage rates, loan conditions, government participation and investment purpose.

Data Collection

This study adopted quantitative research methodology after a careful review of research literatures that have been developed from buying theories to investigate the factors influencing were used so as to establish correlations between given variables (Dudwick, Kuehnast, Jones, & Woolcock , 2006), test and validate the significance of examined factors Zikmund, et al., 2010.

The study sample was drawn from housing units in AVIC Town, NHC Kigamboni Housing Estate and NHC Eco Residence Hannasif Kinondoni selected purposively from a pool of about 18 registered developers. AVIC International being the only operational gated community developer and the two NHC projects being the most recently launched projects and also since it is the county's dominant property developer

The selected housing projects form a total of 473 housing units from which the study surveyed 75 buyers and 75 prospective buyers were drawn from different sectors of economy being inhabitants along the residential estates and those who had applied for purchase.

Data Analysis

The analysis of data is based on 113 fully returned answered questionnaires among the 150 distributed questionnaires were yielding a 75.3 percent response rate. Binary Logistic Regression analysis was used for examining the relationship between two or more independent variables and dependent variable (Tabachnick & Fidell, 2012). So as to assess the relative contribution of the independent variables (factors from market, environmental, individual indifferences and others) in explaining the dependent variable i.e. the decision to purchase house and the significant level (Hair & Anderson, 2010).

Research Finding

Table 2: Logistic Regression Results; Demographic Influence on House Purchase

Independent Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
Gender(1)	**1.026**	**.514**	**3.983**	**1**	**.046**	**2.790**
Age			2.928	2	.231	
Age(1)	1.283	1.093	1.377	1	.241	3.607
Age(2)	-.759	.623	1.484	1	.223	.468
Marital Status			.125	2	.939	
Marital Status(1)	.302	.859	.124	1	.725	1.353
Marital Status(2)	.054	.766	.005	1	.944	1.055
Occupation			1.206	2	.547	
Occupation(1)	.583	.700	.693	1	.405	1.791
Occupation(2)	-.042	.860	.002	1	.961	.959
Level of Education			**5.710**	**2**	**.058**	
Level of education (1)	**1.903**	**.864**	**4.851**	**1**	**.028**	**6.708**
Level of education (2)	**.940**	**.917**	**1.049**	**1**	**.306**	**2.559**
Income Level			**7.454**	**2**	**.024**	
Income Level (1)	**-1.887**	**.845**	**4.994**	**1**	**.025**	**.151**
Income Level (2)	**-1.971**	**.762**	**6.682**	**1**	**.010**	**.139**
Household Size			**9.623**	**2**	**.008**	
Household Size (1)	**-1.385**	**.724**	**3.658**	**1**	**.056**	**.250**
Household Size (2)	**-2.024**	**.730**	**7.688**	**1**	**.006**	**.132**
Accommodation expense	.294	.530	.308	1	.579	1.342
Constant	-.269	1.370	.039	1	.844	.764

Gender; binary values were assigned whereby "1" represented Male respondents and "0" represented Female Respondents. Findings revels that gender is *statistically significant* in influencing purchase decision. Also there is a positive relationship between purchase decision and gender, where by male are most likely to purchase

2.79 times more than females. This shows that men are still the leading decision makers in making household decisions.

Level of Education; this factor is also *significant* in influencing house purchase decision. Other factors being constant the level of education is most likely to increase the possibility of purchase by 6.71 times. In line to that the category of individuals with degree/diploma are most likely to buy houses compared to individuals with master's degree and PhD and those with secondary level education.

Income Level; this factor is *significant* in influencing purchase decision. High end income earners are also observed to be mostly likely buyers compared to the low income earners. Though there is a negative relationship between income and purchase decision, to mean an increase in the income level other factors being constant reduces the probability of purchase

Household size, the number of members in the family is *significant* in influencing an individual's house purchase decision. It is also revealed that there is a negative relationship between family size and purchase decision i.e. The more the family size increases it reduces the possibility of purchase. As the family size of more than 6individuals probability of purchase 0.132 compared to families of 3 to 5 people whose probability of purchase is 0.250.

Age; the individual's' age is *not significant* factor in explaining purchase behavior. However there is a positive relationship between the two such that as age increases the possibility of purchase increases but only to before 55 years of age. As analysed above respondents in the age category 35 -54 are most likely to purchase by 3.607 compared to the individuals with less than 34years of age.

Marital Status, the state of relationship of an individual is *not significant* in explaining one's purchase decision. However there is a positive relationship with the decision to purchase. Married people are most likely to purchase houses by 1.353 times compared to the single individuals (1.055) though the divorced and separated are less likely to purchase.

Occupation; the nature of an individual's employment is *not a significant* factor in influencing purchase decision. However it is observed that Business owners marked by are positively affiliated to purchasing houses compared to other work classes. Business owners are most likely to purchase by 1.791 times as compared to public servants. Private employees are also more likely to purchase than the public employees.

Accommodation Expenses; this refers to the amount of money that an individual's is willing to pay o carter for accommodation. It is estimated that this has *no significance* in ones decision to purchase. However there is a positive relationship between this variable and purchase decision, meaning that person willing to pay higher amounts than Tsh 800,000 are in a more possibility to purchase houses by 1.342 times compared to others individuals who prefer to pay less.

In a nut shell the, the gender, level of education, Income level and household size are significant factors in influencing house purchase decision whereas the age, marital status, occupation and accommodation expenses are not significant determinants of house purchase decisions as given in the equation below:

$$P = \frac{e^{2.79*gender+6.71*education-\ 0.15*income+0.25*householdsize-0.269}}{1+\ e^{2.79*gender+6.71*education=0.15*income+0.25*householdsize-0.269}}$$

Where by: P = the probability of making housing purchase decision and e= the base of natural logarithms (2.72)

Table 3: Logistic Regression Results; Marketing Influence on House Purchase Decision

Independent Variables	B	S.E.	Wald	df	Sig.	Exp(B)
house price			**4.745**	**2**	**.093**	
house price(1)	-.322	.640	.254	1	.615	.724
house price (2)	**.983**	**.518**	**3.596**	**1**	**.058**	**2.672**
type of houses in projects			2.827	2	.243	
type of houses in projects (1)	.814	.694	1.377	1	.241	2.258
type of houses in projects (2)	.902	.570	2.506	1	.113	2.465

number and size of bedrooms			3.637	2	.162	
number and size of bedrooms (1)	1.082	.698	2.403	1	.121	1.339
number and size of bedrooms (2)	**.957**	**.570**	**2.815**	**1**	**.093**	**1.384**
design of project houses			1.186	2	.553	
design of project houses (1)	-.196	.729	.072	1	.788	.822
design of project houses(2)	-.633	.588	1.156	1	.282	.531
quality of project houses			**7.582**	**2**	**.023**	
quality of project houses (1)	1.047	.647	2.620	1	.106	2.850
Quality of project houses (2)	**1.501**	**.562**	**7.122**	**1**	**.008**	**4.485**
Role of sales team			1.709	2	.426	
role of sales team(1)	.073	.656	.013	1	.911	1.076
Role of Sales Team(2)	-.577	.495	1.361	1	.243	.561
Confidence On The Developer			**5.525**	**2**	**.063**	
Confidence On The Developer (1)	.781	.724	1.163	1	.281	2.183
Confidence On The Developer (2)	**1.175**	**.501**	**5.510**	**1**	**.019**	**3.238**
Constant	-.970	.494	3.851	1	.050	.379

Source: Researcher's Analysis of the survey data

Price; the price of the house is a significant in the decision to purchase; the same also has a negative relationship with the decision to purchase. This means the other factors being constant an increase in the price of the house reduce the likelihood of purchase houses to 0.724. However individuals that consider this factor more important have a positive relationship with price i.e. they purchase more at higher prices. This could be explained to mean, individuals have no role in the setting of the price rather there is no room for price negotiation as prices are fixed by the developer company, for that matter highly priced house is perceived to have more favorable characters hence encourage the decision to purchase.

Number and size of bedrooms; the units of accommodation has a significant influence on the purchase decisions. There is also a positive relation between the number and size of bedroom to the possibility of purchasing a house. The analysis of respondents discovered that the individuals who consider this to be relatively high

important factor are observed by buy less when the number of bedrooms is few and the sizes are small.

Quality of the house; the quality of the house is a *significant* factor in influencing the purchase decision. There is a positive relationship between the quality of the houses offered for sale and people's purchase decision. This means the increase in the quality of the house other factors being constant increases the probability of purchase by4.4845 for those that consider this to be a very important factor. Whereas for respondents that perceive this to be moderately important an improvement in quality increase theta possibility of purchase by 2.850.

Confidence on the developer: this is also proved to be a significant factor in influencing house purchase decision. Also there is a positive relationship between the trust in the housing developer and the purchase decision, to mean an increase in the goodwill and reputation of the developer increase the probability of purchase by 3.238 times for respondent that consider this moderately important , an increase in the confidence level of the developer increase their purchase probability by 2.183 times.

Hence while the price, the quality and the number and size of the house as well as the confidence on the developer are significant factors, other factors such as type of the house, design of the house and role of sale team are not significant in influencing house purchase decision. The equation of the probability to purchase is given as;

$$P = \frac{e^{-0.332*P+0.957*R+1.501*Q+1.175*CD-0.970}}{1+\ e^{-0.332*P+0.957*R+1.501*Q+1.175*CD-0.970}}$$

Where by: P = the probability of making housing purchase decision; e= the base of natural logarithms (2.72); P = house price; R = number and size of rooms; Q= house quality; CD= Confidence on the developer.

Table 4: Environmental Influence on House Purchase Decision

Independent Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Aim is to pass to Family			**6.140**	**2**	**.046**	
Aim is to pass to Family (1)	**-1.215**	**.555**	**4.785**	**1**	**.029**	**.297**
Aim is to pass to Family (2)	**-1.070**	**.541**	**3.912**	**1**	**.048**	**.343**
Investment Purposes			3.729	2	.155	
Investment Purposes (1)	.477	.711	.450	1	.502	1.611
Investment purposes (2)	**.884**	**.458**	**3.719**	**1**	**.054**	**2.420**
Location From Social Amenities			2.930	2	.231	
Location Social Amenities (1)	**1.717**	**1.042**	**2.714**	**1**	**.099**	**5.569**
Location Social Amenities (2)	.374	.452	.685	1	.408	1.453
Distance From Public Transport			2.483	2	.289	
Distance From P .Transport (1)	-1.522	.978	2.422	1	.120	.218
Distance From P .Transport (2)	-.345	.461	.561	1	.454	.708
Constant	.198	.483	.169	1	.681	1.219

Source: Researcher's Analysis of the survey data

Aim is to pass to family members; this is a significant factor in influencing purchase decision. However there is a negative relationship between the two variables. Other factors being constant the consideration of passing the property to family members discourages the possibility of house purchase. The probability of purchase is reduced by 0.343 times.

Investment purpose; this is a significant factor for purchase decision; it is observed that individuals are attacked to purchase to be able to use the houses for current/future investment through rentals or resale.
The factor has a positive relationship with the decision to purchase in that the increase in the possibility of using the house as an income generating investment

increase the probability of purchase by 2.42 times. This was vivid and dully noticed on site during data collection, as more than 45% of the houses were inhabited by tenants rather than legate house owners.
Location from social Amenities, the proximity to social services like water, electricity, hospitals etc. has a high significance in making house purchase decision. The results also entail that there is a positive relationship between the location of these facilities to purchase decision, an increased reaches or nearness to these amenities increase the probability of purchase by 5.569 times, which is the highly important factor among all the environmental factors.

The probability of purchase from the environmental factor is therefore given by:

$$P = \frac{e^{-1.215*F+0.884*I+1.717*L+0.198}}{1+\ e^{-1.215*F+0.884*I+1.717*L+0.198}}$$

Where: P = the probability of making housing purchase decision; e= the base of natural logarithms (2.72); F =Aim to pass to family members house price; I = Investment reasons number and size of rooms; L= Location from social Amenities house quality.

Table 5: Logistic Regression Results: Other Influence on House Purchase Decision

Independent Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
Mortgage Rate2			**7.860**	**2**	**.020**	
Mortgage Rate2(1)	**1.276**	**.595**	**4.601**	**1**	**.032**	**3.583**
Mortgage Rate2(2)	**1.352**	**.558**	**5.871**	**1**	**.015**	**3.866**
Loan Conditions2			2.240	2	.326	
Loan Conditions2(1)	.199	.660	.091	1	.763	1.220
Loan Conditions2(2)	.734	.496	2.194	1	.139	2.084
Living Conditions			**8.916**	**2**	**.012**	
Living Conditions (1)	**-1.13**	**.789**	**2.050**	**1**	**.152**	**.323**
Living Conditions (2)	**-1.74**	**.624**	**7.827**	**1**	**.005**	**.175**
Government Participation			**7.194**	**2**	**.027**	
Government Participation (1)	**-1.41**	**.551**	**6.574**	**1**	**.010**	**.243**
Government participation (2)	**-.962**	**.561**	**2.933**	**1**	**.087**	**.382**
Constant	.086	.481	.032	1	.859	1.089

Source: Researcher's Analysis of the survey data

The mortgage rate, this factor is significant in influencing buying decision. Also there is a positive relationship between the rates of interest for house loans to the house buying decision. This means an increase in the favorable mortgage rates increases the probability of purchase by 3.866 times. Whereas loan conditions have no significance in influencing purchase decision however the improvement in loan conditions increases the possibility to purchase.

The living condition i.e. rules of leaving and the social lifestyle in the bought houses community or condominium such as estate management fee, handling of common areas, and the neighborhood life style are. This is significant has a negative relationship in the decision to purchase, since an increase in these conditions people are discouraged to purchase by 0.323 times. This is simply because after purchase one assumes total ownership and freedom preferring less obligations, rules and conditions.

The role of government participation: the role played by the government very significant among individuals when making decision to purchase a house on a given developer project, through loans, subsidies, issuing of title on time, development of infrastructure, acquisition of land or joint venture has a significance in influencing purchase decision this may be the case for public owned houses.. But statistically there is a negative relationship between the purchase decision and government participation

The probability of purchase from the other factor is therefore given by:

$$P = \frac{e^{1.352*M-1.13*LC-1.41GP+0.086}}{1+\ e^{1.352*M-1.13*LC-1.41GP+0.086}}$$

Where by: P = the probability of making housing purchase decision; e= the base of natural logarithms (2.72); M = Mortgage Rate Aim to pass to family members house price; LC= Living Condition; GP= Government Participation

Role of reference groups, as suggested by the consumer behavior model; an individual decision to purchase or not to purchase may be influenced by friends. The increase in influence from a friend inspiration and advice increases the probability of purchase by 2.427 times. There4 is a positive relationship between the two as increases is friends influence with information increases the probability of purchase.

The dependent variable include "0" Not Purchase and "1" for Purchase. The model is statistically significant in explaining the variables to purchase decision as, model chi-square =9.327; df = 6; p = .000 < 0.05). The Cox & Snell R Square is 0. 079 and the Nagelkerke R Square is 0.106, the -2Log Likelihood is 147.245[a,] which indicates a moderate relationship between the factors and the purchase decision. From this analysis the following can be deduced;

Table 3.10 Logistic Regression: Reference Groups on House Purchase Decision

Independent Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Coworkers	.509	.513	.984	1	.321	1.664
Government official	.335	.513	.426	1	.514	1.397
Relatives	-.689	.450	2.346	1	.126	.502
Neighbors	-.436	.606	.517	1	.472	.647
Realtor	.484	.408	1.413	1	.235	1.623
Friends	**.887**	**.442**	**4.026**	**1**	**.045**	**2.427**
Constant	-.536	.992	.292	1	.589	.585

Source: Researcher's Analysis of the survey data

$$P = \frac{e^{o.887*F}}{1+\ e^{o.887*F}}$$

Where by: P = the probability of making housing purchase decision; E = the base of natural logarithms (2.72); F = Friends

Recommendations

The emerging residential market needs to be embraced and natured as it adds to the pool of housing supply, contributes to the improvement in the housing settlement status and is also a source GDP economic growth. For that matter the following are the recommendations of the researcher on matters to be addressed so as to improve the sales performance of the commercial residencies i.e. gated communities, condominiums and housing estates.

1. Quality Regulation Professional Body

As quality is analysed to be a significant factor in table 3.7 it is therefore crucial to have an independent organ to ensure building quality of project houses. In spite the role of municipal councils and the ministerial role of the ministry of Land Housing and Human Settlement Development to check and approve building standards and hence issue of the building permit and in cutting across residential sector. It is important to have an independent, cross-professional body whose main task is to regulate the quality of new built homes. The body is responsible to assess the quality of building materials, the pricing of the commercial residential units and fixtures and fittings if any. Also the house size including the number and size of bedrooms should match with the price.

2. Establishing Innovative financing models that promote homeownership opportunities

It is observed that the mortgage rates have a higher significance in influencing house purchase decision. As favorable mortgages increases the probability of purchase buy 4.56 times. However, financing of the residence is observed to be a challenge to a vast of the low and middle class income earners. In order to make the market successful alternative means of financing ought to be devised.

First the existing role of TMRC should improve its efficiency by developing more products with commercial banks to improve facilitation in home loans acquisition such as public/private home loan program. Another approach would be an introduction of partnership between employed homebuyer and employers were an employer contributes to the down payment assistance loan arrangement to be paid gradually by the employee. The employer could provide an outright grant that is attached to a tenure requirement, provide a loan with deferred payments until the house is fully bought, or issue a forgivable loan that is tied to length of employment.

3. Participation of the government in commercial Real Estate Project

Findings reveal that the involvement of the government in the housing estate projects increases the probability of purchase by 1.65 times. Thus enhancing this participation will not only be of good to the general public but also Property developers who face challenges on the whole process of building construction; this includes the bureaucratic procedures and costs of land acquisition which are relatively high. On the other hand cost of construction materials tend to be high as it encompasses Value Added Tax, this results to highly inflated houses prices hence discouraging clients to purchase. To curb this situation the government should tap in in various ways, first the government may adjust the VAT charges and apply its power of compulsory land acquisition to ease the land acquisition process and cost; in exchange the developer has to ensure that not less than 30% of the constructed units will target the low and medium income earners.

This also includes Provision of Infrastructure Improvements for Residential Development. Among the draw back towards decision to purchase is the unsuitable infrastructures in the area were project are undertaken, this can be a large hurdle in unlocking an area for development. These include water and electric supply from the public mains as well as access road from the main roads to the residence. The government can assist in the development of residential property by providing the infrastructure improvements necessary for residential development. this is because the costs of servicing this infrastructure requires a developer to finance infrastructure, hence affecting the timing of project development and the amount of revenue a project must generate to fulfill its financing obligations.

4. Formulation of housing Policy

Concurring to many other Tanzania scholars, this study as recommends a housing policy that can regulate on the affairs of housing sector. These include setting minimum standard for residential houses, also the design and permissible construction details and layouts, enabling house financing schemes, improve the operation of residential market. The policy will also enlighten on the right and responsibilities of developer, property and estate managers. Also the policy will help to clarify on the general role I the housing estates and gated communities. This will also enhance awareness amongst the public on housing in general.

Conclusion

This exploratory study has managed to communicate valuable findings that focus on the developer-built housing projects. The study revealed the factors that are genuinely considered to be important in making a decision notably household size, the level of income, house quality and design, the mortgage rates, living conditions, location from social amenities and investment purposes to be most significant among Tanzanian home buyers when making house purchase decision. Lastly the study recommends Innovation of alternative financing models that promote homeownership opportunities and urges the government to increase Participation in commercial Real Estate Project through land acquisition schemes as well as reduced VAT charges and most of all establish a housing policy for the betterment of the housing sector. In addition to that the study highlights on the possible reasons to the falling of the developer-built house market as due to the mismatch in buyers interests to what is available in the market and also due to constrains faced by the developers.

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DISCUSSING HOUSING FINANCE AND INVESTMENT IN DEVELOPING COUNTRIES: THE ZIMBABWEAN CASE.

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ADDMORE ZHOU

(*MBA, MSc)* **Ph.D. Real Estate student. Kingston University, Faculty of Art Design and Architecture. London. Contact email: addmorez@yahoo.co.uk**

PROFESSOR SARAH SAYCE

(BSc PhD FRICS IRRV).

Abstract

The world is witnessing unprecedented levels of urbanisation. UN-HABITAT (2009) predicted that two thirds of the world's population will be living in cities and towns by 2030. Cities in developing countries are the fastest growing. However the most worrying phenomena have been the rapid growth of slums in and around some cities coupled with acute shortages of housing in many others. In 2004, the U.N reported that more than a billion people in developing countries live in slums, a figure expected to double over the next 30 years. Developing countries continue to grapple with challenges of providing housing to their communities. Investment and new development in housing remain low and slow. The major problem has been lack of finance and investment towards housing.

The banking industry is a major player in every country's economy and it influences the growth and prosperity of a nation. This paper will discuss Zimbabwe's finance industry particularly the banking sector and the extent to which it has committed resources towards housing. The paper will also discuss the level of foreign direct investment received by the country.

In discussing Zimbabwe's housing finance, the paper will look at both domestic and foreign sources of finance, their volumes and the factors which influence their deployment. The paper is an extract from a broader ongoing Ph.D. research study whose main aim is to investigate why Zimbabwe is failing to provide adequate housing in the context of both private investment and public housing. In the study, it is found that housing finance in Zimbabwe is not adequate and falls far short of the levels required to effectively address the shortage of housing.

Keywords: Housing Finance, Low Income Housing, Developing Countries, FDI.

INTRODUCTION

The subject of housing in developing countries, particularly housing finance in sub Saharan Africa is a developing one, however quite topical. The contexts are ever changing and always shifting. Whilst there has been broader focus and discussion on housing on many fora, there is limited scholarship on the subject of housing finance targeting low income segments. Considering the problems faced by developing countries, the subject merits close attention. In this paper we would like to explore the critical issues impacting housing finance in Zimbabwe.

Housing Shortage Overview

According to the government's national census conducted in 2012, Zimbabwe had

a population of around 12.9 million. Urban housing shortage has continued to rise over the years with the national media reporting that Harare alone is topping one million, a figure expected to continue increasing by at least 5 per cent every year if no urgent measures are taken to build more houses (Zimpapers, 2011). The Zimbabwe National Housing Policy framework crafted by the government in 2011 acknowledged a cumulative backlog of housing units needed to solve the problem of accommodation. Although no comprehensive assessment has been done, at least 1 million new units were estimated as the backlog across all housing types in 2012 (GoZ, 2012). Some reports indicate that the official national housing backlog had since risen to more than 1.2 million in 2013.

Finance in the general context

The banking industry is a major player in every country's economy, and it influences the growth and prosperity of a nation. There is debate around the causative relationships between the country's finance system and economic development in general. Sibindi and Bimha (2014) argue that the evolving nature of financial markets and their impact on economic growth has raised much curiosity on whether they lead to economic growth or economic growth precipitates financial development. This paper will however not seek to unpack the arguments of causative relationships in detail.

The UNDP (2009) under their Comprehensive Economic Recovery (CER) initiative in Zimbabwe, affirmed that financial sector development matters for economic growth, and that through the mobilization of savings the financial sector plays a critical role of providing resources required for investment. In particular, the causal relationship between financial development and economic growth is seen to operate through three linkages, which is to say: (1) financial deepening promotes economic growth; (2) economic growth stimulates financial development; and (3) financial development and economic growth influence each other.

Makina (2009), Odhiambo (2009) and Fung (2009) seem to coalesce around the conclusion that low income countries with a relatively well-developed financial sector are more likely to catch up with their middle and high income counterparts while those with a relatively underdeveloped financial sector are more likely to be trapped in poverty.

There is however a big problem faced by developing economies such as Zimbabwe with regards to the extent to which banks drive economic growth. In most developing economies especially Southern Africa, about 60 percent of the population have

no access to financial services. In Zimbabwe, a survey conducted by the National Task Force on Microfinance in 2006 showed that the formal financial system provided services to only about 30 percent of the population, lower than the regional average of 40%. A key weakness of the country's finance system has been that it lacked inclusiveness as it did not adequately cater for the needs of the poor and the marginalized small-scale business sector. A significant 70 percent of the population remained unbanked at the end of 2006.

In the words of the United Nations Secretary General Ban Ki Moon:

Building inclusive financial sectors improves people's lives, in particular those of the poor. A small loan, a savings account or an insurance policy can make a great difference to a low-income family. They enable people to invest in better nutrition, housing, health and education for their children. They ease the strain of coping with difficult times caused by crop failures, illness or death. They help people plan for the future'. (UNDESA and UNCDF, 2006: iii Foreword).

Housing Finance in the Zimbabwean Context

Historically, Zimbabwe had a more sophisticated financial sector than any other African country other than South Africa (UNDP, 2009). The financial sector was relatively closed between 1980 and the early 1990s with no new entrants into the market (Nyamutowa and Masunda, 2013). However, the country's finance system went through several transitions from the period when the country attained independence in 1980 to present. A raft of financial reforms were implemented in the 1990s, with a view to liberalizing the financial sector when the government embraced the World Bank and IMF sponsored Economic Structural Adjustment Program (ESAP) in the early 1990s (UNDP, 2009).

Indigenous ownership and new entrants into the industry was not until mid to late 90's when a number of new banks were registered (Makoni, 2010). As at 30 June 2015, there were 18 operating banking institutions, comprising thirteen (13) commercial banks, three (3) building societies, one (1) merchant bank, one (1) savings bank and 147 microfinance institutions (Mangudya, 2015).

Over the years, the Zimbabwean economy has been characterised by negative economic growth, high unemployment, high interest rates and absence of foreign investment. Although the economy sank deeper into depression partly due to sanctions, the situation had started to deteriorate in the early 90's when Zimbabwe embarked on an Economic Structural Adjustment Program, ESAP, supported by IMF and the World Bank. Whilst the intended benefits were to grow the economy and create jobs, the opposite actually happened (The World Bank, 2010).

As the economic situation worsened, the country witnessed a sharp rise in inflation, coupled with the devaluation of the country's currency. In the ensuing hyperinflationary environment, banks could not cope with depositors' needs for daily cash withdrawals. Beginning around year 2003, some banks collapsed while others were put under curatorship (Africa Monitor, 2008). Those which survived had to limit their exposure to risks (Marawanyika, 2004).

BANKING SECTOR CAPITALISATION

One of the most important measures of the banking sector's ability to support economic development is the level of bank capitalization. By June 2015, the banking sector's aggregate core capital base totalled $899.10 million, a 19% increase from $753.3 million reported by June 2014 (Mangudya, 2015). The Central Bank attributed the increase to retained earnings which were realised during the year. The table below shows the extent of individual bank capitalizations.

INSTITUTION	Core Capital as at 31 December 2014 (USD million)	Core Capital as at 30 June 2015 (USD million)	Prescribed Minimum Requirements (USD million
Commercial Banks			
CBZ Bank	175.34	188.72	25
Stanbic Bank	79.73	82.79	25
Standard Chartered Bank	61.90	58.11	25
BANC ABC	63.33	64.43	25
Barclays Bank	41.67	43.15	25
NMB Bank	37.01	40.00	25
MBCA Bank	36.21	38.85	25
Steward Bank	43.92	41.26	25
ECO Bank	36.89	41.26	25
MET Bank	24.62	33.74	25
ZB Bank	9.56	31.14	25
FBC Bank	31.84	33.26	25
Agri Bank	12.30	36.47	25
Total Commercial Banks	654.32	733.18	
Merchant Banks			
Tetrad Investment (Under Provisional Judicial Mgt)	(31.73)	(32.70)	25
Building Societies			
CABS Building Society	92.82	99.72	20
FBC Building Society	29.54	32.74	20
ZB Building Society	15.58	15.20	20
Total Building Society Banks	137.94	147.66	

Table of Bank capitalization as at 30 June 2015. Source RBZ

The small size of capital dedicated towards housing is a reflection of the extent to which banks are prepared to carry credit risk associated with housing investment.

Cost of Borrowing and Loan Distribution

One of the most daunting challenges to borrowers in Zimbabwe has been the cost of borrowing. In 2010, borrowing costs in the country were at least twice more than the average experienced in the region. On average, Zimbabwe's borrowing costs were estimated at an average of 30%. Although the rates have been steadily decreasing over the years, they remain high enough to place a burden on borrowers. On their part, banks have cited a number of challenges necessitating the application of high interest and lending rates. The challenges include high operating costs, high risk premium in accessing external lines of credit due to high country risk profile and high cost of borrowing from corporates by banks for on-lending to bank customers. Banks needed to charge high interest rates in a bid to mobilize the much needed savings into the formal banking sector (Africa Development Fund, 2012).

On the other hand, banks are confronted with the problem of non-performing loans. Whilst bank lending is critical for the development of the productive sectors of the economy such as housing construction, the high rate of non-performing loans makes it difficult for banks as there is need for cautious lending. In 2012, the rate stood at 12.3 percent of the loan book, a percentage higher than the 5 percent Basel II prudential guideline for non-performing loans. In addition, mortgage lending remained largely subdued because of low average incomes which could not support the facility at such high interest rates (African Development Fund, 2012).

Another problem lied in the criteria used by banks in their lending decision making. Over the years, the proportion of bank credit channelled to individuals who largely engage in consumption borrowing at the expense of productive sectors has remained high. A snapshot of total banking sector loans and advances as at 30 June 2015 showed an annual total of $4.0 billion.

Source: Reserve Bank of Zimbabwe

The construction industry managed to receive only 2.59 percent of the amount loaned out by banks. That translated to slightly over $103 million. It is however not clear how much of that amount was loaned towards housing development.

Banking Sector Investment towards housing

Although there were 18 financial institutions in the country in 2015, some of the major commercial banks such as Stanbic, Barclays and Standard Chartered are yet to venture into housing. The three banks are foreign owned and strategically positioned to access cheap offshore finance. However, they are not active within the housing

investment market. The other participants within the mortgage industry are locally owned, with the exception of CABS Building Society which is a subsidiary of Old Mutual, a multinational company with business interests in other foreign countries.
More importantly, there is no comprehensive data which indicates the extent to which mortgage banks are dedicating their resources towards housing development for the low income segment of the population. However, CBZ Holdings, the country's biggest bank, was reported to have injected $10.4 million in low cost housing in 2015. The investment was for housing Projects in the two cities of Mutare and Gweru (The Independent, 2015).
When the CBZ scheme was underway, the uptake of housing in Gweru's Senga high-density suburb and Mutare's Chikanga high-density suburb was reportedly between 45 and 50%. The Scheme's pricing and qualifying requirements for Gweru's Nehosho housing scheme were as follows;

	5 Year Home Loan		
	2 roomed Unit	3 roomed Unit	4 roomed Unit
Selling Prices ($)	15,173.39	19,631.15	23,945.15
Minimum Deposit 25%	3,793.35	4,907.79	5,986.29
VAT (15%)	2,276.01	2,944.67	3,691.77
Loan Amount	11,380.04	14,723.36	17,958.86
Tenure	5 Years	5 Years	5 Years
Interest rate	14%	14%	14%
Monthly repayment ($)	309.37	399.40	486.53

Africa's FDI Outlook

Whilst the volume of capital seeking cross-border investments has been growing rapidly over the years, developing countries are not receiving due share of the cake. To understand why this is so, it is important to approach the subject with a set of questions whose answers will guide our understanding. Important questions to ask are: Why is real estate capital going cross border? What are the principal drivers? How do investors approach the world of cross-border real estate, among other questions?
The effect of foreign direct investment (FDI) on economic growth has been debated extensively in the economic literature. Saini et al (2010) affirm that the rising interest in this area of research coincides with the shift in emphasis among policymakers towards attracting more FDI inflows in recent years. Beginning in the early 1980s, many countries have lifted many of the restrictions imposed on foreign capital flows. As a result, global FDI inflows rose from $57 billion in 1982 to $207 billion in 1990, climbing sharply to $1.4 trillion in 2000 before declining to $1.1 trillion in 2009 due to the global financial crisis between 2008 and 2009 (UNCTAD report).

Despite such significant amount of foreign investment circulating in the world, Africa as a continent has not benefited much. In fact, its share of the global investment funds has been declining over the last three decades. Specifically, Africa's share of global FDI inflows declined from 9.5 per cent in 1970 to 5.3 per cent in 2009.
African countries, just like the rest of the developing world must be worried about their inability to attract foreign capital to the region. As data from UNCTAD shows, the increase of FDI flows into Africa between 2010 and 2013 from $47 billion to $57.2 billion is commendable, however falling short of the levels required to boost African economies. Of particular concern is the Southern Africa region which attracted a paltry $13.1 billion shared between the region's 10 countries which make part of the Southern Africa Development Community, SADC. The region only managed to attract circa 4% of global FDI. There is however no data regarding the amount of investment attracted towards housing development. As a result, data available presents conceptual problems as no housing investment data is available.
An encouraging phenomena is however noticeable in Africa especially over the last decade. Most countries in the region have undertaken significant steps to attract FDI. Some countries have adopted FDI-specific regulatory frameworks to support their investment related objectives. In some countries, specific policy frameworks such as the establishment of Export Processing Zones (EPZ) were crafted. Under certain EPZ policies, investors were allowed to import plant, machinery, equipment and material for the manufacture of export goods under security, without payment of duty. In some countries, EPZs are referred to as economic development zones (Sichei and Kinyondo, 2012).

FDI in the Zimbabwean Context.

At independence in 1980, foreign capital constituted about 70% of the total capital stock and FDI dominated foreign capital inflows into Zimbabwe. By the mid-1990s, poor economic performance left foreign investors jittery about the direction of both the economy and the country. Political turbulence and the government's defiance of the IMF prescribed economic policies greatly increased investor risk, and brought foreign direct investment flows to a standstill (Bayai and Nyangara, 2013).
In the period between 2000 and 2011, Zimbabwe has not been able to attract significant FDI inflows despite the fact that the country is rich in minerals that include gold, platinum and diamonds that normally attract resource-seeking FDI inflows. The lack of adequate investment over the years has hindered employment, ultimately affecting the country's wider economic growth and development. By 2012, the country's unemployment rate was estimated to be over 80% (Sikwila 2015).

Of the more than $78.4 billion foreign direct investment which found its way into Southern Africa over a 10 year period between 2004 and 2013, Zimbabwe managed to attract a paltry $1.7 billion over the same period

Challenges in att acting eal estate capital towards Zimbabwe

Unfavourable investment climate

Zimbabwe 's current legislation requiring foreign investors to cede 51% control to locals as stipulated in the Indigenisation and Economic Empowerment Act [Chapter 14.33] of 2007 is argued to have caused capital flight as foreign investors are not willing to cede part of their shareholding structure to locals.

Market illiquidity

Cross border investment in property is largely influenced by market liquidity. Illiquid assets such as real estate are not marketable in an environment characterised by illiquidity. The increase in international investment interest in markets such as the US and Europe is largely due to encouraging market liquidity coupled with the availability of high quality real estate stock. The use of bonds helps to prop up market liquidity. The competitive loan pricing environment in those markets is ideal for investors wanting to use debt financing for new projects. To the contrary, the Zimbabwean market context is characterised by a highly illiquid environment.

ABSENCE OF INVESTMENT INCENTIVES

If we are to learn from Europe, some markets such as France are reported to offer incentives for property investment. France's lower taxes and in particular capital gains tax on housing which has been reduced to 16% has made it attractive to investors who plan on disposing of their investment in the future (Property Showroom, 2016).

LACK OF MARKET TRANSPARENCY

Because of the risks associated with cross border real estate investment, there has been renewed impetus in transparency improvements across the world's real estate markets. Global investment data reaffirm the relationship between real estate investment volumes and transparency. Rising levels of transparency are associated with higher levels of foreign direct real estate investment, a powerful incentive for encouraging the free flow of information as well as the fair and consistent application of local property laws. According to a Jones Lang LaSalle (2012) global series transparency report, the world's fastest growing real estate investment destinations are all among the world's top 10 transparency improvers.

Whilst the global buzz on market transparency has not eluded Africa either, what is worrying is that South Africa is the continent's only transparent market sitting well ahead of the rest, with Botswana, Mauritius and Kenya some way behind in the 'Semi-Transparent' category. Most sub-Saharan markets such as Zimbabwe occupy the 'Low Transparency' or 'Opaque' categories, propping up the bottom of the global pack.

CONCLUSION

Despite all the negative factors observed to be affecting real estate investment in Zimbabwe, the residential sector in the country is found to be performing well and better than other sectors. Zimbabwe, which is a developing country faces the same investor reluctance due to the risk factors associated with investing in frontier markets. To attract global capital, countries must offer investment incentives in the form of taxes as well as relaxing laws which hinder foreign direct investment.

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