Borneo Journal of Social Science and Humanities Vol. 1, Issue 01 (June 2019)
DOI: https://doi.org/10.35370/bjssh.2019.1.1-03
e-ISSN: 2682-8235

The Significance and Performance of Listed Property Companies in Some Selected African Countries

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Abstract

Property is one of the major global investment asset class apart from shares and bonds due to the attractive return on investment. Individuals can invest indirectly in property through Listed Property Companies (LPCs) and enjoy income from the returns. This study presents the significance and performance of listed property companies in 10 African countries from 2006 to 2015, with 3 countries from North Africa (Egypt, Morocco and Tunisia) and 7 countries from Sub-Saharan Africa (Botswana, Kenya, Mauritius, Nigeria, South Africa, Zambia and Zimbabwe). The study analyses the risk adjusted performance of 64 LPCs in African countries using the Sharpe Ratio Index in comparison with Shares and Bonds. Correlation coefficient analysis was used to determine the potentials for diversifications among the asset classes within each respective country and across the African countries. The results revealed that only two of the countries (Botswana and Mauritius) LPCs outperformed on risk adjusted basis while the other eight countries (Egypt, Kenya, Morocco, Nigeria, South Africa, Tunisia, Zambia and Zimbabwe) underperformed either shares, bonds or both on risk-adjusted basis possibly attributed to global financial crisis, Political instability, high void rates, corruption, insurgency, and harsh economic conditions. Shares is the most performing asset class outperforming in 6 countries followed by Bonds and LPCs with 2 countries each respectively. The findings further revealed that LPCs offer potentials for diversification to investors in almost all African countries due to the low correlations between the LPCs and the other asset classes (Shares and Bonds).

Keywords: LPCs, Shares, Bond, Diversification Risk-adjusted Return, Sharpe Index

Introduction

Investment generally is referred to as the sacrifice of certain amount now for future return, real estate therefore is identified as a lucrative investment, as a result it draws a significant attention from different investors around the globe (Emele and Umeh 2013). Real Estate investment is an ideal investment option which enables the investor to receive returns which appreciates in real terms in adverse economic conditions. Real Estate investment can be direct or indirect. Direct real estate investment as the name implies is investing directly by the

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investor(s) in physical real estate; while in indirect investment is investing through managed funds or real estate securities, such as real estate investment trusts (REITs), Listed Property Companies, Listed Property Trust, among others (Woychuck, 2012). both the direct and indirect real estate investment has been regarded as an alternative way of investing in Real Estate. The distinct advantage of property qualifies it to be combined with other classes of assets to achieve optimum return in portfolio investment. Real estate equities are developed in particular to provide all types of investors in sophisticated categories and varieties most especially in the internalization and globalization of the real estate market. (Liu et al., 2007; Stevenson, 2003). The major driving force of investment is profit making, this profit is also known as returns, the returns realized from an investment is being surrounded by some certain risk, the terms risk, volatility and uncertainty are often used interchangeably, Uncertainty is an integral part of real estate investment This means the two fundamental basic aspects of every investment is risk and return. The first idea that comes into the mind of investors whenever deciding upon to embark in an investment is the risk associated to the investment and also the returns that the investor will get, usually investments with higher risk are compensated with a higher return and vice versa. Rational investors usually prefer investment with less risk to more risk and more return to less return (Hui and Yu, 2010).

Real estate as an investment has low volatility which leads to competitive risk-adjusted performance (Feldman, 2003). The significant increase of real estate securities in financial investment markets made real estate in Africa to continue receiving widespread attention and interest from both corporate bodies and the general public as one of the favourable and consistent opportunities, Africa is considered as an attractive expansion destination for investors due to the global megatrend such as rapid urbanization and demographic changes (Pwc, 2015). Moreover, Real estate is becoming a driving factor influencing the changing face of entire cities and markets across the continent. Within this context, real estate is increasingly seen not only as a facilitator of business investment and economy but also as a potential source for a competitive advantage (Broll, 2015).

Methodology

This study analyses the performance of 64 listed property companies (property stocks) in ten (10) African countries in comparison with the broader stock market indices (shares and bonds) from January, 2006 to December, 2015. The performance analysis of some countries does not starts from 2006 due to lack of available data and in some cases the companies does not exist as at then. The 64 listed property companies were obtained by adding up the total number of companies from the 10 countries. The main source of data for this research work is secondary data. Data covering 64 listed property companies from 10 individual stock market in the African countries for the period of 10 years from January, 2006 to December, 2015 has been obtained. Monthly return index for all the data comprising of Real estate investment and services (LPC's), shares, bonds and cash (3-month Treasury bill) benchmarks for the various. African countries are collected via Thompson Reuters DataStream. The performance analysis uses local currencies for all the data obtained as international investors will implement their own currency hedging for controlling currency risk (Razali, 2015). The quantitative data is obtained to analyse the average annual return, annual risk, risk return ratio and the Sharpe's

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Index. The 3 months or 91 days Treasury bill was used as a proxy (Razali, 2015. Nguyen, 2011. Wei *et al*, 2014) for risk free rate to obtain the risk premium in other to compute the Sharpe's Index ratio for the various asset classes (property stocks, shares and bonds).

Table 1: Country Number of Companies and Duration of Data Availability

Country	No of companies	Data Availability
Botswana	4	Jan, 2009 – Dec, 2015
Egypt	29	Jan, 2006 – Dec, 2015
Kenya	1	Jan, 2013 – Dec, 2015
Mauritius	3	Jan, 2008 – Dec, 2015
Morocco	5	Jan, 2006 – Dec, 2015
Nigeria	1	Jan, 2009 – Dec, 2015
South Africa	15	Jan, 2006 – Dec, 2015
Tunisia	1	Jan, 2006 – Dec, 2015
Zambia	2	Jan, 2011 – Dec, 2015
Zimbabwe	3	Jan, 2009 – Dec, 2015

Source: (DataStream, 2015)

The table above shows the 10 respective African countries with the data duration available for each country from the DataStream. Four (4) countries (Egypt, Morocco, South Africa and Tunisia) has the full and complete data which captures the range from Jan, 2006 to Dec, 2015. Other countries have shorter durations because not all countries have the same date of establishing listed property companies.

Performance Analysis

The method of performance measurement such as return, standard deviation and Sharpe's Index, have been extensively used in previous studies (Liow, 1997; Liow, 2000; Abdullah & Wan Zahari; Ting, 2002; Ooi & Liow, 2004; Abdul-Rasheed & Tajudeen, 2006;, 2008; Liow & Adair, 2009; Nguyen, 2010a; Nguyen, 2010b; Emele & Umeh, 2013). For instance, Abdul-Rasheed and Tajudeen (2006) used the share price of one property development company and six construction companies in Nigerian to measure the performance of those companies respectively by using the measurements such as return, standard deviation and Sharpe index. The same performance measurements of return, standard deviation, Sharpe Index and correlation coefficient will be used to examine the performance of listed property companies in Africa 2006-2015.

Risk and Return Measurement

The volatility of an asset is measured by the standard deviation of a total return index. The standard deviation represents the magnitude of dispersion around the mean or the expected value. Standard Deviation comprises of broader range of risk including systematic and unsystematic risk in comparison to Beta, β, which concerns only the systematic risk based on the assumption that the unsystematic risk can be diversified and therefore able to be minimized or eliminated. Specifically, standard deviation represents the dispersion of the return from the

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mean that caused by both systematic risk and unsystematic risk. In contrast, β measures the relationship of the performance of a security or portfolio versus the movement of the overall market. In addition to evaluation for the return for each individual, this study also takes into account of the total risk which could be classified as systematic and unsystematic risk. Under such situation, the standard deviation is therefore appropriated to be used.

Risk-Return Ratio

The risk-adjusted return of an asset is measured by the risk/return ratio or the coefficient of variation (CV). CV is a normalized measure of dispersion of a probability distribution also known as unitized risk or the coefficient of variation. It is defined as the ratio of the amount of risk (standard deviation) to the average return (risk/return ratio).

Sharpe's Index

The risk-adjusted return of an asset is measured through the Sharpe's index, which is also known as Sharpe's ratio, developed by William Sharpe in year 1966 to measure risk-adjusted performance of an investment. Sharpe' index measures the excess return received per unit of risk involved. Therefore, three components, namely portfolio or security's total return, risk-free return (risk-free rate) and standard deviation of specific portfolio or security, must be obtained in order to determine the Sharpe's index. Because of the use of standard deviation, the comparison of risk-adjusted performances between all categories of investment is feasible through the Sharpe's index.

The decision rule of the Sharpe's index is that, the higher the value, the better the performance of an investment relative to the risk it takes. A positive value of Sharpe's index is always preferable which simply indicates that the returns are in excess of the total risk taken for the investment after taking into consideration the riskless return factor (McLeod and Van, 2004). In the other way round, a negative value of the Sharpe's index clearly indicates that he returns are in deficit of the total risk which the returns is less or not enough to compensate the higher risk involved in the investment. Higher Sharpe's value indicates that higher investment returns for the particular level of risk taken in any investment and vice versa. Thus, a higher positive Sharpe's value is always preferred as it indicates better investment performance in return after considering the total risk. The risk-free rates were proxies by the cash rates (3 months Treasury bills) of the individual markets under analysis.

Correlation Coefficient

The diversification potential between two assets in this study can be measured by the correlation coefficient between them. The correlation coefficient ranges from -1 to 1. Positive correlations indicate a substitution effect while negative correlation implies diversification potentials (Ting, 2002). The strength of positive relationship increases towards the values from 0 to +1 while negative relationship increases towards values from 0 to -1. As a result, the

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combination of negatively or lowly correlated assets will help to reduce the portfolio volatility. The potentials for diversification among and within the asset classes in Africa will be obtained through the correlation coefficient between the property companies and the other stock market.

The purpose of this study is aimed at analyzing the significance and performance of listed property companies in some selected African countries. The study seeks to answer the questions; what is the performance of listed property companies in the selected African countries in comparison with other asset classes? and what is the potentials for diversification benefits between the listed property companies and other asset classes? The objectives of the study are; to assess the performance of listed property companies in comparison with the broader stock market (stocks and bonds) in some selected African countries and also to determine the potentials for diversification among the asset classes.

Literature Review

Africa's Property market have traditionally lagged behind many emerging and developed economies in the world. The various levels of real estate investment in Africa are low especially in the indirect investment through securitization is poor compared to the global standards and there exist a significant potential opportunity to exploit by investors. African property market is in a good positioned to harness an increasing growth prospects, with over 400 million urbanized populations, constituting about 40% of the total population in the continent. The African property market is rapidly growing and attracting more interest from both local and international investor's occupiers and developers from different part of the world. However, RICS is proceeding with its expansion in Africa which as a result will allow property sectors to attain international standards. Investment in direct property market is continuously regarded as an effective way of hedging against inflation. The investments in direct property market are also characterized by illiquidity, inadequate market transparency and low information efficiency (Sebastian & Schatz, 2009; Hoesli & Oikarinen, 2012). However, the limited flow of foreign investment into the property markets in Africa generally, has been attributed in part to lack of investors' confidence, resulting from low level of research activities and limited information (Lim et al., 2006). The markets are therefore perceived as too risky by international investors. (Abdul Rasheed and Tajudeen, 2006) is probably the first and only known empirical study specifically on risk-return structure of listed real estate-related companies in Nigeria. (Olaleye, 2005, 2008) examined only the diversification strategies adopted by property portfolio managers vis-à-vis other assets. This study addresses the gap by studying the significance and performance of listed property companies in 10 African countries for the period of 10 years (2006-2015).

The Significance of African Property Market

While many multinational corporations have successfully made a track record spanning decades in Africa, many organisations are in the process of widening and extending their operations across the African continent. The indirect property market was found to lead the

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direct property market, indicating that indirect property reflects information on prices quicker than direct property appraisal values (Barkham & Geltner, 1995 & 1996). Investing in Africa means you will need to be conversant with the key regions and the local markets.

Africa is not just big, but very diverse and redefining itself through real estate, from 2001 to 2014, six (6) of the world's 10 fastest growing economies were in sub-Saharan Africa (Pwc, 2015). The growth of Africa's cities is bringing the need for increased number of good quality commercial and residential properties of all types. Retail property construction has been encouraged by the rise of the urban middle class together with the expansion of modern shopping malls are relatively new phenomenon in most of the African cities. Its success has helped to encourage further development. This has increased the numbers of multinational corporations looking for offices in African cities, bringing high demand for quality space, particularly in key regional hubs (Pwc, 2015). The oil and gas sector is a significant driver of activities in many of the Africa's most dynamic office markets, demand from this sector, combined with shortages and extreme lack of supply has made Luanda in Angola one of the most expensive office markets in the world, with prime rents at USD $150 per square meter per month (Pwc, 2015).

By global standards, most property investment markets in the African countries are opaque and small (JLL, 2014), with the exception of South Africa, which is by far the most transparent country in the continent and also largest and most matured market. Other Sub-Saharan markets are currently attracting increased interest from international investors across the world, but the most noteworthy flow of capital in recent years has been from South Africa into the rest of the Sub-Saharan region such as Nigeria and Angola, as a growing number of funds have been established by South African developer/investors targeting the rest of the continent.

Real Estate Maturity in Africa

Transparency Survey (JLL 2014) findings reveal that some African countries in the Sub-Saharan region has made the world's strongest progress in real estate transparency. Five countries from Sub Saharan African markets namely Ghana, Kenya, Mauritius, Nigeria and Zambia have demonstrated significant improvement in transparency scores, this country have secured a position in the Global Top 10 improvers. Major steps forward in regulation, data availability and transaction processes across most key markets have underpinned the positive movement in scores for the region as a whole. While sizeable transparency challenges remain in Sub-Saharan African countries more especially in Angola, Ethiopia Senegal, and, which all remain in the bottom 10 of the transparency index across the region.

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Table 2: Global Real Estate Transparency Index. (African countries)

		2014		2012			
Transparency	Country	Rank	Score	Rank	Score	Change	Score
Transparent	South Africa	#20	2.09	#21	2.18	+1	-0.09
Semi Transparent	Kenya	#48	3.09	#65	3.70	+17	-0.09
	Mauritius	#51	3.14	#59	3.43	+8	-0.29
	Botswana	#55	3.29	#56	3.36	+1	-0.07
Low Transparent	Egypt	#63	3.49	#77	3.88	+14	-0.39
	Morocco	#72	3.67	#76	3.88	+4	-0.21
	Zambia	#76	3.76	#78	3.93	+2	-0.17
	Uganda	#82	3.97	-	-	-	-
Opaque	Angola	#83	3.98	#95	4.58	+12	-0.6
	Ethiopia	#86	4.03	-	-	-	-
	Mozambique	#88	4.20	-	-	-	-
	Senegal	#90	4.20	-	-	-	-
	Libya	#92	4.23	-	-	-	
	Ghana	#95	4.36	#90	4.41	-5	-0.05
	Algeria	#98	4.46	#93	4.49	-5	-0.03
	Nigeria	#101	4.52	#96	4.58	-5	-0.06
	Tunisia	#102	4.63	#89	4.38	+13	+0.25
Not Covered	Zimbabwe	N/A	-	-	-	-	-

(Source: JLL, 2012, 2014)

The table above shows the real estate transparency index and ranking of African countries 2012-2014, with South Africa being the only transparent market among the number of countries, South African property market has been the most performing market of real estate in Africa. Botswana, Kenya and Mauritius are the semi-transparent market, Egypt, Morocco, Zambia and Uganda are the low transparent real estate markets while most of the countries from Africa are Opaque, these includes Angola, Ethiopia, Mozambique, Senegal, Libya, Ghana, Algeria Nigeria and Tunisia. However, Zambia is not covered in the transparency index of 2012 as well as 2014. The real estate transparency ranking of the African countries 2014 shows that South Africa is at the extreme top and is being ranked #20 followed by Kenya 48, Mauritius #51 and Botswana #55. Countries at the middle of the ranking includes Egypt #63 and Morocco #72. Countries at the bottom of the ranking are Nigeria #86, Zambia #92 and Zimbabwe #192 respectively.

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Table 3

Key Economic Indicators of the African Economy

Country	Population Rate (2015) (Million)	GDP (2015) Billion (USD)	Unemployment Rate (2015) %	Inflation Rate (2014) %	Corruption Perception Index (2014)	Global Competitiveness Index (2015)	EIU Risk Rating (E most risky)	World Bank Doing Business (189)
Botswana	2.2	15.2	17.8	3.9	#28	#74	B	#174
Egypt	88	286.4	8.1	10.1	#88	#119	C	#112
Kenya	45	60.9	42	6.9	#139	#90	C	#136
Mauritius	1.3	12.6	7,9	3.2	#45	#39	B	#28
Morocco	33	110.0	5.5	0.4	#88	#72	C	#74
Nigeria	177.2	570.4	6.4	8.1	#136	#127	D	#170
South Africa	54	350.1	24.3	6.1	#61	#56	C	#43
Tunisia	10.9	26.6	15.2	4.9	#76	#87	C	#60
Zambia	14.6	13.8	15	7.8	#76	#96	C	#111
Zimbabwe	12.6	13.6	70	0.1	#150	#124	D	#171

Source; WEF 2014-2015, TI 2014, EIU 2015, Doing Business Report, 2015.

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Results and findings

Table 4
Performance Analysis (Risk Adjusted Return)

Asset classes	Average Annual Return (%)	Annual Risk (%)	Risk Return Ratio	Sharpe index	Rank
Botswana LPCs Performance Analysis (Jan, 2009 – Dec, 2015)					
Property Companies	16.56	22.64	1.37	0.85	#1
Shares	11.65	14.32	1.23	0.76	#2
Bonds	7.08	14.35	2.03	0.44	#3
Egypt LPCs Performance Analysis (Jan, 2006 - Dec, 2015)					
Property Companies	-6.93	67.53	-9.75	-0.15	#2
Shares	-1.24	32.63	-26.28	-0.07	#1
Bond	-1.75	9.53	-5.46	-0.29	#3
Kenya LPCs Performance Analysis (Jan, 2013 – Dec, 2015)					
Property Companies	-68.23	54.60	-0.80	-1.26	#3
Shares	-3.56	19.87	-5.58	-0.22	#1
Bonds	-10.23	16.48	-1.61	-0.67	#2
Mauritius LPCs Performance Analysis (Jan, 2008 – Dec, 2015)					
Property Company	-14.58	27.28	-1.87	-0.29	#1
Shares	-7.61	17.07	-2.24	-0.47	#3
Bond	-1.87	6.87	-3.67	-0.34	#2
Morocco LPCs Performance Analysis (Jan, 2006 – Dec, 2015)					
Property Companies	-33.12	38.67	-1.17	-1.06	#3
Shares	2.16	14.75	6.83	0.12	#2
Bond	2.60	13.00	5.00	0.88	#1
Nigeria LPCs Performance Analysis (Jan, 2009 – Dec, 2015)					
Property Companies	-7.91	38.04	-4.81	-0.94	#3
Shares	-4.12	20.81	-5.05	-0.24	#2
Bonds	2.60	20.63	7.93	0.08	#1
South Africa LPCs Performance Analysis (Jan, 2006 – Dec, 2015)					
Property Companies	-0.42	53.78	-125.26	-0.04	#3
Shares	8.36	13.16	1.57	0.59	#1
Bond	3.25	16.61	5.11	0.16	#2
Tunisia LPCs Performance Analysis (Jan, 2006 – Dec, 2015)					
Property Companies	4.77	29.51	6.18	0.14	#2
Shares	11.70	13.65	1.67	0.82	#1
Bond	-0.75	3.24	-4.32	-0.37	#3
Zambia LPCs Performance Analysis (Jan, 2011 – Dec, 2015)					
Property Companies	3.25	117.39	36.12	0.02	#2

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Shares	15.93	18.22	1.14	0.82	#1
Bond	-6.24	17.77	-1.45	-0.04	#3
Zimbabwe LPCs Performance Analysis (Jan, 2009–Dec, 2015)					
Property Companies	13.61	73.75	5.42	0.11	#2
Shares	12.05	34.59	2.87	0.22	#1
Bond	-5.34	17.74	-3.32	-0.56	#3

Botswana LPCs are ranked #1 with the sharpe index of 0.85, Shares ranked #2 with 0.76 and Bonds ranked #3 with a sharpe index of 0.44 respectively, this simply means that the LPCs outperformed the aggregate market on risk adjusted basis, Egypt shares is ranked #1 with a negative sharpe index of -0.07LPCs, LPCs ranked #2 also with a negative sharpe index of -0.15 and finally Bonds ranked #3 with -0.29 respectively, this clearly indicates that shares outperformed in the market even though with a negative sharpe index. Kenya shares is ranked #1 with 0.22, bonds #2 with -0.67. Mauritius LPCs ranked #1 with -0.29, bonds #2 with -0.34 and shares ranked #3 with -0.47 respectively. Morocco Bonds ranked #1 with 0.88, shares #2 with 0.12 and LPCs #3 with -1.06.

Nigeria bonds ranked #1 with 0.08, shares #2 with -0.24 and LPC #3 with -0.94 respectively. South Africa shares ranked #1 with 0.59 followed by bonds with 0.16 and LPCs with a corresponding sharpe index of -0.24 respectively. Tunisia shares #1 with 0.82, LPCs #2 with 0.14 and bonds #3 with -0.37. Zambia shares also ranked #1 with 0.82, LPCs #2 with 0.02 and bonds #3 with -0.04. finally, Zimbabwe shares also ranked #1 with 0.22, LPCs #2 with 0.11 and bonds ranked #3 with a corresponding sharpe index of -0.56 respectively. The overall results indicated that LPCs outperformed other asset classes in only two countries namely, Botswana and Mauritius respectively. Shares outperformed the other asset classes in six respective countries namely Egypt, Kenya, South Africa, Tunisia, Zambia and Zimbabwe respectively. However, bonds outperformed other asset classes in two countries namely Morocco and Nigeria respectively.

Table 5

Potentials for diversification (Individual country Correlation Coefficient)

Botswana Correlation Matrix (Jan, 2009 – Dec, 2015)			
	LPCs	Shares	Bonds
LPC's	1.00		
Shares	0.77**	1.00	
Bonds	0.53**	0.73**	1.00
Egypt Correlation Matrix (Jan, 2006 – Dec, 2015)			
LPC's	1.00		
Shares	0.01	1.00	
Bonds	0.15	-0.22*	1.00

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Kenya Correlation Matrix (Jan, 2013 – Dec, 2015)			
LPCs	1.00		
Shares	0.37**	1.00	
Bonds	0.65**	0.55**	1.00

Mauritius Correlation Matrix (Jan, 2008 – Dec, 2015)

LPCs	1.00		
Shares	-0.56**	1.00	
Bonds	-0.37**	0.38**	1.00

Morocco Correlation Matrix (Jan, 2006 – Dec, 2015)

LPCs	1.00		
Shares	0.60**	1.00	
Bonds	0.45**	0.55**	1.00

Nigeria Correlation Matrix (Jan, 2009 – Dec, 2015)

LPCs	1.00		
Shares	0.68**	1.00	
Bonds	0.31**	0.11	1.00

South Africa Correlation Matrix (Jan, 2006 – Dec, 2015)

LPC's	1.00		
Shares	0.77**	1.00	
Bonds	-0.31**	-0.12	1.00

Tunisia Correlation Matrix (Jan, 2006 – Dec, 2015)

LPCs	1.00		
Shares	0.78**	1.00	
Bonds	-0.68**	-0.79**	1.00

Zambia Correlation Matrix (Jan, 2011 – Dec, 2015)

LPCs	1.00		
Shares	0.46**	1.00	
Bonds	-0.38**	-0.29*	1.00

Zimbabwe Correlation Matrix (Jan, 2009 – Dec, 2015)

LPCs	1.00		
Shares	0.44**	1.00	
Bonds	0.14	0.58**	1.00

**Correlation is significant at the 0.01 level.

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In Botswana, the results reveals that the correlation coefficient between LPC's and shares is high with r = 0.77 and as result does not offer potentials for diversification to investors. However, on the other way round the correlation between LPCs and bonds is lower with r= 0.53, as a result it provides diversification benefits to investors. The correlation between shares and bonds is also high with r= 0.73 signifying no potentials for diversification benefits to investors. Egypt results reveals that the correlation coefficient between LPC's and shares is very low with r = 0.01, the correlation between LPC's and bonds is also low with r=0.15. However, the correlations between shares and bonds gives a negative value of r= -0.22 and as result offers potentials for diversification among all the asset classes to investors. Kenya results reveals that the correlation coefficient between LPC's and shares is low with r = 0.37 and as result offer potentials for diversification to investors. However, on the other way round the correlation between LPC's and bonds is high with r= 0.65, as a result it does not provides diversification benefits to investors. The correlation between shares and bonds is also moderate with r= 0.55 signifying potentials for diversification benefits to investors.

Mauritius results reveals a negative correlation coefficient between LPC's and shares with r = 0.56 and as result offer potentials for diversification to investors. Furthermore, on the other way round the correlation between LPC's and bonds also provides a negative result with r= -0.37, which also offers potentials for diversification to investors. The correlation between shares and bonds is low r= 0.38 signifying potentials for diversification benefits to investors.

Morocco The results reveals that the correlation coefficient between LPC's and shares is high with r = 0.60 and as result does not offer potentials for diversification to investors. Furthermore, on the other way round the correlation between LPC's and bonds also provides a lower result with r= 0.45 which also offers potentials for diversification to investors. The correlation between shares and bonds is higher than the others with r= 0.55 signifying potentials for diversification benefits between shares and bonds to investors. Nigeria results reveals that the correlation coefficient between LPC's and shares is high with r = 0.68 and as result does not offer potentials for diversification benefits to investors. Furthermore, on the other way round the correlation between LPCs and bonds also provides a lower result with r= 0.31 which also offers potentials for diversification benefits to investors. The correlation between shares and bonds is lower than the others with r= 0.11 signifying better potentials for diversification benefits between shares and bonds to investors.

South Africa The results reveals that the correlation coefficient between LPCs and shares is high with r = 0.77 and as result does not offer potentials for diversification benefits to investors. Furthermore, on the other way round the correlation between LPCs and bonds provides a negative result with r= -0.31 which also offers potentials for diversification benefits to investors. The correlation between shares and bonds is lower than the others with r= 0.12 signifying better potentials for diversification benefits between shares and bonds to investors. Tunisia results reveals that the correlation between LPC's and shares is r=0.78, the higher correlation between the LPC's and the shares clearly indicates that there are no potentials for diversification benefits between the two asset classes. However, on the other way round the negative low correlations between LPC's and bonds with r= -0.68 indicates that there are potentials for diversification benefits to investors. Shares and bonds also have a negative correlation with r= -0.79 indicating a better potential for diversification between the two asset classes.

Borneo Journal of Social Science and Humanities Vol. 1, Issue 01
(June 2019)
DOI: https://doi.org/10.35370/bjssh.2019.1.1-03
e-ISSN: 2682-8235

Zambia analysis reveals that the correlation between LPC's and shares is r= 0.46 which is higher than the correlations between LPCs and bonds with a negative r= -0.38, the results clearly indicates that there are potentials for diversification benefits between (LPCs and shares) and (LPCs and Bonds) due to the low correlations between the asset classes respectively. The correlation coefficient between shares and bonds is r = -0.29 thereby indicating diversification benefits between the two asset classes. Zimbabwe results reveals that the correlations between LPCs and the other two asset classes, shares and bonds are both low with r = 0.44 for shares and r = 0.14 for the bonds respectively. This clearly indicates that the low correlations between the LPC's and the other two asset classes provides potentials for diversification benefits to investors. The correlations between shares and bonds tends to be higher with r = 0.58 indicating to room for diversification potentials to investors.

Practical implication and Conclusion

This paper has presented and highlighted the significance and performance of listed property companies in Africa comprising of 10 countries (Botswana, Egypt, Kenya, Mauritius, Morocco, Nigeria, South Africa, Tunisia, Zambia and Zimbabwe) over the period of 10 years (2006-2015), risk adjusted return analysis and portfolio diversification benefits of the property securities in relation to other asset classes has been explored. Over the period of the study LPCs outperformed in some markets among the three asset classes (LPCs, Shares and Bonds), such as Botswana and Mauritius and were ranked #1, LPCs in Egypt, Tunisia, Zambia and Zimbabwe was ranked #2 while in other countries such as Kenya, Morocco, Nigeria and South Africa were ranked #3 respectively. LPCs provides diversification benefits among the asset classes in the various African countries because the asset classes (LPCs, shares and bonds) are not correlated. The significant implication from this research is also to bring a profile of the 10 African countries property market from the perspective of foreign investors. It is worth noticing that in the economic aspect, most of the African countries are recognized for their achievements in economic development, in improved economic environment and conditions, and technological development.

The low and poor performance of the property companies is attributed to: corruption, political instability, harsh economic conditions such as inflation and high unemployment rate faced by most of the African countries, devaluation of currencies, low occupancy rates (voids) as a result of oversupply of properties, fall in oil price, insurgencies in some of the countries which lasted for a long years and disruption in recent years which leads to difficulties in obtaining construction permits. In addition, most of the companies are engaged in property development which is subject to high exposure to risk due to the excessive high leverage involved and higher exposure to property development risk.

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