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Research article

ACCESSIBILITY TO REAL ESTATE FINANCE IN GHANA: POLICY DIRECTIONS FOR STAKEHOLDER ENGAGEMENT IN THE CONSTRUCTION INDUSTRY

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Abstract

A diverse range of finance is employed by private real estate developers. These are commonly categorised into three types: personal investment, external finance and public investment. Personal investment includes personal savings and gifts from family and friends while private external finance comprises overdrafts, loans, asset finance (leasing and high purchase), asset-based finance (factoring, invoice discounting and stock finance) and equity finance. Public investment is in the form of enterprise grants, subsidised loans and public equity finance. A questionnaire survey and informant interviews were conducted to ascertain from corporate real estate developers and financial institutions (commercial banks, development and merchant banks) the underlying role and determinants of real estate finance. Analyzing a data set of 69 members of Ghana Real Estate Developers Association (GREDA), it has been observed that there is a difficulty in the financial lending system with majority of real estate firms deriving most of their funding from Commercial Banks and through advance deposit from prospective homeowners. Financial difficulties result from restrictive monetary policies, financial and legal policy, transaction conditions and financial lending policies of lending institutions. Inability of corporate real estate developers to provide acceptable collateral and lack of personnel are contributory to the demand factors limiting access to funding.

Keywords: Real Estate, Finance, Construction, Policy, Stakeholders Engagements.

1.0 Introduction

Real Estate development in Ghana is changing in response to developments in the nation's political economy. The real estate delivery systems are in transition, as a part of the general trend towards privatisation, the liberation and decentralisation of public tasks. The strategies for monitoring have become a critical instrument for ensuring the survival and efficient operators of firms. Corporate Real estate developers are confronted by challenges which require allocation of scarce resources (land, cash, lines of credit, and the like) to various land uses so that the value of the developers' benefit flow can be optimized. Short term loans are invariably the most available forms of finance in Ghana but it becomes a challenge for corporate developers to acquire loans to appropriately pay back in time due to their inability so sell their products in the short term. Real estate investment periods take a longer time for recuperation, as the product development process takes a long time to and from the land acquisition stage, through the construction to leasing or eventual sale of the property. The World Bank estimates that registering formal ownership/lease over a piece of unencumbered land in Ghana is the third longest registration process in the world (World Bank, 2004).

Government intervention is required to create the conducive environment for the effective flow of cash for operators is one of the important sources of funding for corporate real estate development. As a responsibility, it is imperative for the government to strive to create the economic conditions necessary for the stability the housing finance market to thrive (Karley, 2002). Among some of these interventions is the establishment of Home Finance Company (HFC) to provide secondary mortgage to individuals, as well as companies and groups to purchase houses constructed by private real estate developers. The government has introduced certain incentives into the country's Investment Code for the benefit of those who want to invest in housing. They include tax holidays, zero rating of all equipment and machinery imported into the country and unrestricted transfer of loan and interest repayments, in addition to dividends, fees and royalties (Corporate Ghana, 2005).

The Ghana government in 1990 established the Home Finance Company (HFC) with the objective to provide the service and raise funds for real estate finance. On its inception it was owned equally by the Government of Ghana, Merchant Bank (Ghana) and the Social Security and National Insurance Trust (SSNIT) (HFC, 2008). The assumption behind this approach was that the government, representing society, can be more risk tolerant as compared to banks, which have the object of maximising risk adjusted profit. The HFC provides funding to prospective home owners but does not fund the operations of corporate real estate developers. Corporate real estate developers in Ghana access finance for development at the same inter-bank loan rate with no form of discount. Since the collapse of the Bank for Housing and construction in the mid-1990s which aimed to develop formal debt finance systems for the construction sector, Ghana has not benefited from any special construction bank to ease the financial constraints facing the developers.

1.1 Rationale

This research stems from three interconnected consideration relative to the state development in Ghana. Firstly, that there has been a rapid expansion in the range of public private sector initiatives in terms of the range and magnitude of financial facilities available in recent times. Secondly, that there is a general recognition of the importance of the real estate markets in various economies serving as an engine of growth. Thirdly, despite the speedy growth in financial liberalisation, there is widespread perception that financial difficulties continue to exist. These difficulties are perceived to be the main constraints on real estate growth in financial liberalisation.

This paper is intended to contribute evidence – based information towards the provision and understanding of financial practices of real estate firms in Ghana. Data results and analysis as well as policies directions are presented in two sections. The results and analysis of data cover financial sources, difficulties in the acquisition of finance; characteristics and financial decision of real estate firms are presented.

2.0 Overview of Literature

There are suggestions that poor access to private external finance relates to demand-side problems, particularly a lack of information about available sources, rather than a lack of available credit (Fraser, 2004). Generally, there is a gross persistence of informal financing form throughout Ghana. Residential property owners in Ghana use their own sweat equity, barter arrangements and remittances from abroad to build their houses (Debrah, Ibrahim and Rufasha, 2002 and Erguden, 2002).

2.1 Finance for Real Estate Development

Funds for real estate development in Ghana are acquired from diverse sources. Some are obtained through the debt finance with some banks in the country giving financial support to real estate developers provided all requirements are fulfilled. Surveys by Debrah *et al*, 2002 and Erguden, 2002) throughout the country also indicate the persistence of informal financing methods such as the use of homeowners' own sweat equity, barter arrangements and remittances from abroad. Loans are given on short, medium and long terms repayment period with interest rates charged on them. Forms of loans that can be considered by real estate firms in Ghana include mortgage facilities, and appropriations from institutions such as building societies, investment trusts, merchant and commercial banks, mortgage companies, pension funds, insurance companies, credit union property bonds etc.

2.2 Difficulties in Raising Finance

Most small and medium sized firms in Ghana felt constrained in their access to credit (Ofei, 2001). Access to finance for real estate development is influenced by the characteristics of the corporate real estate institutions such as age, size (number of employees, turnover, profitability, net worth, etc) and legal status. Corporate real estate developers in developing countries like Ghana are small in size. As short term loans are the most available forms of finance in Ghana, real estate developers who acquire loans to pay back within the agreed period due to their inability so sell their products in the short term. Real estate investment periods take a longer time for recuperation, particularly when viewed from the land acquisition and development stage, through the construction to leasing or eventual sale of the property. The World Bank estimates that registering formal ownership/lease over a piece of unencumbered land in Ghana is the third longest registration process in the world (World Bank, 2004). Corruption and land disputes, especially involving public lands in urbanizing areas, have been experienced by significant majorities (CDD Report, 2000). Interruption in the development process, are frequent from corruption and land disputes. (20% to 30%) and most operate or a to value ratio of between 70, which makes it difficult to grant for loans. Given the loan-to value ratio (between 70% and 80%) and the low level of returns in the country, it makes it difficult for most of the corporate real estate developers to qualify (Boamah, 2002, and Asare, 2004). Finally, the assessment of the credit worthiness of corporate real estate developers is difficult for the banks as many potential borrowers have only limited association with banks.

2.3 Characteristics of Real Estate Firms

The financial behaviour of firms in association with their characteristics can be considered in two groups of factors. Explicitly, the first group of factors refer to the characteristics of the firm; thus its size and age. The second group reflects decision criteria made by real estate firms; thus use of external advisers, legal status and existence of business plan. The age of a firm is measured by the number of years since the firm was established up to the year of survey. A company size is one determinant of financial structure. In general, large firms rely on more long-term debt, even if the level of short-term debt is independent of the size (*Booth, et al 2001*). This empirical finding can be explained by the relatively low bankruptcy costs of large firms, the fact that large firms can be more diversified, and transaction costs for market issues. This suggests that small firms may be less levered than large firms and may prefer to borrow through bank loans. In developing countries, larger firms normally have better access to credit markets, and so particularly to long-term debt (*Schmukler and Vesperoni 2000*). The most common perception of owner-managers about the factors influencing their choice of legal status has been that limited company status gives them greater credibility (*Frye and Zhuravskaia, 2000*), and it is perceived as a method of solving problems in raising finance.

2.3 Ghana Real Estate Developers Association

The Government of Ghana's intervention has helped to establish the Ghana Real Estate Developers Association (GREDA) as an initiative for public and private sector participation in housing investment and delivery. GREDA was formally inaugurated on 28th October, 1988 with 34 members, after a series of meetings between the Ministry of Works and Housing and invited Estate Developers. GREDA is registered under the laws of Ghana (Act 179 of the Companies Code of 1963) as a Private Company limited by guarantee. As of the 2011, membership of GREDA stood at 69.

The objectives for which the Association was formed are (GREDA, 1999):

i. To provide a central organization for real estate developers
ii. To provide a united front in making recommendations to the government on ways of promoting real estate development and in seeking solutions to the practical problems in the property market
iii. To promote the development of residential estate, to increase the stock of housing units thereby ensuring adequate provision of affordable housing for all classes of the population
iv. To pool resources together towards greater economies of scale in real estate development and also ensure that products of members conform to national building standards and planning laws.
v. In the spirit of the search for appropriate technology, the Association shall promote the use of local inputs and finance research into the suitability of local building materials in the country
vi. To liaise with financial institutions in developing an effective mortgage house ownership scheme for prospective owners and also impress on the institutions the need for long-term financing in real estate development
vii. To establish links with real estate institutions and allied bodies at home and abroad with the aim of promoting the development of the industry.

GREDA draws together representatives of Government departments, property professional bodies, brokers and major developers to co-ordinate public policy and the private sector endeavours. Much of the information in this paper is drawn from GREDA members.

2.0 Research Methodology

To identify the nature and the causes of financial market constraints in real estate development in Ghana data for the research was drawn from a cross-section mail survey. The objective for data collection was to establish the nature and causes of constraints in real estate development finance in Ghana. The items relating to financial variables leading to the perceived existence of financial difficulties were extracted from a review of literature and preliminary interviews with senior managers of banking and real estate companies on debt and equity constraints as well as information inadequacy in the financial market environment.

The questionnaires consisted of thirty questions mainly; closed-ended and scaled-response types and the questions were printed on standard A4 sheets with an introductory letter as a cover page. The questionnaires were divided into four sections: Background and firm characteristics, current financial sources, financial difficulties and firm's financial proficiency and acquisition of skills.

The questionnaire was pilot-tested on 6 companies selected from the list of Ghana Real Estate Developers Association members with offices in Kumasi. A random selection from this list is expected to give a sample with characteristics similar to the population. This sample gave a Cronbach's alpha of 0.72. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient and therefore the 0.72 suggests a good reliability result.

A major realization from the pilot test was the difficulty in identifying respondents with adequate information on the companies' financial management record and decision making process. In response, initial checks were made through telephone - to identify individuals for the survey. A total of 69 questionnaires were sent to all GREDA members. Realizing the need to obtain a high response rate, the total design methodology suggested by *Dillman (1978)* was followed, and 48 responses (yielding a 69.6% response rate) were received. An estimate of non-response bias was calculated by testing the differences in the means of 3 variables in the two groups which indicated no significant differences.

Respondents described their current positions as managers, financial manager, managing director, chief accountant and Chief Executive Officer. Their functions involved sales of houses, debt contracting, and advanced payment negotiation, inviting negotiating equity and debt contracts with relatives, friends and banks. These individuals were generally involved in financial management decision making as well as activities in the company. One questionnaire was rejected because the respondent, from his position held and activities in the company, was judged to have inadequate knowledge and could not be relied upon to give accurate information.

The investigators examined three aspects of the data to determine the suitability of using PCA as a data reduction technique: (1) bivariate correlations; (2) the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy; and (3) Bartlett's test of sphericity.
Initial results are presented in 2 sections. Firstly, the results and analysis of data on the difficulties in the acquisition of external finance for real estate development is presented. The second part presents the initial result of the causes of financial difficulty under both demand and supply.

3.0 Results, Analysis and Discussion

3.1 Characteristics of Real Estate Firms

The financial position and behaviour of the real estate firms are influence by their characteristics with reference to the period of firm's establishment, number of residential properties, number of employees, legal status, annual turnover and expenditure which are all key factors that influence the total value of the firm's real estate holding in Ghana. The characteristics of the firms captured in the survey are as set out in table 1.

The operations of employee of real estate firms is very much dependent on the legal ownership as the chi-squared test value of differences is 181.6 ($p < 0.005$; df =3). Private Limited Company are the dominant ones (Table 1) accounting for 40 out of the 48 real estate firms. The number of real estate firms in each ownership classes varied significantly over period of establishment ($\chi^2 = 7.74$; df = 3, $p<0.1$). The legal form of a business company has some influence on the level of difficulties in obtaining external finance which affects their operations and existence. The choice of legal form, particularly the choice of incorporated status for small business in the United Kingdom, has been examined in detail by Freedman and Godwin (1992, 1994) from surveys of entrepreneurs and business and observed that the prime benefit of corporate status is a limited liability, followed by apparent increased credibility which the business has with both its customers and its lending institutions. Consequently private limited companies are able to derive high benefit and ensure their prevalence.

Table 1: The distribution of real estate firms according to period of establishment, legal status and size of employees

Number of Employees	**Ownership Status (L)**	**Period of establishment of real estate firms**				**Total**
		<10years	**10 - 20 years**	**21 - 30 years**	**>30years**	
<50 workers	L1	0	0	0	0	12
	L2	12	0	0	0	
	L3	0	0	0	0	
	L4	0	0	0	0	
50-75 workers	L1	0	0	0	0	18
	L2	1	10	0	0	
	L3	4	2	0	0	
	L4	0	1	0	0	
76 -100 workers	L1	0	0	0	0	2
	L2	0	2	0	0	
	L3	0	0	0	0	
	L4	0	0	0	0	
>100 workers	L1	0	0	0	0	16
	L2	0	10	4	1	
	L3	0	0	0	0	
	L4	0	0	0	1	
Total		17	25	4	2	48
Total	L1= 0; L2= 40; L3= 6; L4= 2					

L1 = Enterprise/ Sole Proprietorship; L2 = Private Limited Company

L3 = Partnership/ Joint Venture; L4 = Others (e.g. Public Trust/ Funds)

The number of employees of a real estate firm does not have much influence on the prevalence of real estate firms in Ghana ($\chi^2 = 2.58$; df = 3, $p<0.10$). Table 1 shows that, apart from the low number of workers (4 %) in the class 76-100, all the workers classes have between 25-37.5 % of the total work force. This is perhaps in contrast with the observation made by Hall (1995) who observed that the probability of a firm failing increases with expansion of size. There is the possibility that large firms may be in a better position to build a better banking relationship, credit history or satisfy the financial lending requirements of banks to qualify for funding. Additionally, smaller firms have limited access to capital markets, locally and internationally, in part because of the perception of higher risk, informational barriers, and the higher costs of intermediation for smaller firms. As a result, small real estate firms often cannot obtain long-term finance in the form of debt and equity. However, the difficulty in raising finance is still prevalent and cuts across all sizes of real estate respondent firms in Ghana.

Most real estate firms in Ghana which were established between 10 and 20 years are predominantly private limited companies. This is partly due to the fact that the death or misappropriation of managerial role of the manger of a real estate firm can lead to its collapse making enterprise or sole proprietorship misguided option. Moreover, only 2 public trust or funding institutions invest in real estate development leaving the rest of the real estate industry in the care of the private sector.

3.2 Financial Expenditure and Turnover of Firms

The prevalence of real estate firms is less dependent on the annual financial expenditure ($\chi^2 = 0.99$; df = 3, $p<0.40$). However, real estate firms with annual financial expenditure exceeding GH ¢1.5 m are slightly dominant, accounting for 50 % of firms (Table 2). Besides the number of real estate firms in each period of establishment, firm class varies significantly over annual financial expenditure of ($\chi^2 = 9.67$; df = 3, $p<0.022$).

It has been documented that in the early years of existence, young firms cope with a significantly lower survival rate than incumbents. Reasons point both to firm-level characteristics such as smaller size for young firms, structure of ownership (*Audretsch and Mahmood, 1999*) and access to financial resources (*Aghion, Fally and Scarpetta., 2006*) and to industry characteristics such as the minimum efficient scale, technological regime (*Audretsch, 1991*) and the stage of the industry life cycle (*Argawal and Audretsch, 1995*). Firms differ in their levels of capitalisation, sales and employment hence, definitions such as number of employees, turnover, expenditure, profitability and net worth are employed in the measurement of firm size. The observation is consistent with the research that larger or more profitable firms are likely to have access to a larger pool of earnings that can easily be reinvested in the firm, as well as a broader set of credit instruments.

Table 2: The distribution of real estate firms according to annual expenditure and annual turnover

		Annual expenditure (GH ¢1000)				
Annual Turnover (GH ¢1000)		<500	500-999	1000-1500	>1500	Total
	<500	4	0	0	0	4
	500-999	4	4	0	0	8
	1000-1500	0	9	1	5	15
	>1500	1	0	1	19	21
	Total	9	13	2	24	

3.3 Dependence of Real Estate Firms on Lending Institutions

Ghana currently has 21 commercial banks; 121 rural banks, 7 finance lease companies; 15 finance houses, 2 discount houses and 18 insurance companies. With the exception of the Bank of Ghana and delegated supervisory bodies, each of the financial firms hold the potential to deliver housing finance to meet effective demand in the housing market.

Majority of real estate firms derive most of their funding from Commercial Banks with a Relative Importance Index (RII) of 0.954 (Table 3), Advance deposit is the second most important source of funding for real estate firms with RII of 0.908, followed by Merchant Banks with RII of 0.879. Most of the banks (including Home Finance Company (HFC) Bank, Fidelity Bank and others) that provide funding for real estate development operate as commercial banks. Currently there are 25 commercial banks operating in Ghana which offer products and services like mortgage facilities to individuals provided they qualify for funding. Some real estate developers most invariably demand a percentage of the total cost of construction, known as advance deposit, from prospective homeowners to fund their activities. This financial option eliminates interest rate charges which makes it lucrative provided developers are able to secure such funding. Merchant Banks in Ghana concentrate most of their activities on providing funding for timber and mining companies in the 1990s but lately these banks have been funding real estate development.

Some factors were identified as the main strategies that real estate developers consider in seeking finance from lending institutions. Some of these are information asymmetry, agency cost, tax implication, inflation, corporate policy, bank's limit of lending, interest rate, prepayment conditions, maturity period, transaction cost, credit history, ownership of asset during financing, and cash flow of firm.

Table 3: Rank of importance of financial sources for real estate development in Ghana

	Frequency of Ranking								
Factors	**1**	**2**	**3**	**4**	**5**	**Total**	**Weightings**	**RII**	**Ranking**
Commercial Banks	1	1	0	4	42	48	229	0.954	1st
Development Bank	36	12	0	0	0	48	60	0.250	7th
Merchant Banks	1	2	3	13	29	48	211	0.879	3rd
Leasing Companies	27	12	5	0	4	48	86	0.358	5th
Finance Houses	40	8	0	0	0	48	56	0.233	11th
Discount Houses	39	8	1	0	0	48	58	0.242	9th
Building Societies	36	9	0	0	4	48	74	0.308	6th
Mortgage Finance Institutions	23	18	0	3	4	48	91	0.379	4th
Venture Capital Funding	38	8	2	0	0	48	60	0.250	7th
The Trust Houses	39	8	1	0	0	48	58	0.242	9th
Insurance Companies	43	5	0	0	0	48	53	0.221	12th
Advance Deposit	1	2	0	12	33	48	218	0.908	2nd

RII = Relative Important Index

3.4 Factors Influencing Pursuit for Real Estate Finance

In deciding to seek finance for development many real estate developers are influenced mostly by interest rate with highest Relative Importance Index (RII) of 0.963 (Table 4.). Profitability cash flow is the second most important factor which affects the seeking of finance by real estate firms with RII of 0.883, followed by transaction cost with a RII of 0.804. The results conform to observations made by *Binks et al*. and *Confederation of British Industry (1993*). Funding from banks in the initial years are difficult, as younger real estate firms are less likely to command bank loans especially when they have no established track records (*Binks, 1990*). The cost of borrowing in Ghana currently attracts an interest rate of between 25% and 30% (*Ghana News Agency, March, 2012*). Real estate developers seek funding from lending institutions at the same inter-bank rate making their operations relatively expensive. Generally, the real estate industry in Ghana is characterised by uncertainty in future cash flow predictions which increases the challenge of attracting funding from lending institutions. Owing to the fact that there are long-term financial difficulties in Ghana as shown in Table 7, it becomes a challenge to secure long term loans for real estate activities considering the development duration. Moreover, funding for real estate development are therefore locked up for all that duration affecting repayment of any source of external funding. In order to offset the risk involved in lending funds to real estate developers, financial institutions lend at high interest rates as a form of insurance against future default in repayment.

Table 4: Rank of importance of constraints influencing financial decisions by real estate firms in Ghana

	Frequency of Ranking								
Factors	**1**	**2**	**3**	**4**	**5**	**Total**	**Weightings**	**RII**	**Ranking**
Information asymmetry	1	9	26	9	3	48	148	0.617	11th
Agency cost	6	8	29	5	0	48	129	0.538	12th
Tax implication	5	17	16	9	1	48	128	0.533	13th
Inflation	1	4	4	26	13	48	190	0.792	4th
Corporate policy	1	2	19	18	8	48	174	0.725	6th
Banks' limit of lending	2	4	24	14	4	48	158	0.658	10th
Interest rate	1	0	0	5	42	48	231	0.963	1st
Prepayment conditions	1	0	22	9	16	48	183	0.763	5th
Maturity period	1	4	17	18	8	48	172	0.717	7th
Transaction cost	1	4	5	21	17	48	193	0.804	3rd
Credit history	1	5	25	8	9	48	163	0.679	8th
Ownership of asset	1	0	30	13	4	48	163	0.679	8th
Profitability Cash flow	1	1	0	21	25	48	212	0.883	2nd

RII = Relative Important Index

The factors were further subjected to principal components analysis (PCA). Prior to performing PCA the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of 0.3 and above. The Kaiser-Meyer-Oklin value was 0.601, exceeding the recommended value of 0.6 (Kaiser, 1970, 1974) and the Barlett's test of sphericity (Bartlett, 1954) reached statistical significance ($\chi^2 = 466.5$; $p<1.01x10^{-40}$ and df = 78), supporting the factorability of the correlation matrix. The principal components analysis revealed the presence of four axes with eigenvalues exceeding 1.0, explaining 39.72 per cent, 15.91 per cent, 12.87 per cent and 9.06 per cent of the total variance respectively, resulting with a cumulative variance of 77.56 %. The loading of variables are presented in Table 5.

Table 5: Rotated Component Matrix of Factor Analysis

Factors	**PC1**	**PC2**	**PC3**	**PC4**
Information Asymmetry	0.260	0.315	**0.778**	0.146

Agency Cost	0.127	-0.042	**0.875**	0.084
Tax Implication	-0.479	0.382	0.004	**0.664**
Inflation	-0.114	**0.880**	0.223	0.020
Corporate Policy	0.270	0.548	-0.163	**0.571**
Banks' limit of lending	0.236	-0.073	0.089	**0.865**
Interest Rate	0.558	**0.663**	0.075	-0.002
Prepayment Conditions	**0.891**	0.029	0.271	0.140
Maturity period	**0.827**	0.085	0.128	0.309
Transaction cost	**0.815**	0.279	0.237	-0.253
Credit history	0.196	0.306	**0.773**	-0.334
Ownership of asset during financing	0.424	0.510	0.332	0.204
Cash flow of firm	0.413	0.507	0.353	0.079

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Further analytical test using the principal component analysis (PCA) (Table 5) identified the **financial conditions, micro-economic indicators, financial information** and **lending policies** as decisive factors used by real estate developers in seeking finance. Real estate firms like any other small firm usually are required to meet strict loan requirements as prepayment conditions as ranked highest in seeking finance for real estate development. The empirical results presented above confirms to observations made by *Binks 1990 and De Soto 2000,*. Lack of material security or collateral is the most prepayment condition required to receive financial assistance from financial institutions, (*Binks et al., 1990*). The necessity to provide collateral against loans has become the inhibiting factor for some real estate firms since they may be owned by persons with limited resources. One reason for the low long-term debt ratio of developing countries is the impact of inflation. High and volatile inflation rates prevent corporate borrowing. Especially long-term debt financing is affected due to higher contracting costs (*Demirgüc-Kunt 1999*). The results also corresponds to research by *Chen, Lin et al. (2008*) who indicated that, financial statements are dressed up to the point that they do not accurately reflect a company's profitability, and companies frequently hide material information or delay its disclosure. Because periodically-disclosed financial statements do not provide warnings of problems, information asymmetry prevents investors from being fully informed and protected (Zhou, 2009).

3.5 Determinants of Level of Funding for Real Estate Development

The mean annual turnover for the past 5 years of real estate firm (GH¢) is the most important determinant of current total value of real estate firms with the highest *t*-value of 399 as shown in table 2. The financial demand by real estate firm from lending institutions (GH¢) is the second most important variable influencing variation in the current total value of an estate firm with *t*-value of 386.3. The number of constructed residential properties for outright sale by firm is also very important determinant of total value of a real estate firm with *t*-value of -330.91, even though it contribution is negative. Capital formation of a firm is the highest ranked variable influencing financial savings by real estate firms, with a *t*-value of 4.42. The period of establishment of a firm is the second most important and significant variable which affects the variation in financial savings of a real estate firm with a *t*-value of 43.58.

The relationship between the number workers of real estate firms and the number of constructed residential properties for outright sale by the firm is positive, linear and highly significant with a coefficient of determination of 87.7 %. There is a positive, linear relationship between period of establishment of real estate firms and number of constructed residential properties for outright sale which is also highly significant with a coefficient of determination of 39 % and probability level less than 0.00021 %. Results of the research also reveals that the number of constructed residential properties for outright sale by real estate firms have a positive relation with the age of firm, mean annual expenditure and firm size (number of employees).

Table 6: Determinants of Level of Funding for Real Estate Development

Variable	**Coefficient**	**t-statistic value**	**Probability level**	**Rank of Importance**
Intercept	-1085.80	-298.822	3.41E-64	
(x2) Employment size	-1.21889	-46.4341	2.09E-34	9
(x3) Mean annual turnover	1.184724	399.95	7.09E-69	1
(x4) Mean annual expenditure	-0.00608	-2.68	0.011053	10
(x5) number of residential properties	3.496291	189.97	6.41E-57	7
(x7) Residential properties for rent	2.798663	271.04	1.26E-62	4
(x8) Residential properties for sale	-0.53567	-330.91	7.84E-66	3
(x9) Residential properties for lease	-1.30101	-182.87	2.62E-56	8
(x11) Financial demand	1.398933	386.30	2.56E-68	2
(x12) Financial supply	-0.44578	-249.54	2.68E-61	5
(x14) Mean annual savings	-0.32192	-193.49	3.25E-57	6

The model which relates current total value of a real estate firm (y) to variables which significantly contribute to this total value is given below:

$$\mathbf{y = 1.184724\, x_3 - 1.21889\, x_2 - 0.00608\, x_4 + 3.496291\, x_5 + 2.798663\, x_7 - 0.53567\, x_8 - 1.30101\, x_9 + 1.398933\, x_{11} - 0.44578\, x_{12} - 0.32192\, x_{14} - 1085.8\ ;\ R^2_{adj} = 99.99\ \%}$$

Cooley and Quadrini (2001) assume young firms have a limited amount of equity and play off the mechanism that external debt financing involves higher costs. Production allows firm to accumulate equity through retained earnings. A firm's equity grows as it ages. The accumulation of internal equity reduces a firm's reliance on debt. The portion of debt used for financing falls even through a firm may continue to increase its debt with expansion. Within *Cooley and Quadrini (2001)'s* framework, leverage ratios should fall with age as a firm's need for debt falls. *Cooley and Quadrini (2001*)'s prediction of a negative correlation between age and leverage (debt-to-asset ratio) is consistent with the current data. This suggests that current real estate firm's growth increases with the firm's asset level and financial conditions.

3.6 Difficulties in obtaining External Financing

Financial demand factors which pose as financial constraint were identified as follows: lack of adequate financial control, absence of forward planning, deficiencies in the financial and managerial skill, real estate firms' inability to repay loan on time, inability of real estate firms to provide acceptable collateral, inability of real estate firms to provide a viable business plan and lack of personal financial contribution.

The rank of importance of financial demand factors in Ghana is shown in Table 4.16. Majority of real estate firms are unable to provide suitable collateral so as to enable them demand financial aid with the highest Relative Importance Index (RII) of 0.954 (Table 8). The capacity to repay loan on time, is also the second important factor with RII of 0.679 followed by personal financial contribution restraining real estate firms from accessing financial aid.

Table 7: Statistics of tenure of financial difficulties

Tenure	Frequency	Percentage
Short Term Difficulty (Less than 1 year)	21	25.6
Medium term difficulty (1-3 years)	26	31.7
Long term difficulty (more than 3 years)	35	42.7
Total	**82**	**100**

The results are consistent with observations made by *Binks et al (1990*). Binks observed that lack of material security or collateral is the most serious bottleneck in receiving financial assistance from financial institutions, (Binks *et al*., 1990). The necessity to provide collateral against loans has become the inhibiting factor for real estate developers since most companies have limited resources. In some cases, some of the real estate firms are unable to comply with collateral requirements because they are unable to present appropriate documents/ certificates of ownership. Furthermore, procedures to obtain such documentation take an extended period, *(Bernanke, Gertler & Gilchrist, 1996*). In Ghana, financial institutions mostly require the value of the collateral to be higher than the loan value real estate developers seek to acquire and this becomes a challenge to the developers.

Table 8: Rank of importance of financial demand factors in accessing funding for real estate development in Ghana

	Frequency of Ranking								
Factors	**1**	**2**	**3**	**4**	**5**	**Total**	**Weightings**	**RII**	**Ranking**
Adequate financial control,	18	22	5	1	2	48	91	0.379	7th
Forward planning	24	7	13	2	2	48	95	0.396	6th
Financial and managerial skill	2	16	20	9	1	48	135	0.563	4th
Capacity to repay loan on time,	1	1	26	18	2	48	163	0.679	2nd
Provided acceptable collateral	1	1	1	2	43	48	229	0.954	1st
Provide a viable business plan and	4	19	18	6	1	48	125	0.521	5th
Personal financial contribution	5	2	30	2	9	48	152	0.633	3rd

RII = Relative Important Index

Supply factors were hypothesised as contributing factors in accessing funding for real estate development in Ghana. These are lending policies, high lending cost, lending conditions, co-operating banking institutions, legal framework, limited capacity of banks, rapid expansion of real estate firms, lack of perceived viability of proposal, lack of credit history and exceeding the limit of past borrowing. High lending cost of borrowing is the most important difficulty of financial supply to real estate developers (Table 9), with a Relative Importance Index (RII) of 0.904. Co-operating banking institutions is the second most important difficulty of supply of funding with RII of 0.708, this is followed by stringent lending conditions with a RII of 0.688.

Table 9: Rank of importance of financial supply factors in financing real estate development in Ghana

	Frequency of Ranking								
Factors	**1**	**2**	**3**	**4**	**5**	**Total**	**Weightings**	**RII**	**Ranking**
Adequate lending policies	4	0	27	12	5	48	158	0.658	4th
High Lending Cost	1	3	2	6	36	48	217	0.904	1st
Stringent lending conditions	1	4	25	9	9	48	165	0.688	3rd
Co-operating banking institutions	1	8	7	28	4	48	170	0.708	2nd
Legal framework	1	13	24	5	5	48	144	0.600	5th
Capacity of banks	5	12	22	5	4	48	135	0.563	7th
Rapid expansion of real estate firms	10	28	4	3	3	48	105	0.438	10th
Perceived viability of proposal	5	9	25	5	4	48	138	0.575	6th
Credit history	14	13	17	4	0	48	107	0.446	9th
Exceeding borrowing limit	10	18	16	0	4	48	114	0.475	8th

RII = Relative Important Index

Chung (1995) and Mushinski (1999) point out that there are high lending costs related to loan application in the formal sector which is consistent with the results of this study. Economic transactions are conducted in highly uncertain and risky environments, which engender eminently more volatile returns to investment. Results from the study are also consistent with finding by Boleat and Coles (1987). Countries with a developed real estate finance system tend to experience low costs of development and the use of the assets to support broad investment opportunities through formal institutional frameworks (Boleat and Coles, 1987). The co-ordination of banking institutions enhances the share of the cost of funding to real estate developers, since the risk involved in financing would not be so great to warrant such high lending conditions. Lending conditions are caused by the costly acquisition and asymmetric distribution of information, which lead to the problem of moral hazard and adverse selection.

3.7 Policy Inferences

Without stakeholders, this research would not fully achieve its intended applications, particularly when it has given prominence to finance institutions and real estate developers in their financial practices. The research has developed some direct applications to benefit the real estate industry of Ghana. It has also been conducted to enlighten policy makers on the improvement of financial accessibility and provision of requisite financial mechanisms to be at the forefront of real estate development in Ghana. The government, academicians, financiers and developers are therefore challenged by the subsequent policy recommendations regarding direct applications emerging from this research, to spearhead their formulation aimed at the country's vision 2020, thus, achieving the millennium development goal of reaching a middle income status.

3.7.1 Institution of a public deposit insurance policy

The structure of the liability side of banks' balance sheets limits the effectiveness of financial intermediation in Ghana. Most of the deposits held by banks are short-term. This increases the risks that banks face in terms of meeting their obligations at any given moment. Short-term deposits raise the risks associated with lowering reserves and extending additional credit. In addition, a short-term liability structure makes it difficult to extend medium- and long-term credit. If resources are tied-up in longer maturity loans, a bank's ability to meet short-term obligations is compromised. A public deposit insurance policy could reduce the risks associated with short-term deposits and encourage the extension of a larger supply of medium- and long-term credit. At the same time, steps would need to be taken to make sure that banks' asset portfolios are not excessively risky in order to avoid "moral hazard" problems that beset some systems with deposit insurance.

As in other sectors, innovation in the financial sector has the potential to increase productivity and social welfare, but it can also contribute to herd behaviour, bubbles and panics, and crashes. The techniques and art of supervision must be able to follow financial-sector innovators into new territory where, by definition, innovation will always have a head start.

3.7.2 Establishment of Credit Guarantee Schemes to Reduce Risk Premiums

As mentioned above, substantial risk premiums can prove debilitating for investments in real estate development-improving activities. Extending credit to medium- and long-term productive investments such as real estate development is not attractive to banks in Ghana because of the perceived risk and the availability of substitute assets, such as treasury bills, that have high returns and are less risky. One way of reducing the risk associated with these investments is to have the government guarantee a portion of the loan to support approved projects. Government loan guarantees have implications for fiscal policy, since a non-performing loan would place demands on public resources. However, with adequate safeguards to prevent abuse, underwriting loans is a viable strategy to lower risk premiums for investments like real estate development with intensive growth.

One potential problem with loan guarantees is that they can create the wrong incentives for borrowers. If real estate developers bear no responsibility for the consequences for non-performing loans, then the incentive to insure that real estate-oriented investments bear fruit is weakened. Therefore, it is important to design a loan guarantee scheme that reduces risk premiums while simultaneously preserving a system of monitoring and accountability on the part of the developers. This could include requiring the borrower to supply some form of collateral, even if a large portion of the loan were guaranteed. The collateral requirements could be far less stringent than would be the case for other types of loans.

The interest rate charged on guaranteed loans would be lower than the prevailing market rate. The appropriate level for the concessional interest rate would be a weighted average of the market rate of interest for the type of loan extended and the risk- free rate of return on government securities. At this rate of interest, the program would not place any economic burden on the banks that participated in the guarantee scheme. However, this suggests that the lowest possible interest rate would be the prevailing rate on government securities (for a 100% secured loan).

Therefore, such a credit guarantee program can only lower the cost of borrowing so far. The program would be more effective if paired with strategies to reduce the average cost of borrowing, including the risk-free rate, throughout the Ghanaian economy.

3.7.3 Establishing more Mortgage Institutions

Real estate finance has to be seen in the context of the national economy and more specifically the national financial system. Most of the banks in Ghana offer mortgages to customers. Ghana Home Loans and HFC which is the dominant housing finance institution have made a marginal progress in dealing with the country's acute housing shortage. The low delivery of residential properties is largely contributed by the lack of formal credit facilities to cater for a sizable population. HFC, the mortgage institution established by the government to partner with banks for residential property delivery cannot alone serve the country as a whole. Substantial progress could be made if policies are made to ensure the establishment of more diverse lending institutions, publicly or privately which would eventually encourage healthy competitions to make the scheme more accessible.

3.7.4 Increase of Institutional Interest in Real Estate Investment Trust (REIT)

Ooi Liow, (2002) examined the growth of Real Estate Investment Trust – REIT markets in Asia. Favourable regulatory changes by governments have provided the necessary catalyst for REIT growth. Two main factors driving the success of REITs in the USA and Australia are their tax exemption status and high dividend pay-outs. The introduction of REITs has also improved the liquidity and efficiency of the real estate market, as well as the corporate governance of real estate organisations in these countries. The establishment of REITs in Ghana to replicate these factors would stimulate its optimal growth. Ooi et al, (2002) also noted that REITs in Japan and Singapore had performed very well, with price appreciation dominating the total returns for most listed REITs.

In response to the need for alternative financing by Ghanaian developers, real estate trust companies must emerge to fill this gap. The institutional interest of investors in REITs would be prudent economically stemming from the fact that, the real estate sector is invariably the least sensitive to the business cycle as well, with portfolio of stable tenants and portion of space occupied by tenants are fairly small in contrast with other properties.

Nonetheless, Home Finance Company, Real Estate Investment Trust (HFC REIT) is hopeful that the country's crude oil production will enhance the growth prospects of the real estate sector, and in turn presents significant growth opportunities of its future investments. The HFC REIT recorded GH 4,389,548 representing increase in net assets in 2010, as against GH 3,312,946 in 2009 (Business & Financial Times, July 2011). The value of funds increased from GH5.66 million to GH 9.57 million, an increase of 70% over the period under review.

Ghana's market for real estate finance environment must have many mezzanine funds. The lack of secondary market for real estate related mortgages could suggest an over-reliance on commercial bank lending by developers. As a form of securitisation, REITs may therefore offer a more acceptable alternative for divestment where developers can raise funds and yet retain claims on the cash flows by keeping a controlling stake in the REIT units.

3.7.5 Manufacturing and Supply Companies

The impact of significant cost of local materials on residential properties leaves much to be desired. Some building materials such as Portland cement, lime, pozzolana, burnt clay bricks and tiles and timber are readily available in Ghana. The Building and Road Research Institution (BRRI) has done extensive research into the development and use of local building materials which currently only requires policies for their implementation. The implementation would require the establishment of new factories, machine reproducing industry and production units as well as the rehabilitation or expansion of existing industries to use a greater percentage of their idle capacities. The government could then adopt an integrated participation policy, entering into joint ventures with private interest, local or foreign to enhance the development in large and medium scale building materials manufacturing industries aimed at promoting trade credit and high purchase services for real estate firms.

4.0 Summary of findings, Recommendation and Conclusion

The research identified that most of the real estate firms were established between the last 10 and 20 years. Legal ownership of private limited companies is dominant accounting for 48%. All the workers classes of real estate firms have between 25-37.5 % of the total work force. Real estate firms with annual financial expenditure exceeding GH ¢1.5 m are prevalent, accounting for 44 % of firms. Majority of real estate firms have a total value of real estate holding more than GH ¢1.5 m, accounting for 54 % of firms. Majority of real estate firms derive most of their funding from Commercial Banks grading it with a Relative Importance Index (RII) of 0.954. Financial decision of real estate developers is influenced by interest rate with a Relative Importance Index (RII) of 0.963. Further analytical test using the principal component analysis identified financial conditions, micro-economic indicators, financial information and lending policies as decisive factors used by real estate developers in seeking finance. Majority (79.2 %) of real estate firms indicated that there was a difficulty in the financial lending system. On demand and supply factors associated with raising finance, provision of acceptable collateral. High lending cost of borrowing is the most important difficulty factor of financial supply to real estate developers.

This research has also been conducted to enlighten policy makers on the improvement of financial accessibility and provision of requisite financial mechanisms to be at the forefront of real estate development in Ghana. This research recommends that the government of Ghana creates the enabling environment to facilitate real estate financial accessibility to enhance growth in the sector. Therefore by establishing more mortgage institutions, improving and expanding the local building material industry and increasing of institutional interest in real estate investment trust, real estate development can experience the extension of a larger supply of medium- and long-term credit.

4.1 Conclusion

The World Bank describes Ghana as a success of Africa, which makes the country a haven for prospective investors. This accolade comes along with a demand for addressing real estate challenges, which would lead to the provision of enabling environment for investors (Attakora, 2006). It is recommended that stakeholders (real estate developers, financial lending institutions and government) apply the results of this study to revitalise the successful growth of the real estate sector. In doing so real estate financial difficulties may be diminished whilst more lending institutions would be encouraged to participate in funding real estate activities. Real estate firms are advised to introduce attractive schemes in real estate mortgage to secure initial funding from prospective homeowners since that seems to be a lucrative source of funding. The government through Act of Parliament can enact laws to implement the above mentioned policies and ensure the implementations of these policies to create the enabling environment for effective real estate delivery.

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