International Journal of Development and Sustainability
Online ISSN: 2168-8662 – www.isdsnet.com/ijds
Volume 2 Number 4 (2013): Pages 2286-2310
ISDS Article ID: IJDS13051601

ISDS JOURNALS

Special Issue: Development and Sustainability in Africa – Part 3

Addressing corporate real estate finance gap in Ghana

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Abstract

The existence of real estate firms and ensuring their growing concern grossly depend on the availability of funds and accessibility to working capital. The objective of this paper is to examine financial gaps in real estate financing in Ghana and consider the approach to reduce them. To examine this, questionnaire survey was conducted on all members of Ghana Real Estate Developers Association (GREDA). Factor analysis was used to identify the major factors of financial gaps. The results however, indicated that moral hazards, limited capacity of banks, transaction conditions and legal policies as well as management challenges as some of the financial gaps in real estate delivery. To facilitate the smooth running and/or effective accessibility to funding, it was recommended that there should be management and financial restructure of lending institutions, provision of proper financial and discounting policies, and adequate financial legal policies to encourage long term financing in the real estate sector.

Keywords: Strategy, Financial Gap, Real Estate

Cite this paper as: Nkyi, B.A. and Dinye, R.D. (2013), “Addressing corporate real estate finance gap in Ghana”, *International Journal of Development and Sustainability,* Vol. 2 No. 4, pp. 2286-2310.

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1. Introduction

Corporate real estate firms in Ghana most invariably are confronted with factors that inhibit timely investment recovery. In the light of this holistic management of resources must be a prime concern for optimal value creation in the industry. Among other resources, financial accessibility is a basic essential for every corporate real estate firm. Financial accessibility is a vital element in any organizational setting that requires cogent attention, proper planning and management. Real estate is a capital intensive investment and developers often face challenges in accessing finance, to complete the various stages in their development process which they commence with cash savings and personal loans from family members. Local banks advance just 2% of financial assistance to the housing sector as against 27% for commerce and finance and 22% for manufacturing, (Ghanaian Times, July 18, 2005, p. 7).

Some researchers have identified financial gaps in developed countries even though others are of the view that there were no such gaps (Galizia and Steinberger, 2001). One of the main reasons why finance for real estate delivery has received little attention is the large capital that is needed to buy or rent a residential property (Derban, 2002). Most banking institution however, demand higher interest rate and guarantees rendering loan acquisition intricate. According to Hanson, 2001, financial lending institutions in Ghana are constrained by improper project appraisal, prevalent falsified activities, none payment of loans, lack of venture capital engagement and skepticism of the populace in the banking system. In Ghana, lack of access to long term capital is a major barrier to real estate delivery. Even though the government policies recognises the private sector's dominant role in housing provision, the banks have short term funding and unable to lend on medium or long-term bases, thus crippling the real estate industry.

The remainder of the paper proceeds as follows. Section 2 and 3 discuss the related literature and research methodology respectively. Section 4 illustrates results of the empirical financial gaps and strategies in bridging them. Section 5 concludes the paper.

2. Literature review

Instability in the financial sector hinders the ability of companies to finance viable investment (Modigliani and Miller, 1958). Growth and investment can be achieved from both debt and equity sources. Capital imperfections, however, dwindle investment opportunities of firms. The financial structure of firms become inconsequential when there is equitable access to capital market by all firms. Practically, uneven access to finance prevents any exchange of debt and equity funding due to agency cost, asymmetric information, tax and transaction cost. Equity gap is highly dependent on the inability to access credit by corporate real estate firms (Sufi, 2009).

2.1. Debt gap

Gap is defined as unwillingness on the part of suppliers of finance to supply it on the terms and conditions required by business. Expressed in its most casual form, indications of a 'gap' include the difficulties of obtaining small sums of equity capital, of the difficulties which some businesses have in obtaining bank finance (Charvel et al., 2006). In generic terms, financing constraint defines the difference between the demand and supply of external finance by lending institutions over a given period and measures the need for external funds. Debt constraint which can be described in terms of 'finance gap' is a function of limited debt funding opportunities for small firms because the cost of debt to small firms is significantly greater than for large firms (Lemmon and Zender, 2004).

Most financial institutions believe that it is risky and administratively expensive to lend to small firms, including real estate establishments (Kiser et al., 2012; Colombo and Grilli, 2007) and even if the small firms do get external finance, they are usually required to pay a higher rate of interest and offer a higher level of security and collateral (Charvel et al., 2006; Dennis, 2010). Small firms can experience a loan gap because they have insufficient business collateral (Hellmann and Stiglitz, 2000). It is believed that, as firms grow in size, they may enjoy less expensive financial options since "the prospective lenders have a greater degree of trust in large firms, and accordingly a lower perception of risk" (Chakraborty and Hu, 2006; Jiménez et al., 2006).

Financial institutions are also unwilling to lend because of the high mortality and failure rates of small firms (Guidici and Paleari, 2000; Kiser et al., 2012). The financial characteristic which distinguishes small firms from large is their relatively high probability of failure (Kiser et al., 2012). Research has shown that the mortality rate of small firms was high among younger firms. In the United Kingdom, the mortality rate of new firms can be as high as 33 percent within two years of starting and 60 per cent within five years (Pettit and Singer, 1985). However, the mortality rate of U.S. small firms is 70 per cent and most of these failures occur in the first year of operation (Bain, 1990).

Many reasons have been cited to explain the importance of collateral valuation before loan application is approved. One of them is that the function of collateral is to minimize risk (Menkhoff et al., 2006; Barclay et al., 2001) and the collateral offered is viewed as the last line of defense for the underlying loans (Chen, 2006). Thus, for these reasons, banks will often make loans on a secured basis in order to reduce the credit risk involved. Based on these reasons, what would be the alternatives to traditional collateral that commercial banks may consider for real estate financing? Due to its nature, real estate loan has high credit risks. Real estate loan is inherently a risky business for commercial banks because the real estate is subjected to the macro and micro economic indicators. Failure of projects will affect repayment schedules. A proper and competitive pricing policy is required to ensure that both parties are protected.

Real estate firms like any other small firm usually are required to meet strict loan requirements. Lack of material security or collateral is the most serious bottleneck in receiving financial assistance from financial institutions (Atanasova and Wilson, 2004). The necessity to provide collateral against loans has become the inhibiting factor for real estate firms since most companies are owned by persons with limited resources. In some cases, these firms are unable to comply with collateral requirements because they are unable to present appropriate documents/ certificates of ownership and, furthermore, procedures to obtain such documentation take an extended period of time, (Atanasova and Wilson, 2004).

A firm with limited or no access to external capital may be seriously constrained in its ability to pursue an optimal investment policy which, in turn, may hinder the firm's growth (Levine, 2004, Knyazeva et al., 2009). Since real estate firms are generally more financially constrained compared to their relatively large counterparts, they are, less likely to be the engines of growth in the business sector.

2.2. Equity gap

The problems of 'equity gap' among firms reflect both demand and supply factors, (Lemmon and Zender, 2004). On the demand side, small firms are reluctant to surrender equity to outsiders because of the perceived loss of independence, control and freedom of action, dilution of earnings and the cost involved (Lemmon and Zender, 2004). Most firms actively resist external participation in order to avoid control by outsiders (Manigart and Struyf, 1997). Some firms are also reluctant to seek external equity because they are often unfamiliar with the investors, with their protocol and criteria and often the implications of an external equity investment (Bozkaya and Van Pottelsberghe De La Potterie, 2008).

However, on the supply side, the availability of external equity finance for small firms is limited and many institutional investors find that investment in small firms is not attractive because the risks are not commensurate with the potential returns (Bollingtoft et al., 2003). Moreover, the majority of new small firms are unincorporated and hence, do not have access to external equity (Audretsch and Lehmann, 2004).

2.3. Information and knowledge gap

The fact that some firms have difficulty in obtaining finance is not necessarily an evidence of capital market bias. The problem of asymmetric or incomplete information is especially acute (Brierley, 2001), often resulting in a shortage of capital or capital that can only be obtained under unfavourable terms and conditions. In this regards, real estate firms may be prevented from getting loans due to lack of information and awareness level. Lack of knowledge or imperfect information is the main reason why some real estate firms fail to approach appropriate funding bodies (Monk, 2000; Perry, 2001; Carter and Van Auken, 2006). However, Prater and Ghosh (2005) and Confederation of British Industry, CBI (1993) pointed out that the root of the problem often lies with the owner managers themselves. This is because, they tend to react late to information and they do not approach the appropriate persons for advice until a funding crisis occurs.

There are several possible reasons for co-movement of financial and economic indicators. A common explanation for challenges in accessing finance is *information asymmetry* between borrowers and lenders (Gonzales, 2009). Information asymmetry occurs when one party to a transaction has more or better information than the other party. It causes markets to become inefficient since not all market participants have access to the information they need for decision -making.

Another source of financial gap in the financial sector is the *measurement of risk in the financial market over time,* as reflected in lending and financial investment decisions (Gonzales, 2009). Risk assessment or viability of real estate investment arises from a variety of reasons: difficulties in forecasting overall economic activity and its link with credit losses; and, difficulties in assessing how correlations of credit losses across real estate developers and institutions in the financial system change over time. This encourages financial institutions to focus on the short-term, foregoing longer-term considerations in the measurement of risk. The ability to measure risk on a longer horizon, while considering system-wide developments, will not only contribute to the soundness of financial institutions but also to the reduction in the financial amplification of economic cycles.

2.4. Financial planning and management gap

Globally, management weaknesses seem to be one of the problems facing most real estate firms. It has been suggested that the lack of capital among firms is typically an indication of poor financial management (Monk 2000; Macleod and Terblanche, 2005). Management gaps have been evident in emerging firms through coherent financial analysis (Monk, 2000; Perry, 2001; Macleod and Terblanche, 2005; Carter and Van Auken, 2006).

Poor financing planning is also found to be one of the problems of real estate firms (Monk, 2000; Carter and Van Auken, 2006). Most of them are unable to match the sources and uses of funds (Binks et al., 1990). Financial planning is of high importance in corporate firms (Kazan et al., 2006). This suggests that, for the growth of firms, there is the need for business managers to have foresight in planning financially and plan ahead before being confronted with the issue.

There is an entrepreneur gap, and it is a knowledge and skill constraint with behaviour implications. The knowledge required is of how and where to get funds, and of what kinds of projects are likely to get funds. The skill requirement is in management, particularly in financial management and financial planning control (Drury, 2004).

Research on managerial capital of firms has attracted the attention of some researchers (Bertrand and Schoar, 2003, or Bennedsen et al., 2007). These researchers believe that proper organisation of capital can enhance a firm's productivity inputs. Additionally, managers play a foremost role in shaping the capital configuration of their firms, business plan and investment approach. Small businesses not only have limited access to capital but also to management resources. Several recent papers suggest that management education, as well as management practices, are of lower quality in developing countries than in developed countries (Chaudhry, 2003; Bloom and Van Reenen, 2010).

2.5. Ghana Real Estate Developers Association (GREDA)

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.

3. Research methodology

In this paper, investigation was conducted on the causes of financial market gaps in real estate development in Ghana using a data of registered members of Ghana Real Estate Developers Association.

The items relating to financial variables leading to the perceived existence of financial gaps were extracted from a review of literature and preliminary interviews with senior managers of banking and real estate companies on debt and equity gaps as well as information inadequacy in the financial market environment.

The questionnaires consisted of thirty questions mainly; closed-ended and scaled-response types divided into four sections: Background and firm characteristics, current financial sources, financial constraints and firm's financial proficiency and acquisition of skills.

The questionnaires were 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. The results and analysis of data on the causes of financial gaps under both demand and supply are presented in the next section.

4. Results and analysis

4.1. Gaps in obtaining external financing

Regardless of the immense role that real estate plays in the economy of every nation mingled with the ingenuity of the emerging lending industry, there are inherent gaps impeding the financing of the real estate industry. This section concentrates on factors that have resulted in the financial lending gaps and strategies in reducing any identifiable gaps.

4.1.1. Financial tenure difficulty

Financing constraint defines the difference between the demand and supply of external finance by lending institutions over a given period and measures the need for external funds. To achieve strong empirical backing to theoretical underpinnings of the study, a number of factors were considered.

Majority (79.2 per cent) of real estate firms indicated that there was a difficulty in the financial lending system while the minority (20.8 per cent) believe that there is no financial lending difficulty. Statistics of the duration of financial supply from lending institutions to real estate developers over an agreed period of time (tenure) has been presented in Table 1.

Table 1. 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**

Source: Researcher's field survey, 2013

The most prevalent financial tenure (42.7 %) is long-term of more than three years. Majority of the real estate firms believe that long term financial difficulty was very severe in the lending system of real estate finance. Short-term finance could be secured by real estate developers if their documentations and proposals appear to be viable through an efficient proof of repayment within the agreed period. Home ownership remains the key priority of most Ghanaians. However due to difficulties in financing, this priority has remained a dream for a significant proportion of the population. Despite the importance of real estate development in Ghana mingled with the global financial market, there are still intrinsic challenges in acquiring finance by the developers.

4.1.2. Factors of financial demand and supply

Demand factors associated with raising real estate finance are the internal constraints that the developers face in accessing finance from lending institutions. Financial lending institutions such as banks, insurance, leasing and investment companies, building societies and mortgage institutions make up the supply factors. These institutions advance funds to individuals, businesses and the government by borrowing them from primary sources. In the cause of business transaction, the unwillingness on the part of suppliers of finance to supply it on the terms and conditions required by real estate developers lead to the difficulties in obtaining finance.

4.1.2.1. Financial demand factors

Demand factors which pose as financial constraint identified were 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 2. 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 2). 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.

The results are consistent with observations made by Hellmann and Stiglitz, 2000, Charvel, Gonzales and Olivas 2006; Dennis, 2010. Hellmann and Stiglitz observed that lack of material security or collateral is the most serious bottleneck in receiving financial assistance from financial institutions, (Hellmann and Stiglitz, 2000). 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, (Charvel et al., 2006). 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 2. 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	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

The results are also consistent with observations made by Miles *et al,* 2000 who ascertained that lenders may require developers to incur soft cost as equity contribution and, also ensure that thorough monitoring of all aspects of construction development and loan disbursement are done in conformity with engineering and architectural plans. Financial lending institutions require real estate developers to make personal financial contribution sometimes as high as 30 per cent of the amount they seek for which inhibits the activities of the developers.

Major concerns lie in the long time horizon and large capital investment necessary to convert land into a merchantable product. This affects the capacity of real estate developers to repay loans on time especially in Ghana where long term loans are not well developed. If residential properties are not developed and sold or leased within the short or medium term loan duration, repayment becomes a major challenge. Besides technical engineering problems, the real estate developer must deal with the volatile and constantly changing costs over the planning and construction periods.

4.1.2.2. Financial supply factors

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 3), 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 3. 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	0.6	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

The results are consistent with a study conducted by Dennis, 2010 who reported that the formal sector experiences high lending cost in external debt financing. The dicey conditions in which financial transactions are conducted threatens eminent investment returns. Results from the study are also consistent with finding by Beck and Demirgüç-Kunt (2006). 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 (Beck and Demirgüç-Kunt, 2006). 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. Owing to this regard, financiers demand some form of collateral or security from real estate developers so that in default of the debt, the funds can be recovered. Because some real estate firms lack assets to provide as collateral, and lack the “track record” necessary to establish their reputation, the financiers tend to put in place stringent lending conditions by charging higher interest rates, processing fees and insurance costs to all borrowers to cover the cost of additional monitoring requirements as well as the likelihood of bad debts and default on outstanding commitments.

Most financial institutions believe that it is risky and administratively expensive to lend to small firms, including real estate establishments (Beck, 2007; Kuntchev et al., 2012). The factors (Table 3) were 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 correlation coefficients of 0.3 and above. The Kaiser-Meyer-Oklin value was 0.602, exceeding the recommended value of 0.6 (Kaiser, 1970, 1974) and the Barlett’s Test of Sphericity (Bartlett, 1954) reached statistical significance (χ = 552.1; $p<1.03\text{x}10^{-20}$ and df = 153), supporting the factorability of the correlation matrix.

In order to clearly interpret the eiginvalues loadings, these principal components were further subjected to factor rotation using the varimax with Kaiser normalization method (Kaiser, 1970, 1974). Only values greater than 0.30 have been listed as recommended by Pallant (2001). The resultant rotated component matrix is displayed in Table 4 giving the same six principal axes but with slightly different loadings.

The eighteen factors have been summarized into six new groups which are significantly different and explain the real estate financial sources of funding constraints. From Table 4, the first principal component (PC1) gave four factors, mainly, is when the real estate firm has exceeded its limit of borrowing, lack of credit history, lack of perceived viability of proposal and failure to establish a legal framework. However this financial difficulty is associated with transaction conditions and legal policies of lending institutions.

Transaction costs of lending, refers to the cost of administering credit and the cost of the risk of default. These are the costs involved in establishing and conducting financial relationships. Most often than not, lenders have less information about the expected success of projects. Lending transaction cost is influenced by administration credit costs and loan default risk costs. Funds from formal finance institutions tend to be more expensive than that of the informal which become a preferred option of firms Aghion et al. (2007). Application procedures for funding are easier in the informal sector as well as lower transaction costs since informal lenders manage greater information about loan applicants (Oliveira and Fortunato, 2006).

Returns of real estate development are highly uncertain. Often there is a high probability of failure combined with the possibility of high returns if successful. Due to fixed interest payments banks do not participate in the high returns of successful outcomes, they are therefore more concerned with the probability of failure when calculating the price for the loan which can lead to high interest rates or to the decision not to lend at all (Jiménez et al., 2006).

Firms in financially established countries with strong property rights most invariably have increased levels of investment funded by debt finance while those in weaker financial established countries suffer from inefficient financing from institutional sources (Beck et al., 2004). This confirms to the results presented above in Table 4 (PC2). The legal and judicial arrangements of a country have positive impact on its funding processes.

Table 4. Rotated Component Matrix of Factor Analysis of financial demand and supply difficulty factors

Component	1	2	3	4	5	6
When the firm has exceeded the limit of its borrowing	0.950					
Lack of credit history	0.874		-0.304			
Lack of perceived viability of proposal	0.871					
Failure to establish a legal framework	0.833					
Inability of real estate firms to provide a viable business plan	0.594			0.423		
Absence of co-operating banking institutions		0.898	0.326			
High Lending Cost		0.688				0.301
Too rapid expansion of real estate firms		0.620	0.308	-0.540		
Stringent lending conditions		0.614	-0.481			
Deficiencies in the financial and managerial skill			0.809	0.341		
Real estate firms' inability to repay loan on time			0.734			
Lack of adequate financial control				0.868		
Absence of forward planning	0.459		0.868	0.531		
Lack of adequate lending policies			0.531		0.762	
Inability of real estate firms to provide acceptable collateral					0.646	
Lack of personal financial contribution	0.303				0.605	0.446
Limited capacity of banks						0.930

Source: Researcher's field survey, 2013

In Ghana, the Bank of Ghana is responsible for formulation of all financial policies binding the operations of financial institutions. Banks in Ghana face the challenge to enforce financial contracts due to the subtle nature of legal institutions in the enforcement of contracts. Nonpayment of loans by defaulting institutions is largely as a result of poor returns on investments, particularly because of bad management of projects. Projects are sometimes re-financed in the anticipation of resuscitation by financial lending institutions.

However, information asymmetry hinders transparency for banks to take requisite measures to monitor and evaluate defaulting institutions.

The second principal component (PC2) consists of absence of co-operating banking institutions, high lending cost, too rapid expansion of real estate firms and Stringent lending conditions. It is reasonable to suggest that these factors may be inherent in one principal factor, mainly *financial lending policy* of lending institutions. Real estate firms finance investment through a combination of internal and external funds. Inducing investment from either source depends on some degree of legal protection. The willingness of firms to reinvest internally generated funds depends on protection of basic property rights (Carpenter and Peterson, 2002; Johnson et al., 2002); which is consistent with empirical data of this research. The willingness of banks to lend depends on the ability to capture collateral pledged in support of loans (Atanasova and Wilson, 2004); and the willingness of outside equity investors to take a minority ownership position depends on protection against the threat of stealing, or tunnelling by insiders (Johnson et al., 2003; Shleifer and Wolfenzon, 2002). The ability to tunnel is reduced when the quality of the legal system is improved (Himmelberg et al., 2001). Outside ownership also implies the need for formal registration of the firm and more formal accounting systems (Djankov et al., 2002, Johnson et al., 2002, Shleifer and Wolfenzon, 2002).

An improved legal system has the ability to enhance credit and eliminate the use of collateral to access debt finance (Jappelli et al., 2002). An improvement in the legal system reduces the cost of moving to the corporate form of organization by reducing the cost of finding outside partners. An improvement may also increase the benefits of incorporation by, for example, increasing the demand for real estate properties.

The third principal component (PC3) consists of deficiencies in the financial and managerial skill, real estate firms' inability to repay loan on time and absence of forward planning. However this financial difficulty is associated with *management challenges* of real estate firms. Financial planning in businesses is a key to survival. It is essential for business managers to plan their financial needs before setting out to seek capital. Unfortunately, while managers are aware of the benefits of financial planning, they fail to pay reasonable attention to these activities and they only plan when they are already faced with a need for funds. Human capital in the field of real estate management, including education, age, working management experience and the personal wealth or family resources of managers may also play a vital role in gaining access to the financial capital market since efficient management skills enhances the ability of firms to repay loans on time.

As firms with more human capital and good track record of success with business viability are more likely to receive funding from financial institutions it becomes imperative for managers of real estate institutions to receive some form of financial training to make sound financial decisions. This finding is consistent with the notion that managers with lower skills take on excessive risk to improve their investment record (Brown et al., 1996). Clearly, a top management team cannot be viewed as a strategic asset unless it possesses superior managerial skills. It is argued that the ability of managers 'to understand and describe the economic performance potential of a firm's endowments' (Bertrand and Schoar, 2003) rests on an integration of skills. A top management team is valuable when it analyses opportunities and threats, exploits and neutralises them (McKenzie and Woodruff, 2008). If 'cultural' resources (Chaudry, 2003) or organisational skills and abilities in combination with organisational resources (Bloom and Van Reenen, 2010) are to generate a competitive advantage, a management team has to build and use them effectively (Bertrand and Schoar, 2003).

Resource based strategists and upper-echelon theorists have noted that a firm's top management team has a significant influence on its strategic direction and view it as one of a firm's strategic resources (Bloom and Van Reenen, 2010). On a broader basis, there are managerial lapses in significant areas of new business development process, including the stages when financial analysis would be logical and appropriate (Udry et al. 2006). However the lack of capital among firms is typically an indication of poor financial management (Bruhn et al., 2010).

From Table 4, the forth principal component (PC4) gave *lack of adequate financial control* of real estate firms as the only factor. The financial investment returns on real estate development could be highly uncertain. Real estate's permanent nature and high visibility most invariably leads many people to overlook its complexity, thus mistaking its use, analysis and valuation to be simple. Another aspect of a property's immobility is its durability, thus a longer economic life than for most other assets.

In Ghana, 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 rising land demand by property developers is proportional to increasing land conflicts. Land disputes constitute half of land cases at Ghana's law courts (Crook, 2005). These conflicts tend to increase the duration for land registration processes. Corruption and land disputes, especially involving public lands in urbanizing areas, have been experienced by significant majorities (Crook, 2005).

Lack of adequate lending policies, the inability of real estate firms to provide suitable collateral and lack of personal financial contribution are the factors that make up the fifth principal component (PC 5). These factors are suggestive of the *financial strength* of real firms. The legal structures of a country influences its access to debt finance by corporate real estate institutions (Ayyagari et al., 2008).

The use of collateral as a form of security boosts a firm's ability to solicit for funding (Jiménez et al., 2006; Lehmann and Neuberger, 2001). The findings of this research are consistent with studies conducted by Menkhoff, Lukas, Neuberger, Doris and Suwanaporn, Chodechai 2006; Hernandez-Cananovas and Martinez-Solano, 2006; Chakraborty and Hu, 2006; Brick and Palia, 2007. These researchers reported that collateral serves as a guarantee and may also be influenced by the liaison between firms and financing institutions. Collateral and personal contributions may serve as a contractual device to increase the lender's monitoring incentive, because collateral is likely to be effective only if its value can be monitored (Niskanen and Niskanen, 2004). Internal and external sources of finance under perfect capital markets should be perfectly substitutable (Modigliani and Miller, 1958), so that the availability of internal funds should not affect investment decisions. It is reasonable to suggest that real estate firms need to generate enough cash flow to offset any funding they receive.

Limited capacity of banks is the only factor for PC6. International institutions such as the World Bank, International Monetary Fund (IMF) and Heavily Indebted Poor Country (HIPC) have made restrictions on monetary policies aimed at enhancing macroeconomic stabilization. IMF has set target ceilings for central bank monetary and credit expansion whiles minimum are instituted on net foreign reserves of countries (Barth and Hemphill, 2000; Smith and Smith, 2000; Berger et al., 2007). The restrictions were established to serve as a check on participating countries to moderate their foreign debt while ensuring repayment to IMF.

Some real estate developers lack the "track record" necessary to establish a reputation to attract funding from financiers. Banks assess the credit history of real estate developers to ascertain their loan performance in the past to make sound judgment of their credit worthiness. The enactment, implementation and monitoring of efficient financial policies geared towards the streamlining of real estate financing should be accorded the needed attention so as to enhance its growth and development.

4.1.3. Factors of financial market asymmetry

Subsequent to establishing the main supply and demand factors contributing to the causes of real estate finance difficulties, it is essential to identify and examine the financial market asymmetric factors. Lending institutions and real estate firms operate in an uncertain world when information is not perfect and is often expensive to obtain. The problem of unavailability of information affects the willingness of the banks to supply debt finance to real estate firms, on the grounds of high uncertainty. Moreover, real estate developers are likely to be significantly better informed about their operations than an outsider, such as a lending institution, when information is not readily available to these institutions. This suggests that it is reasonable to make an assumption on the imperfections of the financial market in both developed and developing countries.

Four factors concerned with financial market asymmetry of real estate firms in Ghana were identified. These were mainly information asymmetry, adverse selection, moral hazards and agency problems. The rank of importance of factors of financial market asymmetry of real estate firms Ghana is presented in Table 5. The difference of effect of these factors is not very significant ($\chi^2 = 6.99$; df = 3, $p<0.10$). Moral hazards are more important than other financial market asymmetry factors with a Relative Importance Index (RII) of 0.642 followed by adverse selection with RII value of 0.638 and information asymmetry with RII of 0.608.

Table 5. Rank of importance of factors of financial market asymmetry of real estate firms in Ghana

	Frequency of Ranking								
Factors	**1**	**2**	**3**	**4**	**5**	**Total**	**Weightings**	**RII**	**Ranking**
Information asymmetry	1	10	28	4	5	48	146	0.608	3rd
Adverse selection	1	10	20	13	4	48	153	0.638	2nd
Moral hazards	1	0	39	4	4	48	154	0.642	1st
Agency problem	9	10	25	4	0	48	120	0.5	5th
Information asymmetry	1	10	28	4	5	48	146	0.608	3rd

RII = Relative Important Index

Lending institutions such as banks face the problem of making correct lending decisions (adverse selection) and appraising and monitoring loans for projects (moral hazard) (Osei and Antwi, 2004), which eventually create a debt gap, especially under conditions of uncertainty and asymmetric information. This is consistent with the results of this research. There are suggestions that poor access to private external finance relates to demand-side problems, particularly this may be due to a lack of information about available sources, rather than a lack of available credit (Fraser, 2004).

The information difficulties stem from the costly acquisition and asymmetric distribution of information, which leads to the problem of moral hazard and adverse selection. Economic transactions are conducted in highly uncertain and risky environments, which engender eminently more volatile returns to investment and highly variable income streams. Real estate developers in Ghana are likely to be significantly better informed about their operations than an outsider, such as a lending institution, when information is not readily available to the outsider.

Firms enter an industry with incomplete information regarding their own productivity but gain information through production (Berger et al., 2007; Brick and Palia, 2007). Across developing and developed countries, there is variation in global accounting standard indices (Inderst and Mueller, 2007). Credit availability is positively influenced by information accessibility on performance of firms by funding institutions. (Jappelli and Pagano, 2001; Love and Mylenko, 2003). Credit bureaus provide information on credit repayment performance.

Third party information exchanges or business credit bureaus provide a formal organizational mechanism for the exchange of commercial payment performance information. Moreover, these business credit bureaus have been shown to have power in predicting firm failure beyond financial ratios and other descriptive information about the firm (Kallberg and Udell, 2003).

4.2. Strategies for bridging financial gaps of real estate companies

Most real estate firms consider subsidizing interest rate as the best strategy of reducing estate financial difficulties (Table 6) with a Relative Importance Index (RII) of 0.833. Provision of rediscounting facilities and the establishment of special government-assisted financial schemes are the next most important strategies of reducing financial difficulty of real estate firms both with Relative Importance Index value 0.808.

The Ghana government has created the enabling environment for the establishment of the Venture Capital Fund through Parliamentary Act 680 aimed at providing investment capital to SMEs and real estate developers. There are four venture capital fund companies existing in Ghana including Bedrock Venture, Activity Venture, Real Estate Fund and Gold Venture Limited (Ghana News Agency, 2008). Such special assisted government schemes alleviate the challenges of financial for real estate development.

In order to evaluate the contributions of these strategies of reducing real estate financial difficulties in the study area 10 factors of rank of importance were subjected to principal components analysis (PCA). Data was assessed for its appropriateness before subjected to Principal Component Analysis (PCA). Correlation matrix gave coefficients of 0.3 and above after inspection which was deemed fit for PCA. Barlett's Test of Sphericity

(Bartlett, 1954) revealed statistical significance of χ = 508.366; p<1.03x10 $^{-50}$and df = 36, while Kaiser-Meyer-Oklin value of 0.64 was obtained to support the factors used for the correlation matrix.

Table 6. Rank of importance of strategies for bridging financial gaps

	Frequency of Ranking								
Factors	**1**	**2**	**3**	**4**	**5**	**Total**	**Weightings**	**RII**	**Ranking**
Establishing special lending institutions	4	5	4	14	21	48	187	0.779	5th
Putting ceiling on interest rates	0	8	13	10	17	48	180	0.75	7th
Subsidizing interest rates	0	4	13	2	29	48	200	0.833	1st
Providing rediscounting facilities	0	0	22	2	24	48	194	0.808	2nd
Sharing lending risk with private financial institutions	0	9	15	12	12	48	171	0.713	8th
Establishing special government-assisted financial schemes	0	9	4	11	24	48	194	0.808	2nd
Establishing legal framework and lending policies	5	0	9	17	17	48	185	0.771	6th
Establishing credit bureau system	0	4	5	25	14	48	193	0.804	4th
Constituting financial management training programmes	5	9	11	11	12	48	160	0.667	9th
Establishing manufacturing and supplying companies	9	5	12	9	13	48	156	0.65	10th

RII = Relative Important Index

The principal components analysis revealed the presence of three axes with eigenvalues exceeding 1.0, explaining 50.26 per cent, 26.34 per cent and 12.92 per cent of the total variance respectively, resulting with a cumulative variance of 89.52 per cent. The resultant rotated component matrix is displayed in Table 7 giving the same three principal axes but with slightly different loadings.

The nine factors have been summarized into three new groups which are significantly different and explain strategies for reducing real estate financial difficulties. Only loadings of values above 0.4 were used. The first principal component (PC1) in Table 7 reported high eigenvalues for providing rediscounting facilities (0.943), sharing lending risk with private financial institutions (0.920), establishing special lending institutions (0.907) and constituting financial management training programmes (0.924). This result is interpreted as follows; all the factors are interrelated and inherent in one principal factor which may be embedded in *management and financial restructure* of lending institutions.

Table 7. Rotated Component Matrix of Factor Analysis concerned with strategies for bridging real estate financial gaps

Factors	PC1	PC2	PC3
Establishing special lending institutions	0.907		-
Putting ceiling on interest rates		0.979	-
Subsidizing interest rates	0.522	0.791	-
Providing rediscounting facilities	0.943	-	-
Sharing lending risk with private financial institutions	0.92	-	-
Establishing special government-assisted financial schemes	0.758	-	0.574
Establish legal framework and lending policies	-	0.419	0.819
Establish credit bureau system	0.632		
Constituting financial management training programmes	0.924		

Source: Researcher's field survey, 2013

Stakeholders in real estate with internal or external finance assess real estate risk in their operations. Risk is conceived as the likelihood or unlikelihood of imminent aftermath (Bodie et al., 1993). Real estate property returns are highly self-related owing to long leasing duration contracts particularly viewing form development delays. The expectable factors in real estate market has attracted the attention of some researchers (Niskanen and Niskanen 2004; Berger et al., 2007). When the risk in lending is shared among private finance institutions they allocate less loan-loss reserves to cover expected risks. As financial innovations and credit derivatives have undecided consequences, such innovations create new possibilities of risk negotiation and transfer and mitigation, so that lending institutions become less vulnerable to credit risk.

Managers become expert in the promotion and protection of values (Bertrand and Schoar, 2003; Bennedsen et al., 2007). Top management team is accountable for everything that goes on in an organisation. A more detailed classification of the top management's role is provided by McKenzie and Woodruff (2008), according to which it can be identified as the organisation's leader by maintaining the development of the organisation over time and preparing for future horizons). Gaining good organisational outcomes in a competitive market depends on an organisation's ability to identify, develop, deploy, and preserve particular resources that distinguish it from its rivals (Bertrand and Schoar, 2003).

Most researchers agree that financial planning in businesses is a key to survival (Bertrand et al., 2007). It is essential for business managers to plan their financial needs before setting out to seek capital. Unfortunately, while many small business managers are aware of the benefits of financial planning, they fail to pay reasonable attention to these activities and they only plan when they are already faced with a need for funds. Human capital in the field of real estate management, including education, age, working management experience and the personal wealth or family resources of managers may also play a vital role in gaining access to the financial capital market. As firms with more human capital and good track record of success with business viability are more likely to receive funding from financial institutions it becomes imperative for managers of real estate institutions to receive some form of financial training to make sound financial decisions.

Financial training programmes need to be organised for managers of real estate firms since the major reason rests not so much on the financial managerial skills possessed by the management team or by one or more members of the team, but rather on how those skills have to be employed to improve the productivity of the organisation.

The Ghana Government through different enactments formed the entire respondent mortgage financing institutions under the Building Society Ordinance, 1955 (Act 30) and the Mortgages Decree, 1972 (NRCD 96) to provide mortgage financing to prospective house owners. Some of these institutions include the First Ghana Building Society, Home Finance Company (HFC) and Ghana Home Loans Limited (private funding institutions licensed by the Bank of Ghana). Although all these institutions have contributed to the success of real estate development in Ghana, they specialise in funding individual home owners instead of real estate companies. The establishment of special lending institutions should be geared towards the provision of sustainable financial packages for real estate companies. This could be the creation of a pool of funds of savers and investing them in a portfolio of assets. Real Estate Investment Trust (REIT), for instance are into estate property or mortgages on real estate properties that some of the investment companies can explore. Literature reveals that REITs tend to have low risk, inflation hedging, and defensive stock characteristics which may behave differently than the overall stock market during periods of high market volatility.

The second principal component (PC2) in Table, revealed mainly, putting ceiling on interest rates and subsidizing interest rates with respective loadings of 0.979 and 0.791. It is reasonable to suggest that these factors are inhibited under one main factor; *financial discounting policy* of lending institutions. The issue of interest rate falls under the prerogative power of the central government. The Bank of Ghana licenses, regulates and supervises all commercial banks as well as non-banking finance institutions. It controls all capital market policies such as taxation, micro-economic indicators, the stock exchange and all investment securities. It is the responsibility of the government to strive to create the economic conditions necessary for some stability to enable any form of housing finance market to thrive (Karley, 2002). This is achieved by ensuring at least a more predictable inflationary environment and a reasonable control over the interest rate.

Aristotle criticized interest as the unnatural fruit of a barren parent (Conard, 1959, p. 97). Usury laws in most recent times have been widely used in developed and developing countries to introduce regulations about interest rate ceilings of some kind (Helms and Reille, 2004). Financial subsidies help to correct allocative distortions created by poor credit markets, and therefore can boost export growth when subsidies are allocated to financially constrained firms (Banerjee and Newman, 2004). This is consistent with the empirical results from this research and suggests that Bank of Ghana needs to make flexible lending policies to enhance the competiveness of funding investment projects by lending institutions.

Within this framework, government can participate directly in the market by, for example, offsetting the interest rate differential as the government of Japan did to assist the corporation responsible for housing finance (Poterba and Noguchi, 1994). This helps to hedge the risk, assists lenders during periods of worsening inflation and helps to ensure that the real value of the investment does not depreciate. At the same time it supports borrowers by stabilizing regular payments. This in turn improves the ability to redeem and reduces the real rate of interest required. More generally the role of government is not to be a player in the mortgage market but to create an even playing field for the institutions to take part in healthy competition.

The third principal component (PC3) in Table 7 has establishment of legal framework and lending policies with loading of 0.918 as the only significant factor. This is embedded in *financial legal policy* of lending institutions. Residential property provision across the world arguably is done on personal basis due to regulatory reforms in the housing sector and the construction (Industry World Bank, 1993). The willingness of firms to reinvest internally generated funds depends on protection of basic property rights (McKenzie, David, and Christopher Woodruff. 2008 and Johnson, McMillan and Woodruff 2002a); the willingness of banks to lend depends on the ability to capture collateral pledged in support of loans (Menkhoff et al., 2006); and the willingness of outside equity investors to take a minority ownership position depends on protection against tunneling by insiders (Shleifer et al., 2002). The results in Table 7 are consistent with studies conducted by Jiménez et al. (2006); Brick and Palia (2007); Menkhoff et al. (2006) and Jappelli et al. (2002) who reported that efficient legal system diminishes the demand of collateral as a guarantee for accessing external finance. The Banking Law (PNDCL 225) in 1989was revised to take into account coherent measures for the supervision of Bank of Ghana. Some of the innovations in the law include stringent capital adequacy ratios, reinforcement of accounting standards and risk exposure limits, increasing auditing scope to cover all banks, among others. In 1992, the central bank was given supervisory powers through the passage of an amendment Law (PNDCL 291). The Financial Institutions (Non-Banking) Law (PNDCL 328) was also passed in 1993 to expand the scope to all financial institutions. Since all the regulatory and legal reforms are in place the next step the Bank of Ghana can do is to strengthen the use of these policies to ensure optimal result in real estate finance. Insurance companies, pension funds institutions, the Ghana Stock Exchange and other financial institutions can be encouraged to get involved in real estate finance to mutually share the risk of financing real estate development.

5. Conclusion

In summary, this paper has shown a critical review on financial gaps in real estate development and strategies aimed at reducing these gaps to enhance productivity in the sector. The financial gaps have evolved due to high level of long term financial constraints, moral hazards, provision of acceptable collaterals and high lending cost. Additionally, transaction conditions and legal policy, financial lending policy, management challenges, adequate financial control, financial strength and limited capacity of banks were identified as financial demand and supply factors facing the real estate industry in Ghana. Subsidizing interest rate, management of financial and restructure of lending institutions, financial discounting policy and financial legal policy are some of the strategies intended for bridging the financial gaps. The results presented would guide policy makers and stakeholders on strategies to revitalize the real estate industry with these additional knowledge.

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