Housing Finance in Ghana: Determinants of Mortgage Demand

Oware Kofi Mintah
(MBA, ICA-GH, FCEA-UK, CPA-UK) Lecturer
Department of Accounting and Accounting Information Systems
Faculty of Business and Management Studies, Kumasi Polytechnic, Ghana
E-mail: owaremintah@gmail.com
Tel: 0233-543975879

Nkansah Eric
(MBA, B.A) Lecturer, Department of Accounting and Accounting Information Systems
Faculty of Business and Management Studies, KumasiPolytechnic, Ghana
E-mail: eyrick2002@yahoo.co.uk
Tel: 0233-243212182

Abstract

Housing is a basic human need. It underlies human existence by providing shelter and by enhancing social practices and the organization of families. The demand for housing has far exceeded the supply of housing and has resulted in inadequate housing conditions. The aim of the study was to ascertain the factors that influence housing acquisition through mortgage finance in Ghana. In addition to the above, this paper had other objective to understand the current market of mortgage finance and also evaluate the challenges faced by mortgagee. In this light, a combination of quantitative and qualitative approach was adopted in undertaking this study. Further, the study employed an exploratory and case study strategy using questionnaires and interviews as well as documentary reviews. The case study area was the Kumasi and Accra Metropolis of Ghana with a sample size of 200 with an actual responses being 120 representing 60 percent. The results of the study showed that many people are interested in acquiring or using mortgage to further their dream of house ownership. This interest is influenced by certain factors including their savings, place of housing and land disputes. The results showed that Place of Housing had a strong positive relationship with the demand for mortgage finance. However, for both active and potential mortgagees, this desire is also discouraged by certain challenges such as the terms of repayment, collateral requirements, documentation requirement, and ability to pay and worth of monthly income.

Keywords: Mortgage Finance, Multiple Regression, Challenges of Mortgage Finance,

Introduction

Housing is a fundamental human right (UN-HABITAT 2003). In addition to providing shelter for individuals and being the most important physical asset, it creates the setting for social practices, the organization of families and has cultural, historical, social, economic, political, legal, environmental, physical and territorial implications(Clapham 2005, Lumanti Support Group for Shelter, Kathmandu-Nepal 2006, Moser 2006, UN-HABITAT, 2008: 3). A recent publication (GREDA, 2006) estimates that the Ghana fails to meet its national housing demand of between 30,000 and 50,000 property units.

According to (HFI, 2008; UN-HABITAT, 2011) the Ghana is faced with an acute housing shortage problem which is worsening with time. With this lingering problem, questions such as what factors influence people to use mortgage finance as a means for property acquisition and what are the associated challenges of accessing mortgage facilities have been asked. For clarity, the contextual scope of this research was limited to the identification of the factors that influence people's choice of mortgage for the acquisition of property and its associated challenges.

Literature Review

Various attempts to solve this elusive crisis has resulted in many studies being conducted on the demand and supply relation to housing and some of studies have concluded that the problem could be significantly reduced if not eliminated through a well-functioning housing finance system, since housing is is about human rights and equality(Bardhan& Edelstein 2007; Gyamfi-Yeboah&Boamah 2003; UN-HABITAT 2010). Further interrogation of literature on the subject has found out no research has dealt with the factors that influence mortgage demand.

The Global and Ghana Housing Situation

The world has been battling with problems from different circumstances over time associated with inadequate housing. Without success of solving this problem, the situation has worsened over the years and has earned housing "the world's most unsolvable problem" (UN-HABITAT,1996:2005:2008a).Problems of housing deficits, inadequate infrastructure and services and declining environmental conditions have been the associated results of this (UN-HABITAT 2006). The various aspects of urban poverty are described by Satterthwaite (2002) to include the following Inadequate income, Inadequate, unstable or risky asset base, Inadequate shelter, Inadequate provision of 'public' infrastructure, Inadequate provision of basic services, Inadequate protection of poorer

A similar situation is seen in the Ghana situation. The UN-HABITAT (2008a) emphasizes that though housing problems are universal; they arise from different circumstances and vary across countries and over time. According to the National Shelter Strategy, Ghana's housing deficit stood at about 400,000 with an estimated annual growth of about 42,000 (Asamoah 2013). It further estimated that, this problem could only be addressed with an annual delivery of approximately 120,000 housing units by the year 2009. The Bank of Ghana (2007) also projected that with a growth rate of 2.7% per annum; the total population for 2010 was likely to be 24,685,601.Clearly, these figures demonstrate the pressing nature of the housing problem in Ghana.

The Evolutionary Politics of Housing Development in the World

The housing problem of the world is not a recent menace. Thus, since 1960, there have been major shifts in policies, strategies and programs at the international level towards housing development (UN-HABITAT 2005). These have always been on the basis of the specific development models that were advocated at the time including modernization (1960-1970), redistribution with growth (1970-1980), the enabling approach (1980-1990), and sustainable urban development (1990s) (UN-HABITAT 2006).

The Relevance of Mortgage Markets

Housing is without doubt very beneficial in many ways. It contributes significantly to the social, economic, cultural and political life of people as well as affects the efficiency and stability of economies (Addai-Boamah 2010).Experiences from developed countries show that the mortgage industry has been the best housing finance option for meeting the housing needs of people (Bank of Ghana 2007).A critical analysis of the cost of housing in all parts of the world indicates that housing units with basic acceptable standards are unaffordable by most households. Mortgage is a financial agreement whereby an individual borrows money from the bank or lending institution in order to buy

property or land (Asamoah 2013;Bank of Ghana 2007).The primary purpose of a mortgage industry is to increase funding for housing at competitive cost and pricing (Bank of Ghana 2007). Thus, it is argued that, mortgage markets have the potential to promote housing investment and development by providing sustainable housing funds to households (Boamah 2009;Tse R 1997).

Methodology

The study relied on appropriate research tools and instruments for capturing data that will achieve the research objectives. Thus, based on the stated objectives, a combination of qualitative and quantitative approaches was adopted in carrying out the study(Amaratunga et al. 2002). Due to the exploratory nature of the study, a survey approach was adopted and primary data was collected from a sample of customers of banks that offer mortgage services and other stakeholders including staffs of financial institutions in the mortgage industry (Yin 2003; Kraemer 1991). The study also adopted purposive sampling methods for the administration of questionnaires. The study employed relative important index (RII) and regression analysis. Although there are several banks (both private and public) in the case study area, only a few of them offer mortgage. These are Stanbic Bank, Ecobank Ghana, Fidelity Bank, HFC Bank and Ghana Home Loans. The expected responses were 200 with an actual responses being 120 representing 60 percent.

A dynamic model of housing demand with variables of adjustment costs, credit constraints, and uncertainty about income and home prices using regression analysis informed the bases in developing a model for this research (Bajari, Chan, Krueger, & Miller, 2013).This paper model fitted into the data collected. This models look at the factors that influence the demand for housing properties through mortgage finance. The explanatory variables included were: Saving, Land Disputes and Place of Housing. This is represented in a functional form below:

$$\text{MortDd} = f\,(\text{Savings, Land Disputes, Place of Housing, ù}) \tag{1}$$

The equation from the above can be expressed as:

$$\text{MortDd} = B_o + B_i\text{Savings} + B_j\text{LandD} + B_k\text{PlH} + + \text{ù} \tag{2}$$

Where;

MortDd: The demand for Mortgage Housing

Savings: Savings of respondent from employment or self-employment

LandD: Land Dispute arising from poor land legislations

PLH: Place of Housing for the building structure

ù: error term capturing all other explanatory variables not explicitly included such as terms of payment, disposable income, cost of materials, and others.

The 'Bi's (i= 1 ...4) are the coefficients to be estimated which show the nature of relationship between dependent and explanatory variables while Bo the intercept of the regression line. Thus Bi (i= 0,....,4) > 0, means there are positive relationships between dependent and explanatory variables. In addition in applying a regression to establish the relation between the factors that influence mortgage demand, we apply SPSS to determine the challenges and then to determine the variables which are most important to consumers of the product, we use relative important index (RII) to ranked the data in descending order of importance

Analysis and Discussions

This section analyses and discusses the data collected from respondents. It is grouped into: Demographic Information; Current State of Mortgage Market in Ghana; Factors that Influence People to use Mortgage Finance and Challenges of Accessing Mortgage Facilities.

Demographic Information
Gender and Employment Distribution

The idea behind the question on gender was to establish the differences and to determine the relationship between gender and mortgage acquisition. On employment distribution, the fundamental basis was to relate employment to mortgage acquisition

Figures 1 & 2: Gender and Employment Distribution
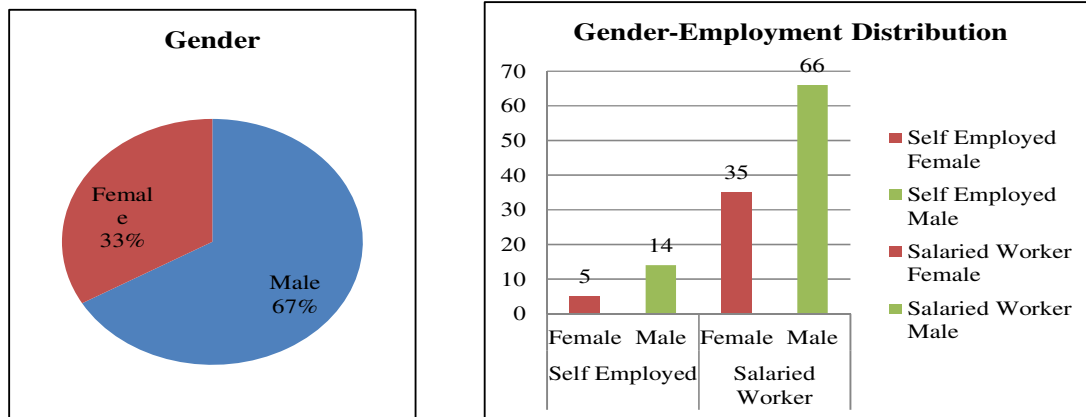
Source: Author's Field Survey, April2013

Figures 1 and 2 show the gender distribution and the gender-employment distribution of the respondents. Out of the 120 respondents, 33% and 67% were females and males respectively. This shows an imbalance and reflects our culture of men providing for the family home and on gender-employment distribution, most of the respondents are salaried workers. The reflection of Africa culture also accounts for higher male percentages in gender distribution either self employment or employer-employee working. A further analysis of the respondent's data as indicated in Figure 3 as indicated below shows that out of the total number of 120 respondents, about 107 are owners of housing properties. Out of this number, 22 financed their housing with only loans while 75 financed their houses with a combination of loans and other means including private investments and personal savings making the analysis richer because of the experience of respondents

**Figure 3:** House Ownership and Means of Financing
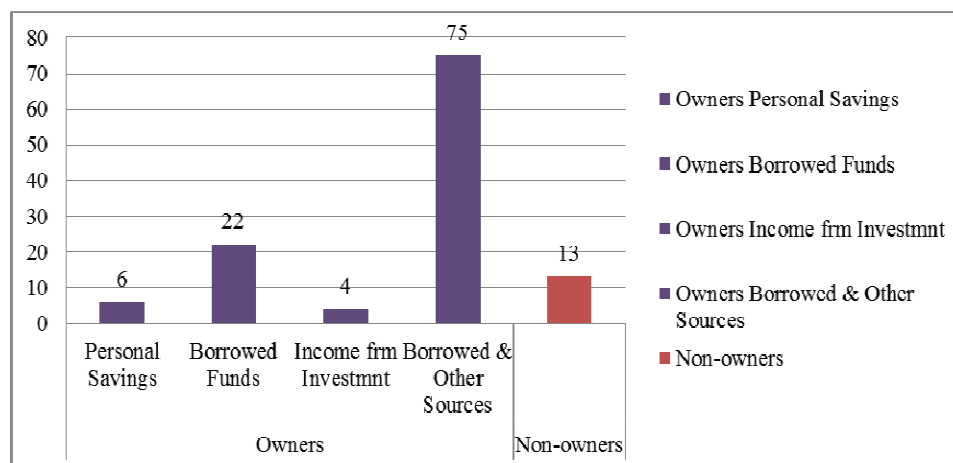
Source: Author's Field Survey, April 2013

Current State of Mortgage Market in Ghana

In achieving the aim of the research, an objective of understanding the current state of the mortgage market in Ghana has been analyzed in the area of ability to meet repayments deadlines; Interest Margins and General Perceptions about Interest Rates and difficulties encountered and history of mortgage acquisition and means of acquisition. Figure 4 below indicate about 94% of the respondents agreed that they were able to meet the repayment deadlines. However, out of the absolute figure, 68 persons stated that they encountered difficulties in repaying the loans while 37 claimed that they did not encounter any difficulties in repaying the loans.

Figure 4: Ability to meet Re-payment Deadline and Difficulties Encountered
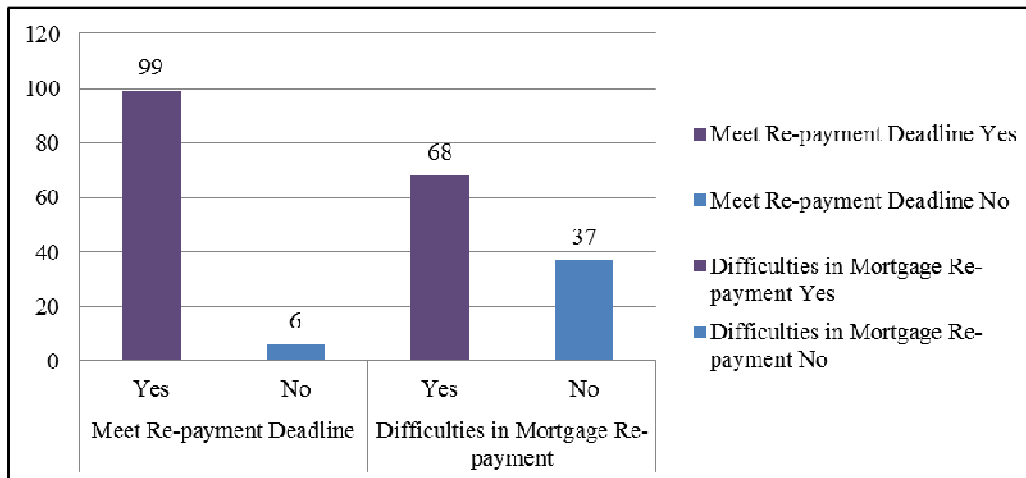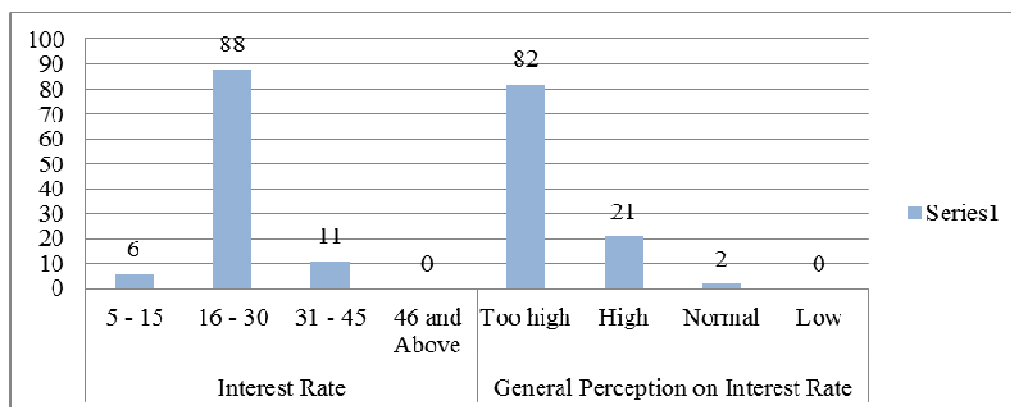

Source: Author's Field Survey, April 2013

For those who encountered difficulties, the reasons were given as high interest rates and inconsistency in incomes. There seems to be a slight inconsistency between meeting repayment deadlines and difficulty in mortgage repayments. The reason that can account for the inconsistency is the cultural factor of Ghanaian to be tagged of being unable to keep his or her family house and be called a failure. In the light of this, heads of families will go to any length to honor loan repayment in relation house mortgage.

Interest margins and perception about interest showed that 99 respondents mentioned that the interest rates on their mortgage loans were between 16-45% and about 103 persons agreed that the interest rates were generally high or too high under general perceptions about interest rates as showed in figure 5

**Figure 5:** Series 1-Interest Margins and General Perceptions about Interest Rates

Source: Author's Field Survey, April 2013

Even though the current inflation is hovering around 9-12% coupled with current treasury bill rate being 25%, banks who deal in mortgage facilities have high interest rate due to the underlying standard borrowing rate .However mortgage which has the duration of 20 years and above with a higher uncertainty of the cedi have all resulted in the figure .

From Figure 6 as per History of Mortgage Acquisition in the below, it is evident that indeed 105 respondents have ever acquired mortgage and 15 have never acquired mortgage. The various means of mortgage acquisition by those who have a history in this regard include salaries, personal savings, income from other investments and other source, however it can be inferred from the table that salaried workers are higher and the reasons is the existence of agreements where employers notify banks in any change in the loan beneficiary employment status.

Figure 6: History of mortgage acquisition and means of acquisition
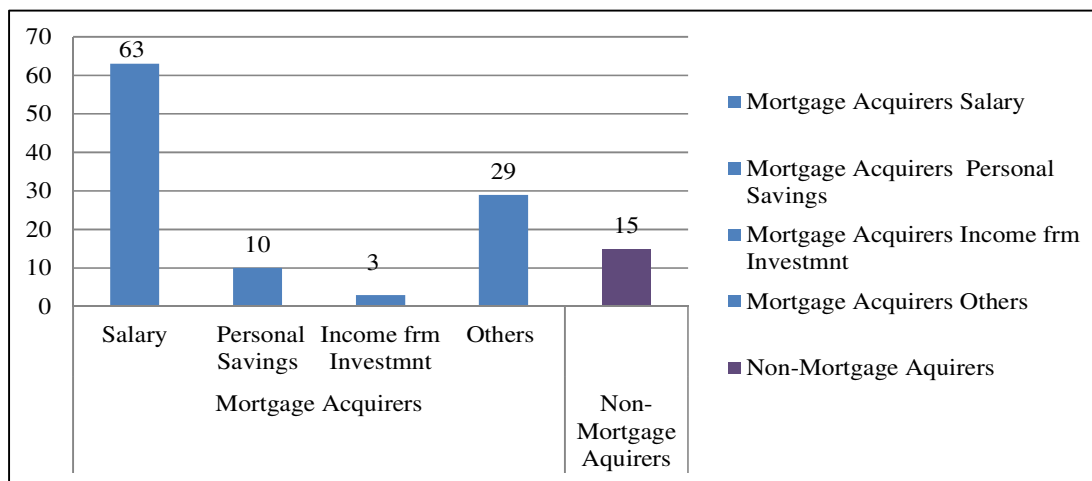
Source: Author's Field Survey, April 2013

Factors that Influence People to use Mortgage Finance

In order to determine the determinants of mortgage demand, preliminary question was asked to determine the housing preference of respondents. Options available to response dents included rented apartment, self built house and already built house. The results as indicated in Table 1 showed that over 53 percent opted for an already built house and this supports the next question of the factors that influences the demand for the mortgage housing.

Table 1:   Preference of Housing

Housing Type	Frequency	Percentage (%)
Rented apartment	0	0
Self-built house	56	47
Already built house	64	53
Total	**120**	**100**

Source: Author's Field Survey, April 2013

Three variables were arrived after respondent's interrogations and theses three variables formed the bases the regression model developed for determining mortgage demand determinants. To identifying multicollinearity, the predictor variables of Savings, Land Disputes and Place of Housing were correlated among themselves. The acceptable levels collinearity are that "tolerance" values (greater than 0.10) and the "VIF" values (less than 10) as per Table 2

The results from the correlation showed savings, land disputes and place of housing all meet the criteria set by Tolerance and VIF.

Since the bases for testing the model using regression has been satisfied, we proceed to the next. From the Table 2, it can be seen that the Savings, Land Dispute and Place of Housing all acting as the predictors, had a very strong influence in the decision to acquire a house through mortgage finance, however Savings and Land Disputes had a positive relationship whiles Place of Housing as a predictor influence had a negative relationship with the decision to acquire property with mortgage finance. The direction of the coefficients shed light on the nature of the relationships. (Place of Housing: Beta = -1.0, t = -5.90, $p < .001$).Conversely (Savings: Beta = 0.47, t = 9.70, $p < .001$; Land Dispute: Beta = 0.48, t = 8.03, $p < .001$).

Table 2: Regression Coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.229	.225		5.474	.000	.784	1.674		
	Savings	.499	.050	.674	9.922	.000	.399	.599	1.000	1.000
2	(Constant)	1.090	.208		5.252	.000	.679	1.501		
	Savings	.382	.052	.516	7.355	.000	.279	.485	.786	1.272
	Land Disputes	.242	.050	.342	4.878	.000	.144	.340	.786	1.272
3	(Constant)	3.569	.462		7.732	.000	2.655	4.483		
	Savings	.465	.048	.629	9.698	.000	.370	.561	.717	1.395
	Land Disputes	.477	.059	.675	8.028	.000	.359	.594	.427	2.344
	Place of Housing	-.997	.170	-.511	-5.851	.000	-1.335	-.660	.395	2.532

a. Dependent Variable: Housebuying/building through mortgage Finance

Challenges of Accessing Mortgage Facilities

In spite of the willingness to acquire mortgage, people are faced with certain challenges as it is indicated in Table 3.Using as a standard, most respondent agreed that high interest rates, down payment rates and worth of monthly income were most challenges mortgage loan users go through. In order to determine the relative importance of each of the variables, Relative Important Index (RII) has been applied .It can be seen from the table below and all RII indicator are above 0.5 making every variable important as a challenge in mortgage demand. It can be deduce from the table below that worth of monthly income (RII=0.78) of respondents was seen to be the most challenging variable of respondent quest to acquire mortgage finance

Table 3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	RII
Ability to Pay	120	2.00	5.00	3.8417	.56503	0.64
High Interest Rates	120	2.00	5.00	4.4667	.78786	0.74
Down Payment Rates	120	2.00	5.00	4.4750	.67317	0.75
Collateral Doc	120	2.00	4.00	2.7833	.97173	0.58
Document Requirement	120	2.00	4.00	3.3667	.81924	0.70
Worth of Monthly Income	120	2.00	5.00	4.6500	.85651	0.78
Valid N (listwise)	120					

Findings and Conclusions

This section theme derived from the research objectives or questions and subsequently draws the below findings and conclusions.

Current State of Mortgage Market in Ghana

The section under gender, most respondents male signifies the cultural values of men providing roof over the family. This combined with the fact that most of the respondents are salaried workers has the effect of who can access the facility. Most of respondents have had an experience with mortgage finance bringing some form of experience to the exercises. Higher percentages encountered difficulties in repayment of loans and this mostly due to the high interest rates on their mortgage loans were very high compared to international standards. All the above fueled the perception about high interest rates.

Factors that Influence People to use Mortgage Finance

The Table 2 shows that many people would opt for mortgage financing on the bases of their savings, land disputes and place of housing. However the effect of each predictor was showed through its unstandardized beta coefficients. Variable: Place of Housing with a Beta = -1.0 and $p<.001$ indicated a strong negative relationship with mortgage demand, thus high congested area leads to low demand for mortgage houses whiles low congested area leads to high demand for mortgage finance houses. The remained two variables had a strong positive relationship with mortgage demand (Savings: Beta = 0.47, t = 9.70, $p < .001$; Land Dispute: Beta = 0.48, t = 8.03, $p < .001$). The effect is high savings and high land disputes leads to high demand for mortgage finance and low savings and non land disputes causes people to buy land on their own terms and build gradually as and when funds are available to be spent.

Challenges of Accessing Mortgage Facilities

In spite of the willingness to acquire mortgage, people are still faced with certain challenges. The terms of repayment of mortgage loans pose a challenge for many potential mortgagees and active mortgagees alike. This is because for potential new entrants, the nature of the repayment terms (interest rate and down payment rate) could inspire or discourage their desire for mortgage loans. For active mortgagees, this challenge greatly affects their ability to repay loans. The worth of monthly income is also a critical challenge for both potential and active mortgagees. For active mortgagees who have relatively small incomes, repayment of the mortgage loans is sometimes difficult. On the other hand, the eligibility of potential mortgagees is highly dependent on the worth of their monthly incomes. Thus, the higher the monthly income, the higher the chances of accessing mortgage loans. Other factors such as the requirement for collateral and documentation and ability to pay are also challenges for potential mortgagees as reflected in Relative Importance Index indicators.

Conclusion

In conclusion, many people are interested in acquiring or using mortgage to further their dream of housing ownership. This desire is influenced highly by certain factors including savings, place of housing and land disputes, however both active and potential mortgagees desire are discouraged by certain challenges such as the terms of repayment (including the interest rate and the down payment rate), collateral requirements, documentation requirement, and ability to pay and worth of monthly income. The address of these issues will assist in eradication or meeting the housing gap as indicated in the literature review by different researchers especially UN-HABITAT.

Reference

[1]   Addai Boamah N, 2010. Housing Affordability in Ghana: A focus on Kumasi and Tamale. Ethiopia Journal of Environmental Studies and Management Available at: http://www.google.com[Accessed April 20, 2013]

[2]   Amaratunga, D et al., 2002. Quantitative and Qualitative Research in the Built Environment: Application of ''mixed research approach. Emerald Insight, pp.17-31

[3]   Asamoah, A Sylvia, 2013.The Housing and Mortgage Market in Ghana: *Nature and Challenges.* Regent School of Business and Economics. Available at *:* http://repository.regentghana.net:[Accessed April 18,2013]

[4]   Bank of Ghana,2007.The Housing Market in Ghana, Available at :http://www.bog.gov.gh [Accessed April 18,2013]

[5]   Bajari, et al.(2013).A dynamic model of housing demand: estimation and policy implication. International Economic Review.

[6]   Bardhan, A & Edestein, R.H, 2007. Housing Finance in Emerging Economics: Applying a Benchmark from Developed Countries. Wharton Financial institutions Center Working Paper. Available at :http://fic.wharton.[Accessed April 13,2013]

[7]   Boamah N.A., 2009. Secondary Mortgage Market (SMM): Is it right for financing housing in Ghana? Journal of Science and Technology. Available at :http://www.ajol.infor/index.php/just/article/view/46425/32822 [Accessed March 19,2013]

[8]   Clapham, D., 2005.The Meaning of Housing: A Pathways Approach, Great Britain: The Policy Press. Available at:[Accessed April 13,2013]

[9]   Gyamfi-Yeboah & Boamah, 2003.Towards a Sustainable Mortgage Market in Ghana. Available at :http//www.ghanaweb.com [Accessed March 18,2013]

[10]   Lumanti Support Group for Shelter,Kathmandu-Nepal,2006.*Shaping our own Destiny:Experiences of Micro Finance Programme in Slum and Squatter Communities in Kathmandu and Lalitpur Cities*

[11]   Moser, C.O.N, 2006. Asset-Based Approaches to Poverty Reduction in a Globalized Context :An introduction to asset accumulation policy and summary of workshop findings, Washington DC: The Brookings Institution

[12]   Tse,R.Y.C ,1997.Optimal Loan Size and Mortgage Rationing.Journal of Property Finance pp.195-206

[13]   UN-HABITAT, 2010.*A Practical Guide for Conducting Housing Profiles*, Nairobi: UN-HABITAT.

[14]   UN-HABITAT, 1996a.*An Urbanizing World: Global Report on Human Settlements 1996*, Oxford: Oxford University Press. Available at: http://www.unhabitat.org/content.asp [Accessed April 16, 2013].

[15]   UN-HABITAT, 2006.*Enabling Shelter Strategies: Review of experience from two decades of implementation*, Nairobi: UN-HABITAT. Available at: http://www.unhabitat.org/ [Accessed April 13, 2013].

[16]   UN-HABITAT, 2011.*Ghana Housing Profile*, Nairobi: UN-HABITAT. Available at:www.housingfinanceafrica.org/wp.../UN-Habitat_HF-in-Ghana-2.pdf [Accessed April 30, 2013].

[17]   UN-HABITAT, 2005.*Global Report on Human Settlements 2005: Financing Urban Shelter*, UN-HABITAT. Available at: http://www.unhabitat.org [Accessed April 13, 2013].

[18]   UN-HABITAT, 2003.*Handbook on Best Practices, Security of Tenure as Access to Land: Implementation of the Habitat Agenda*, Nairobi: UN-HABITAT. Available at: http://ww2.unhabitat.org/publication [Accessed April 13, 2013].

[19]   UN-HABITAT, 2008a.*Housing and Urban Upgrading in Yantai, China*, Nairobi: UN-

[20]   Yin, R.K., 2003.*Casr Study Research: Design and Methods*, New Delhi: SAGE Publications Ltd.