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# **The Motivations of Microfinance Institutions to enter the Housing Market in a Developing Country**

## **Introduction**

The growth of the housing market in developing economies is a serious concern and of interest to policymakers. This interest is primarily driven by severe housing shortages and the consequences regarding overcrowding and the prevalence of slums. There is also the realisation of the potential contribution of the housing market to economic growth (Stiglitz, 1993; Calvo *et al.*, 1996). As such, the provision of low-income housing is no longer viewed as a social obligation by the state but as a means of supporting economic growth that may also serve as a means of poverty reduction (Jack and Braimah, 2004; CHFI, 2004). The processes that can support housing market transformation and expansion are therefore considered very important from the perspective of the lowest socioeconomic groups and the wider economy.

The housing market in many developing countries' such as Ghana is divided into formal and informal market segments (Keivani and Werna, 2001; Arku *et al.*, 2012). The informal housing market constitutes the largest and the housing is often built on an incremental self-build basis. The operation of most housing systems in these countries fails to meet the housing needs of many of the lowest socioeconomic groups. The key issues are often lack of finance, and ineffective housing policies towards both investment and the development of the low-income housing market. In order to address the lack of finance, a large number and variety of microfinance institutions (MFIs) have emerged in recent times to serve the unsatisfied demand for financial services particularly for meeting the various needs of the lowest socioeconomic groups. These institutions focus on providing services to individuals and small businesses in either one or a combination of credit provision and deposit collection (Basu *et al.*, 2004). However, some MFIs, having realised the potential of the housing market, have started making a tangible contribution with innovative products such as housing microfinance (HMF) (Bondinuba *et al.*, 2018).

HMF is provided in two ways by these institutions: first, as leading agents or subcontractors of both multi and bilateral donor funding organisations or their respective local governments; and second, as venture firms (Quaye *et al.*, 2014). HMF as a concept could have great potential hitherto untapped potential. Typically, MFIs are mono-line product specialists and their desire to offer additional products beyond the working capital loan has been limited in theory and

practice. One major constraint to an increase in offering HMF is the prevalent view that housing is considered a consumption goods. However, a common reason for MFIs to move into other product offerings has been the desire to diversify their existing product offering and competitive pressures, particularly in more mature markets. To date, few studies have attempted to review the subject of HMF (Grubbauer, 2018) particularly in the case of Ghana (Derban, *et al.*, 2002; Biitir, 2008; Bondinuba, 2016). However, none of these studies focused on the factors that could attracts MFIs into the low-income housing market. Moreover, despite the over 2,234 MFIs (GhaMFIN, 2013) operating across the country, there are only five (5) institutions serving the low-income housing market with HMF products. Meanwhile, the potential demand for HMF by the economically active population is estimated to be around 6.64 million (Bondinuba, 2016).

The question that is not yet addressed is, what are the motivations of housing MFIs to enter the housing market in Ghana? This paper, therefore, aims to identify and evaluate the motivations for MFIs' to enter the Ghanaian low-income housing market with HMF products. It adopts a descriptive analysis and a factor analysis to establish the underlying motivation factors for MFIs' entry into the low-income housing market, based on a survey of 125 MFIs. The remaining paper is structured in seven sections. Section two reviews the emergence of HMF and its relationship to both microfinance and housing sectors. The next section is based on extant literature, reviewed the motivations for MFIs to enter the housing market. The fourth section explains the research approach and the use of factor analysis to detect the underlying latent factors that determine MFIs' decision to enter the housing market. An exploratory and confirmatory factor analysis, as well as the validity and reliability of the derived factors results, are also discussed in section five. Section six contains the discussions of the results and section seven outlines the implications of the findings in terms of theory, policy and practice. The last part presents the conclusion and recommendations for future research.

### **The Emergence of Housing Microfinance**

Microfinance is a financially innovative strategy and its operations involve the provision of small loans called micro-credits to those in need to spur their entrepreneurial drive (Hes and Polednáková, 2013). Van Maanen (2004) describes it as credits, savings and other essential financial services within the reach of millions of people who are too poor to be served by regular banks, due to their inability to offer sufficient collateral or the relatively higher costs to the banks for managing their smaller accounts. Many taxonomies of microfinance settings have

been used in extant literature. Nwanyanwu (2011) suggests microfinance exist in the form of formal and informal settings. Another suggestion by Ghosh and Van Tassel (2011) is that microfinance is supplied and demanded by formal, semi-formal and informal settings. In the context of this paper, microfinance is a retail financial service that is relatively small in relation to the income level of a typical individual or group of people with similar characteristics and belief systems. HMF works on the principle and concept of the incremental building process practice by the lowest socioeconomic groups. The concept operates on a two-way approach in which individuals can either access cash loans for incremental home improvement or get skills on how to build their housing, sometimes through loaned construction materials (Littlefield *et al.*, 2003; Kono and Takahashi, 2010).

Conceptually, others have approached the delivery of HMF from the perspective of credit accessibility and shelter improvement of low-income groups. Brau and Woller, (2004) summarise the two perspectives as Welfare and Institutionalist approaches. Ledgerwood *et al.*, (2013) also recapitulate it as community-based and institutional based providers as shown in Figure 1. In the first, community-based approach, there are advocacy groups who believe community organisations must mobilise themselves towards the enhancement of housing rights of the urban poor, through advocacy programmes such as shelter advocacy to housing finance. Such groups of advocates tend to influence the low-income groups incremental building process through a facilitating process. Community-based and indigenous groups such as rotating savings and credit association (ROSCAs) and facilitated groups that support such an ideology and play a supporting role in the delivery of HMF to meet the housing needs of low-income groups. Community-based approaches are often considered more viable delivery vehicles for microfinance that involve communities in decision making by establishing close linkages with civil society. Advocates of such approach adopt a participatory development approach where they operate on a “trust, generosity, and ideology” basis.

In the second, institutional-based approach, microcredit is granted by institutional providers. (Ledgerwood *et al.*, 2013). Such providers tend to explore new markets that are easy to enter such as the low-income housing market in developing countries with their new products. In this regard, Merrill, (2009) gave evidence of institutional HMF providers such as FOMEPADE SA de CV Sofom ENR and ACCION network. Whereas the Grameen Bank in Bangladesh and SEWA bank in India are examples of institutions providing HMF in southern Asia (USAID and DAI, 2000), FINMark Trust, Rooftops Canada, CAHF, Alitheia Capital,

Kuyasa Fund (South Africa), Trust Fund (Zimbabwe), Mata Masu Dubara (Niger), WAT Human Settlements (Tanzania), NACHU (Kenya), WAT SACCOs (Tanzania), Kixi Credito (Angola) among others are those interested in the development of HMF in Africa.

Despite the interest in the development of HMF in the developing world, (Grubbauer, 2018) argues that the extent to which HMF products have impacted on the housing market particularly in developing countries is unclear due to the lack of robust data and the lack of academic research on the topic. Furthermore, it seems HMF products are yet to demonstrate in clear terms the social impact on beneficiaries and their communities in which they live. While some have suggested that HMF may positively impact on quality of life, sanitation and health, and security of tenure (Center for Innovation in Shelter and Finance, 2015, p. 27), there is a lack of solid empirical research on the matter. This paper therefore agrees with Grubbauer (2018) that, future research must focus on how HMF can impact on the housing market and the social impact on the individual and the community as well as how to influence the market in terms of breadth and depth.

### **HMF Characteristics and Delivery in Developing Countries**

There are many features and characteristics that distinguish HMF from other formal financial products in the financial sector used in financing low-income housing in developing countries. These features include the smallness of loans and savings advanced to and collected in the absence of asset-based collateral as well as the simplicity of their operations (Ferguson, 2008).

In terms of demand, Magowan, (2008) estimates that there are at least about forty million people in Latin America who need better housing and could qualify for HMF. CISF, (2012) suggest there are about forty million units of housing needed in India, and about twenty-one per cent of the population lives in shanties around the country. In Ghana as stated earlier, a recent survey by Bondinuba, (2016) put the demand as 6.64 million of the economically active population and described the concept as innovative and emerging. These figures represent a huge demand for a decent housing with necessary amenities in these regions.

Goldberg and Palladini (2010) report that in Mexico, HMF loan sizes range from US\$250 to US\$5,000 with a short-term monthly amortization of 1 to 10 years maturity. On the other hand, Stickney, (2011) reports that HMF loan sizes in Latin America range between US\$1,000 to US\$2,300 with loan repayment mostly monthly, ranging from 1 year to 5 years maturity. In the

case of Bangladesh, the Grameen Bank loan size is usually US\$354 maximum, with interest rate fixed at 8%, and repayment on a weekly basis for 5 years. Although, no collateral is said to be attached to this type of loan, Islam *et al.*, (2012) report that Grameen Bank's loans usually suffer default risks due to high interest rates, resulting in loss of lands and assets.

Typical HMF loan sizes in different product types supplied in India also range from Rs10,000 (US\$166.67) to Rs30,000 (US\$500) (Rate at US\$1=Rs60) and their tenure range from weekly/monthly repayment of 6 months to 36 months (Khare, 2012, Krishnan *et al.*, 2007; CISF, 2012). The interest rate reported from the above studies was averaging 18%. Several kinds of documents such as tax receipts, purchase receipts and so forth are often used as collateral, in place of legal title which is often unavailable. Kihato, (2013) also indicates that some commercial lenders – Pro Credit, Akiba Bank and Centenary Bank, granted loan sizes generally in the range from US\$320 to US\$13,000 depending on the client's capability. Loan terms are reported as monthly repayments ranging from 3 to 24 months maturity. The guarantees usually considered are proof of income, compulsory savings and some property in consideration with annual interest rates as high as 46%.

Merrill, (2009) identified the different sources of funding available to MFIs in Latin America as compulsory savings, deposits, marketable credit, donations, organisation funds, public funds and credit augmentation. However, Ferguson (2008) cites lack of funding as a major challenge to lenders in this region. Kihato, (2009) also identified sources of funding as mostly from compulsory savings, capital markets, donations, foreign financiers, collaborations and government funding for MFIs in Africa.

### **The Motivations of MFIs in the Housing Market**

The perceived motivation that underlies the decision of many MFIs' to enter the housing market appears to be more than just the profitability of the housing market. For instance, MFIs' motivation may arise from an interest in expanding their business by exploring other markets such as the housing market. In other cases, their motivation may come from their corporate mission of meeting the socio-economic needs of the lowest socioeconomic groups. Such motivations may include the provision of housing loans, the potential of the housing market, and the willingness to enhance their corporate image and create jobs (Bondinuba, 2016). There are also external motivation factors that may affect the housing and microfinance markets such as funding issues and the political (Schumman, 2004) and economic environment (Cain, 2007)

in which they operate (Derban *et al.*, 2002). Finally, land, risks, profitability, low-income housing market dynamics, and housing policy issues among others (Goldberg, 2005; Tibaijuka, 2013) may also be factors that collectively will either pull or push MFIs away from the housing market.

In this regard, for MFIs to engage in the housing market, it would take the effect of some of the factors mentioned above which may serve as their driving force of motivation. For instance, (Bondinuba, 2016) argues that MFIs' desire and the interest to increase their profit as a short or long-term goal can serve as a motivation. Regarding the housing market, the availability of local resources such as low-cost labour and materials as well as the unique features and products within the market may compel many MFIs to explore the market with HMF. Moreover, it has been suggested that there is a high demand for low-income housing and an increase in the preference for home ownership rather than renting among the lowest socioeconomic groups in developing countries (De Soto, 2001; Grinstein-Weiss *et al.*, 2013).

There are considerable socioeconomic benefits usually accorded to homeownership by the lowest socioeconomic groups who constitute the largest segment of the population in many developing countries (Ferguson and Haider, 2000). The demand for housing among this segment is on the increase making the size of the housing market within that bracket also large (Ferguson and Navarrete, 2003). These dynamics within the low-income housing market space serves as motivation to creative MFIs to develop a market niche for expansion and growth. Furthermore, due to the ineffective and lack of sustainable regulatory frameworks for both microfinance and housing sectors in a developing country, there is the flexibility of entry into such markets (Golubchikov and Badyina, 2012). The provision of HMF involves both microfinance and housing sectors that make it possible for flexibility in risk and knowledge-sharing among both suppliers and consumers. The right policies towards financing homeownership among the lowest socioeconomic groups could trigger more demand for HMF. It can result in growth and expansion of both microfinance and housing sectors.

Notwithstanding these motivations, the application of microenterprise finance concepts in HMF can be very detrimental to the lowest socioeconomic groups. In conventional microenterprise loans that are granted for running a business, not for acquiring a house, loans are expected to increase business income, which can then help to expand the business (Daphnis and Ferguson, 2004). However, in the case of HMF, the loan goes into the construction of the

house and does not generate immediate income to reimburse the loan. It then puts undue pressure on the borrower to make alternative arrangements to generate income from alternative sources to service the loan before accessing another loan.

Moreover, the cost and prices of building materials in developing economies are usually not stable and may escalate with time. In countries such as Ghana inflation and the value of local currencies are unpredictable, and this will have major implications for both MFIs and the lowest socioeconomic groups. More importantly, the cost of rework as a result of the incremental stage construction is another major setback in HMF delivery. The technical expertise available at one stage of construction may not be available again at the next stage of the construction process. Regulations concerning urban development may also change with time in the face of rapid urbanisation that can lead to lowest socioeconomic groups losing their land for new development.

Another short coming of HMF is the misclassification of both urban and rural poor in developing countries. These constituents are diverse and therefore their financial needs and behaviours are also diverse, yet MFIs often defined all of them as poor less sectoral studies on their financial behaviour patterns based on their diversities (Ferguson and Navarrete, 2003; Ferguson, 2003). Ledgerwood *et al.*, (2013) for instance argue that the saving and income behaviour of agricultural labourers would be different from that of the farmer let alone a seamstress or carpenter located in an urban centre. Research has also shown that male and their female counterpart within similar livelihood environment even have different attitudes towards the allocation of households' resources which includes finance. These differences would generate some innate differences in their financial patterns due to age, health and many others.

Notwithstanding the shortcomings of HMF there are some inherent challenges that MFIs, investors, and clients face that are prohibitive to the full realization of the market opportunities of HMF portfolios in the low-income housing market. Some of these challenges are regulatory complexity (Pedrini *et al.*, 2016), market saturation and competition (Mia *et al.*, 2019), political risk and currency volatility (Adbi and Singh, 2019; Ma and Zhang, 2019) and tenure security (Mosiane, 2019). Sustainable funding in Prieto's (2019) view is another challenge in HMF delivery. MFIs will need long-term funding and guidance as they learn how to develop, market, and manage HMF products for the market. Adequate sources of long-term funding will ultimately lead to market expansion.

## **The Microfinance Market in Ghana**

The development of the microfinance sector in Ghana has come of age and gone through several stages. One unique feature of the current Ghanaian microfinance market is that the Bank of Ghana has segmented the market into four different categories known as tiers. There are no separate regulations for MFIs that offer housing microfinance in the sector. There should be a separate regulation because there are variations in the interest rates charged for microfinance and HMF products offered by all the categories. Including the financial non-governmental organisations there are about 2,234 institutions in the country according to (GhAMFIN, 2013).

There are 158 MFIs within the first tier comprising of 22 savings and loans companies and 136 rural and community banks. In the second tier are 638 general microfinance companies and 538 credits unions companies. Regarding capitalisation, each tier has a minimal capital requirements that it must meet before being licensed by the Bank of Ghana as shown in Table 1. According to Adjei *et al.*, (2009), all MFIs are to maintain liquidity ratios which limit the percentages of the mobilised savings and deposits that can be given out as loans. The liquidity ratios vary from 10% for savings and loans companies to over 50% for some rural community banks. Although, it is reasonable to have liquidity regulations to ensure that loans are paid back, the policy in its current form is hindering HMF delivery in the country.

Additionally, there is a single obligor limitation which puts a cap on the maximum loan that can be given to an individual and this is based on the net worth of the MFI (Steel, 2013). Again, Anku-Tsede, (2014) report that MFIs are required to maintain a minimum capital adequacy ratio of 10%. However, the above also serves as limitations on microfinance loans in the country. Indeed, medium term microfinance lending is an exception and rare, let alone for long-term lending as requiring in low-income housing delivery in the country. This paper's interest is in the tier one segment of the market (see Table 1).

## **Research Approach**

The paper assessed the motivation for MFIs' to enter the housing market based on a survey of MFIs operating in two major commercial regions, Greater Accra and Ashanti regions. The regions according to the 2010 population and housing census are the most populous regions of the country with 16.3% and 19.4% of the total population respectively (GSS, 2013). The housing situation in these regions is characterised by inadequate supply and lack of facilities,

high rental charges and poor standards among the low-income earners. These regions are also the most urbanised in the country with close to over 383 MFIs (GhaMFIN, 2013).

The paper adopts a non-probability sampling method through snowballing that relies on data collection from MFIs who were accessible and available to participate in the study through a drop-off type of surveys. In the view of Dudovskiy (2016), snowball sampling is highly vulnerable to selection bias and a high level of sampling error. However, in a developing country, identifying participants through their office locations, which could be another sampling strategy, is problematic, as some operate from all manner of obscure locations while others operate at the blind side of the law by not being registered. A snowball sampling was therefore appropriate because some MFIs knew others as they operate within the same locality. It also led to the discovery of some MFIs that the authors were not aware existed.

A structured questionnaire was distributed to these identified MFIs through personal contact after booking appointments with the appropriate persons or institutions. Officers who have a direct bearing on microfinance portfolios in the various selected MFIs answered the pre-written series of questions. The respondent's office locations and directions obtained through telephone contact before sending the survey instruments out helped increase the response rate. The strategy yielded a sample of 200 MFIs from which 134 completed questionnaires were received representing a response rate of 68%. However, 7% (N=10) of the responses were unusable due to errors, inconsistencies or incompleteness. Accordingly, 93% (N=125) responses were used in the analysis.

The questionnaire covered the characteristics of the respondents' firms and motivation variables. There were twelve measured variable indicators of motivation identified as shown in Table 2. These variables were derived from interviews with housing MFIs conducted by (Bondinuba, 2016) in 2014 which were validated in a model. The responses to the different measured variable indicators of motivation were assessed on five-point Likert scales, ranging from strongly disagree, disagree, neutral, agree, strongly agree and coded 1 to 5 respectively.

### **Factor Analyses**

Factor analysis is a multivariate mathematical technique that addresses the problem of how to analyse the structure of the interrelationship among many variables by identifying a set of underlying dimensions known as factors (Schneider, 2007). The overall objective is data

summarization and reduction so that relationships and patterns can be easily interpreted and understood. It describes the data using fewer dimensions than the original variables and explains the correlations among a set of observed variables in terms of a set of latent variables. Factor analysis has been used in many disciplines as a data reduction strategy). The present study adopted a factor analysis comprising principal component analysis with a varimax rotation method similarly to the approach taken by previous studies (Mooi *et al.*, 2018).

The analysis had four steps: exploratory factor analysis, confirmatory factor analysis, testing the validity and reliability and reorganisation of the twelve motivation indicator variables given in Table 2. Exploratory factor analysis was performed to reveal the underlying structure of any latent variables among the twelve motivation variables. For simplicity of analytical purpose each motivation variable of the questionnaire was coded as Mot 1...Mot 12 (see Table 2). The reliability for all the twelve measurement indicator variables was ascertained using Cronbach Alpha which gives an overall reliability value of 0.752. The individual constructs reliabilities range from 0.713 to 0.753 which are all above the recommended minimum value of 0.70 (Straub *et al.*, 2004).

Additionally, the individual item reliability was also ascertained using the item commonalities extracted with an acceptable recommended value of 0.50 and above. A Kaiser-Meyer-Olkin measure was also used to establish the suitability of the data for structural detection for the appropriateness of the factor analysis. As a rule, factor loadings on the motivation variables with values above 0.60 are taken as high while those with loadings of 0.30 and above, but less than 0.60, are considered as moderately high (Kline, 2011). Another convention is that there should not be any multiple factor loadings with a value greater than 0.50. Motivation variables therefore with higher factor loadings were considered very critical and were retained while those that did not meet the above set criteria were removed.

The validity of a research instrument is about the accuracy of measurement of the content the instrument intends to measure (Hair *et al.*, 2006). The reliability and validity of the derived constructs were assessed after the confirmatory factor analysis to provide credence to the emerged or labelled dimensions. Another important aspect is the measurement of the sampling validity, which deals with whether a measurement instrument has adequate and representative coverage of the concepts in the variables being measured. It is usually achieved by seeking the opinion of other investigators or experts (Straub *et al.*, 2004).

## **Survey Results**

### ***Characteristics of Respondent Firms***

The MFI industry in the country is relatively immature as close to about 54% (N=68) of MFIs had operated for up to five years, 32% (N=40) between 5 - 9 years, 5% (N=6) between 10 - 14 years and 4% (N=5) between 15 - 10 years. The primary source of capital for most MFIs is through equity contributions from company partners representing 44 % (N=55) of the total source of finance of these firms. Bank loans accounted for 21% (N=26) of funds, and a further 19% (N=24) are from borrower savings. Share capital and donor support represents almost 14% (N=17) and 2% (N=3) respectively.

Some 42% (N=54) of the sampled firms' main target is the lowest socioeconomic groups, while 38% (N=47) were open to all categories of income groups including those in the lower-income brackets. A minority, 18% (N=22) and 2% (N=3), of the firms, target only the middle and upper-income groups respectively. To a considerable extent, the sector in Ghana is largely a private investor-led market which activities are solely targeted at the lowest socioeconomic groups.

### ***Exploratory Factor Analysis***

The results for the exploratory factor analysis, shown in Table 3, reveal a higher value of 0.711 for the Kaiser-Meyer-Olkin measure and indicate that the data collected is suitable for the factor analysis. The Bartlett's test of Sphericity ( $X^2$ : 495.114, df: 66, Sig.: 0.000) was significant which indicates that the variables selected are closely related and therefore are very useful for structural detection. However, the initial commonality test shows that two motivation variables (Mot 1 and Mot 3) were not reliable since some values were below 0.50, with other negative or multiple loadings. The occurrence does not meet the criteria for factor selection. They were therefore eliminated, as indicated by striking-through them in Table 3. Ten motivation variables of motivation were not affected, and overall four-factor dimensions emerged.

### ***Confirmatory Factor Analysis on the Remaining Motivation Variables***

All the ten remaining motivation variables can be considered as strong because all their factor loadings are above 0.60 as recommended by Kline, (2011). The results of the confirmatory factor analysis in Table 4 provide ample evidence to confirm the derived dimensions of the exploratory factor analysis shown in Table 3. The total variance explained by the remaining ten

motivation variables is 73.32, so the principal components account for almost three quarters of the motivation constructs.

### ***Validity and Reliability of the Derived Instruments***

The main characteristics of construct validity are the achievement of convergent and discriminant validity, which is derived from the confirmatory factor analysis results shown in Table 5. The motivation variables converge strongly to the derived dimensions, and good convergent validity is indicated in the “strong” factor loadings. Additionally, discriminant validity can be deduced because the factor loadings suggest that the ten items do not overlap across different dimensions. The reliability results for composite reliability and average variance extracted are presented in Table 5 for each of the derived dimensions of motivation factors. Taken together, the composite reliability values are above 0.70 except the fourth dimension which is 0.60. The average variance extracted is 72.80%, and the Cronbach Alpha for all ten motivation variables is (0.728), which indicates excellent reliability.

### **Rearrangement and Implications of the Results**

From Table 5 the derived motivation factors are labelled based on the meaning suggested within the context and concept of HMF. The result shows that four dimensions of motivations emerged and are confirmed through the confirmatory factor analysis. Their justifications, implications and corresponding motivation variables are now discussed in the context of MFIs’ willingness to enter the low-income housing market.

#### ***Interest for Profit***

The first and primary motivating factor extracted can be referred to as MFIs’ interest for profits. This is identified earlier as the key influence on why MFIs are considering extending into the housing market. The variables that statistically weight this factor are MFIs’ interest to increase firm profit (0.852) availability of local resources (0.842) and the low-income housing market having unique features and products (0.781). This MFIs’ interest for profits composite reliability value was (0.824). The socioeconomic benefits and effect of HMF cannot be underestimated in the context of a developing economy such as Ghana. The benefit of HMF adoption to MFIs can be realised around profitability and sustainability in their business. It can be argued that the housing market is profitable and offering HMF to the lowest socioeconomic groups will improve and ensure sustainability regarding risk mitigation against other products within the same MFI.

The concept of housing and its related activities involves both process and activities within the low-income housing value chain. These activities comprise both direct and indirect activities such as the provision of direct loans to giving technical and financial advice to low-income groups. The above is a demonstration of the uniqueness of the low-income housing market in the context of a developing country. With this variety of activities linked to housing, MFIs consider entry into the housing market to support any of such activities as very profitable. Profitability is, therefore, an ingredient for growth and expansion. Additionally, the material requirement for low-income groups housing is often available within their localities at a very cheap cost. The synergy between locally available resources regarding labour, local materials from low-income groups and finance from MFIs could propel growth in both low-income housing and microfinance markets.

### ***Ease of Entry into the Low-income Housing Market***

The second most important motivating factor can be viewed as ease of entry into the housing market. This factor is not explicitly identified earlier in the literature review as an important influence. The variables that statistically load on this factor were the flexibility of entry (0.876), the flexibility of risk and knowledge sharing (0.801) and policies to encourage homeownership (0.715). It also receives a composite reliability value of (0.720). This reflects the current “fit-for-all” microfinance regulations in the country which serves as a source of motivation to MFIs. The prevailing regulatory environment encourages ease of entry by MFIs into other sectors of the economy including housing activities. Although, ease of entry into the housing market will depend on a number of factors, such as the availability of funding, affordable land and flexibility in securing tenure by lowest socioeconomic groups, MFIs considers it beneficial to be engaged in the low-income housing market.

### ***Interest for Growth***

The third factor can be considered as MFIs’ interest for growth due to the perceived large size of the low-income housing market. Again, this influence was not identified in the literature review as important among the motivation factors. Two variables load on this factor. These are MFIs’ desire and interest for expansion in their operations (0.869) and the potential of the low-income housing market for MFIs’ growth (0.849). There is the possibility of profitability and sustainability in delivering HMF because the willingness of the lowest socioeconomic groups to access finance to meet their housing needs. It therefore offers MFIs the opportunity to grow and expand their operations. The synergy between locally available resources such as labour,

materials from the lowest socioeconomic groups' and finance from MFIs could propel growth in both microfinance and low-income housing markets.

### ***Perceived Individual Desire for Homeownership***

The fourth important factor that emerged is the perceived individual desire for homeownership among low socio-economic groups. Arguably this factor is embedded in the corporate mission of MFIs noted above to meet the desire of the lowest socioeconomic groups for home ownership. The factor is weighted by high demand for low income housing (0.917) and the opportunity for leveraging resources in both microfinance and housing sectors in the country (0.659). Its composite reliability value was (0.603). The results highlight the importance of assets and wealth building as a central element to the well-being of the lowest socioeconomic groups and their households. Homeownership provides economic security and in the case of Ghana it serves as a family inheritance. In the view of MFIs, there is a preference for homeownership among the lowest socioeconomic groups' which can trigger their willingness to access finance that is affordable. The willingness of individuals in the lowest socioeconomic groups to access or borrow would also mean the ability to pay for these loans because they are usually given out with progressive repayment terms. In the view of many MFIs, the high demand for homeownership, among individuals in the lowest socioeconomic groups, is therefore a good sign for the market and serves as a motivation.

### **Discussions and Conclusion**

The expanded knowledge provided through the factor analysis results can be useful in the development of HMF interventions in a developing country context. The paper provides the basis for a deeper understanding of why MFIs enter the low-income housing market. It can help in developing policies to meet the housing needs of low-income groups. However, institutional bottlenecks such as regulations on liquidity ratio have systematic effects and an unequal impact on MFIs in the delivery of housing microfinance. Furthermore, prior studies on HMF have focused on the individual low-income groups and the benefit they derived.

However, this study has shifted the focus on the perspective of MFIs than the individual low-income groups. It has led to the development of a practical framework for understanding some dimensions of MFIs' motivations to enter the housing market in a developing country context. The study also contributes to extant literature on motivations dimension relevant to HMF and the housing sector in emerging markets. Notwithstanding, more research on the long-term

effect of HMF on MFIs is recommended. Strategies to stimulate the supply of HMF should focus on affordability and institutional development issues that can support MFIs to scale up.

It emerged from the findings that MFIs consider entry into the housing market as profitable. Four main motivations were identified; interest for profit, ease of entry, interest for growth and perceived desire for home ownership. From MFIs perspective, HMF is profitable and sustainable because the lowest socioeconomic groups are willing to access finance that meet their housing needs. Profitability is, therefore, a factor for MFIs' growth and expansion. There is also a "fit-for-all" microfinance regulations in Ghana that encourages ease of entry for MFIs into the low-income housing market. Furthermore, the lowest socioeconomic groups accord importance to homeownership due to its ability to provide economic security (Aarland and Reid, 2019).

A major limitation of the paper is in the small nature of its sample size. Future studies should aim at increasing the sample size to make the extension of the findings to other jurisdictions statistically possible. Notwithstanding this limitation, the findings can be generalised in the context of developing countries especially among those within Sub-Sahara Africa. These countries share similarities in terms of their demographic's behaviour regarding income, housing needs and other values concerning housing.

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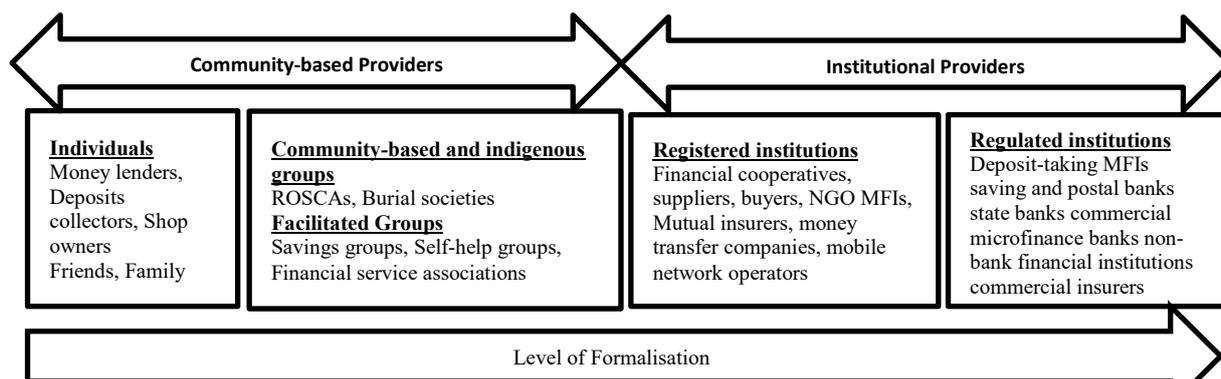


Figure 1. Classification of Microfinance Suppliers. Source: Adopted and adapted from (Ledgerwood *et al.*, 2013)

**Table 1: The Categories of MFIs in Ghana**

Tier	Type of Institution	No. Registered	Min. Capital Requirements	GAR	AR	Total
Tier 1	Savings and Loan Companies	22	Gh¢15m ~ £2.5m	10	5	15
	Rural and Community Banks	136	Gh¢300,000 ~ £50,000	46	20	66
Tier 2	Microfinance Companies	638	Gh¢500,000 ~ £84,000	200	102	302
	Credit Unions	538	N/A			
Tier 3	Financial NGO's	43	Gh¢300,000 ~ £50,000			
	Money Lending Companies	135	Gh¢300,000 ~ £50,000			
Tier 4	Individual Susu collectors	472	N/A			
	Individual money lenders	250	N/A			
<b>Total</b>		<b>2,234</b>				<b>383</b>

Sources; (GhaMFIN, 2013)

**Table 2: Measurement and Scale Reliability for Motivation Variables**

Code	Measurement indicator variables	Commonalities Extracted	Cronbach alpha reliability value
Mot 1	Potential size of the housing market	0.588	0.736
Mot 2	High demand for low income housing	0.765	0.721
Mot 3	Preference for homeownership than rental	0.674	0.741
Mot 4	Interest to increase firm profit	0.711	0.736
Mot 5	Availability of local resources	0.752	0.729
Mot 6	Unique features and products of the market	0.750	0.723
Mot 7	Firms desire for expansion	0.758	0.732
Mot 8	Potential market for MFIs growth	0.806	0.729
Mot 9	Opportunity for leveraging of resources	0.532	0.713
Mot 10	Good policy towards homeownership	0.540	0.752
Mot 11	Flexibility of entry	0.777	0.752
Mot 12	Flexibility of risk and knowledge sharing	0.632	0.753
All 12 items (composite Reliability)			0.752

**Table 3: Exploratory Factor Analysis of Variables**

		Component Matrix <sup>a</sup>			
		Components			
		1	2	3	4
Mot6	Unique features and products of the market	.750	-.280	.299	.142
Mot5	Availability of local resources	.710	-.343	.289	.218
Mot9	Opportunity for leveraging of resources	.707		-.106	.136
Mot8	Potential market for MFIs growth	.631		.137	-.621
Mot7	Firms desire for expansion	.619	-.114	.221	-.559
Mot4	Interest to increase firm profit	.617	-.297	.177	.458
Mot11	Flexibility of entry	.189	.738	.432	
Mot12	Flexibility of risk and knowledge sharing	.159	.702	.311	.128
Mot10	Good policy towards homeownership	.162	.671	.250	
<del>Mot3</del>	<del>Preference for homeownership than rental</del>	<del>.414</del>	<del>.289</del>	<del>-.619</del>	<del>-.188</del>
Mot2	High demand for low income housing	.571	.270	-.599	
<del>Mot1</del>	<del>Potential size of the LHM</del>	<del>.483</del>	<del>.169</del>	<del>-.539</del>	<del>.191</del>
Total variance explained		69.042			
Kaiser-Meyer-Olkin Measure = 0.711; Bartlett's test of Sphericity tests (X <sup>2</sup> : 495.114, df: 66, Sig.: 0.000)					
Extraction Method: Principal Component Analysis. a. 4 components extracted					

**Table 4: Confirmatory Factor Analysis of the Ten Motivation Items**

		Rotated Component Matrix <sup>a</sup>			
		Components			
		1	2	3	4
Mot 4	Interest to increase firm profit	0.852			
Mot 5	Availability of local resources	0.842			
Mot 6	Unique features and products of the market	0.781			
Mot 11	Flexibility of entry		0.876		
Mot 12	Flexibility of risk and knowledge sharing		0.801		
Mot 10	Good policy towards homeownership		0.715		
Mot 7	Firms desire for expansion			0.869	
Mot 8	Potential market for MFIs growth			0.849	
Mot 2	High demand for low income housing				0.917
Mot 9	Opportunity for leveraging of resources				0.659
Eigenvalue		3.286	1.941	1.076	1.029
The Percentage of variance explained		32.861	19.411	10.756	10.293
Total Variance Explained		73.321			
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 5 iterations.					

**Table 5: Reliability of the Labelled Derived Factors**

Emerg ed factors	Items	Measurement indicator variables	Reliability
Interest for Profit	3	Interest to increase substantial profit	0.824*
		Availability of local resources	
Ease of entry	3	Unique features and products of the market	0.720*
		Flexibility of entry	
		Flexibility of risk and knowledge sharing	
Interest for growth	2	Good policy towards homeownership	0.755*
		Firms desire for expansion	
Perceived desire for Home ownership	2	Potential market for MFIs growth	0.603
		High demand for low income housing	
		Opportunity for leveraging of resources	
Cronbach Alpha for all items		10	0.728
Variance extracted for all items		10	0.728

\*Estimates are reliabl

