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The effects of asset securitization on sustainability & profitability of microfinance institutions in Ghana

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ABSTRACT

Asset Securitization is a process that involves repackaging portfolios of cash-flow-producing financial instruments into securities or tradable capital market instruments for transfer to investors. There have been a number of studies on asset securitization and microfinance but most of these studies did not focus on the effects of asset securitization on sustainability and profitability of microfinance institutions. These studies were conducted in developed economies and little has been done in Africa and for that matter Ghana. This study therefore sought to explore the effects of asset securitization on sustainability and profitability of MFIs in Ghana knowing the important role they play in the Ghanaian economy. The objectives were to determine whether asset securitization is being practiced in Ghana, to determine whether asset securitization will improve the sustainability and profitability of microfinance institutions (MFI's) as well as challenges that may arise. As a qualitative research, the case study approach was employed in the research design. Questionnaires were administered to a sample size of 200 respondents from a population of 517 who were drawn from the management and staff of five microfinance companies selected through convenience and purposeful sampling techniques. The findings are that asset securitization in microfinance is currently not being practiced in Ghana but if implemented, it will have a positive effect on the sustainability and profitability of microfinance companies in Ghana. The study identified some challenges that microfinance institutions may face in the introduction of asset securitization in Ghana.

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1.0 Introduction

Microfinance primarily refers to the provision of financial services to low-income individuals and the poor, to enable them start or expand small businesses. Microfinance was mainly seen as a poverty protecting tool and a means to reduce poverty and boost the economies of developing countries, it has now become an increasingly attractive investment opportunity (Basus, 2005). For this reason, Lensink, (2010) states that adding microfinance funds to a portfolio consisting of international bonds and stocks yields diversification gains. Furthermore, investors might profit from an additional social return. However, investors deem Microfinance Institutions (MFIs) to be a very risky industry so all risk averse investors shy away from the industry (Doreitnera & Pribernya, 2011). For this reason, important innovations have been taking place in the "old-fashioned" business of financial intermediation (The Bond Market Association, 2001). Chief among the innovations introduced at major banks has been the securitization of balance-sheet assets, which is the mechanism by which individual, illiquid financial assets are converted into tradable capital market instruments (The Bond Market Association, 2001).

Over the last 20 years, the market for asset-backed securities has been growing steadily, swelled by many new diverse issuers (Kendall, 1996). An asset-backed securities (ABS) transaction is a structured finance product, where receivables from a designated asset portfolio are securitized in order to create balance sheet liquidity (Landesbank, 2000). In the U.S., the market for asset-backed securities (ABS) has been an established method of structured finance (Klotter, 2000), but European asset-backed securities (ABS) only began to display dynamic growth since the mid-1990s (Böhringer, Lotz, Solbach & Wentzler, 2001). Mortage-backed securities by German issuers have been an established method of securitizing a homogenous reference portfolio for more than two centuries (Skarabot, 2002; Anonymous, 1999). Especially since 1995, asset securitization which has seen dramatic changes as a technique of asset-backed securitization (ABS) has been used by many in the financial service sector as well as corporations to achieve a more efficient use of capital and return on equity (Bär, 1997; Laternser, 1997). At the end of 2000, the ABS market had grown six times its size in 1997 which reflected the growing wish of issuers to parcel assets into portfolios to structure stratified debt claims issued to capital market investors (Walter, 2000). The strong increase in issuance and trading of asset-backed securitization (ABS) are often attributed to three causes, i.e. issuer's desire to manage risk beyond what would be possible through portfolio diversification, balance sheet restructuring (i.e. to shore up the quality of the balance sheet) and regulatory capital relief, particularly against the backdrop of weak equity markets and stronger performance of fixed income markets (Burghardt, 2001). According to Jobst (2002) by the end of 2001 bank-sponsored loan securitization alone involved over U.S. $200 billion in outstanding securities worldwide, whose volume accounts for roughly 20 percent of the aggregate credit activities of their sponsors.

Asset securitization is important because, the concept of risk and return suggest that higher risk is associated with higher return (Fisher & Hall, 1969). Consequently, interest rates in sustainable microfinance institutions (MFIs) have to be substantially higher than the rates charged on normal bank loans (Rosenberg, Gonzalez, and Narain, 2010). So the very few investors who have the courage to invest in the industry require extremely high returns from the MFIs. Also, Hermes and Lensink (2011) state that providing microfinance is a costly business due to high transaction and information costs. All these put the sustainability and profitability of the microfinance industry in great doubt. According to rough estimations, only 1-2 per cent of all MFIs in the world are financially sustainable (Hermes and Lensink, 2011). Since financial markets have displayed a remarkable shift towards the substitution of securitization of bank assets for traditional loan finance, the issue of debt securities, collateralized by an underlying portfolio, as a form of structured finance holds the prospect of completely transforming the traditional paradigm of intermediation (Jobst 2002). In securitization, asset risk is transferred to capital market investors in return for cash flows generated from an asset portfolio, whose repayment risk is sliced into tranches, with the most junior tranche (first loss position) bearing any initial losses (Jobst 2002). In addition, (Jobst 2002) states that this possibility of selling securities as structured claims in the form of tranches has been key to the popularity of asset securitization. If tranches are subordinated, any losses in excess of the lower tranche are absorbed by the subsequent tranche and so on, leaving the most senior tranches only with a remote probability of being touched by defaults in the underlying asset pool (The Economist, 2002). For the asset securitization process allows issuers to lower their cost of investment funding by segregating assets in terms of risk. Asset securitization is understood as an important risk reduction tool according to Skarabot (2002) as well as Rosenthal and Ocampo (1988). The Bond Market Association (2001) considers securitization as an increasingly important and widely-used method of business financing throughout the world. Asset securitization gives continued growth and expansion generates significant benefits and efficiencies for issuers, investors, securities dealers, sovereign governments and the general public (The Bond Market Association, 2001). The mounting competitive pressure over client deposits and a notorious squeeze on interest spreads have led banks to employ securitization as a vehicle for balance sheet management (Jobst 2002). Frequently, asset securitization involves more complicated financial structures of packaging the risk of bank assets (Jobst 2002). The complexity of these structures is rooted in regulatory requirements for insulating investors against a multiplicity of impending risks arising from credit default (credit risk), an adverse movement of market prices (market risk) and the inability of the issuer of the security to honor scheduled payment obligations to investors (liquidity risk) in the wake of a securitization transaction (Jobst 2002).

Prior to formal banking systems in Ghana, many of the poor, mainly women, and in rural communities relied heavily on informal banking services and the semi-formal savings and loans schemes (Egyir & Akudugu, 2010). Cooperatives, especially among cocoa farmers of the 1920s, engaged in thrift and credit. The mission of the informal microcredit organizations or microfinance services in Ghana was to provide social and economic support for the less advantaged, especially rural women and their families (Botei-Doku & Aryettey, 1996). Traditionally, people have saved with and taken small loans from individuals and groups within the context of self-help to start businesses or farming ventures (Addae-Korankye, 2012). Available evidence also suggests that the first Credit Union in Africa was established in Northern Ghana in 1955 by Canadian Catholic Missionaries (Amoah, 2008; Asiamah & Osei, 2007). Microfinance has gone through four (4) distinct phases in Ghana. These stages are described below: Phase One: The provision of subsidized credit by Governments starting in the 1950's when it was assumed that the lack of money was the ultimate hindrance to the elimination of poverty. Phase Two: Involved the provision of micro credit mainly through NGOs to the poor in the 1960's and 1970's. During this period sustainability and financial self – sufficiency were still not considered important. Phase Three: In the 1990's the formalization of Microfinance Institutions (MFIs) began. Phase Four: Since the mid 1990's the commercialization of MFIs has gained importance with the mainstreaming of microfinance and its institutions into the financial sector. (Ministry of Finance and Economic Planning, 2003). Researchers argue that, microfinance is not a new concept in Ghana. It has always been common practice for people to save and/or take small loans from individuals and groups within the context of self-help in order to engage in small retail businesses or farming ventures. Over the years, the microfinance sector has thrived and evolved into its current state, thanks to various financial sector policies and programmemes such as the provision of subsidized credits, establishment of rural and community banks (RCBs), the liberalization of the financial sector and the promulgation of PNDC Law 328 of1991, that allowed the establishment of different types of non-bank financial institutions, including savings and loans companies, finance houses, and credit unions etc. (Asiamah & Osei, 2007). Currently, there are three broad types of microfinance institutions operating in Ghana. These include: Formal suppliers of microfinance (i.e. rural and community banks, savings and loans companies, microfinance companies and commercial banks). Semi-formal suppliers of microfinance (i.e. credit unions, financial non-governmental organizations (FNGOs), and cooperatives; Informal suppliers of microfinance (e.g. ''susu'' collectors and clubs, rotating and accumulating savings and credit associations (ROSCAs and ASCAs), traders, moneylenders and other individuals). Ghana now has 409 fully licensed microfinance institutions, 92 provisional licensed microfinance, 56 Money Lenders and 7 Financial Non Governmental Organizations (Bank of Ghana, 2014).The Bank of Ghana has overall supervisory and regulatory authority in all matters relating to banking and non-banking financial business in Ghana with the purpose to achieve a sound, efficient banking system in the interest of depositors and other customers of these institutions and the economy as a whole (Ministry of Finance and Economic Planning, 2003).

There have been several studies on microfinance but not much has been done on the effects of asset securitization on sustainability and profitability of Microfinance Institutions (MFIs). Hüttenrauch & Schneider (2009) in their book on securitization: A funding alternative for microfinance institutions, emphasized to what extent securitization is already a viable funding strategy for MFIs. Alarcón (2008) in studying ''securitization in microfinance: creating savings and investment instruments for the poor'' explored the viability of implementing a scheme that pushes the current microfinance structured finance funding strategies one step further, fulfilling the savings and investing needs of microfinance customers, while helping the development of the financial markets and the funding issues faced by micro lenders. Hoedoafia & Randall (2013) in a study on ''Restarting Asset-Backed Securities (ABS) and Current Developments in the Securitization of Financial Assets provide an insight into how ABS will be conducted in Europe after the recent financial crisis and highlights the current developments in the securitization of financial assets. The study concluded that there is the need to attract a new investor base to add to the existing investors and to increase the demand for securitized products without government interventions. Hoedoafia & Randall (2013) further recommended that a study is undertaken on how to increase the investor base. It is for this reason that this study to assess the effects of asset securitization on sustainability and profitability is of great importance because investor base will be expanded if MFIs are sustainable and profitable. Glaubitt, Hagen, Feist, & Beck (2009) conducted a study on ''Reducing Barriers to Microfinance Investments: The Role of Structured Finance'' and the research focused on the two areas of structured finance most relevant for microfinance: asset securitization and structured investment funds. Hans Bystr¨om (2006) in studying ''The Microfinance Collateralized Debt Obligation: a Modern Robin Hood?'' discussed the implications of securitization and trenching of micro credits. Although there have been a number of studies conducted on asset securitization and microfinance as indicated above, most of these studies did not focus on the effects of asset securitization on sustainability and profitability of microfinance institutions. Also, the studies were conducted in developed economies and little has been done in Africa and for that matter Ghana. The uniqueness of this study therefore seeks to explore the effects of asset securitization on sustainability and profitability of MFIs in Ghana knowing the important role they play in the Ghanaian economy.

This study aims at deepening the understanding of microfinance practitioners and policy makers on the use of asset securitization in the microfinance industry which can improve on the sustainability and profitability of the microfinance industry in Ghana. The research objectives are to determine whether asset securitization is being practiced in Ghana, to determine if the use of asset securitization can improve the sustainability of microfinance companies in providing microfinance services to their clients, to determine if the use of asset securitization can improve profitability for microfinance companies and to identify the challenges that may come in the use of asset securitization in microfinance.

2.0 Literature review

2.01 History of asset securitization

Asset Securitization is a process that involves repackaging portfolios of cash-flow-producing financial instruments into securities for transfer to third parties (Jobst, 2008). In simple terms, asset securitization is a technique used to sell illiquid balance sheet assets to outside investors (Bessis, 2002). Through this process homogenous illiquid financial assets are pooled and repackaged into marketable securities (Dash, 2010). "In a basic securitization structure, an entity, often a financial institution and commonly known as a "sponsor," originates or otherwise acquires a pool of financial assets, such as mortgage loans, either directly or through an affiliate. It then sells the financial assets, again either directly or through an affiliate, to a specially created investment vehicle that issues securities "backed" or supported by those financial assets (Dash, 2010). Securitization issues backed by consumer-backed products such as car loans, consumer loans and credit cards, among others are called asset-backed securities (Moody's Investors Service, 2002). Asset securitization is one of the most significant innovations in the global capital markets during the last fifteen years. It has substantially enhanced the efficiency of assets and liabilities by individuals and corporations in recent times (Standard and Poor's, 2000). Choudhry and Fabozzi (2004) mention that the capital market in which these securities are issued and traded consists of three main classes: asset-backed securities (ABS), mortgage-backed securities (MBS), and collateralized debt obligations (CDO). As a rule of thumb, asset securitization issues backed by mortgages are called MBS, and securitization issues backed by debt obligations are called CDO (Nomura, 2004 and Fitch Ratings, 2004).

Asset securitization began in the 1970s, created as a vehicle to provide additional mortgage credit to the residential housing market. At that time, savings and loan associations, or "thrifts," were the predominant originators of mortgage loans (Nera Economic Consulting, 2009). Starting around 1990, pools of loans began to be sold in capital markets, by selling securities linked to pools of loans held by legal entities called "special purpose vehicles" (SPVs) intermediaries (Yale, Nber & Metrick, 2011). These securities, known as asset-backed securities (ABS) or mortgage-backed securities (MBS), in the case where the loans are mortgages are claims to the cash flows from the pool of loans held by the SPV. For decades before that, banks were essentially portfolio lenders; they held loans until they matured or were paid off. These loans were funded principally by deposits, and sometimes by debt, which was a direct obligation of the bank (rather than a claim on specific assets) (Nera Economic Consulting, 2009). But after World War II, depository institutions simply could not keep pace with the rising demand for housing credit. Banks as well as other financial intermediaries sensing a market opportunity, sought ways of increasing the sources of mortgage funding. To attract investors, investment bankers eventually developed an investment vehicle that isolated defined mortgage pools, segmented the credit risk, and structured the cash flows from the underlying loans. Although it took several years to develop efficient mortgage securitization structures, loan originators quickly realized the process was readily transferable to other types of loans as well (Comptroller's Handbook, 1997). Since the mid-1980s, better technology and more sophisticated investors have combined to make asset securitization one of the fastest growing activities in the capital markets. The growth rate of nearly every type of securitized asset has been remarkable, as have been the increase in the types of companies using securitization and the expansion of the investor base (Comptroller's Handbook 1997). The business of a credit intermediary has so changed that few banks, thrifts, or finance companies can afford to view themselves exclusively as portfolio lenders (Dugan and John, 1997). Asset Securitization has grown from a non-existent industry in 1970 to \$6.6 trillion as of the second quarter of 2003 (Cowan, 2003).

2.02 Effects of securitization on microfinance institutions' sustainability and profitability

Due to the importance of MFIs in poverty reduction, their sustainability is of essence to all stakeholders. For this reason, Walter (2002) argues that it is now time to innovate and design services that maintain high standards of financial performance because clients place a high value on continued access to credit, and if they feel that the MFIs will not survive they reduce their incentive to repay loans (Von Pischke, 1999). Irrespective of this importance of MFIs, Markowski (2002) estimates that only about 5% of MFIs worldwide are financially sustainable while the IMF (2005) puts the figure at only 1%, so this is a huge concern for the microfinance sector.

To address this huge concern of only 5% or less MFIs being financially sustainable, Havers (1996) states that an MFI must cover the cost of funds which he defines as operating costs, loan write-offs and inflation with the income it receives from fees and interest. MFIs that have become self-sustainable tend to be larger and more efficient. They also tend not to target the very poor, as targeting the less poor leads to increases in loan size and improved efficiency indicators, whereas MFIs focusing on the poorest tend to remain dependent on donor funds (IMF 2005). This is where the compromise exists. In order to achieve such sustainability, while at the same time reaching those most in need, microfinance programmes need to be managed in a rigorous and professional manner, subsidies must be removed, tight credit control procedures and follow-up on defaulters needs to be in place (Havers, 1996). In simple terms, the tradeoff between financial and social objectives can be balanced if the MFI is well managed and understands the market and its clients (Morduch, 2004) and by combining both objectives, financial returns can potentially be increased in the long run (Pawlak & Matul, 2004). As stated by Morduch (2004) "achieving profitability and strong social performance is the ultimate promise of microfinance. It is not impossible but neither is it easy". It is said that if the MFI's want to close in this huge supply-demand gap, they need to tap into external resources. To achieve this, important technological changes have been taking place in the "old-fashioned" business of financial intermediation (Diekmann, 1997). Chief among the innovations introduced at major banks has been the securitization of balance-sheet assets, the mechanism by which individual, illiquid financial assets are converted into tradable capital market instruments (The Bond Market Association, 2001). There are several effects of securitization on MFI's especially on sustainability and profitability. For MFI's to be sustainable Havers (1996) states that an MFI must cover the cost of funds, operating costs, loan write-offs and inflation with the income it receives from fees and interest. Shah (1999) argues that the concept of sustainability must include, amongst other criteria; obtaining funds at market rate and mobilization of local resources. Shah proposes sustainability measures that include among others: repayment rate, operating cost ratio, market interest rates and portfolio quality. The microcredit summit campaign, on the other hand refers to a microfinance institution as institutional and financially Self-Sufficient if it is able to cover all actual operating expenses from income generated from its financial services operations, after adjustment for inflation and subsidies (Gibssons & Meehan, 2000). According to Sharma and Nepal (1997), a microfinance institution attains sustainability when its operating income from loans is sufficient to cover all the operating costs. The researchers argue that sustainability of microfinance institutions includes both financial viability and institutional sustainability (self-sufficiency) of the lending institution. They again stated that charging high enough interest rate to cover costs is an essential practice for any business enterprise that intends to continue its operations beyond the short-term. Asiama & Victor-Osei (2007) emphasize that the potential economic benefits of sustainable microfinance in Ghana are compelling, and its potential effects on the development process cannot be understated. In line with this idea (Navajas et al., 1998) define sustainability as "to reach goals in the short-term without harming your ability to reach goals in the long-term." Similarly, Edgcomb and Cawley (1994) define sustainability as the ability of an organization to "sustain the flow of valued benefits and services to its members or clients over time." Both sets of authors, however, later clarify their remarks to make clear that, in their view, the only way an MFI can become truly "sustainable" is to reach financial self-sufficiency. This calls for a holistic approach to facilitate the development of the microfinance sub sector and thereby unleash its potential for accelerated growth and development. This is because sustainable access to microfinance helps alleviate poverty by generating income, creating jobs, allowing children to go to school, enabling families to obtain health care, and empowering people to make the choices that best serve their needs (Kofi Annan, 2003).

Edgcomb and Cawley (1994) for example, argue that "sustainable institutions can and must meet 100 percent auto financing for their credit operations." Brinkerhoff (1991) propose the following definition of sustainability: "Sustainability can be defined as the ability of a programme to produce outputs that are valued sufficiently by beneficiaries and other stakeholders that the programme receives enough resources and inputs to continue production." This definition transforms the debate about sustainability, for it opens the very real possibility that an MFI could be viable in the long-term, despite dependence on donor funding. This definition also requires that MFI's recast the way they think about donors. It is stated that all economic actors are assumed to be rational, with the important exception of donors. In the institution's literature, donors are portrayed as motivated almost solely by "irrational" impulses: donors are fickle, donors are faddish, and donors are unreliable. The possibility that there exist rational donors who seek to maximize social returns on social investments is rarely, if ever, allowed (Brinkerhoff, 1991). He argues that donors are as rational as any other economic actor is. It is true that donors can at times be fickle, faddish, and unreliable. But it is by no means certain that rational donors in particular, governments who "remain committed to poverty alleviation well after international agencies have moved on to the next Big Idea" will abandon microfinance "if subsidized, microfinance proves to deliver more banks for buck than other social investments" (Brinkerhoff, 1991). Again, that so many MFIs and other nonprofits have survived and thrived for so long would appear to be like the rather sweeping assertion that institutional sustainability requires financial self-sufficiency (Morduch, 1998).

However unlike formal sector financial institutions, the large majority of MFI's are not sustainable (Brau & Woller, 2004). Instead, most MFI's are able to operate without covering their costs due to subsidies and gifts from governments and other donors (Morduch, 2000). Notwithstanding, it is true that donor funds are limited, and it is true that donors can be fickle, faddish, and unreliable (Brau & Woller, 2004). Magali (2014) took a study that applied the qualitative, descriptive and multivariate regression analysis to investigate whether the rural Savings and Credits Cooperative Societies (SACCOS) in Eastern, Central and Northern zones of Tanzania were still sustainable after the phasing out of capacity building projects in 2013. The study also examined the outreach level of the rural SACCOS since their establishment. The study revealed that 46% of SACCOS in rural Tanzania especially in Eastern and central zone were not sustainable because they accumulated large amount of non-payment loans and they did not issue new loans from 2006-2013. This means, a significant number of MFI's need a sustainable technique to microfinance business. Thus, it is not surprising that promoters of sustainable microfinance have emphasized the need for MFIs to adopt asset securitization (Sharma and Nepal, 1997).

Also, the recent controversy over Microfinance Institutions (MFIs) charging usurious interest will create obstacles for funds flowing freely from banks to the MFI sector and that will put additional pressure on financing the MFI's balance sheets (Dalal, 2010). For this reason, Stieber (2007) advocates the use of alternate sources for capital acquisition for MFIs. Also, Asset securitization has been recognized by eminent academics as the most important engine of reform in modern financial system to emerge in recent times (Greenbaum & Thakor, 1995). Research scholar, Deihl (2009) again argues that using securitization transactions would allow microfinance institutions to obtain greater amounts of funding from local and international investors. Stieber (2007) argues that in April 2006, Blue Orchard executed the largest single commercial investment transaction in the history of microfinance. The transaction raised $99 million for twenty-one microfinance institutions in thirteen different countries and five different currencies. In its view, The Bond Market Association (2001) states that chief among the innovations introduced at major banks has been the asset securitization of balance-sheet assets, the mechanism by which individual, illiquid financial assets are converted into tradable capital market instruments. Asset Securitization is therefore necessary to ensure continue funding for microfinance operations (Dalal, 2010). So the evolution of asset securitization is not surprising given the benefits that it offers to each of the major parties in the transaction.

Some of the major participants are the originator (MFI), the investor, and the borrower (Comptroller's Handbook, 1997). One of the main benefits of an MFI utilizing asset securitization techniques is that it gives access to low-cost capital that is otherwise unavailable through conventional means (Schwarcz 2010). A company's ability to borrow in its own name is limited by the market's view of its credit rating. The higher the credit rating a company has, the easier it will find it to access the wholesale funding market, and the cheaper that funding is likely to be (Standard & Poor's, 2005). Capital One is currently rated at BBB-by Standard and Poor's, a leading credit rating agency, which is at the lower end of the credit rating continuum and severely limits its ability to borrow funding in its own name (Standard & Poor's, 2005). So for the originator of the microfinance assets, the advantages of securitization include relief in regulatory and economic capital, diversification of the investor base, access to new (and potentially cheaper) sources of funding based on asset risk rather than corporate risk and portfolio management (Comptroller's Handbook, 1997). Because of credit enhancements, the rating of asset-backed securities is often higher than that of the originator who is therefore able to tap funding sources not normally accessible to him (Basel Committee, 1992). According to Saunders and Cornett (2006), asset securitization along with other financial derivatives, the packaging and selling of loans and other assets backed by securities, is a mechanism that financial institutions use to hedge their interest rate exposure gaps.

From the perspective of the credit originator, this market enables them to transfer some of the risks of ownership to parties more willing or able to manage those (Saunders & Cornett, 2006). By doing so, originators can access the funding markets at debt ratings higher than their overall corporate ratings, which generally gives them access to broader funding sources at more favorable rates. By removing the assets and supporting debt from their balance sheets, MFIs are able to save some of the costs of on-balance-sheet financing and manage potential asset-liability mismatches and credit concentrations (Comptroller's Handbook, 1997). Rating analysis and market based pricing also create credit history that may enable the originator to raise future capital at market-linked rates (Fernandes, 2006). In effect, it helps the originator to manage the Balance Sheet, unlocking hidden values, managing asset liability mismatch and managing various types of risk including currency risk, commodity risk and interest rate risk. Asset Securitization also improves returns on capital by converting an on-balance-sheet lending business into an off-balance-sheet fee income stream that is less capital intensive. Depending on the type of structure used, asset securitization may also lower borrowing costs, release additional capital for expansion or reinvestment purposes, and improves asset/liability and credit risk management (Comptroller's Handbook, 1997). In addition Basu (2005) posits that issuers who frequently use securitizations as a funding tool often find their profits increasing because the securities generally generate a profit when they are sold. Securitized assets offer a combination of attractive yields (compared with other instruments of similar quality), increasing secondary market liquidity, and generally more protection by way of collateral overages and/or guarantees by entities with high and stable credit ratings. Also, from an investor's perspective, asset securitization offers an alternative investment medium which for a given rating level usually over a safer investment avenue and higher risk adjusted return compared to equivalent related bank and corporate debts (Deihl, 2009). Investors prefer securitization transactions because they are rated based on standardized reviews of relevant information through rating agencies. Thus, highly rated securities require that investors do minimal additional research in order to become comfortable with the investment. The researcher further emphasize that asset securitization also gives the investors the desired exposure in some asset classes where ordinarily they can't invest directly (Deihl, 2009). Additionally, banks that raise funds through securitization are able to reduce their regulatory, and sometimes economic, capital requirements. They also offer a measure of flexibility because their payment streams can be structured to meet investors' particular requirements. Most important, structural credit enhancements and diversified assets pools free investors of the need to obtain a detailed understanding of the underlying loans. This has been the single largest factor in the growth of the structured finance market (Comptroller's Handbook, 2001). Lastly, asset securitization can have an impact on an issuers cost of funds. This is because financial assets with predictable payment characteristics can, when pooled together, offer a more attractive risk and return profile to investors' than the credit of the company that originated them (Koppe, Loewer-Sieger, & de Roever-Bonnet, 1986).

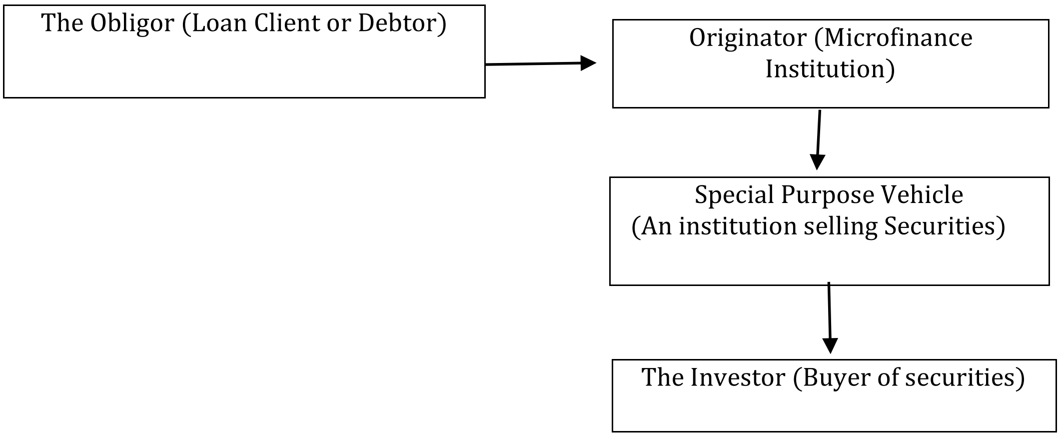
Borrowers also benefit from the increasing availability of credit on terms that lenders may not have provided had they kept the loans on their balance sheets. For example, because a market exists for mortgage-backed securities, lenders can now extend fixed rate debt, which many consumers prefer over variable rate debt, without over exposing themselves to interest rate risk. Securitized asset also offer a measure of flexibility because their payment streams can be structured to meet investors' particular requirements (Comptroller's Handbook, 1997). Asset securitization can be efficiently used to enable risk transfer by isolating risks and allocating them to entities best equipped to take them on (Ananth & Sahasranaman, 2011). Many MFIs have thus adopted cost recovery interest rates on microcredit. A significant number of such institutions have been able to expand the depth and breadth of their operations and effective interest rates are even higher because of commissions and fees charged by MFI's (Comptroller's Handbook, 1997).

Most of the reasons for using securitization in microfinance are the same explored in the mainstream financial sector on Banking Supervision (Basel Committee, 2011). Securitization would help MFIs to broaden their access to financing, increasing liquidity and diversify funding (Lockwood, Rutherford & Herrera, 1996). In particular, it is often claimed that the portfolio of microloans, by its separation from the other assets of the MFI (and, thus, its creditworthiness), the empirical literature generally agrees on the positive effects of securitization on banks profitability. By using the event study methodology, these wealth effects are signalled by the existence of abnormal returns as a consequence of securitization announcements observing a sample of 294 public offering of securitized assets in U.S. during the period 1984-1992, focused on the wealth effects of announcements of asset securitization. By using the event study methodology, the authors demonstrate that the effects of the announcements are industry specific (Herrera et al., 1996). When banks are considered, the study shows that banks realized wealth loss at the time of ABS announcement. Furthermore, the researchers demonstrate that the wealth change is positively related to financial slack for banks and that strong (high financial slack) banks experienced significant wealth gain, whereas weak (low financial slack) banks experienced significant wealth loss (Herrera et al., 1996). Also, Thomas (1999) studied the wealth change of 236 securitizations carried out in U.S. during the period 1991-2006. The author analyses the abnormal returns and finds that securitization is wealth creating for stockholders, whereas is not wealth destroying for bondholders. A firm is said to be profitable if its total revenue is greater than its total cost. Elks (2013) find increased profit for companies embracing sustainability. López-Martínez et al., (2009) examine the reactions of the Spanish stock market to the announcement of securitization by listed banks during the period 1993-2004. Their results show the existence of significant excess returns on the day immediately following the notice of a securitization deal; results are robust to different tests conducted using different intervals around the event date. These findings are consistent with the idea that investors anticipate the potential benefits of the securitization in terms of free up equity, which allows banks to improve their profitability (López-Martínez et al., 2009). Sabry and Okongwu (2009) demonstrate that in the U.S. context, securitization has increased the availability of credit and decreased its cost and therefore increased profit. In addition, Basu (2005) argues that issuers who frequently use securitizations as a funding tool often find their profits increasing because the securities generally generate a profit when they are sold. Securitized assets offer a combination of attractive yields (compared with other instruments of similar quality), increasing secondary market liquidity, and generally more protection by way of collateral overages and/or guarantees by entities with high and stable credit ratings. They also offer a measure of flexibility because their payment streams can be structured to meet investors' particular requirements (Comptroller's Handbook, 1997). Other factors-such as the compulsory deposits for obtaining a loan, frequency of repayments, and the systems adopted to collect repayments also raise the effective interest rates (Fernando, 2006).

The intent of securitization typically is to ensure that repayment of the securities issued to investors is dependent upon the securitized assets and therefore will not be affected by the insolvency of any other party including the entity securitizing the assets. Also, most securitization issues are rated by an accredited credit rating agency. Securitization has two important characteristics (Dash, 2010). First, the pooling of a large number of assets, such as loans, that are used as collateral for (asset-backed) securities issued by the originating firm, and, second, the de- linking of the credit risk of the pool of assets from the credit risk of the originating firm . The de-linking is typically done through a transfer of the underlying assets to a stand-alone special purpose vehicle (SPV) that is closely associated with, but legally de-coupled from, the originator. The SPV is then issuing securities backed by the underlying assets. To highlight the risk-transferring idea behind securitization, the asset-backed securities in a securitization deal are sometimes called pass-through instruments (Dash, 2010). To sustain the growth in the microfinance industry, it is necessary to shift the loan financing for MFI's from traditional lenders to capital markets. This can primarily be achieved through asset securitization. Asset securitization has different advantages to offer which can be tapped separately and also customized on a case-by-case basis and apart from the domestic commercial investors, foreign market debt can also be tapped for the funding needs of the MFIs (Patten et al., 2001).

2.03 Major players in asset securitization

There are four major players in asset securitization processes namely; the Obligor, Originator, Special Purpose Vehicle (SPV), and the Investor.



2.3.1 Obligor(s)

The Obligor is the Originator's debtor. In this context, the Obligor(s) is the total number of loan clients of AGT microfinance. The amount outstanding from the Obligor is the asset that is transferred to the SPV. The amount outstanding to the AGT loan clients are transferred to GCB, the SPV. The credit standing of the Obligor(s) is of paramount importance in a securitization transaction (Dash, 2010). This is where rating agencies come in by providing the credit rating of the obligor. This will inform the SPV if the obligor will be able to honour repayment schedules before it accept a deal from the originator.

2.3.2 Originator

This is the entity which requires the financing and hence drives the deal. Typically the Originator owns the assets or cash flows around which the transaction is structured . The Originator sells the loan portfolio to the Special Purpose Vehicle (SPV) (Dash, 2010). In the context of this study, an Originator could be African Guaranty Trust (AGT) Microfinance Ltd who owns an outstanding loan portfolio around which the transaction is structured. The expected cash flows from the loan portfolio are sold to the Special Purpose Vehicle (SPV). This provides funds ready available to the originator to loan out to other clients and whenever the expected cash flows are received from the obligor, they are then transferred to the SPV who now owns them.

2.3.2 Special purpose vehicle (SPV)

A SPV is typically used in a structured transaction for ensuring bankruptcy remoteness from the Originator. In the context of this study, the SPV which can be a bank, example, Ghana Commercial Bank (GCB), or Gold Coast Securities Limited which purchases the loan portfolio from the Originator, African Guaranty Trust (AGT) Microfinance Ltd. Typically the ownership of the cash flows or assets around which the transaction is structured is transferred from the Originator, African Guaranty Trust (AGT) Microfinance Ltd, to the SPV, Ghana Commercial Bank, etc. at the time of execution of the transaction. The SPV is typically an entity with narrowly defined purposes and activities and usually has independent trustees/directors. The purpose of the SPV is to ensure that the loan portfolio is transferred from the Originator to bankruptcy remoteness. The SPV, that is GCB in the context of this study, needs to be capital efficient. The SPV then sells these securities to investors who want to make to a return on their investment on maturity of the investment.

2.3.4 Investors

The investors are the providers of funds and could be individuals or institutional investors like banks, financial institutions, mutual funds, provident funds, pension funds, insurance companies, etc. The investors also purchase the securities from the SPV, thus GCB etc. based on their risk appetite (Dash, 2010). With this arrangement, the investors are confident that, even if the Originator AGT in this context goes bankrupt or becomes illiquid, the loan portfolio is in the name of the SPV- GCB in this study, which is capital efficient. The concept of risk and return suggest that, higher risk is associated with higher return (Fisher & Hall, 1969). Therefore with this lower risk presented by the Originator or the MFI or AGT microfinance, investors will require lower return.

3.0 Data and methodology

The study was an exploratory survey to assess the effects of asset securitization on sustainability and profitability of microfinance companies. The study concentrated on five microfinance companies in the Greater Accra region with a total population of 517. The choice of the region is due to the fact that it is accessible to the researcher taking into consideration time and cost elements. Convenience and purposive sampling methods were used to arrive at the sample size of the 200 made up of management level and above from a population of 517. These methods were used because the researcher wanted to get access to the needed data readily and overcome time and financing constraints. Both primary and secondary data were used as well as interview guide. Questionnaires totaling 200 were administered to respondents. Secondary data was also obtained from relevant publications and other materials. Statistical package for social sciences (SPSS) was used in data analysis.

4.0 Results and discussion

4.01 Level of education of respondents

Asked to indicate their educational background, the results are presented in table 01. In terms of educational level of the respondents, as of the time of study, all of them have had more than just basic education; 59.0% have had Higher National Diploma/Diploma studies, with 37.0% having their degrees whereas 4.0.3% have had post graduate education. From this, it could be deduced that all the respondents hold educational certificates of higher learning and therefore can comprehend the issues in the questionnaire and express a fair view on the subject of this research. This is because their understanding of the subject matter of this research is key to making an informed decision.

Table 01: Level of education of respondents

Level of Education	Number of Respondents	Percentage
HND/Diploma	118	59.0
First Degree	74	37.0
Master’s Degree	8	4.0
Total	200	100.0

4.02 Years of experience of respondents

Respondents were again asked of their working experience in the microfinance sector, and their responses are presented in table 02. In terms of working experience, majority of the sampled MFIs (about 66.5%) had been operating for over years three (3) years. Only about 13% of the sampled MFIs have been in operation for less than two years. This means majority of the respondents have enough working experience in the industry and are conversant with the business of microfinance to give a fair judgment of the issues rose in the questionnaire.

Table 02: Level of experience of respondents

Years of experience	Number of Respondents	Percentage
Less than 2 years	26	13.0
Between 2 to 3 years	41	20.5
Between 3 to 4 years	60	30.0
Above 5 years	73	36.5
Total	200	100.0

4.03 Knowledge or idea in asset securitization

Asked if respondents had any knowledge or idea in asset securitization, the responses are presented in table 03. Majority of the respondents 68% did not have any idea about the concept of "asset securitization in microfinance". This shows that most microfinance practitioners in Ghana are not aware of the concept of asset securitization. This means Ghanaian MFIs are way behind in the implementation of the concept of asset securitization. These show stakeholders need serious education on asset securitization to be able to appreciate the concept.

Table 03: Knowledge or idea in asset securitization

Knowledge or idea in asset securitization	Number of Respondents	Percentage
Yes	56	28.0
No	136	68.
Neutral	8	4.0
Total	200	100.0

4.04 Existence of asset securitization in microfinance in Ghana

Asked to indicate if Asset Securitization in Microfinance exists in Ghana, the result is presented in table 04. Majority 62% of respondents did not know whether or not asset securitization in Microfinance exists in Ghana because they do not have any idea on the concept. 38% indicate the concept does not exist in Ghana. However, a crosscheck at Ghana Association of Microfinance Companies (GAMC) and a check at the regulator of the Microfinance industry, the Bank of Ghana, confirm that asset securitization in Microfinance does not exist in Ghana. These show stakeholders will need serious education on asset securitization before it can be implemented as a policy without which practitioners and investors may find it difficult to adopt.

Table 04: Existence of asset securitization in microfinance Ghana

Existence of asset securitization in Ghana	Number of Respondents	Percentage
Yes		
No	76	38.0
Neutral	124	62.0
Total	200	100.0

4.05 Willingness to engage in special purpose vehicles

Asked if the respondents were willing to engage in Special Purpose Vehicles (SPV) and transfer or sell their loan portfolios to investors through the SPVs in other to undertake the asset securitization on behalf of their respective microfinance institutions, the responses were positive as presented in table 06. Having understood the process of asset securitization, majority 79% of the respondents expressed their willingness to engage in SPV's and transfer or sell their loan portfolios to the SPV's in other to undertake the asset securitization on behalf of their respective microfinance institutions. This is an indication that when practitioners are fully educated on the concept of asset securitization, they will fully embrace it to enhance the microfinance industry in Ghana.

Table 05: Willingness to engage in SPVs

Willingness to engage in SPVs	Number of Respondents	Percentage
Yes	158	79.0
No	36	18.0
Neutral	6	3.0
Total	200	100.0

4.06 Loan portfolio package into marketable securities

To confirm their position on asset securitization in microfinance, respondents were asked if they will want to pool their loan portfolio and repackage them into marketable securities so that investors can invest their company using the repayment from the loan portfolio as security for their investment. The responses are presented in table 06. Having understood the concept, a whopping majority of 80% of the respondents were willing to sell their loan portfolio to be repackaged into marketable securities so that investors can invest in their company using the cash inflows from their respective loan portfolio as securities for the investment. This will boost investor confidence knowing that their investments are well secured. Investors have nothing to worry about because when their investment mature they will be paid by the SPVs and SPVs will also be paid by the repayments from the MFIs loan clients.

Table 06: Loan portfolio package into marketable securities

Loan portfolio package into marketable securities	Number of Respondents	Percentage
Yes	160	80.0
No	30	15.0
Neutral	10	5.0
Total	200	100.0

4.07 Guaranteed cash inflow

Asked if respondents will want their cash inflow from their loan portfolios guaranteed, the following results presented in table 05 were received from the respondents. Majority of 95% of respondent prefer their cash inflow from their loan portfolios guaranteed. The researcher deduce that, asset securitization guarantee the cash inflow from the loan portfolios of the microfinance institutions. The researcher can therefore also deduce that the Microfinance institutions who will want their cash inflows guaranteed and will also want to subscribe to asset securitization. The fact is that once the MFIs subscribe to asset securitization and investors also invest in these securities, there will be enough funds to available to MFIs to grant more loans. Policy makers should look at the important role of MFIs in Ghana's financial sector and consider this concept as an alternative source for MFIs to raise funds for their operations.

Table 07: Guaranteed cash inflow

Guaranteed cash inflow	Number of Respondents	Percentage
Yes	190	95.0
No	10	5.0
Total	200	100.0

4.08 Impact of securitization on sustainability of a MFI

Asked if their respective microfinance companies will be more sustainable if they employed the use of asset securitization in their companies, the result is presented in the table 08. Having understood the concept, 87% of the respondents believed their companies will be more sustainable if they employ asset securitization. Since investors are going to invest in securities from SPVs and SPVs also buying theses securities from MFIs, there will funds for MFIs to run their operations thereby making them more sustainable. Liquidity may not be much of a problem to MFIs when they subscribe to asset securitization and may not need to wait to receive repayments from loan clients before granting new loans. This is all because asset securitization defuses potential investors fear that they will lose their investments if the microfinance company becomes illiquid due to the high default rate.

Table 08: Impact of securitization on sustainability of MFIs

Impact of securitization on sustainability of MFIs	Number of Respondents	Percentage
Yes	174	87.0
No	20	10.0
Neutral	6	3.0
Total	200	100.0

4.09 Impact of securitization on the profitability of a MFI

Asked if their respective microfinance companies will be more profitability if they employ the use of asset securitization in their company, the result is presented in table 09. Majority of respondents 83.5% believe their profitability levels will increase because of asset securitization. Since the concept will make them more liquid to grant more loans, their asset base will increase which will yield more interest income and fees from processing charges. With all other factors being constant their profit levels will surely increase. This is a strong conviction of the respondents that asset securitization leads to profitability.

Table 09: Impact of securitization on the profitability of MFIs

Impact of securitization on the profitability of MFIs	Number of Respondents	Percentage
Yes	167	83.5
No	26	13.0
Neutral	7	3.5
Total	200	100.0

4.10 Challenges of asset securitization

Respondents were asked of the challenge(s) that may impede asset securitization in microfinance in Ghana, their responses are presented below. Majority 71% of the respondents having understood the concept of asset securitization in microfinance believes they will face two or more challenges if they were to securitize their loan portfolio. They listed some of these challenges as the lack of the right and adequate infrastructure on asset securitization, lack of the right regulation, lack of sophisticated or adequate supervision and rating agencies, lack of the right control over co-mingling of cash flows from loan repayment and other sources etc.

Table 10: Challenges of asset securitization

Challenges of asset securitization	Number of Respondents	Percentage
No challenge	7	3.5
One challenge	51	25.5
Two or more challenges	142	71.0
Total	200	100.0

4.11 Discussion of key findings

This study reveals that, asset securitization in microfinance have not been employed in the microfinance industry in Ghana, therefore majority of the microfinance management have no idea on the asset securitization concept. However, Frost (1997) states that over the last several decades asset securitizations have become an increasingly conspicuous part of the international financial marketplace. This means the Ghanaian MFIs have been left behind in the implementation of the concept of asset securitization. Meanwhile, it is necessary to shift the loan financing for MFIs from traditional lenders to capital markets and this can primarily be achieved through securitization (Dash, 2010). Also, Stieber (2007) advocates the use of alternate sources for capital acquisition for MFIs. In seeking for this alternate funding, this study reveals that the various microfinance companies in Ghana are willing to embrace the asset securitization concept as an alternate source of capital. Majority 80% of the respondents were willing to undertake asset securitization process of selling their loan portfolio to be repackaged into marketable securities so that investors can invest in their company using the cash inflows from their respective loan portfolio as securities for the investment. Dugan and John (1997) confirm the position of the respondents by stating that business of a credit intermediary has so changed that few banks, thrifts, or finance companies can afford to view themselves exclusively as portfolio lenders. In the same light, Greenbaum and Thakor (1995) state that asset securitization has been recognized by eminent academics as the most important engine of reform in modern financial systems to emerge in recent times. It is therefore undisputable that asset securitization will make the Ghanaian microfinance sector more profitable.

The study again reveals that, most microfinance institutions (MFIs) in Ghana are self sustainable and MFIs believe that they will be more sustainable if they employ the use of asset securitization in the microfinance industry. Having understood the concept 87% of the respondents believed their companies will be more sustainable if they employ asset securitization. The costs of carrying out microfinance business are usually high relative to the value of loans and deposits involved. These costs include the administrative costs of making payments, keeping open offices, cost of loan monitoring, etc. (IMF, 2002). According to Sharma and Nepal (1997), a microfinance institution attains sustainability when its operating income from loans is sufficient to cover all the operating costs. They argue that sustainability of microfinance institution includes both financial viability and institutional sustainability (self-sufficiency) of the lending institution. This is an indication that the most microfinance companies in Ghana will be more sustainable with asset securitization. The sustainability of MFIs in Ghana is a friendly environment to promote asset securitization since the MFIs will be in a position to generate enough inflows to settle their obligations via the Special Purpose Vehicles.

The study also finds that, microfinance in Ghana will be more profitable if they embrace the use of asset securitization. Having understood the concept, majority of respondents 83.5% believe their profitability levels will increase because of asset securitization. This position is consistent with Elks (2013) who finds increased profit for companies embracing asset securitization. This happens as a result of the availability of excess funds to loan out to needed clients due to funds provided by the SPV because of asset securitization. As more clients are served due to availability of funds, profits margins will increase with all other factors held constant.

Finally, the study identified the challenges that microfinance companies may face in the implementation of asset securitization in Ghana. Having understood the securitization concept, majority 71% of the respondents believes they will face two or more challenges if they were to securitize their loan portfolio. They listed some of these challenges as the lack of the right and adequate infrastructure on asset securitization, lack of the right regulation on asset securitization, lack of sophisticated or adequate supervision and rating agencies, lack of control over co-mingling of cash flows from loan repayment and other sources etc. These views are consistent with Macchiavello (2012) who state that a considerable amount of regulatory risk is involved: lack of regulation on securitization, incertitude on the true sale effect, bankruptcy remoteness and priority among creditors lack of sophisticated or adequate supervision, rating agencies and transparency standards. Rozas and Kothari (2010) also stated that some of the arguments against asset securitization in microfinance are well reasoned out such as the lack of control over co-mingling of cash flows and lack of regulatory supervision on bilateral assignments.

5.0 Conclusion and policy implications

The first research objective was to determine whether asset securitization is being practiced in Ghana. The study revealed that the concept is currently not practiced in the country and as a result most practitioners are not aware of the concept. The second was to determine if the use of asset securitization can improve the sustainability of microfinance companies. According to the study, asset securitization will improve the sustainability of microfinance companies in providing microfinance services to their clients. As a result, a whopping majority of 87% of respondents gave their support for the concept of asset securitization in microfinance to be institutionalized in Ghana so that they can patronize it. This is all because asset securitization defuses potential investors' fear that they will lose their investments if the microfinance company becomes illiquid due to the high default rate apart from the fact that the concept will make enough funds available for them to loan out to their clients. In addition to the above objectives, the study was also to determine if the use of asset securitization can improve profitability for microfinance companies. According to the study, asset securitization will improves profitability of microfinance companies in Ghana. A majority 83.5% of respondents expects their profit levels to rise with the use of asset securitization in microfinance in Ghana. This is because, as a result of the availability of excess funds to loan out to needed clients due to funds provided by the SPV because of asset securitization. As more clients are served due to availability of funds, profits margins will increase with all other factors held constant. Finally, the study sought to identify the challenges that microfinance companies may face in the use of asset securitization in Ghana. Having understood the securitization concept, majority 71% of the respondents believes they will face two or more challenges if they were to securitize their loan portfolio. They listed some of these challenges as the lack of the right and adequate infrastructure on asset securitization, lack of the right regulation on asset securitization, lack of sophisticated or adequate supervision and rating agencies, lack of control over co-mingling of cash flows from loan repayment and other sources etc.

Judging from the above, it is now the duty of policy makers to work out how to institutionalize asset securitization knowing the economic importance of MFIs especially funding SMEs. This is because SMEs constitute majority of businesses in Ghana as well as employs majority of people in the private sector which has contributed enormously to the Ghanaian economy (Quartey and Abor, 2010). It is also known that most of the SMEs find it difficult in assessing loans from commercial banks and as a result MFIs have been a major player in financing SMEs. Again majority of MFIs in Ghana have liquidity challenge and therefore cannot meet demand from customers. From the study asset securitization could be an alternative source of raising cheaper funds for microfinance business since MFIs borrow at a high rate from commercial banks before they lending to their clients thereby making their rates very high leading to high default rate. There should be a broad consultation among stakeholders to see how the concept can be adopted and follow up with the necessary regulation and infrastructure. Although this is not going to be an overnight thing, the regulator of financial services in Ghana, the Bank of Ghana can position itself by providing the necessary education to stakeholders involved, regulation, infrastructure and human resource to make asset securitization a reality in Ghana within the shortest. Asset securitization requires a whole new policy and without the acceptance of the concept by policy makers who will provide the legal framework, its implementation will be a mirage.

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Appendix

Table A.1

Level of Education	Number of Respondents	Percentage
HND/Diploma	118	59.0
First Degree	74	37.0
Master's Degree	8	4.0
Total	200	100.0

Table A.2

Years of experience	Number of Respondents	Percentage
Less than 2 years	26	13.0
Between 2 to 3 years	41	20.5
Between 3 to 4 years	60	30.0
Above 5 years	73	36.5
Total	200	100.0

Table A.3

Knowledge or idea in asset securitization	Number of Respondents	Percentage
Yes	56	28.0
No	136	68.
Neutral	8	4.0
Total	200	100.0

Table A.4

Existence of asset securitization in Ghana	Number of Respondents	Percentage
Yes		
No	124	62.0
Neutral	76	38.0
Total	200	100.0

Table A.5

Guaranteed cash inflow	Number of Respondents	Percentage
Yes	190	95.0
No	10	5.0
Total	200	100.0

Table A.6

Willingness to engage in SPVs	Number of Respondents	Percentage
Yes	158	79.0
No	36	18.0
Neutral	6	3.0
Total	200	100.0

Table A.7

Loan portfolio package into marketable securities	Number of Respondents	Percentage
Yes	160	80.0
No	30	15.0
Neutral	10	5.0
Total	200	100.0

Table A.8

Impact of securitization on sustainability of MFIs	Number of Respondents	Percentage
Yes	174	87.0
No	20	10.0
Neutral	6	3.0
Total	200	100.0

Table A.9

Impact of securitization on the profitability of MFIs	Number of Respondents	Percentage
Yes	167	83.5
No	26	13.0
Neutral	7	3.5
Total	200	100.0

Table A.10

Challenges of asset securitization	Number of Respondents	Percentage
No challenge	7	3.5
One challenge	51	25.5
Two or more challenges	142	71.0
Total	200	100.0