

CAPITAL STRUCTURE DECISIONS OF MICROFINANCE INSTITUTIONS AND MANAGERIAL BEHAVIORAL BIASES: A SURVEY AND FUTURE DIRECTIONS

MARWA FERSI¹, MOUNA BOUJELBÉNE²

^{1,2} University of Sfax-Tunisia

Abstract: *Capital and Financing structure are considered of a crucial importance for the operational and financial sustainability of microfinance institutions (MFIs). Therefore, each decision making process is of the same importance for these institutions. The purpose of this study is to draw attentions toward the microfinance sector and to take into consideration the human factor and the role that managers play in funding and financing modalities and decision making process in microfinance institutions. In this context, this paper explores the differences between conventional and Islamic MFIs' capital structure choices on one hand. And, reviews the insights provided by the literature examining capital structure decisions and managerial behavioral biases on the other hand. The theoretical and comparative analysis revealed the substantial differences between capital structure of both Conventional and Islamic MFIs. Furthermore, the empirical literature points that managers' behavioral biases play an important role in explaining the capital structure choices. Microfinance institutions still has not been subject of behavioral finance studies. Thus, the discussion emphasizes the theoretical and empirical limitations on this field. In addition, the discussion stresses the importance of studying the behavioral traits of MFIs' managers and their role in explaining capital structure choices.*

Keywords: *Capital Structure of Conventional MFIs, Capital Structure of Islamic MFIs, Behavioral Biases, Decision Making.*

Introduction

The increasing demand of poor borrowers for financial access requires a constant growth of microfinance institutions (MFIs) in order to meet this demand. Therefore, the growth of MFIs in term of size and scope requires far more funding than development institutions can provide. Originally, the majority of funding sources for the microfinance sector are from public international financial institutions and governments (Tchuigoua, 2014). These development entities provide funds in the form of grants, donations and subsidized loans directly to MFIs. However, overtime the microfinance industry' funding sources diversified as a growing number of private investors got involved in funding the microfinance institutions. As the microfinance market matured, many number of MFIs transformed into for profit more regulated institutions providing microfinance services independently of donor funds. Financially sustainable and creditworthy MFIs attracted the attention of private institutions, individual investors. These new

range of intervenient in the sector invest through investment funds first time emerged in the mid to late 1990s as the first funds to invest in MFIs know as “microfinance investment vehicles” (Jayadev and Rao, 2012). Microfinance institutions receive private capital primarily in the form of loans, but also through equity and guarantees, enabling them to reach and grant micro-loans to more micro-entrepreneurs. Today, MFIs has a wider funding diversification, therefore, decisions about capital structure has become more complex. A well managed capital structure leads to maximizing financial flexibility, minimizes risks and guarantees operational and financial sustainability. However, often it is difficult for investors to obtain even the basic information. The lack of access to standardized and comprehensive data put investors in difficult situation of making informed decisions. The situation of information asymmetry could reduce the chances of MFIs of getting access to more private capital and therefore counter the sustainability of their operations. In addition, agency costs arises when there are conflicts of interest between shareholders (investors) and the MFI’s manager.

Microfinance institutions’ capital structure have been subject to several number of empirical research (De Sousa-Shield et al., 2004; Fernando, 2004; Hartarska et al., 2008; Sekabira, 2013; Garmaise et al., 2010; Bogan, 2012; Johnson, 2015). MFIs has always been depending on external source of funding, such as subsidies, grants and soft loans at their first stage of life cycle (start-up) (Hudon, 2010; Nawaz, 2010), then as the institution matures it get access to more commercial funds such as borrowing from commercial regular banks and private equity and recently MFIs benefit from new sources of funding known as microfinance investment funds (Ledgerwood, 2013) associated with the recent commercialization movement of certain number of MFIs. Thus, the financing structure and the capital structure management became more complex. Moreover, MFIs are dual objective institutions and the main prior objective has always been about improving their social performance through reaching more poor clients and playing a considerable part in poverty alleviation. Therefore, MFIs’ managers face more pressure to keep the balance between financial performance and social objective while satisfying the shareholders and fulfilling their own goals.

Islamic microfinance on the other hand, faces more challenges compared to its conventional counterpart. Although Islamic MFIs follow the same dual objective as Conventional MFIs (financial and social objective) they also face the challenge of being strictly operating as the principles of the Islamic law Sharia). The not conformity to Sharia risk is considered as one of the risks that requires constant management because it is related to the institution’s reputation and a poor management could lead to decreasing credibility and thus loosing the trust of clients which look for financial services that respect the principle of their religion. In addition, although Islamic MFIs serve the same category of clients (poor and the poorest of the poor) and face the same high level of default risk, yet, these institutions face more challenge because they are supposed to operate according to the Islamic law in which interest based financial products are prohibited. Profits are generated from three category of financing viz. trading, leasing and direct financing based on profit and loss sharing principle. Sharia-compliant products are considered as investment instruments (i.e. the Mudaraba and Musharaka contracts) except the Murabaha contract and Qard Al-Hasan, which are the Islamic alternative of regular debt instruments. Beside differences of financial products and services that Islamic MFIs offer compared to the Conventional counterparts, their capital structure also show a several number of differences. For example, some of the funding sources of these Islamic institutions such as philanthropic funds under Wakala model, Zakat funds and Awqaf funds (Ismail & Possumah, 2012). Moreover, the deposits on the liability side are considered as

investment accounts in the form of Moudharaba contract, thus, depositors are considered as shareholders (Abdul Karim et al., 2014). Since investment depositors share in the profit and loss in the Islamic system, their interest needs to be protected (Ahmed, 2011). Unlike Conventional MFIs' managers who are called to act in concordance with the shareholders' interest, Islamic MFIs' managers are called to answer not only the interest of the shareholders (as owners) but also, the interest of the investment account holders (depositors). Managers of Islamic microfinance institutions face the challenge of how to allocate various profits from the investments between shareholders and investment account holders.

According to the capital structure literature, capital structure can be defined as the relative proportions of debt, equity and other securities that constitute the capital structure (Baker et al., 2004). Capital structure theories explore the relationship between debt and equity financing and the market value of the firm. The capital structure literature is constituted of three major theories which diverge from the assumption of perfect capital markets under which the irrelevance model proposed by Modigliani and Miller (1958). These three main theories are: 1) the trade off theory, 2) the pecking order theory, and 3) the market timing theory. The capital structure' theories differ in their interpretation of various factors known as taxes costs, bankruptcy costs, asymmetric information and agency costs. However, these theories do not fully explain why managers make certain financing choices. In addition, these theories explain the potential issues relating to capital structure decisions under the assumption of investors being rational and that markets are efficient. recently, a new stream of research has emerged based on behavioral biases to explain capital structure decisions from a behavioral point of view. Behavioral finance and the post Keynesian financial behavior approach provide better explanations in deciphering managers' opinions and behavior concerning capital structure choices (Vasiliou and Daskalakis, 2009).

Corporate behavioral finance literature has identified two main behavioral biases in relation with the capital structure decisions known as the overconfidence and optimism behavioral biases (Tomak, 2013; Vasiliou and Daskalakis, 2009; Farichild, 2009; Heaton, 2002; Ben-David et al., 2007). These two behavioral biases including risk and loss aversion behavioral bias are known as emotional biases. However, the literature classifies the behavioral biases in other groups such as: the mean of representation, reasoning analog bias of conservatism and confirmation. The majority of behavioral finance studies were carried out on investor's behavior in financial markets. It is only recently, that managerial behavioral biases began to receive a growing attention in corporate finance disciplines (Heaton, 2002).

Behavioral finance literature points out that people are subject to important limits in their cognitive process and tend to develop behavioral biases that can significantly influence their decisions (Farichild, 2009). The literature also points that people tend to have unwarranted confidence which affects their decision making process because they tend to overestimate their abilities to perform well. For example, if managers are overconfident and think they know more than they actually do, then they will make impulsive decisions because they would not search for less help and direction and thus, they don't recognize their limitations.

Several number of studies has been conducted on microfinance institutions' capital structure in the context of the impact of the different determinants of the capital structure on financial performance and sustainability in serving poor borrowers. However, to the authors knowledge there has been no theoretical nor empirical studies focusing on managerial behavioral traits and biases in the context of MFIs. In this literature review, we expose the different studies on the capital structure of Conventional and Islamic MFIs after providing a brief comparative analysis

of the different components of the financing structure for each type of MFIs. Then, on the base of conclusions from empirical managerial behavioral studies, we highlight the importance of studying the managerial behavior of MFIs in order to provide the existing literature with more explanations about the capital structure decisions and choices.

Capital structure of Conventional and Islamic MFIs

Microfinance institutions (MFIs) are considered as micro-banks providing financial products such as micro-credit and micro-saving to poor clientele excluded from formal financial system. This particular category of clients are considered to be very risky since they don't have a fixed income and they cannot provide guarantees and collaterals as an exchange for borrowing and thus, they are often exposed to repayment difficulties. The majority of MFIs have always been supported by external sources of funding (Atkinson et al., 2011, Bogan, 2012). Since their early ages these institutions has often depended on subsidies and concessional loans from governments and donor organizations. Recently, a growing number of MFIs witnessed a commercialization movement and transformed their capital structure from donations based toward a financial structure connected to financial markets and composed of investment funds in the form of loans at markets rates and investments equities (Ledgerwood, 2013). This transformation from non- government organizations and unregulated institutions to regulated for profit institutions allows them for greater funding diversifications and opportunities (Hoque et al., 2011). MFIs across the world have different characteristics. They can register and operate as cooperative (the majority of Islamic MFIs in Indonesia), credit union (in UK) or NGOs (in Bangladesh, Pakistan and Latin America). Some of them have transformed into commercial and formal institution as a bank such as BancoSol in Bolivia or Compartamos in Mexico (Tchuigoua, 2014).

The different types of MFIs (both conventional and Islamic) obviously bring the different features of their external funding (capital structure). For shareholder-based MFIs, the main source funding are commercial funding and deposit while for non-commercial based MFIs the borrowing and donations are their main source of funding (Tchuigoua, 2014). However, it makes decisions about capital structure more complex and it puts microfinance institutions under pressure to perform efficiently and to run higher profits. This situation has been subject to criticism from the welfaristes, since microfinance institutions are in fact double bottom line objectives institutions and their main focus should be putting on improving their social performance through financial inclusion and poverty reduction by reaching and serving a larger number of poor. Although, the institutionalists has always claimed that commercialized and financially sustainable MFIs can socially perform better (Polanco, 2005; Morduch, 2000; Woller and Brau, 2004), yet, several number of studies showed that microfinance institutions don't seem to have a significant impact on social development and poverty alleviation (Banerjee et al, 2015).

Islamic microfinance institutions (IMFIs) are younger in age and very limited in number compared to their conventional counterparts. However, they express the same continuous need for funding and financial support. IMFIs offer a varied package of Sharia-compliant products e.g. the Murabaha contract which is the most prevalent (El-Zoghbi et al., 2015) with total portfolio of assets almost US \$ 413 million in 2011 (Al-Amal Microfinance Bank from Yemen) (Nimrah et al., 2011). Also, in the second place "Qard Al-Hasan" an interest free benevolent loan that relies on subsidies and donations, and other Islamic financial products such as Musharaka, Mudaraba and Salam contracts, etc. (Mohammed, 2011). Although the Islamic microfinance

sector with innovative product line is the answer for a considerable social market, yet the lack of funding sources can negatively affect its sustainability.

MFIs differ from regular banks especially on the liabilities and assets side. Most of the sources of funds of banks are a combination of owned and borrowed capital while MFIs operate on borrowed funds. Unlike regular bank, microfinance is considered as an illiquid asset class (Matthäus-Maier and Pischke, 2007). However, this review study focuses on Conventional and Islamic MFIs. For this purpose, table 1 exposes different details on capital structure compositions between these two types of microfinance institutions. Several numbers of differences exist between these two types of MFIs especially on the capital structure side. It is of major importance to understand the specificities of these institutions in order to have a full image of the financial environment in which the manager makes decisions.

The main sources of fund of any financial institutions are deposits. The impact of savings mobilization cannot be ignored in funding structure as it contributes to the microfinance institution' financial growth and increases its social outreach (Campion and White, 2001). Islamic MFIs receive deposits from their clients in the form of "Wadiah" or "Mudharaba" contracts. Wadiah contract is a safekeeping contract based on the principal of trust. Islamic banks and MFIs practice Wadiah in their savings and current account. While a Mudharaba contract is a partnership in which one of the two or more parties provides the capital and the other provides the labor or the skill. The capital provider is known as Rab Al-Mal while the counterpart is known as the Mudarib. It is a trust contract; the mudarib is not liable for losses except in case of breach of the requirements of trust. Mudharabah deposits are based on profit-loss sharing with the depositor as rabb-al-mal and the microfinance institution as the mudarib.

Beside deposits and saving services, MFIs has always been depending on grants, donations, subsidies and concessional loans from public and private entities (Tchuigoua, 2014). The importance of borrowing is that MFIs benefit from moderate interest rates and relatively long term maturities allowing them to reduce liquidity risk and term mismatch risk. However, they face exchange rate risks since they also borrow from international donor institutions. In the start-up phase, MFIs needed these funds to support payment of salaries and other expenses, yet these funds seem to become insufficient and less available to respond the increase in demand for microfinance services and the growth and the development of microfinance institutions. the deposits on the liability side are considered as investment accounts in the form of Moudharaba contract, thus, depositors are considered as shareholders (Abdul Karim et al., 2014). Since investment depositors share in the profit and loss in the Islamic system, their interest needs to be protected (Ahmed, 2011).

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Table 1: The different types of funds for Conventional and Islamic Microfinance Institutions (MFIs)

Type of funding	Conventional MFI	Islamic MFI
Deposits	<p>-Not all MFIs are allowed to offer saving services,</p> <p>- Commercialization has given the opportunity to new transformed and regulated MFIs to benefit of mobilizing saving accounts.</p>	<p>-IMFIs offer saving services in the form of Mudaraba and Wadiaa’ contracts, where the depositor is considered as an investor.</p>
Traditional type of funds:	<p>-Socially responsible investors often lend their own money to MFIs through peer-to-peer online platforms, internationally the most famous of which are Kiva and MicroPlace;</p>	<p>-IMFIs can benefit from not for-profit source of funding provided by religious institutions of Waqf and Zakat, also benefit from sadaqah and gifts that include hiba and tabarru’;</p>
Individual philanthropy/ Donations	<p>-CMFIs usually borrow and receive grants and subsidies from socially responsible investors, which include national and regional development banks, international NGOs, non-profit corporations, charitable trusts, or funds held by donor and development agencies, such as the Grameen Trust, Swedish International Development Agency (SIDA), United States Agency for International Development(USAID), United Nations Capital Development Fund (UNCDF), the Asian Development Bank (ADB), the World Bank, the Bill and Melinda Gates Foundation, Ford Foundation, the International Monetary Fund (IMF), ACCION and CARE;</p>	<p>-IMFIs receive a major financial support from international organization such as ISFD¹ and especially from Islamic Development Bank;</p>
Subsidies/ Grants		
Concessional loans		<p>-According to the Islamic financial law Ribah (interest) is prohibited and so the operation in itself, thus, IMFIs cannot benefit from commercial and soft loans from Islamic banks, however, they can benefit from soft loans known as Quad Al-Hassan from governments.</p>
Commercial loans	<p>- Both short-term loans and long-term debt can be acquired from commercial banks.</p>	
New type of funds:	<p>-New source of funds for commercialized regulated for-profit MFIs mostly in Latin American and South Europe;</p>	<p>-The equivalent of Bond issues in Islamic financial markets are the “Sukuk”;</p>
Loan funds/ Bonds	<p>-International financial institutions and private investors provide Private equity known as microfinance investment vehicles (MIVs);</p>	<p>-Specifically for Islamic microfinance, the initiative of creating “Social Sukuk”, which represent Islamic microfinance securitization or sukukization more precisely;</p>
Equity capital	<p>-The majority MIVs is constituted of debt instruments in their portfolios, with a small portion of equity securities and a negligible number of guarantees.</p>	<p>-IMFIs can raise their funds through Equity Financing vs. Venture capital by utilizing Mudaraba and Musharaka mechanism.</p>

¹ISFD: Islamic Solidarity Fund for Development

The Islamic Development Bank (IDB) plays an important role in expanding the activities of Islamic MFIs providing needed external funds on a commercial basis through microfinance development program. Islamic MFIs can also receive soft loans known as “Qard Al-Hassan” from governments. It is an interest free loan, the only type of loan that is recognized in the Islamic law, where the borrower only repays the principal amount and the financial institutions are prohibited from charging profit. While Sadaqah, Hibah and Tabarru have parallels in conventional microfinance such as donations and grants; Zakat (alms) and Awqaf (endowment) have a special place in the Islamic MFIs. Zakat can play an important role to supplement Islamic Microfinance institutions that are working as non-for-profit. Awqaf preserves long-term assets that generate income flows or indirectly help the process of production and creation of wealth.

Several numbers of MFIs went toward commercialization to benefit from the financial market’ funding opportunities. This movement attracted the attentions of international investors (Janda and Svarovska, 2010), especially socially responsible investors. MFIs can access commercial capital through two main modalities i.e. debt / equity funding. The majority of microfinance investment funds are debt instruments, granting loans to Conventional microfinance institutions and generating an annual return usually from 1 to 5% for the investors (Silverman, 2006). Having been created in order to connect MFIs to capital markets, microfinance investment vehicles (MIVs) have relatively short history but they have experienced a great deal of development (Meyer and Krauss, 2015). Islamic microfinance institutions also have the option of raising funds through participatory modes, such as, Musharaka or Mudharaba contracts. Unlike debt financing, partnership in Islamic financing contract such as Mudharaba and Musharaka involves both the commitment of both financier and agent in the outcome delivery (Muhammad and ArifZakaullah, 2013).

Murabaha contract on the contrary, is a contract of sale, where an intermediary buys an asset while the cost and profit margin (markup) are made known and agreed upon all parties involved at the commencement of the contract. It is not an interest-bearing loan, yet similar in structure to a rent to own arrangement, the intermediary retains ownership of the asset until the loan is paid. Recently the Islamic microfinance sector witnessed the initiative of creating “Social Sukuk” an Islamic microfinance securitization or sukukization. However, Sukuk is not equal to securitization from conventional perspective. A Suk (singular of Sukuk) is a financing certificate similar to a conventional bond but compliant to the Sharia law principles. Sukuk is claimed to be the alternative of conventional debt financing due to its elements of investment cooperation, sharing of risk, and engagement of assets or the real project as its underlying issuance. Being a potential tool to manage excess and lack of liquidity, Sukuk can be an appropriate connection between Islamic banks and IMFIs (El-Zoghbi and Alvarez, 2015).

Literature Review

Capital structure studies

Capital structure of microfinance institutions has attracted attentions of several number of researches and scholars. The majority of the empirical studies investigated the relationship between capital structure focusing on leverage and the financial performance and profitability of MFIs. Kyereboah-Coleman (2007) studied the impact of capital structure on the performance of 25 Ghanaian MFIs covering a period of ten years. The author used total debt, short term and long term debt as capital structure proxies, ROA and ROE are used in order to measure performance. Asset size, age and risk level are used as control variables. The results revealed that the majority of MFIs use high leverage and finance their operations with long term debt instead of short term debt. In addition, the study showed that highly leveraged MFIs perform better in term of scale and depth of outreach. Therefore, highly leveraged microfinance institutions are supposed to be better at dealing with moral hazard and adverse selection. Silva (2008) adopted the exact same research problem and the same model but with more variables as proxies for capital structure viz. debt to equity and debt to asset, and on a more expanded data set using 290 MFIs from 61 countries. Findings showed that total debt, short term and long term debt positively and significantly impact financial performance (ROE). Total debt and short term debt impact positively and significantly on ROA. Thus, financially well performing MFIs depend more on long term debt in their capital structure composition. These findings lead to conclude that if MFIs use long term debt in order to finance their operations pressure on the management of these institutions will be reduced. Similar to the previous cited studies, Kar (2012) investigated the same problematic but from the perspective of agency theory. The author used the same capital structure and performance indicators, however, he added an efficiency indicator as dependent variable (operating expenses) and the indicator of risk viz. nonperforming loans measured by portfolio at risk ratio as explanatory variable. On the basis of the empirical findings Kar (2012) concluded that the increase in leverage raises profit-efficiency in MFIs. Same conclusion was made by another study (Lislevand, 2012) as far as cost of funds is concerned.

Some scholars have conducted researches on capital structure in MFIs such as Tchuigoua (2014), who empirically investigated whether institutional frameworks matter in the capital structure of 292 microfinance institutions on a period of six years. Institutional indicators such as creditor rights, development levels of the financial sector and a country's legal tradition has significant positive impact on the capital structure of these institutions and the level of their external finance. These results are in concordance with De Sousa-Shield and Frankiewicz (2004); Fernando (2004) findings who show through some case studies that the evolution of the financial structure of microfinance institutions may vary according to their degree of maturity and according to their institutional life cycle.

Hoque et al. (2011) examined the impact of commercialization on capital structure, mission and performance of MFIs over a period of six years from 2003 to 2008. Results revealed a significant negative impact of leverage on performance causing a lower depth of outreach. Commercialization resulted in higher cost of borrowing which led to higher default rate and increased the credit risk. This study supports the opinion of Yunus (2011) concerning commercialization, who considered as a wrong turn for the microfinance industry as it causes a mission drift. Recently, the Non-Governmental Organizations (NGOs) that once dominated the industry are now transforming into regulated entities such as banks and Non Bank Financial

Intermediaries (NBFIs). This transformation requires a complex financing structure similar to those found in any regular commercial regular banks. In this case, practices such as raising up interest rate and engaging in aggressive growth policy in order to ensure that small loan portfolios would be profitable for shareholders will eventually emerge inside these microfinance institutions. Commercialization provide MFIs the opportunity of mobilizing funds from depositors. Abrar and Javaid' (2016) study focused on deposit taking MFIs to investigate the impact of capital structure (measured by: deposit to asset, net deposits and debt to equity ratio) on profitability. The results revealed that deposits as the cheapest financing means and high leverage levels are positively linked to high profitability.

Another study interested in the determinants of capital structure of MFIs but investigating the impact of their changes on the sustainability. Operational and financial sustainability has always been a challenge for these institutions because of capital constraints and the lack of funding. Bogan (2012) studied the impact of changes of capital structure on sustainability under two assumptions. First, under the life cycle theory, which postulates that funding sources are linked to different development stages of a MFI. As start-up, grants and concessional loans represent the majority of financing resources, as the MFI matures, it may appeals to private debt capital and in in the last stage of evolution the institution can get access to equity financing. Second, under the profit incentive theory which claims that getting access to commercial type of funding sources at any stage of the life cycle will enable the MFI to achieve its dual objective viz. social objective (increase depth of outreach) and financial objective (maximizing profitability). The empirical findings revealed weaknesses of the life cycle model as an explanatory factor of financing structure and sustainability. In general, the results showed that asset size has significant impact on profitability, grants representing a part of asset significantly decreases Operational self-sufficiency and perceived as an obstacle to development. The author highlighted the potential negative effects of long term grants on efficiency and sustainability of microfinance institutions and addition of the benefits of adopting a commercial for profit orientation in order to attract more diversified rang of capital and get rid of donor dependency. These findings has also been concluded by Sekabira (2013). The author evaluated the determinants of MFI's capital structure and the impact of financing choices on the profitability. In addition to grants, the results showed that also debts has a significant negative impact on both operational and financial sustainability. Mwizarubi et al. (2016) also empirically investigated the impact of modern MFIs' capital structure variables (deposits, commercial borrowing, equity and going public) on their financial sustainability. As a result, deposits and equity significantly and positively affect operational self-sufficiency, while financial sustainability was positively affected by deposits and borrowings but negatively by equity. In addition, going public did not seem to provide publically traded MFIs any advantages for financial sustainability.

A study has been conducted on the role of different ownership identity (shareholders) on the performance of MFIs in several developing countries (Duqi and Torluccio, 2015). The authors demonstrated that shareholders have different conflicting goals; some shareholders such as banks and institutional investors are interested in MFI' profitability and others more socially oriented such as social investors and Government entities focus more on the social performance and the depth of outreach. Therefore, managers should always maintain equilibrium between their managerial goals and the owners' interests in order to achieve the main objective of microfinance institutions viz. financial inclusion and reducing poverty. This study provides evidence on the nature of the ownership structure of MFIs, which may be similar to regular commercial banks in

the context of interest conflicts. Thus, the authors stress the importance of investigating the behavior of managers in MFIs facing agency conflicts and the effect on their managerial personal interests and goals on the performance and the sustainability of their institutions.

In the context of Islamic MFIs, a limited number of studies investigated the specificities of their capital structure such as Kabir and Salim (2016). The authors suggested the implementation of a two staged capital structure for Islamic MFIs, like they highlighted the challenges that these institutions could facing. Islamic microfinance industry suffers from the lack of appropriate and sustainable operational capital. Islamic MFIs depend on Islamic philanthropic donations such as Zakat, Sadaqah and Awqaf which are considered as the major source of working capital for the Islamic microfinance programs (Wilson, 2007). However, these types of funds are non refundable donations by the Islamic law. In this context, the suggested capital structure suppose that the Islamic MFI encourage receivers of Zakat and Waqf (singular of Awqaf) backed finance to participate in voluntary repayment. Same conclusions have been presented earlier by Ismail and Possumah (2012) concentrating on the same issue of capital constraint. The authors studied how changes in capital structure and variety in funding source could positively contribute to institutional efficiency and financial performance. According to their analysis, Islamic MFIs should have a second sustainable source of funding beside charitable grants and subsidies in order to reduce dependency issues and guarantying their sustainability. A recent empirical study has been conducted on Indonesian Islamic MFIs investigating the impact of the capital structure and growth on profitability (Hasbi, 2015). The results revealed a significant and greater positive impact of Islamic MFIs' capital structure on profitability compared to growth.

The microfinance industry growth and maturity is accompanied with increased needs for funds. However, attracting external capital and maintaining operational and financial sustainability could generate a mission drift and deviating from the original focus on financial inclusion and poverty reduction. Therefore, understanding changes in capital structure is very important and so is the capital structure decision making process. Overall, studies on capital structure on MFIs can be classified into four categories : (1) whether capital structure improve financial sustainability, (2) rating reduce the price of financing and helps MFIs to raise external fund, (3) MFIs financing practice and link source of financing to the stage of MFIs development and (4) determinant of the international funding of MFIs. However, there is still scarce in the literature on how management biases affect the capital structure decision.

Managerial Behavioral aspects of Capital Structure

Financing and funding structure are of crucial importance for the profitability and the sustainability of serving poor borrowers in microfinance institutions. Thus, capital structure choices has been subject to several number of studies as demonstrated in the previous section. According to the corporate finance literature, managers and investors (shareholders) are homogenous and have rational expectations. In general, capital structure choices are considered of a wide range of determinants of not only bankruptcy costs and corporate taxes but also of interest conflicts between managers and shareholders. The corporate finance literature has treated the human factor in the capital structure decision making process and the effects that it has on the financing structuring and choices. However, capital structure choices were explained by the divergence in expectation assumptions of the managers and the market about the firm value accompanied with manager's fixed effects.

Capital structure can be defined as the relative proportions of debt, equity and other securities that constitute the capital structure (Baker et al., 2004). Capital structure theories

explore the relationship between debt and equity financing and the market value of the firm. The capital structure literature is constituted of three major theories which diverge from the assumption of perfect capital markets under which the irrelevance model proposed by Modigliani and Miller (1958). These three main theories are: 1) the trade off theory, 2) the pecking order theory, and 3) the market timing theory. The capital structure' theories differ in their interpretation of various factors known as taxes costs, bankruptcy costs, asymmetric information and agency costs. However, these theories do not fully explain why managers make certain financing choices. In addition, these theories explain the potential issues relating to capital structure decisions under the assumption of investors being rational and that markets are efficient. recently, a new stream of research has emerged based on behavioral biases to explain capital structure decisions from a behavioral point of view.

According to the theoretical and empirical analyses in the behavioral finance literature, managers' behavioral traits and biases play a significant role in explaining the capital structure choices (Bilgehan, 2014). Behavioral finance and the post Keynesian financial behavior approach provide better explanations in deciphering managers' opinions and behavior concerning capital structure choices (Vasiliou and Daskalakis, 2009). Originally, behavioral finance employed in order to explain the investors' behavior and its impact on portfolio choices and diversifications. Behavioral corporate finance however, is employed in order to study managers' behavior and its impact of their decisions toward the benefits of the firm and the interests of the shareholders. Financial institutions has been considered as firm, however, they differ from non-financial institutions since it include deposits. The numbers of studies investigating behavioral aspects on capital structure of financial institutions are very scarce

The trade-off theory (Modigliany and Miller, 1963) and the pecking order theory (Myers and Majluf, 1984) are usually used in order to explain potential issues relating to capital structure with the assumptions made about investors being rational and markets are efficient. On the contrary, behavioral corporate finance focuses on explaining why managers make certain financing choices. The emergence of this new stream of research based on behavioral biases is considered as a complementary to traditional theories (Baker et al., 2004). Behavioral finance is a multi discipline subject that incorporating findings from psychology and sociology. Thus, usually the primary input to behavioral finance has been developed from experimental psychology and the method developed within sociology such as survey, interview, focus group discussion or participant observation (Muradoglu and Harvey, 2012).

According to Baker et al. (2004) behavioral finance research can be divided in two main distinct irrationality approaches namely: the irrational investors and the irrational managers. In the irrational managers approach the majority of studies has focused on the positive illusion of optimism and overconfidence. Thereby, an optimistic manager issues new equity if the capital markets are inefficient and undervalues the firm. In this case, this behavioral bias predicts a pecking order of financing structure decisions and the manager will rely on external source of funds and turn to internal funds at a second stage (Heaton, 2002). Malmendier and Tate (2005) add that overconfident managers do not need incentives to maximize the market value of their firms' equity because in fact that is what they believe they are doing already. The aspects of optimism and overconfidence behavioral biases has been subject of empirical studies for the case overestimates his ability, and underestimates the financial distress costs. In the second case, managers have desire to use free cash flow to invest a new project that may be value-reducing. Unlike the first model, overconfidence has an effect on lowering debt. Novel result has been

derived, not previously found in the theoretical or empirical research; managerial overconfidence may result in a decrease in debt, as the overconfident manager overestimates future investment opportunities, and hence reduces debt, compared to the rational manager, in order to invest in these new projects.

Mefteh and Oliver (2010) considered the impact of manager confidence as a determinant of capital structure in a sample of French firms. They used industry sentiment indices as a proxy in order to measure managers' confidence. The results revealed that traditional determinants of capital structure are significant for French firms, as they are for firms in many countries. Also, revealed that manager confidence is highly negatively significant in explaining French firm financing decisions.

Malmendier et al. (2011) examined the effect of managerial traits on corporate financial policies beyond traditional market, industry, and firm level determinants of capital structure. They focused on overconfidence (CEOs' personal portfolio choices) and early-life experiences (Great Depression, military) as behavioral biases and showed that later on these traits may manifest themselves in more aggressive capital structure choices. The study was conducted of data on CEO option-holdings to measure overconfidence, taken from large U.S. companies covering a period of fifteen years from 1980 to 1994. According to the authors overconfident CEOs overestimate future cash flows and, therefore, perceive external financing (equity in particular) to be unduly costly. Thus, they prefer internal (cash or riskless debt) over external financing capital markets. The results also revealed that managers with depression experience are averse to debt and also prefer internal financing. Finally, CEOs with military experience pursue more aggressive policies, including heightened leverage.

In their study entitled "Managers' Risk Taking Behavior for Adjusting Capital Structure" Ullah, Jamil, Qamar and Waheed (2012), showed that managers are risk averse, whereas size of the firm and profitability are positively related to the capital structure. Their study used a panel of 19 firms listed on Karachi Stock Exchange covering a period of five years from 2006 to 2010 in order to analyze the effect of risk on debt equity mix of these companies. The variables that used in their analysis are capital structure business risk measured by "the standard deviation of earnings before interest and taxes", profitability, size and sales growth.

From the above evidence it can be concluded that psychological factors are the most influential factors in managers' decision-making process compared to financial and economic factors. Although, there are very few studies on managerial behavioral biases' capital structure decisions in finance literature, yet, we can conclude that behavioral corporate finance theoretical and empirical literature has been focused on three main behavioral traits i.e. Overconfidence, Optimism and, Risk aversion in order to study behavioral factors determining the capital structure choices (Bilgehan, 2014).

Islamic finance is an emerging field of research. Behavioral Islamic finance is seen to be an important field that can play a vital role in the literature in order to explain managers' behavior toward their decision-making process. However, research studies on behavioral Islamic finance are very scarce. Islamic finance has always been considered as socially responsible and socially oriented finance by virtue of Sharia (Islamic) law compliance. In the banking sector, studies focused mainly on Islamic financial products and behavioral biases that affect the acceptance of these products. Behavioral traits such as: religious commitment, perceived self-expressiveness, subjective norm, perceived financial cost, perceived credibility and perceived usefulness (Sun et al., 2012; Amin et al., 2013; Amin, 2014; Wahyumi, 2012). The basic principle of Islamic banking is based on risk sharing. This profit and loss structure supposes that

Islamic financial institutions invest with their clients in order to finance their needs, rather than lending money to their clients. Thus, it is a component of trade rather than a risk transfer. Focusing on this particular detail, El-Massah and Al-Sayed (2013) examined the effect of investors' risk aversion on their choices between Conventional and Islamic contracts. Their research revealed two scenarios: people with no borrowing experiences were not affected by Islamic religion views or risk aversion behavior. However, choices of inexperienced investors were affected by both political-religious orientation and risk aversion behavior.

Discussion

Studies on psychological biases for managers' capital structure decisions in finance literature are very scarce. The same for behavioral Islamic finance is a relatively new area of study since the industry itself is new. Little attention is given on this subject in the Islamic finance literature. Hence, the above literature may not have been sufficient to draw conclusions and to further conduct comparable studies for the microfinance sector.

The majority of the studies on behavioral finance are currently conducted in a conventional context. Unlike the Conventional behavioral finance literature, empirical research on behavioral capital structure decisions-making process in Islamic finance has generally been limited. Meanwhile, studies on Islamic behavioral finance have mainly focused on intentions to invest or perceptions about Islamic investment and religious influences. Theoretical and empirical Conventional analyses focused more on specific emotional and cognitive biases such as overconfidence, optimism, loss aversion, anchoring, etc. Certain conclusions could be made according to the traditional behavioral finance and the considerable number of empirical studies addressing these behavioral traits:

- Contrary to rational assumption of traditional finance theory, Managers are affected by their behavioral characteristics in decision-making process.
- Overconfident and optimistic managers may predict a pecking order of capital structure choices.
- Managers who are risk/losses averse and managers with previous bad experiences such as depression lean on their internal financing resources at a first stage then they use debt and finally equity.
- The debt level of irrational managers is higher compared to rational managers since an overconfident manager overestimates his ability, and underestimates financial distress costs.
- Managers with growth perception bias tend to overestimate the growth of future earnings which lead them to consider external financing sources as excessively costly.

It is important to note that the majority of direct funding to microfinance institutions was destined in order to support the portfolio growth and to finance expanded outreach (El-Zoghbi and Tarazi, 2013). Beside the primordial role of a developed financing strategy considering the range of different internal and external funding sources, MFIs should put into consideration the importance and the influence of the several numbers of factors that affect their capital structure choices such as: investor demands, and preferences, including ownership

requirements, return expectations, and exit strategies (Ledgerwood, 2006). Thus, like any other financial intermediary, MFIs are also exposed to the risk of portfolio deterioration due to the management system failures and managerial behavior biases and managers' personal traits. When an MFI transforms to a regulated MFI and begins to mobilize voluntary savings from the public, the institution is adding to its operations not only savings, but also financial intermediation and plus, getting access to capital markets add complexity to asset and liability management require studies investigating and examining the decision making process of microfinance institutions' managers.

The purpose of this study is to draw attentions toward the microfinance sector and to take into consideration the human factor and to enhance the importance of this factor in funding and financing modalities and decision making process in microfinance institutions. Thus, it is to conduct empirical studies in the context of managerial behavior for the microfinance sector and microfinance institutions in particular in order to establish a comprehensive framework for such studies based on Conventional and Islamic microfinance principles. Therefore, for conducting such investigations it is important to have a clear image of the different specificities of these institutions.

This paper provides a comparative analysis of capital structure choices between Conventional and Islamic MFIs. In order to understand managers' behaviors it is important to understand their functional environment. As follows the most important characteristics of both type of microfinance institutions:

- MFIs are double bottom line objectives institutions i.e. a social objective consists of serving a growing number of poor, financial inclusion and thus, social development and, a financial objective like any financial institutions MFIs seek for financial and operational sustainability and improving their financial performance and profitability, thus, the institutional structure and capital flows are very important.
- Beside the double objectives Islamic microfinance institutions strive to provide Shariah compliant financial products and this is perceived as more challenging for these institutions and thus, for their decision-makers.
- The Long-term, fixed-rate liability structure highlights the main sources of funding for MFIs i.e. grants-donor funds, members' savings, wholesale deposits from the public and institutional investors, retail savings, concessional and commercial borrowings, and contributed equity capital. In addition, Islamic charity such as Zakat and Awqaf are special funding sources for Islamic microfinance institutions.
- Deposits are a low-cost source of funding and create independence from external funding at a long-term, however only regulated institutions benefit for this source.
- Deposit accounts are considered as investments in Islamic MFIs and depositors are treated as shareholders.

The source of MFI's funds could be local or cross border. Local funding sources may come from governmental and non governmental agencies, which adopt development goals and grant subsidized loans, local funds can also be provided by local banks, which requires commercial returns. Cross border funds provide an advantage of offering lower cost compared to local sources, but they can be disadvantageous for MFIs by leading foreign exchange losses since these cross border sources mainly distribute their funds in USD or EUR (Duqi and Torluccio, 2015). Financing choices face a tradeoff between risk and return to maximize shareholders profits per share (Jayadev and Rao, 2012). In addition, microfinance institutions face a tradeoff

between financial performance and sustainability of their operations. According to the empirical findings presented in the previous section, deposits funds and commercial debt are essential elements of financing future growth opportunities in the microfinance sector (De Soussa and Frankiewicz, 2004). Furthermore, previous studies highlighted the importance of commercial debt financing as funding and management tools. Although, studies in the context of Islamic microfinance are very scarce few findings showed that Islamic MFIs receive the majority of their funds in the form of grants from philanthropic the of sources such as Zakat and Awqaf foundations and commercial financing from the Islamic Development Bank (El-Zoghbi and Tarazi, 2013).

A number of theories and assumptions in the corporate finance literature have treated the capital structure choices and decisions and their relationship with the firm's value. In their seminal paper Modigliani and Miller (1985) claimed the irrelevance of debt in the capital structure for determining firm's value under the assumptions of absence of corporate tax, bankruptcy costs, agency costs and asymmetric information. Subsequently in 1963, when corporate tax were included in the model, Modigliani and Miller (1963) found that the firm's value increase with debt because of higher interest tax shield. However, an increase of debt with higher tax shield increases bankruptcy costs. In this case, the tradeoff theory postulates that the firm chooses the optimum debt and equity levels to employ by balancing the bankruptcy costs.

Focusing on asymmetrical information costs, the pecking order theory (Myers, 1984) assumes that managers know more about their firms than outside investors. Financing choices are based on the path of least resistance, where internal source of financing (retained earnings or excess liquid assets) is of a first preference, followed by debt and external equity funds. According to Myers and Majluf (1984), external equity is less preferred for funding because when managers who are supposed to be better informed than investors issue new equity, this would lead the investors to believe that the shares are overvalued and managers are taking advantage of it. Thus, outside investors rationally discount the firm's stock price when managers issue equity instead of riskless debt. Therefore, managers avoid equity whenever possible in order to avoid this discount.

Giving the irrelevance of capital structure in a perfect market, the agency costs theory states that agency costs arise from interests conflicts between managers and shareholders because the separation of ownership and control (Jensen and Meckling, 1976). In the context of agency costs, Mersland et al. (2016) found that agency costs are higher in non profit MFIs in the case of powerful CEOs. In addition, as a general conclusion, Yaron and Manos (2010) stated that conflicts of interests exist and may persist in microfinance institutions because the information and financial and social performance indicators are managed by these institutions themselves.

Beside focusing on the relationship between capital structure choices and profitability and financial sustainability, studies shed the light on growth policies adopted by MFIs and their relationship with the financing structure. As a conclusion, given the negative relationship between leverage and growth revealed in recent studies, MFIs are required to optimize the cost of their financial resources (Fehr and Hishigsuren, 2004). For deposit taking MFIs priority should be given to deposits since they represent the cheapest source of funding. In addition, high leverage and/or low equity to asset ratio reduces agency costs of external funds and equity through compelling managers to make decisions in the favor of the interests of shareholders. Managers in regulated and deposit taking MFIs make financing decisions and choices in order to increase loan portfolio to total asset ratio and reduce intermediation costs since they benefit from

informational advantages. In addition, improvement of the MFI's transparency leads to decreasing the transaction costs (Abrar and Javaid, 2016).

Since the seminal paper of Kahneman and Tversky (1979) a several number of papers analyzed economic choices based on assumptions that depart from perfect rationality and homogeneous expectations. Behavioral corporate finance focuses on explaining why managers make certain financing choices, in particular how cognitive biases can impact individual behavior (Barberis and Thaler, 2003; Baker and Wurgler, 2012). On the basis of the traditional paradigm that by nature people tend to be optimistic and overconfident, the behavioral corporate finance literature extends traditional tradeoff and other capital structure theories to account for manager characteristics. Thus, the literature has focused on three main behavioral traits i.e. Overconfidence, Optimism and, Risk aversion in order to study behavioral factors determining the capital structure choices (Bilgehan, 2014).

View the importance of funding and financing choices in MFIs and their impact on financial performance and sustainability in serving their clients, managerial decision making should be subject to further empirical studies in order to fill the gap in e literature and to provide a better understanding of the capital structure choices' drivers inside these institutions. Assumptions could be made about managers of MFIs. A confident manager/CEO tends to overestimate his/her abilities, underestimate the riskiness of poor borrowers and the probability of repayment default which leads to an irrational increase in leverage. An optimistic manager tends to believe that the future is going to be unrealistically bright, therefore, he/she would overestimate future cash flow of the MFI, underestimates default risk and thus, appeals to short term debt which in this case are considered riskier than long term debt. As a conclusion and in the light of the results revealed by studies conducted on capital structure choices in the context of the microfinance industry, an assumption would suggests that overconfident managers tend to follow a pecking order, preferring internal over external source of funding and debt instead of equity. These assumptions require an empirical analysis in order to confirm it or reject it.

Conclusion

This qualitative paper is presented as a summary of previously conducted empirical studies on capital structure choices of Conventional and Islamic microfinance institutions. It attempts to provide a comprehensive review of the Conventional and Islamic extant literature on capital structure choices. In addition, this paper provides a comprehensive review of the Conventional and Islamic microfinance institutions capital structure before briefly illustrating managerial behavioral biases drawn from several numbers of theoretical and empirical studies.

Originally microfinance institutions are founded as non-profit organizations and they have financed their activities mainly with grants, subsidies, loan guarantees and concessional loans. However, the expansion of these institutions has intensified their hunger for funding. Therefore, Commercial oriented sources of funding either in the form of loans or equity capital can complete this gap and MFIs witnessed a commercialization movement. Similar, the lack of funding can weaken the Islamic microfinance institutions' potential of growth in the future. Conventional interest-based lending or bonds are prohibited in Islamic finance since it relies on interest, thus Islamic MFIs cannot benefit from such financing source. Instead, asset-backed financing is encouraged with the risk being shared by the provider and the user of the asset. While Shariah-compliant debt-based modes are permissible, equity-based modes of financing are clearly preferred. In order to study the human factor in the decision making process of the capital

structure choices, it was essential to start this paper by clarifying the capital structure composition of Conventional and Islamic MFIs and draw its importance to the sustainability of these institutions.

The decision making process represent the cornerstone of the capital structure management. Yet, studies on the effect of managerial behavioral biases on financing decisions in the finance literature are very scarce and limited to the corporate finance discipline. Behavioral finance based on findings from psychology plays a crucial role in understanding investors' behavior and its effects on capital markets. Studies then, recognized that biases that affect investors and financial markets also may affect managers and corporate decision making. Thus, behavioral corporate finance bounds the rationality assumptions of the traditional finance theory and considers managers as irrational. Behavioral Islamic finance is a new stream of research and efforts are needed to proceed in this area compared with the more advanced conventional behavioral finance in general and specifically in the microfinance sector.

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CAPITAL STRUCTURE DECISIONS OF MICROFINANCE INSTITUTIONS AND MANAGERIAL BEHAVIORAL BIASES: A SURVEY AND FUTURE DIRECTIONS

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CAPITAL STRUCTURE DECISIONS OF MICROFINANCE INSTITUTIONS AND MANAGERIAL BEHAVIORAL BIASES: A SURVEY AND FUTURE DIRECTIONS

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