

Small and Medium Enterprises Financing in Bangladesh: The Missing Middle

¹*M. Badrul Haider, ² T. Akhter

¹ *Institute of Business and Accounting, Kwansei Gakuin University, Nishinomiya, Japan*

² *American International University, Dhaka, Bangladesh*

Received 21 January 2014, Accepted 31 May 2014

ABSTRACT:

This paper aims to comprehend the intrinsic limitations of the market players in the financial system and how these create a situation of 'missing middle' for small and medium industries (SME) financing in Bangladesh. A clear dualism prevails in the manufacturing industry of this country. While the SMEs maintains the biggest share in establishments and employment creation, large enterprises (LEs) contributes to the massive amounts of manufacturing value addition. Banks and other financial institutions furnish bulk of their financing to the export oriented large industries. Based on three surveys of these industries conducted by the World Bank (WB), Center for Policy Dialogue (CPD) Bangladesh and other organizations, and related literature and other published data, inferences are drawn that efficiency of these industries could be enhanced through assuring their fair participation in the formal financial sector. The development of SMEs in Bangladesh may be concentrated on some high performing firms who lie in extremes, the top end or the lowest end of SME cluster. Formal financing problem is more acute for those who are in the middle of this segment. Unlike many other papers in this area, the current one for the first time tries to understand the extent of the financing gap for these 'missing middle'.

Keywords: *SME loans, Microfinance institutions (MFIs), Microenterprisesloans, Bangladesh*

INTRODUCTION

Adequate and timely financing is a prerequisite for growth of any industrial segment. But restricted formal financing has been cited as most detrimental for SME¹ development in Bangladesh over the decades, an inveterate problem (Daniels, 2003; BEI, 2004). From the perspective of a developing country, scarce resources are justifiable to be utilized for the highest value adding sectors. In manufacturing sector, large and medium industries contributed 13.1 percent of Gross Domestic Product (GDP) in comparing to 5.3 percent of that by small industries (Bangladesh

Bank, 2011). In that ground, government policies to flow more resources to large industrialization seems rational for the country's industrial development. On the other hand, it is not unwise to say that for a low income country like Bangladesh, a growing and diversified SME sector can help reducing poverty through generating more employment and income for poor households. Some old statistics shows that there were about 78,440 SMEs in Bangladesh, of which 60percent of the units were in urban areas and 40 percent in rural areas, comprising 93 percent of all industrial units, and employing

*Corresponding Author, Email: haider@kwansei.ac.jp, opuacdu@yahoo.com

nearly 3.5 million workers and 44 percent of all industrial workers (BBS, 2003). However, limited access to formal credit is posing threats to the SME growth over the decades (Daniels, 2003; Alam and Ullah, 2006; Minto, 2006; Saadullah, 2007). SMEs along with the graduating microenterprises² are frequently termed as 'missing middle' in the financing pyramid of Bangladesh. It means that these enterprises are neither getting much finance from the MFIs, nor from banks and other financial institutions (FI).

Most of the extant literature claim that commercial banks are discriminating SMEs with restricted financing (Berger and Udell, 1995; Berger and Udell, 2006). Why it happens? Researches on this demonstrate that small enterprises are, in particular, affected by imperfections in financial markets resulting into a market failure along with credit rationing. How the market failure does occur? Different paradigms of thoughts are in existence. Two of them are cited frequently describing a *raison d'être* for market failure from parallel aspects. These are precisely explained by information asymmetry under new-Keynesian theoretical framework (Stiglitz and Weiss, 1981) and also within the post-Keynesian framework of fundamental uncertainty (Wolfson, 1996).

Based on the above arguments, the objective of this paper is to understand the limited roles of the market players that create the situation of 'missing middle' for SME financing in Bangladesh. In connection to methodology, this is a descriptive study based on published information. Data from three national level surveys has been used for analyses. These are, SAPRI SME Survey 1999³, National Private-sector Survey of Enterprises in Bangladesh (NPSEB), 2003⁴ cited as Daniels (2003) and Rural MSMEs Finance Survey, 2006⁵ cited as Aurora (2008) in this report.

Literature Review

Through a cross country analysis, Ayyagari et al. (2003) reveals that the SME sector's share to total employment and to GDP are 17.56% and 15.56% for low income countries to 57.24% and 51.45% for high income countries. Although having a large share of SMEs to the GDP may not be the cause for the countries' economic growth, but most developed economies have a

larger share of SMEs. Nichter and Goldmark (2009) also found that most of the micro, small enterprises of any developing country cannot grow beyond a few employees other than some high performing firms. Finance, education and work experience of owners, social networks and the overall business environment are some of the important reasons for this less growth.

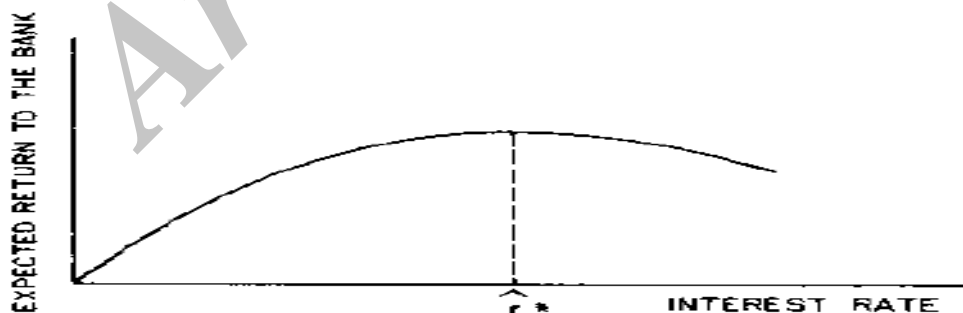
Over the decades many studies across the world have established that restricted formal sector financing is an essential reason for less growth to small businesses in many countries (Beck and Demirguc-Kunt, 2006). Basically, institutional differences among countries such as, development of the stock markets, banking systems and legal protection, can change the country's financing pattern on an average (Demirguc-kunt and Maksimovic, 1999). Ayyagari et al. (2006) expresses that financial market imperfections and underdeveloped institutions lead to high cost of borrowing for external financing. Crime and policy instability are also overriding in case of African and transition countries. Financial markets imperfections affect smaller firms operations and growth more than the large firms (Beck et al. 2005; Beck et al. 2006; Ayyagari et al. 2006). According to Honju and Harada (2006), smaller firms suffer from credit crunch and credit withdrawal due to capital market imperfections as advocated by Stiglitz and Weiss (1981). Beck (2007) concluded that transaction costs and asymmetric information problem between borrowers and lenders are the forceful factors explaining the inadequate access to external finance by many SMEs. Corruption of bank officials is an institutional failure to be considered in formulating the "monitoring role of financial institutions in overcoming market failures due to informational asymmetries" (Beck et al., 2005a). Beck et al. (2008) shows in their study that smaller firms have a lower share of bank financing than their larger counterparts even after controlling for firm specific and institutional variables. The poorly functioning financial system and weak property rights protection in most developing countries do not even allow smaller firms to use other sources of financing, such as leasing, trade credit, or factoring more than larger firms. Smaller firms depend mainly on limited informal finance to grow in these countries. In addition, they have

less access to Development Finance Institutions (DFIs) while subsidized government sources are insignificant to fill in the gaps for these firms.

To find the reason for less financing to SMEs, the conventional wisdom unanimously cite small business financing, as an archetypical example of market failure. If the price mechanism does not 'clear' the credit market, credit rationing arises or it may arise even at a market clearing price. The fundamental reason behind this market failure has its root with the 'quality uncertainty' of the borrowers by Akerlof (1970). The analysis of Akerlof (1970) for markets of 'lemons' has cast influences on one of the most traditional premise of credit rationing offered by new Keynesians, to be exact, by Stiglitz and Weiss's (1981) theory of credit market equilibrium with information frictions.

The Stiglitz and Weiss (1981) model illustrates how information asymmetry between lenders and borrowers can cause credit rationing and market failure. Asymmetry of information implies a situation where one party in the transaction has a better knowledge *ex ante*, than the other party and contracts are incomplete. Incomplete contracts means when the lender cannot command all the necessary dimensions of borrowers, *ex post*. Credit rationing is a situation where among 'observationally equal' borrowers

some can avail the loans from lenders and some are deprived of it. Those who are rejected might be willing to pay higher than market interest rates or offer more collateral than is asked from the actual loans recipients. However, those rejected ones would not get loans even in an increased supply condition. Banks decline their total loan disbursement, not individual's loan size (Stiglitz and Weiss, 1981). The applicability of this thesis to small firms is on the ground that, the Stiglitz and Weiss (1981) assumed that borrowers cannot go to the bond market as they lack reputation or they are too small to pay the fixed cost of securities issuance. So, they have access only to banks (ibid, p.14). The reason is that the shares of firms in equity market suffers from the same quality problem described in the Akerlof's (1970) used car market where buyers cannot distinguish the quality of goods under imperfect information. Merchants can distinguish. So, banking institutions do the same duty in the financial system as merchants do in the Akerlof's (1970) used car market. The main idea under Stiglitz and Weiss's (1981) thesis is that lenders or banks cannot use interest rate as a tool for screening risk. There exists an optimal interest rate for banks; rising interest rate above that rate would increase the riskiness of the banks.



Source: Stiglitz and Weiss (1981)

Figure 1: Optimal interest rate for bank

In figure 1, this optimal interest rate is r^* . Increasing rate above that point may badly affect the riskiness of loans either through adverse selection effect *ex ante*, or moral hazard effect *ex post*, and thereby reduces the profitability of banks. However, this optimal rate may not be the market clearing rate of interest. "Clearly, it is conceivable that at r^* , the demand for funds exceeds the supply of funds" (Stiglitz and Weiss, 1981). The adverse selection effect means that with increased price banks may choose borrowers having riskier projects and low probability of repayment as the safe borrowers are supposed to be dropped out of the market. The moral hazard problem refers that with increased interest rate, an earlier safe borrower may choose riskier projects with high return if they become successful; but there are low probabilities that those projects will be successful.

Stiglitz and Weiss (1981) assume that for each investment project there are two aspects, a probability distribution of returns and risk level. Banks can categorize firms based on their average expected return, but they cannot compute the riskiness. The probability distribution of returns is known to the borrower only. Since banks cannot distinguish 'good' borrowers from 'bad' borrowers, they ration credit among 'apparently identical' borrowers. Increasing collateral requirements may make the borrowers more risk averse. On the other extreme it can affect adversely the mix of applicants.

But information asymmetry is not the only ground for credit rationing or market failure; rather it possesses some incoherent ideas. For example, the existence of financial intermediary is justified as a specialized institution between depositors and investors in the presence of asymmetry. At the same time the new Keynesian viewed that there is some information on future outcomes that the banks cannot collect, only firm has those information. From the Keynesian view future is simply uncertain and unknown. So, even if it is argued that information on future outcomes exists and through collecting those information future results of a project can be predicted, then the intermediaries loses their justification for existence with the development and adoption of low cost information technology. It may be arguable that Keynes's

views can explain banks activities and importance in a better way.

Credit rationing under Post Keynesian approach assumes 'fundamental uncertainty' of Keynes. Davidson (1988) argues that the world is non-ergodic and the averages and variations detected in the past will change in future. Keynes writings can be traced as one of earliest appraisal on credit rationing. Keynes found credit rationing as an enduring circumstance where a set of borrowers are always declined from credit by banks. Another important dimension of Keynes arguments is that the bank-borrower relationship is important and any long-standing relationship can reduce credit rationing. Not necessarily, only the interest rate and collateral can determine the credit rationing. So, bank-borrower relationship can be an approach for differentiating 'good' and 'bad' borrowers; this idea is absent in asymmetric information theory.

The most convincing idea of Keynesian theories is that both lenders and borrowers are dealing with fundamental uncertainty, unlike from new Keynesian view that only borrowers know the probability distributions of returns. Under Keynesian view, the credit volume depends on two types of risks, borrower's risks and lender's risks. Borrowers are concerned about their repayment ability from future returns as they need relationship with banks for future transactions. On the other hand, lender's risks are two types; the borrower can willingly, tactfully escape from repayment which is a moral hazard problem or he may fail to repay due to unexpected situation or unwanted decrease in the value of security. The second risks are associated with our limited capacity of assessing the uncertain future. "Under a situation of fundamental uncertainty, it is impossible to calculate either the probabilities of an event occurring or possible outcomes" (Lavoie, 2009). So, bank may not know about some future intentions of the borrower which are known by him only. On the other hand, bank possesses some special information and skill which the borrower does not have. Due to these differences in knowledge and skills, they usually have different expectations on the future returns of a project. Apart from these, their risk preferences can be different. Since future is uncertain, banks follow some norms or conventions in credit

distributions. However, a 'swing' in lenders' confidence can occur suddenly due to changes in their risk preferences and cause credit rationing. Bounded rationality along with conditions of uncertainty makes the activities of banks as a monitoring actor highly complicated (Suzuki, 2011).

RESULTS AND DISCUSSION

A Persistent Gap Exists in SME Financing Market in Bangladesh

SMEs in Bangladesh are largely excluded from the formal financial sector. The total market size for loans to MSMEs in Bangladesh was estimated to be nearly BDT 400 billion (\$5.7 billion) of which 65% or BDT 255 billion was for SMEs and 35% or BDT 140 billion was for micro enterprises (Aurora, 2008). As of June 2009, estimated total current supply of SME credit was BDT 88.8 billion (principal outstanding) and concluded a gap of BDT 165 billion.

According to the SAPRI SME Survey (1999), 35.79 percent stakeholders have unrestricted access to the formal credit. Here, unrestricted access implies those who were able to borrow the whole amount they asked for (24.21 percent) and also those who did not applied as they were not in need of money (11.58 percent). Formal credit is not obtainable at all to 50.53 percent of the SME stakeholders, the remaining 13.68 percent stakeholders have limited access to the formal credit meaning that they got a lesser amount of what they asked for (Chowdhury and Raihan, 2000).

The same survey found that bank finance

constitutes only 20 percent or lesser of the total investment by the SMEs. Table 1 shows the major sources of financing. Almost 59.6 percent of the SME firms seeking finance want to meet up their working capital needs and about 54 percent of them can obtain that. Trade credit is rather common source for small entrepreneurs at high interest rates while informal sources are dominating in their investment (CPD, 2001).

The NPSEB (2003) revealed that the share of informal, formal and Non-Government Organizations (NGO) in total credit of Micro Small and Medium Enterprises (MSMEs) were 35 percent, 18 percent, and 17 percent respectively. Among the informal sources, family loan, credit cooperatives, and money lenders are significant. Among the formal and semi-formal sources, NGO credit were the most common followed by commercial banks and then suppliers' credit (Daniels, 2003). Their counterpart, LEs, obtained 55 percent of credit from formal sources, mainly from commercial banks (45 percent) and 36 percent LEs obtained credit from informal sources. So, MSMEs and LEs have almost same share in informal financing, but MSMEs share in formal financing is almost one-third of LEs share in that.

Rural MSMEs Finance Survey 2006 found that in 2006, out of the sampled MSMEs, 43 percent had a bank account. Although they use banks considerably for various services, on an average, only 32 percent of MSMEs borrowed from banks, 16 percent borrowed from MFIs and 8 percent from informal sources, 44 percent did not borrowed at all (Aurora, 2008).

Table 1: Sources of loan sought and received by SMEs

Source	Percentage of respondents sought loan	Percentage of respondents received loan
Bank	59.6	53.57
Trade credit	27.7	100
Relatives/friends	21.3	100
Money lenders	6.4	100
Samity	6.4	92.31
Others	2.1	100

Source: SAPRI SME Survey, 1999 (cited by CPD, 2001)

Table 2: Sources of credit for MSMEs (2003-2006) (Percent of total credit)

Types of credit	Micro	Small	Average
Formal	37	77	48
Bank	25	71	32
MFIs	12	6	16
Informal	6	9	8
None	57	14	44

Source: 2006 Rural MSME Finance Survey.

One problem with these data is that both banks and MFIs are included as formal sources. On an average, only 8 percent micro enterprises and 23 percent small enterprises have bank loans only. From the same survey, it was found that MSMEs finance only 12 percent of their working capital needs and only 33 percent of new investments through borrowing from any source. Rather than borrowing, most MSMEs have to build internal resources to grow. This is also evident from the low debt to assets ratio of MSMEs which is 8 percent on an average. For micro enterprises, this ratio is 2 percent and 20 percent for small enterprises (Aurora, 2008). So, from the above discussion it is understandable that more than 70 percent of SMEs lack from bank financing.

Market Players and the Problem of 'Missing Middle'

In most countries, SMEs are in the 'missing middle' between subsidized micro lending and commercially lucrative investments (Gibson, 1995). In Bangladesh, some big and solvent MFIs are approaching 'upstream' to serve the bottom of the SME market by offering fairly larger loans than the mainstream micro clients through micro enterprise loans segment. In the same way, some large banks are targeting the top end of SME market through some small and medium loans in their portfolio (IFC, 2009). Needless to say, none of these sources predominantly target the SME market.

The matured microfinance sector of the country is the prime source of small loans in rural areas for poor or the near poor. Microenterprises lending started by Bangladesh Rural Advancement Committee (BRAC) in 1996

through its MELA program in Bangladesh. This lending program opened a new periphery to the numerous MFIs targeting mainly the 'graduating micro clients' who improved from mainstream micro clients or thousands of micro businesses both in group lending model or individual loans. But the problematic fraction for MFIs is the larger microenterprises, which are moving towards small enterprise category. These clients together with small enterprises drop out of the target groups of MFIs. Reasons behind this are manifold. Firstly, the amounts of loans demanded by these groups are regarded as too huge and too risky by the MFIs. More precarious is that, MFIs usually lack the competency to offer individual loans, as the personnel of those institutions may not be trained in loan appraisal for individuals. The group lending mechanisms and the rationale behind that strategy may not be tailored for individual loans and become riskier. The lending practices are almost similar to the mainstream microcredit organizations. Individual microenterprise loans are given by some MFIs such as Grameen Bank, ASA and BRAC. But small and medium MFIs finance the 'graduating micro clients' using group lending method, in general.

Bank is the main source of formal financing for businesses in Bangladesh. Around 90 percent formal credit to the private sector is provided by the 47 scheduled banks (Bangladesh Bank Monetary Policy Review, 2010). Unfortunately, SMEs get a very poor share of it. As of June 30, 2010 only 19.86 percent (BDT 567.20 billion) of total financial sector loan were made to SME sector by banks and Non Bank Financial Institutions (NBFIs). Out of which banking sector contributed about 96.5 percent (BDT

547.52 billion) of total SME loan or 20.31 percent of total disbursement by all banks (Bangladesh Bank Monetary Policy Review, 2010). The supply–demand gap is more acute for nonmetropolitan SMEs than metropolitan SMEs and that limits the potential of rural and nonurban development. A study found that out of the total SME loan, 85% was supplied by five banks only. This means that bank financing to SMEs is concentrated on the networks of a few banks (ADB, 2009).

The problem gets more acute when SMEs access to NBFIs is very less, because this sector is not so developed and it serves mainly the large industries through long term leases or loans. At the end of June, 2010 the share of NBFIs to the total SME loans is only 3.45 percent; it is 12.23 percent of the NBFIs' total loans outstanding on that date. The target customer group of NBFIs are the top end of the medium industries and large industries due to the high cost of capital of NBFIs (Ahmed and Chowdhury, 2007; InM, 2009).

Although governments in different periods set objectives for SME development, the macro policy environment remains biased against it (BEI, 2004). Immediately after liberation, under widespread nationalization and heavy industrialization policy frame, the small industries were seriously neglected although the import substitution policy has been followed under first five year plan (1973-78). Moreover, the First Industrial Policy (1971-75) restricted the maximum investment in small and cottage industries up to BDT 25 millions leaving them for private ownership mainly and thereby in negligence. The New Industrial Policy of 1982 initially recognized the importance of SME development and declared it as a priority sector. In response, the maximum investment limit was extended up to 15 million BDT and some incentive packages were installed. From late 1980's banks were needed to provide 5 percent of their total loanable fund to small industries. Some other targeted lending programs were also initiated for small and cottage industry. This period witnessed a higher share of bank credit to SMEs. The only development financial institution that caters to the need of the small scale industries, BASIC bank Ltd. was established in 1988.

In Bangladesh, the financial sector reforms took place during 1990's. However, until 1999 interest rate bands were continued for SMEs. From 1994, SME sector were granted 3% subsidy on term loan. From 1999, this subsidy and bands were removed from SME sector. Financial reforms, however, did not bring better allocation of resources in favor of small scale industries, which was a priority sector. This was a situation of market failure.

Both the Industrial Policy of 1999 and Industrial Policy 2005 declared SME development as a policy priority. Special fiscal and financial incentives were agreed but did not come true. Aurora (2008) noted that the banks provided only 2 percent of their total lending to rural and urban MSMEs in 2005. The superiority of large industries in terms of value addition and bigger share in GDP led the country to less diversified but growing industrialization.

The Industrial Policy of 2010 identified SME development as a tool of achieving the growth agenda through industrial development and poverty reduction. Unfortunately, all these policies lacked implementation. Bangladesh Small and Cottage Industries Corporation (BSCIC) is still the only organization that provides very insignificant assistance to set up small and cottage industry. SME foundation has been established recently with an aim to provide technical and financial supports to SMEs. In FY 2004-05, Bangladesh Bank (the Central Bank of Bangladesh) established a refinancing scheme to refinance scheduled banks and other FIs for their SME loans. Banks and FIs are given fund at 5 percent interest but those institutions are free to fix the retail SME loan interest rates. The accumulated lending by refinancing scheme was only 3 percent of total outstanding SME loan on June 30, 2009. This study accentuated that the cited government's failure is highly responsible for slow growth of SMEs in Bangladesh.

Under the above constrained situation on the supply side, as a whole, and increasing demand on the SMEs side, the gap seems to be persistent in the country. While complete and accurate data are not available to measure the gap, the current part tries to mirror the problem in terms of loan sizes. Table 3 is important to give information on real practices of bank loans.

Table 3: Advances classified by size of accounts (all banks) in lacs BDT

Size of Accounts	AS				
	31-12-2010				
	Actual				
	No. of Accounts	Amount	C as % of Total Amount	Average Size(C/B)	No. of Accounts
A	B	C	D	E	F
UPTO TK. 5000	6,48,823	175,04	0.06	0.03	6,48,823
TK. 5001 TO TK. 10000	13,58,829	1,045,85	0.35	0.08	20,07,652
TK. 10001 TO TK. 25000	37,16,636	6,249,47	2.11	0.17	57,24,288
TK. 25001 TO TK. 50000	18,71,055	6,201,74	2.10	0.33	75,95,343
TK. 50001 TO TK. 100000	5,10,685	3,541,97	1.20	0.69	81,06,028
TK. 100001 TO TK. 200000	2,98,828	4,297,05	1.45	1.44	84,04,856
TK. 200001 TO TK. 300000	2,17,532	5,369,22	1.81	2.47	86,22,388
TK. 300001 TO TK. 400000	1,11,552	3,843,13	1.30	3.45	87,33,940
TK. 400001 TO TK. 500000	73,776	3,300,56	1.12	4.47	88,07,716
TK. 500001 TO TK. 1000000	1,76,883	12,408,54	4.19	7.02	89,84,599
TK. 1000001 TO TK. 2500000	1,38,624	21,915,30	7.41	15.81	91,23,223
TK. 2500001 TO TK. 5000000	57,985	20,280,99	6.85	34.98	91,81,208
TK. 5000001 TO TK. 7500000	19,424	11,692,62	3.95	60.20	92,00,632
TK. 7500001 TO TK. 10000000	9,059	7,807,01	2.64	86.18	92,09,691

It is found that (as on December 31, 2010) largest numbers of small borrowers⁶ lie in BDT 50001- 100000 ranges; 5.52 percent of all types of borrowers with 1.2 percent of total loans disbursed by all banks. On the other side, largest amount of loans under the definition of small loans by BB goes for BDT 1000001- 2500000 category; 7.41 percent of total loans disbursed by all banks and 1.5 percent of all borrowers as on the above date. Importantly, the range BDT 400001- 500000 consist of lowest amount of loans (1.12 percent of total loans) and 0.8 percent of total borrowers of all banks. If we consider the data for small loans ranges from BDT 50001- 5000000, the results can be found in table 4.

The range from BDT 500001- 5000000, consists of 72.85 percent of total small loans and 23.56 percent of borrowers. So, the range from BDT 50001- 500000, comprises 27.15 percent of total small loans and 76.44 percent of borrowers. The lowest amount is given to the range BDT 400001- 500000. It is evident that larger loans with high value collaterals that are not affordable

by small firms are actually dominating. That means, under SME loans, banks are in fact, targeting the top end of SME borrowers.

To get a picture on another side, this report tries to cover the micro enterprises loan schemes by three leading MFIs namely, Grameen, BRAC, ASA- to understand the practices and gap there. According to IFC and KfW Bankengruppe (2009), microenterprise loans by MFIs vary from BDT 20,000 to BDT 500,000 (\$287-\$7170), but the most common range is from BDT 20,000 to BDT 50,000 (\$287-\$717). Loan maturities differ from six months to two years. InM report (2009) found from the product charts of MFIs that microenterprise loan ranges in between BDT 30000 to 500000, but the average loan size is BDT 100000- 110000. This implies a careful approach by the MFIs to expand credit in this segment. In fact, they are aiming the lower end of the SME market segment. Aurora (2008) observed that MSMEs are financially excluded because the existing lending requirements are not adapted to the business needs of this segment.

Table 4: Advances classified by size of accounts (all banks) in lacs BDT

Loan range (BDT)	Share in total small loans	Share of total small borrowers
50001-100000	4.73	32.20
100001- 200000	5.73	18.84
200001-300000	7.16	13.72
300001- 400000	5.13	7.03
400001- 500000	4.4	4.7
500001- 1000000	16.55	11.15
1000001- 2500000	29.24	8.74
2500001- 5000000	27.06	3.67
Total	100	100

Source: Scheduled Banks Statistics, Bangladesh Bank, 2010

Table 5: Average loan size for MSMEs, 2003-2006 (BDT)

Loan source	Micro	Small	Average
Bank	169459	590588	408081
MFIs	26000	75000	38250
Informal	43500	43750	38929

Source: Aurora (2008)

The average loan size for these enterprises in the rural area is BDT 400000 from banks and BDT 38000 from MFIs (Aurora, 2008). Aurora (2008) also noted that microenterprise lending constituted only 11 percent of total lending by MFIs in 2006. A little depiction of the current practice of the three large MFIs in the country has been made in table 6.

GB started its Microenterprise loan scheme in 1997 through Grameen Fund. GB website mentioned that the maximum size of a single loan given until recently is BDT 1.60 million (\$ 23,209). ASA operates under two schemes for micro and small firms with more than 99 percent recovery rate. BRAC is operating successfully a scheme for microenterprises named PROGOTI. These schemes show that right products offering

and appropriate monitoring can overcome moral hazards problem. So, the idea that the borrowers as 'agents' always want to maximize their own benefits by depriving the lenders or 'principal' may not be true as shown under the theory of information asymmetry. They can simultaneously achieve their individual objectives through lending as assumed by Keynes. However, to summarize, the average sizes for microenterprise loan ranges from BDT 25728 (\$ 372) – BDT 110000 approximately.

Then from the data of SME loans disbursed during 2010 by the financial sector of Bangladesh, an average size of loans given to small and medium enterprises have been computed in table 7.

Table 6: Microenterprise loan schemes

Name	Size Range	% of Portfolio	Interest rate; duration; collateral; payment system	No. of Borrowers	Cumulative disbursement	Average loan
1.ASA: Small entrepreneur loan (SEL)	BDT 600,000 or \$8,824 (app.)	14% of portfolio, 2% of clients (December, 2009)	15% (flat); 1/1.5/2 years; Monthly	134,773 (up to 2010)	36,065 million (2010)	--
2.ASA: Small Business	BDT 50000-200000 (\$735- \$2,941 app.) (December, 2009)	16% of portfolio; 7.78% of clients (December, 2009)	15% (flat); 1year; Weekly/ Monthly.	342,530 (up to 2010)	49,607 million (2010)	--
3.BRAC: PROGOTI (Micro enterprise Loans)	BDT 50,000-500,000 (\$700 to 7,000)	--	15% flat; 1/ 2years; Monthly payment; Personal guarantee for graduates, collateral from non-poor.	242,512 (December, 2008)	2462 million Loan outstanding	BDT 70000 or \$1000 (December, 2006) Taka 110,000 (December, 2008)

Source: Compiled by authors

Table 7: Average loan sizes for SME loan segment

Types	Disbursement of the year- 2010 BDT (in crore)			No. of beneficiaries			Average Loan Size (BDT in crore. 1 crore= 10 million)		
	SME	Small	Medium	SME	Small	Medium	SME	Small	Medium
SCBs	7523.98	3458.23	4065.75	29875	25802	4073	0.251849	0.13403	0.99822
PCBs	40494.57	17281.86	23212.71	262997	163924	99073	0.153974	0.105426	0.234299
SBs	2694.66	923.01	1771.65	5942	3952	1990	0.453494	0.233555	0.890276
FBs	1133.93	537.4	596.53	2790	1448	1342	0.406427	0.371133	0.444508
Banks (total)	51847.14	22200.5	29646.64	301604	195126	106478	0.171905	0.113775	0.27843
NBFIs	1696.79	834.39	862.4	7122	6277	845	0.238246	0.132928	1.020592
Financial Sector -total	53543.93	23034.89	30509.04	308726	201403	107323	0.173435	0.114372	0.284273

Source: SME and Special Programs Department, 2010, BB,

From table 7, it can be estimated that for SME loan, the average size is BDT 1.72 million in the banking sector and for the financial sector it is BDT 1.73 million. A small increase in the later average amount implies that the NBFIs offer larger loans to a relatively small number of clients or simply they target the extreme top end of the SME sector. The average loan size for small loans in the banking sector is BDT 1.14 million while that of the medium enterprises is BDT 2.78 million. These ideas are portrayed in figure 2.

Most of the banks offer credit product for SMEs starting from BDT 0.2 million which exclude many small borrowers (Saadullah, 2007). However, the most unfortunate and

important fact which is evident from all the literature and computations (evidenced from table 3 and 4) is that, the lower end of small loans for example, from BDT 50000 to 0.5 million, are not lucrative at all to the banks due to high transaction costs (TC) per loan and loans amounting from BDT 0.5 million onwards, are not attainable by small firms as they lack high value fixed collateral which are needed for getting those loans. The same kind of problem exists for the lower end of the medium enterprises lacking enough collateral. This financing problem of larger micro enterprises, small, and the smaller medium enterprises together- is the 'missing middle' in the financing pyramid of Bangladesh.

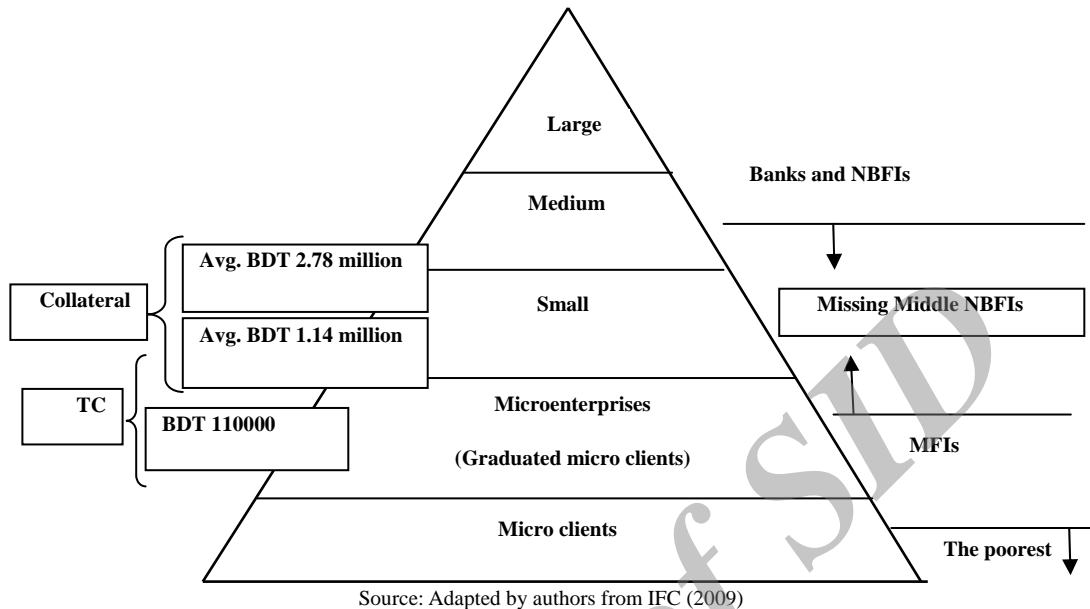


Figure 2: Underserved market segments in Bangladesh

While access to finance are cited as most severe problem both for existing and new SMEs in Bangladesh (Daniels, 2003), it is implicitly supporting the Keynesian assumption on credit rationing that banks can influence “the volume of investment by expanding or contracting the volume of their loans” to the market. As Stiglitz and Weiss (1981) assumes that in credit rationing firms cannot form capital through issuing shares and that’s why banks are the main formal source of finance, is also true in case of SME financing market in Bangladesh. The result is then dominating informal financing in case of investment by SMEs of the country.

From the discussion of the previous sections, it is evident that over 70 percent of SMEs are lacking from bank financing in Bangladesh. Out of which, about 50 percent SMEs do not have any access to bank financing. So, following Keynes, bank-borrower relationship cannot be used as a screening tool for credit and the situation lasting over decades. Absence of any strong databases on SMEs or credit information agencies in the financial system makes the problem more critical. The remaining percentage of borrowers having limited access to bank

financing is the “unsatisfied fringe of borrowers” described by Keynes in SME loan market of Bangladesh. If we follow Stiglitz and Weiss (1981), on the other hand, credit rationing occurs for that percentage of borrowers who did not received loan at all, not for those who received partial amount of what they asked for to the banks. However, in SAPRI SME survey (1999) some most cited barriers to credit are collateral (79.4 percent), rent seeking by the bank officials (66 percent) and high interest rates (39 percent) for loan (Chowdhury and Raihan, 2000).

Banks of Bangladesh have to suffer from both types of lenders’ uncertainties as described by Keynes; voluntary default or moral hazard problem of borrowers and involuntary default due to “disappointment of expectations” (Keynes, 1936). Banking industry in Bangladesh has been suffering from chronic default culture since independence. The Non Performing Loan (NPL) ratio of the banking system was highest (41.11 percent) in 1999 and reduced to 13.23 percent in 2007 (Suzuki and Adhikary, 2009). During June 2010, the NPL ratio was 8.7 percent (Bangladesh Bank, 2010). The average recovery rate of industrial loans was only 14.41 percent

during 1983 to 1992 (Saadullah, 2007). End of September, 2010 the overdue as a percentage of total outstanding industrial loans for small and medium industries is 16.65 percent and 15.11 percent respectively while it is 8.27 percent for large industries (Bangladesh Bank, 2010). According to Reza et al. (1992), the reasons for default are either borrower's incapability to utilize loans efficiently, or diverting the loans to other activities or they lack the willingness to repay. The problem of moral hazards and opportunism is prevalent in bank-borrower relationship in Bangladesh.

Another type of lender's uncertainty or unwilling defaults of borrowers may also occur. For example, the borrower fails to repay loans and bank attempts to recover it. The country lacks an efficient legal system, the Court of Law take a long time to settle litigations and causes further efforts and resource loss for the lenders (Saadullah, 2007). The time lag between a court's decree (in favor of bank) and getting the execution order against court's verdict is so high that the market value of collateral decreases due to time value of money. So, bank's expectation regarding collateral value *ex ante*, may not be sufficient *ex post*, to recover default amount. This caused another severe problem for SME firms as they need to give high valued fixed collaterals for a relatively low amount of loan to banks. The weighted average value of collaterals as proportions of loans is high, ranging from 120 percent to 373 percent (Saadullah, 2007). Generally, banks require immovable assets (in 86 percent cases) as collaterals while SMEs possess mainly movable assets (73 percent), and thereby causes less SME finance (Aurora, 2008). Sometimes, small firms have to put the project itself as security as they lack any other assets. As the asymmetric information theory prescribes, this can highly increase the borrower's riskiness and moral hazards.

Borrowers are also facing uncertainties in

terms of their future income from any project and ability to repay banks. 20 percent MSMEs who did not receive any loans opined that they were afraid of their ability to repay bank loans and did not go for it (Daniels, 2003). 2006 Rural MSME Finance survey shows that 6 percent firms do not apply for credit due their uncertain ability to repay loans (Aurora, 2008).

Wolfson (1996) introduces that the expectations on the uncertain future of the borrower and lender should be asymmetric as they use different methods to evaluate future outcomes, irrelevant of their risk preferences.

So, among the projects in table 8 those which are safe both for the borrower and the lender are funded. Those projects assumed safe by borrower but not by lender are rationed. Projects those are risky to the borrowers, are not seen by lender. From the data of SAPRI SME survey (1999), out of 190 respondents 24.21 percent received the entire amount they applied, and 13.68 percent got a fraction of the applied amount. So, according to Wolfson (1996), this 24 percent in the cell 'Lend' and 14 percent in the cell 'Ration' in table 8. Bounded rationality and imperfect monitoring by banks lead to credit rationing. Since information on future is non-existent and institutions deal with problems in acquiring and processing information, they follow conventions (Lavoie, 2009). For example, banks follow other banks in same cluster in setting target market of borrowers or offering products.

On another side, these small firms mostly run by entrepreneurs or employees having no education or poor education are unable to maintain any structured financial information of the firms. It is quite difficult for banks or other FIs to judge their financial strength or income generation potentials. High transaction cost in term of screening, *ex ante* and rigorous monitoring, *ex post* and high collateral restrictions results into limited financing by banks.

Table 8: The effect of asymmetric expectations

Borrower			
Lender	Safe	Safe	Risky
	Safe	Lend	***
	Risky	Ration	***

Source: Wolfson (1996)

CONCLUSION

In this study, an endeavor has been made to accentuate the reasons for credit rationing in case of SME financing of Bangladesh. A paucity of efforts to address the financing needs of this business segment has created a situation of 'missing middle' - as they are not targeted by any cluster of lending institutions. The conventions of MFIs are unable to accommodate the SME financing needs and approaching vigilantly in this sector's lending assuming their high risks. On the other hand, banking industry lacks enthusiasm for absorbing the high risk of these enterprises. The NBFIs and government play an insignificant role to SME lending while the venture capital market is almost non-existent in the financial system. This paper also proposes that under condition of free market, it is not wise to think that the banking sector should absorb the high credit risks of SMEs to a great extent. Rather this risk absorption can lead the financial sector to fragility. However, enhanced financial inclusion is a necessary though not sufficient condition for efficient financial intermediation. Prudent government intervention is obligatory therefore, to ensure socially desirable allocation of resources. This study proposes that in an early stage, government has to subsidize the development of small scale industries. So, the current agenda of the Government of Bangladesh for SME development should be supported by broad based policies, adequate resources and services.

Notes

1- According to Industrial Policy 2010, small manufacturing enterprises are those with capital (replacement cost of fixed assets excluding land and building) between Tk. 5 million and Tk. 100 million, or having 25 to 99 employees while medium enterprises are those with that of between 100 million to 300 million or having 100-250 employees. For service enterprise the range of capital for small firm is 0.5 million to 10 million (replacement cost of fixed assets excluding land and building) or 10-25 employees and that of medium is between tk. 10 million to 150 million or 50-150 employees.

2- Industrial Policy 2010 defines micro enterprises as those with capital (replacement cost of fixed assets excluding land and building) between Tk. half a million and Tk. 5 million, or having 10 to 24 employees.

3- A survey in 1999, conducted under the Structural Adjustment Participatory Review Initiatives (SAPRI) in Bangladesh under the lead of CPD.

4- A national level survey on enterprises of Bangladesh conducted by International Consulting Group (ICG) and Micro Industries Development Assistance and Services (MIDAS), Bangladesh.

5- A WB survey to assess rural access to credit led by Aurora Ferari.

6- SME Credit Policies and Programs, 2010, Bangladesh Bank defined small entrepreneur loan ranges as BDT 50000- 5000000

REFERENCES

- Abed, F. H. and Matin, I. (2007). Beyond Lending: How Microfinance Creates New Forms of Capital to Fight Poverty. *Innovations*, 2 (1/2), pp. 3-17.
- ADB (Asian Development Bank). (2009). *Proposed Loan, People's Republic of Bangladesh: Small and Medium-Sized Enterprise Development Project*, Manila: ADB.
- Ahmed, M. N. and Chowdhury, M. I. (2007). Non-Bank Financial Institutions in Bangladesh: An Analytical Review, Working Paper Series: WP 0709, Dhaka: Policy Analysis Unit, Bangladesh Bank.
- Akerlof, G. (1970). The Market for 'Lemons': Qualitative Uncertainty and the Market Mechanism. *Quarterly Journal of Economics*, 84 (3), pp. 488-500.
- Alam, M. S. and Ullah, A. M. (2006). SMEs in Bangladesh and Their Financing: An Analysis and Some Recommendations. *The Cost and Management*, 34 (3), 57-72
- Ayyagari, M., Beck, T. and Demirgüç-Kunt, A. (2003). Small and Medium Enterprises across the Globe: A New Database. World Bank Policy Research Working Paper No. 3127. Washington, DC: World Bank.
- Ayyagari, M., Beck, T. and Demirgüç-Kunt, A. (2007). Small and Medium Enterprises across the Globe. *Small Business Economics*, 29 (4), pp. 415-434.
- Ayyagari, M., Demirgüç-Kunt, A. and Maksimovic, V. (2006). How Important Are Financing Constraints? The Role of Finance in the Business Environment. World Bank Policy Research Working Paper No. 3820, Washington, DC: World Bank
- Basic Bank Website, Available: <http://www.basicbanklimited.com/>
- Bangladesh Bank (BB). (2010). Monetary Policy Review. Dhaka: BB.
- Bangladesh Bank (BB). (2010). Scheduled Banks Statistics. Dhaka: BB.
- BBS (Bangladesh Bureau of Statistics). (2003). Census of Enterprises 2001-2003.
- Beck, T. (2007). Financing Constraints of SMEs in Developing Countries: Evidence, Determinants and Solutions. Paper Presented in KDI Conference on Financing Innovation-Oriented Businesses to Promote Entrepreneurship.

- Beck, T. and Demirgüç-Kunt, A. (2006). Small and Medium-Size Enterprises: Access to Finance as a Growth Constraint. *Journal of Banking and Finance*, 30 (11), pp. 2931–2943.
- Berger, A. N. and Udell, G. F. (1995). Relationship Lending and Lines of Credit in Small Firm Finance. *Journal of Business*, 68 (3), pp. 351–382.
- Berger, A. N. and Udell, G. F. (2006). A More Complete Conceptual Framework for SME Finance. *Journal of Banking and Finance*, 30 (11), pp. 2945–2966.
- Beck, T., Demirgüç-Kunt, A. and Levine, R. (2005). SMEs, Growth, and Poverty: Cross-Country Evidence. *Journal of Economic Growth*, 10 (3), pp. 199–229.
- Beck, T., Demirgüç-Kunt, A. and Maksimovic, V. (2005a). Financial and Legal Constraints to Firm Growth: Does Firm Size Matter? *Journal of Finance*, 60 (1), pp. 137–177.
- Beck, T., Demirgüç-Kunt, A. and Maksimovic, V. (2008). Financing Patterns around the World: Are Small Firms Different? *Journal of Financial Economics*, 89 (3), pp. 467–487.
- BEI (Bangladesh Enterprise Institute). (2004). Taking Stock and Charting a Path for SMEs in Bangladesh. Dhaka: BEI.
- BRAC Website: <http://www.brac.net/>
- Chowdhury, T. A. and Raihan, A. (2000). Implications of Financial Sector Reforms. Dhaka: Structural Adjustment Participatory Review Initiative (SAPRI).
- CPD (Center for Policy Dialogue). (2001). *Bangladesh's Experiences with Structural Adjustment: Learning From a Participatory Exercise*, Dhaka: CPD.
- CPD (Center for Policy Dialogue). (2001). Second National Forum of SAPRI Bangladesh. *Structural Adjustment Participatory Review Initiatives*, Dhaka: CPD.
- Daniels, L. (2003). National Private-Sector Survey of Enterprises in Bangladesh, 2003, Draft Report Prepared for DFID, USAID, SDC, and SIDA.
- Davidson, P. (1988). A Technical Definition of Uncertainty and the Long-run Non-neutrality of Money. *Cambridge Journal of Economics*, 12 (3), pp. 329–337.
- Demirgüç-Kunt, A. and Maksimovic, V. (1999). Institutions, Financial Markets and Firm Debt Maturity. *Journal of Financial Economics*, 54 (3), pp. 295–336.
- Ferrari, A. (2008). *Increasing Access to Rural Finance in Bangladesh: The Forgotten "Missing Middle"*, Washington DC: World Bank.
- Gibson, T. C. (1995). Equity and Venture Capital Financing for SMEs in Countries under Transition. *Small Enterprises Development*, 6 (3), pp. 38–44.
- Grameen Bank Website: <http://www.grameen-info.org/>
- Honjo, Y. and Harada, N. (2006). SME Policy, Financial Structure and Firm Growth: Evidence from Japan. *Small Business Economics*, 27 (4), pp. 289–300.
- IFC (International Finance Corporation) and KfW Bankengruppe (2009). Microfinance and Financial Sector Diagnostic Study.
- IFC (International Finance Corporation). (2009). The SME Banking Knowledge Guide, Washington, D.C: IFC.
- InM (Institute of Microfinance). (2009). State of Microfinance in Bangladesh, Dhaka: InM.
- Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*. London: Harcourt, Brace.
- Lavoie, M. (2009). *Introduction to Post-Keynesian Economics*, New York: Palgrave Macmillan.
- Mintoo, A. A. (2006). SMEs in Bangladesh. *CACCI Journal*, 1, 1–19.
- Nichter, S. and Goldmark, L. (2009). Small Firm Growth in Developing Countries. *World Development*, 37 (9), pp. 1453–1464.
- Reza, S., Ahmed, U. M. and Wahiuddin, M. (1992). *Small and Medium-Scale Enterprises in Industrial Development*, Dhaka: Dhaka Computers and Iva Printing and Publishing.
- Saadullah, R. M. (2007). The Role of Institutional Lenders in Alleviating SME Financing Problem in Bangladesh. *Bank Parikrama*, 32 (1, 2, 3 and 4), pp. 32–63.
- Stiglitz, J. E. and Weiss, A. (1981). Credit Rationing in Markets with Imperfect Information. *The American Economic Review*, 71 (3), pp. 393–410.
- Suzuki, Y. (2011). *Japan's Financial Slump-Collapse of the Monitoring System under Institutional and Transition Failures*, Hampshire: Palgrave Macmillan.
- Suzuki, Y. and Adhikary, B. K. (2009). A “Bank Rent” Approach to Understanding the Development of the Banking System in Bangladesh. RCAPS Working Paper No. 09-1, Ritsumeikan Center for Asia Pacific Studies.
- Wolfson, M. (1996). A Post Keynesian Theory of Credit Rationing. *Journal of Post Keynesian Economics*, 18 (3), pp. 443–470.