Financing SMEs and its Effect on Employment Generation:
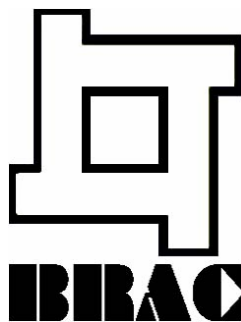# A Study of Brac Bank's SME Lending

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BRAC

Financing SMEs and its Effect on Employment Generation:
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Abstract

Financial and development assistance designed specially for small and medium enterprises in Bangladesh is a new and upcoming trend. After the surge of micro-finance in the last two decades, small and medium enterprises have come to the limelight in the financial sector on account of their contribution to economy and yet limited access to finance. Both micro-finance institutions and banks are beginning to realize the potential of this market and designing new financial products for it. Brac Bank started providing credit to small and medium enterprises in 2002 in recognition of their special needs. This paper looks at the performance of small and medium enterprises that have received loans from Brac Bank with a focus on employment generation. The analysis reveals that employment generation is higher in enterprises with longer association with the Bank, enterprises in the manufacturing sectors and enterprises with a high initial labor force. Moreover, employment generated after repeat loans has a greater positive impact on the wage bill when compared to employment generated after first loans.

I. Introduction

In recent times, small and medium Enterprises (SMEs) have come into the forefront of development agenda due to the recognition of their contribution in fostering growth, sustaining global economic recovery, generating employment and reducing poverty (OECD, 2004). SEAF (2004) report identifies a number of channels through which SMEs can have positive impact on poverty reduction. Growth of SMEs can reduce poverty through acceleration of economic growth, removal of biases against labour-intensive production, creation of employment opportunities for the low-skilled workers and formation of linkages with small suppliers.

Empirical studies find that the share of SMEs in GDP is significantly higher in high income countries. A cross country study (Ayyagari et al, 2003) shows that SMEs account for over 51 percent of GDP and 57 percent of employment in high income countries while the corresponding figures for low income countries are 16 and 18 percent. This reveals the importance of SME in growth and employment generation. However, prevalence of credit market failure is an important constraint on the growth of SMEs. Since the closure rate of SMEs is higher than larger enterprises, the financial service providers tend to consider SME financing risky (Caves, 1998). Much as like in microfinance, SME financing also requires innovations in lending technology that could reduce the risk to the lender in ways that does not increase the overall transaction cost to the entrepreneur. With the aim of generating employment opportunities through SME growth, Brac Bank launched a special SME lending scheme in 2002 in Bangladesh. Brac Bank is an independent, regulated bank in which Brac is a majority shareholder (63.4%). Other owners include ShareCap International Limited and International Finance Corporation (as of 2005). More than 18,000 loans have been disbursed under this scheme up to February 2005.

As one of the core objectives of Brac Bank's SME lending is to support employment generation, the Research and Evaluation Division of Brac was asked to carry out a research to assess the extent of employment generation. The following section of the paper presents a brief review of employment and SMEs

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[*] Both the authors are research staff at the Research and Evaluation Division of Brac. They would like to acknowledge the guidance of Imran Matin, Director of Brac Research and Evaluation Division, in writing this paper.

in Bangladesh. The third section discusses a few methodological points and the sampling and data used in the study. Section four gives an overview of the financial intermediation for SMEs in Bangladesh and the mode of operation of Brac Bank. The fifth section concentrates on the enterprise profile including the perceptions of the borrowers about the impact of loans. Critical evaluation of employment generation by the client enterprises of Brac Bank is presented in section six. Section seven concludes the paper.

II. Employment in Bangladesh

Like most other poor countries, Bangladesh suffers from lack of employment opportunities for the population. In the last two decades, Bangladesh has achieved reasonable success in slowing down population growth. As a result, the number of people in the civilian labour force has increased at a slower rate in the 1990s. (Table 1) However, the unemployment rate has increased from 1.29 percent to 3.65 percent between 1985-86 and 1999-2000. The unemployment rates of poorer countries are often deceiving. These figures hide the extent of underemployment, the quality of work people do and the wage they receive.

Table 1: Labour force in Bangladesh

	1985-86	1990-91	1995-96	1999-2000
Civilian labour force (million)	30.9	51.2	56	60.3
Unemployment rate (percent)	1.29	1.95	2.50	3.65
Employed (thousands)	30561	50159	54597	58066
agriculture, forestry, fishing	17464 (57.14)	33303 (66.39)	34530 (63.25)	36217 (62.37)
Trade, hotels and restaurants	3832 (12.54)	4285 (8.54)	6060 (11.10)	6349 (10.93)
Manufacturing	3019 (9.88)	5925 (11.81)	4085 (7.48)	4375 (7.53)
Community, personal services	2563 (8.39)	1909 (3.81)	5092 (9.33)	3451 (5.94)
Transportation, storage, communication	1321 (4.32)	1611 (3.21)	2308 (4.23)	2591 (4.46)
Construction	646 (2.11)	525 (1.05)	1015 (1.86)	1201 (2.07)
Other	1716 (5.61)	2601 (5.19)	1507 (2.76)	3882 (6.69)

Source: BBS, Labour Force Survey

Figures in parenthesis are percentages of total employed persons

Sectoral composition of labour force shows the persistent dependency on agriculture where more than 60 percent of the labourers are accommodated. Share of manufacture in total labour force went down in 90s largely due to the emphasis put on liberalizing market by privatizing the state owned enterprises. Trade, hotels and restaurants provide employment opportunities for around 10 percent of labourers. A distribution of employed persons by their occupation shows that working proprietors in wholesale and retail was the second largest occupation following farming in 1999-2000 accounting for 6.47 and 46.49 percent of labour force respectively. In terms of status of employment, 36.6 percent work as day labourers. About half of the employed labour force is either self-employed or unpaid family workers. These gross figures expose the extent of informal arrangements in the labour market in Bangladesh. Low wage and job insecurity are the outcomes of the informal labour contracts.

SMEs in Bangladesh Economy

Despite high dependence on agriculture, other sectors are growing significantly in Bangladesh. Over the years, share of agriculture in GDP is declining with services being the drivers of growth. Manufacturing sector in Bangladesh has been contributing at a consistent rate over the last decade to around 15 percent. SMEs in manufacturing and services combined have 19 percent share of GDP. A nationwide survey claims that Micro, Small and Medium Enterprises (MSMEs) value addition accounts for 20 to 25 percent of Bangladesh's GDP (Daniel, 2003). These enterprises are accommodating more than 30 million people aged

15 years and above. Therefore, SME sector deserves more attention and focus to foster growth and generate employment. However, the greatest potential of employment creation is among the SMEs involved in manufacturing. SMEs in manufacturing are important for the developed countries as well (Baldwin and Picot, 1994) since growth of SME in manufacturing sector creates disproportionate amount of net employment because of its labour intensive character. However, SME in Bangladesh is dominated by trading. The key reasons for SMEs not entering the manufacturing sector in a major way are financial constraints, dismal state of utilities and government policy discriminations (CPD, 2003). Nonetheless, the role of SME in employment generation and poverty reduction has been well recognized in the PRSP (GOB, 2002).

III. Methodology

The key problem in dealing with SMEs is the absence of a universal definition. Stanworth's (1991) definition of small business shows the degree of relevance of context specificity.

"one with a relatively small share of the market, one that is managed by its owners in a personalized way, and independent in the sense that it is free from outside control in decision making"

However, as rule of thumb, the size of employees and/or the value of assets of the enterprises are considered to define SME. Enterprises with less than 250 employees are considered as SME in most cases (Ayyagari, 2003). Government of Bangladesh uses the definition of 10 to 99 workers as SMEs according to the Industrial Policy 1999. However, this definition is hardly applicable to non-manufacturing enterprises. Since this study deals only with the Brac Bank's clients, all the enterprises under its SME scheme are considered as SME. In the sample enterprises, the number of employees in trading range from 1 to 20 while those in manufacturing is 2 to 39 employees. The relative market share of the enterprise compared to others in the same sector is perhaps a more appropriate indicator of size in defining an SME.

Information has been collected using multiple tools in this study. A questionnaire was designed to collect information on the use of loans, access to other credit facilities, employee profile and revenue-expenditure of the enterprises. Focus Group Discussions (FGD) were used to get a broader view of the business environment for SMEs, their major drawbacks, labor market mechanisms, demand for other complimentary services, the strengths and weaknesses of Brac Bank SME services and a comparison with other players providing similar services. Complimentary information on indirect employment generation, governance problems and the costs of operation for SMEs was put together from individual case studies conducted at four units of Brac Bank (branch offices offering only SME credit services).

The questionnaire was administered on a total of 495 enterprises. Out of the total sample, 200 are 'new clients' who are at the first cycle of loan, 189 repeat clients at second or third cycle and 106 are dropouts (those who have discontinued after completing one or two cycles of loans and may or may not borrow in future). The purpose of this categorization is to investigate the impact of loan where new borrowers are proxies of control group. The survey was carried out in twenty SME units in fourteen districts of the country. The units were randomly picked out of the 264 units (as of January 2005) with at least ten repeat borrowers. This restriction in the sampling was considered necessary in order to ensure a sufficient representation of repeat borrowers in the data, so the comparison between new and repeat borrowers was possible. This restriction, however, reduced the sample of drop outs.

The case studies and FGDs were conducted in four randomly selected unit offices – Jessore, Bogra, Mymensingh and Cox's Bazar. Five clients on average attended the FGDs. The clients selected for FGDs and case studies were chosen based on accessibility and availability.

IV. Financing SMEs: The Brac Bank approach

It is a common understanding that SMEs in Bangladesh are being, to some extent, excluded from the targeted clientele of both the formal and semi-formal sectors (e.g. Ahmed, 1999; Meagher, 1998). However, this is not a unique phenomenon particular to Bangladesh. A large survey in 80 countries by Schiffer and Weder (2001) revealed that financing is the foremost obstacle for SMEs followed by taxes, regulation and inflation.

Most SME ventures in Bangladesh depend on personal savings, family or other informal credit sources. In recognition of this failure of the financial market, attempts have recently been made to cater to it. A few of the more established MFIs (Microfinance Institutions) are scaling up to tap this market. ASA was one of the first NGOs to introduce its Small Entrepreneur Development Program with a loan limit of Taka 30,000 ($870) in 1992. Proshika commenced its Small Economic Enterprise Development Program in 1996 with loans as large as Taka 400,000 ($6,700). Other MFIs such as Buro Tangail and TMSS also scaled up their microcredit operations. Brac scaled up chiefly to cater to the needs of its micro-finance graduates. Brac's credit programs include *Unnoti* (loans size $166–$833) and MELA (loans size $580–$5,800) along with the standard microfinance (loans size $17–$345). However, these scaling-ups by MFIs are not large enough to meet the fund requirements of the SMEs.

Some specialized financial organizations such as Basic Bank are also providing financial services to the SME sector. Since this segment of the market is relatively underserved, a number of formal financial institutions (e.g. Exim Bank, Islami Bank, NCC Bank) are gradually scaling down and designing financial products for them. In the financial sector reform program of Government of Bangladesh, increased financing for SMEs by banks is a major component. Bangladesh Bank, the national bank, has introduced $16 million refinancing scheme to promote lending to SMEs by banks and financial institutions. In January 2005, the bank had agreement with six banks and eight financial institutions and about 2,000 SMEs have benefited from the scheme upto the end of January (Bangladesh Bank). 'Small and Medium Enterprise Sector Development Programme', a $30 million project of Government of Bangladesh and ADB, is also in progress. However, these initiatives are still quite inadequate. Moreover, being an overlooked market for long, there is lack of knowledge about the clients and their needs reflecting in absence of appropriate lending methodology.

The SME program of Brac is a venture of Brac Bank. Brac bank was set up with the growing need for capital mobilization and the need for formal contracts for a wider spectrum of clients of the country. When it came to SME financing, instead of approaching the problem by scaling down its regular operations, a separate program designed specially for SME financing was launched by Brac Bank in 2002. Brac Bank's effort is noted in this regard for its complete focus on the credit needs of the small and medium enterprises. Since the initiation of SME operations by Brac Bank, it has become the Bank's largest and most profitable venture. As of December 2004, the SME division accounted for two third of the Bank's profits.

The unique feature of Brac Bank is that it is the only bank that approaches prospective clients, while other banks wait for them to apply for loans when required. SME units of BRAC Bank are located in all districts of the country. Each unit has two to five Customer Relations Officers (CROs). The role of CROs is instrumental in not only selecting and approaching clients, but also in maintaining regular interaction with each client, monitoring the use of the loan and ensuring regular repayment.

Each CRO conducts informal surveys of the area around his office to identify potential clients. He has a monthly target of disbursement, which is determined by the Head Office in Dhaka, based on the CRO's years of experience and market potential of the areas. The geographical reach of each unit is restricted by the CRO's capacity to travel to each enterprise's site of operation. Once a client makes an application for loan, the CRO sends a detailed report of the enterprise's financial status along with the application to the Head Office for approval. The Head Office seeks clearance from the Credit Information Bureau (CIB) and based on the risk rating, either approves or rejects the loan application. After approval from the Head Office, loan disbursement is carried out between the Head Office and the clients directly through the services of another

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assigned bank (Pubali Bank, in most cases). The CRO is responsible for reminding the clients of repayment dates, collecting and delivering checks on time and acting as a liaison between the client and the Head Office if problems arise. The usual banking activities are not performed in SME unit offices. Using services of other banks reduces the operational cost of the units.

Discussions with both clients and CROs revealed that the behaviour and personal interaction of the CROs is a key feature of BRAC Bank's SME scheme. 59 percent of the clients surveyed reported that they were first informed about the SME loan service by the CROs. Many customers reported that they had not considered borrowing from any source before the CRO s approached them. Their risk averseness used to guide their attitude towards formal credit. The CROs are instrumental in motivating the risk averse but sincere businessmen to accelerate expansion of their enterprises. Other strengths of the BRAC Bank services that were brought up by the clients in FGDs are quicker processing and provision for repayment in installments of the loans. Once the selection is complete, processing of the loans takes at most two weeks, as opposed to months and sometimes even a year for other banks. The borrowers repay on monthly installments. The number of installments varies from 15 to 24 months depending on the loans size and the ability of the borrowers. It is expected that the loan size in the next cycle would be one and half times bigger.

V. Enterprise profile and post loan changes

In this section we provide the general profile of the sample enterprises that were provided credit by Brac bank in terms of some key variables and the post loan changes in these variables. We also discuss the uses of the loans and how these have affected the enterprises based on FGDs with the entrepreneurs.

Sectoral composition:

Sectoral composition of BRAC bank borrowers of the sample shows the high extent of concentration of Brac Bank on traders (retail and wholesale). No clear pattern is visible among the different categories of borrowers, i.e. new, repeat and dropout, in their sectors of business except for a slightly higher share of manufacturing among the repeat borrowers than new borrowers (Table 2). Within trading sector, grocery stores, cloth stores, cosmetics stores, trader of hardware and paints, wholesalers of rice and shoe stores are most common businesses. Manufacturing is composed of tailors and garments, textiles, furniture producers, wood cutting mills and bakeries.

Table 2: Enterprise profile

		New	Repeat	Dropouts	Total
Sectoral composition	Trading	180 (90.0)	158 (83.6)	90 (84.9)	428 (86.5)
	Service	4 (2.0)	1 (0.5)	1 (1.0)	6 (1.2)
	Manufacturing	14 (7.0)	28 (14.8)	11 (10.4)	43 (10.7)
	Agro processing	2 (1.0)	2 (1.1)	4 (3.8)	8 (1.6)
Age of business when took 1st loan (median years)		9.0	9.0	11.0	9.0
Experience of previous venture		65 (31.9)	48 (25.4)	37 (35.9)	150 (30.2)
Ownership pattern	Proprietorship	139 (68.1)	141 (74.6)	66 (64.1)	346 (69.8)
	Family business	65 (31.9)	48 (25.4)	37 (35.9)	150 (30.2)

Figures in parenthesis are the percentages of each borrower category

Business experience of entrepreneurs:

Brac Bank SME borrowers have a fair degree of experience in their respective businesses. Majority of the borrowers are involved in the business for more than 10 years. This conforms to the fact that the CROs look for customers with some amount of experience. Though majority of the borrowers took SME credit for the

business already about 9 years old, some 17 percent of the borrowers received credit for the businesses they had been doing for not more than 3 years. This suggests that Brac Bank is providing credit facility to new entrants on selective basis, because entry and exit in trading is relatively high (Asia Foundation, 2003). Average age of manufacturing units is significantly lower than trading units among the SME borrowers. Though these figures of years give the idea of length of operation of the businesses, the experience of the entrepreneurs might be higher. In fact, 30 percent of the borrowers have previous business experience of same sort or other. Not surprisingly, probability of having previous business experience in other enterprises is higher for those entrepreneurs who have been granted credit for relatively newly established enterprises compared to others. This suggests bias against start ups which is a common feature in SME lending. According to ownership pattern of the ventures, two third of the enterprises are proprietorships while the rest are family business.

Capital portfolio:

Personal and family savings account for more than three quarter of the capital in the surveyed SMEs. It is not surprising that enterprises with higher capital were granted larger amounts of loan[1]. It is interesting to note that before loans, the size of average capital was almost the same for trade, service and manufacturing sectors. Enterprises in trading sector have managed to increase the size of their capital, more rapidly than enterprises in other sectors. Only 3.4 percent of all the enterprises reported capital erosion and over 40 percent managed to more than double their capital after taking loan. There is no clear difference among the three groups of enterprises. However, it is important to note that this increase in capital may not solely be driven by the SME loan. In the words of a client, "SME loan only adds momentum to already expanding business." On average, SME loans constitute 37 percent of the total capital of the borrowers. These figures for the new and repeat borrowers are 31 and 44 percent respectively.

Value of the business:

Average value of the businesses, measured by the amount for which the entrepreneur can sell the business, was Tk 1.84 million before taking loan. Presently, the average value of the business of these enterprises is tk 2.49 million. Increase in value of enterprises has been higher for repeat borrowers than new borrowers, as expected, since they are operating for longer durations. However, value of enterprises of the dropout clients has also increased and their initial values were higher than others. Figures of average growth in values by types of enterprises show that manufacturing units have observed the highest growth and agro processing firms grew at the least pace. However, SME loan is not the only factor behind this growth of business. After all, SME loan constitutes only 24 percent of working capital on average.

Sales volume:

Average yearly gross sales of the new, repeat and dropouts were Tk 4.29, 5.61 and 6.47 million before taking loan. Since Brac bank is providing much needed working capital to these enterprises, volumes of sales have increased for almost every borrower. On average, present sales of these enterprises are respectively 40, 67 and 26 percent higher compared to pre-loan period.

Breakdown of expenses:

Since most of the enterprises are involved in trading, it is not surprising that cost of goods purchased as raw materials or for sale accounts for more than 90 percent of their expenditure. Wage payments came out as the second major expense. Rents, power and utilities, and other operating expenses constitute the rest. A prevalent idea about business in Bangladesh is that informal and contingency payments in terms of extortion

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[1] Correlation of enterprise capital before loan and loan size is 0.34 and significant at 1 percent

and bribes are rampant. However, over 95 percent of the enterprises reported that they do not have to pay any sum under this heading. Although there are no significant differences between the enterprises that incur these expenses and those that do not in our sample, discussions with clients suggest that these expenses are prevalent only for larger enterprises.

Wage bill:

Wage bill reflects, to some extent, the labour intensity of a business organization. When a particular business firm expands, it is expected that its wage bill will also increase. On average, annual expenses in salaries and wages increased by Tk 16,000 for the sample enterprises after taking SME loan. Since the volume of trade has also increased during this period, share of wage in total expenses have not increased. For the enterprises under consideration, wage constituted 4.89 percent of their total expenses at pre-loan period. However, comparable present figure has declined marginally to 4.63 percent. This signifies that wage bill increased at lower rate than their total expenditure. Increases in wage bill and sales volume are positively correlated[2]. 55 percent of all the enterprises are spending same the amount as wage bill presently as they used to do before loan. However, about a quarter of these enterprises managed to increase their gross sales by at least one third. This indicates that there was some extent of underemployment in these enterprises and SME loan helped them, at least partly, to utilize this surplus labour.

Present loan size and future credit plans

Average size of the last loans of the repeat borrowers is understandably higher than that of the new borrowers and dropouts. On average, loan granted is about 85 percent of amount demanded by the borrowers, with enterprises in the service and trading sectors receiving relatively more (87-88% of amount requested) compared to those in manufacturing and agro processing sectors (82-83%).

80 percent of the total respondents (including dropouts) expressed their interest in taking future loans from Brac Bank. 17 percent of the existing borrowers, both new and repeat, are not keen about future loans. About 70 percent of the dropouts are still considering potential loans from Brac bank. A fair level of eagerness among the dropouts indicates that they have not dropped out voluntarily. However, the fact remains that currently they have no outstanding loans with Brac Bank. 23 percent of the dropouts claimed that they were refused repeat loans, 34 percent discontinued due to high interest rates, 13 percent switched to other banks/NGOs and 12 percent did not need further financing. Logit models on the willingness to take future loans show that ability to pay the installments regularly and satisfaction with SME scheme increase the probability of considering future cycles and availability of other credit sources reduces it.

Table 3: Who wants next loans?

	Coefficient	Wald t
Repay regularly (1 = Yes, 2 = no)	1.437***	11.09
Satisfaction (1 = least satisfied, 5 = most satisfied)	0.994***	43.35
Other sources available (1 = Yes, 2 = no)	-0.851***	6.61
Constant	- 0.527	.369
Cox & Snell R Square	0.132	

Dependent variable: Willingness to take future loans
*** significant at 1 percent level

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[2] Pearson correlation coefficient of increase in wage and increase in gross sales ('000 Tk.) is 0.326 and significant at 1 percent level.

In terms of growth plan, both new borrowers and dropouts are expecting bigger jumps in loan sizes compared to repeat borrowers. Repeat borrowers have, perhaps, adjusted their expectations from experience. Majority of new clients and dropouts would like to get their next loan increased by two thirds. It is interesting to note that fifty percent of the clients, who are considering next loans, think that they would have to apply for a greater amount of loan to get their desired size of loans. It was found that previous experience with amount applied for and amount granted is associated with their strategy of future application. The ratio of amount demanded and realized in the prior cycle is positively correlated with the ratio of future cycle plans.[3]

Uses and impact of loan

SME enterprises in Bangladesh chiefly require financing for three purposes – for start-up, for working capital, and for fixed capital. Unavailability of working capital from formal financial institutions is recognized as one of the major complaints of SMEs in Bangladesh (Meagher, 1998). The single most important use of Brac Bank SME loans is in the form of working capital. 89 percent of the clients reported that they used their loan for increasing working capital. Although the loan is used less for investment in fixed capital, discussions with clients revealed a demand for financing fixed investments, which will typically require a gestation period before the investment generates enough cash flow for repayment. According to the SME borrowers, given that the Brac Bank installment scheme is not suitable for fixed capital investment, almost all of it is used for working capital. In increasingly competitive markets, SMEs are under pressure to grow and diversify in order to hold on to their share of the market. One client drew a comparison between his enterprise with a balloon saying that after receiving loan from Brac Bank, his business expands like a balloon, but eventually shrinks down to its original size by the end of the loan tenure. Other uses of loan included buying vehicles, repairing shops, building houses and repaying previous loans.

When asked about the positive impacts of the loan on their businesses, clients in the FGDs came up with a list of areas. In order of importance, these were increased working capital, cash purchase, profits, sales, diversification of goods and services. Moreover, clients claimed that increased transactions facilitated by the loans have improved their status in the business community.

Clients claim that increased working capital has direct impact on the volume of sales. They are able to increase stocks and varieties and benefit from availing market opportunities. Many retailers expand business by starting up wholesale transactions. Transactions in credit are also facilitated due to the availability of cash. This allows entrepreneurs to purchase raw materials and goods for sale at lower prices, and also improve their relations with their buyers by offering sales on credit. Expansion of business and cash purchasing increases their status as businessmen, which facilitates future business deals. Interestingly, none of the clients mentioned having recruited new employees as an important impact of the loans. According to them, the labour hours is increased only by the entrepreneur himself, as he feels extra pressure for repaying the loan on time. As part of an exercise, we asked the clients present at the FGDs to rank the eight listed effects by order of importance. Increased efforts from the entrepreneur turned out to be the most important effect of the loan in almost all cases. Clients felt that they would not be putting in so much effort if they hadn't taken the loan.

VI. Employment generation
The principal aim of this paper is to investigate the nature of employment opportunities and the extent of employment generated by the enterprises after taking loans from Brac Bank. After stocktaking of the present employees of all the enterprises, it was found that a total of 2,398 people are working in the 495 enterprises

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[3] The ratios for future plans have been calculated by asking the clients how much they would like to take in the next cycle and what amount they would have to apply for to get the desired amount. The correlation coefficient of 0.29 is significant at 1 percent level.

(including the owners) averaging 4.84 people per enterprise (Table 4). According to the job responsibilities of the employees, more than one third of them are working as salespersons. While this type of job is concentrated in the trading sector, manufacturers mostly employ production workers who account for more than 20 percent of the total number of people. Relatively few people are engaged in skill intensive professions such as manager, accountant and technician. Though level of education among the technicians is lower than salespersons, they acquire their expertise through learning by doing.

Table 4: Stock of labor force

Type of work	Number of employees	Median years of schooling	Median Monthly Wage (Tk)	Male (%)	Median duration of work (months)	% with monthly salary contract	New jobs after loan
Salesperson	885 (36.9)	8	2000	99.5	36	94.0	150 (50.5)
Owner	584 (24.4)	10	-	99.1	-	-	-
Production worker	516 (21.5)	5	2500	91.5	36	49.0	85 (28.6)
Unclassified worker	157 (6.5)	2	1800	95.5	25	31.8	25 (8.4)
Manager	133 (5.5)	10	3500	100.0	48	93.2	13 (4.4)
Accountant	33 (1.4)	11	3150	100.0	42	93.9	6 (2.0)
Technician	26 (1.1)	5	3000	100.0	59	69.2	3 (1.0)
Others	64 (2.7)	5	3000	95.3	46	81.3	15 (5.1)
Total	2398	8	2500	97.4	36	75.0	297

Figures in parenthesis are the percentages of column total

Median wage of the different profession groups reflects the different level of skills required in those jobs. Unclassified workers receive the lowest amount of monthly salary among all the groups and managers receive the highest. On the whole, majority of the workers get Tk. 2,500 (equivalent to US$ 40) per month. However, median wage for women workers is Tk 2,000. This is because of the fact that women participate in low skilled and lower paid jobs. Overall participation of women in this labour force is limited with less than 3 percent of the workers are female. Median duration of work of the groups reveal that employee turnover is highest among the unclassified workers group and lowest among technicians. This supports the common understanding that the cost of turnover of low-paid unskilled workers is lower for the enterprises. This also reflects higher job insecurity among the unskilled workers.

People who are employed on monthly salary basis are considered to have relatively more secured salary and employment. While three quarters of all the people receive a monthly salary, that figure for unskilled workers is about 32 percent. Most of them are given salary on the basis of number of workdays. Technicians and production workers are paid on their amount of work.

The last column of Table 4 shows that 297 persons are employed in jobs that have been generated by the sample enterprises after taking loans. Share of these new jobs in the total number of employees (excluding entrepreneurs) is 16.4 percent.. Professional distribution of these new jobs to some extent follows the overall division of labour force of the enterprises. Half of the new jobs consist of salespersons. The next large category of work employing new workers is in the production jobs. While the number of jobs generated gives a useful indication of employment generation, it fails to reveal the amount of work done by these new recruits and the extent of change in labour hours among the old employees.

In order to capture the full extent of employment generation, we break down the employees for each enterprise into three groups – old employees (those who were recruited before the first loan), new employees (new jobs created after taking first loan) and replacements (those who were recruited after loan for positions

that existed before loan). Apart from the total hours generated by new jobs, we consider the change in daily labour hours of old employees and the difference in daily labour hours between employees who left after the loan and their replacements. Since 78 percent of the employees work 12 hours a day, it would be considered as 1 Labour Day (LD) in our calculations. If an enterprise employs one extra person who works 12 hours a day and 26 days a month while other employees' labour hours remains the same as before loan, that enterprise would be considered as generating 312 LDs in a year. Therefore,

Net Employment Generation (LDs in a year) = Total LDs from new jobs + change in LDs from old employees + difference in LDs between the replacements and the replaced[4]

Table 5: Employment generation by different categories of borrowers

	New	Repeat	Dropout	Total	Repeat vs New
Enterprises generating employment (%)	36	48	38	41	12*
Average employment generation (LDs)	151.27	249.19	213.70	202.02	97.91
Enterprises creating new jobs (%)	25	35	28	29	10
Average number of new jobs created	0.42	0.76	0.62	0.59	0.35*

*The mean difference is significant at 5 percent level

According to this definition of employment generation, it was found that 41 percent of the enterprises have generated employment (Table 5). Percentage of repeat borrowers generating employment is significantly higher than that of new borrowers which shows the possible effect of SME credit of Brac Bank on employment generation. Employment generation by the sample enterprises is 202 LDs per enterprise per year. This figure for repeat borrowers is the highest followed by dropout and new borrowers. 29 percent of all the enterprises created new jobs and the number of new jobs created is 0.59 per enterprise. It is noteworthy that more than fifty percent of the new jobs were created by repeat borrowers though they represent 38 percent of total number of enterprises. This suggests that the first loan has a lower impact on creation of new jobs than successive ones. This is in line with the comment of one of the borrowers - *'If I hire new employees at the first phase of growth, it is going to make me lazy. I would rather work longer hours myself before employing more workers.'*

Determinants of employment generation

Along with the extent of employment generation, the process through which employment is generated and the factors affecting the process are also important to identify for successful interventions. It is recognized that there is a significant credit constraint, restricting existing SMEs from scaling up. Therefore, the enterprises will require more labour force and thereby generate employment when their sizes of business operation expand. Here the size of business operation is estimated by the increase in gross sales volume.

Manufacturing units are usually perceived to be generating employment by higher amount compared to trading sector enterprises. This is because of the fact that capital-labour ratio is higher in trading businesses compared to manufacturers. Relative size of the enterprises can also affect employment generation following the accepted notion that larger enterprises generate higher amount of absolute employment, though the relative increase is lower than the smaller enterprises. Initial size of labor force of the enterprises can also play a role in subsequent employment generation from the enterprise's growth.

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[4] Since no incidence of job destruction in terms of less working hours or lay-off was observed, it has not been included in the equation.

As expected, growth in gross sales volume is positively associated with employment generation in the linear regressions (Table 6). Manufacturing units were found to be generating more employment even after controlling for capital labour ratio. Repeat borrowers might have generated higher amount of employment compared to new borrowers. When capital per worker is introduced (equation 2), the dummy for repeat borrowers becomes marginally significant with a significant negative coefficient of capital labour ratio. This exhibits that though the repeat borrowers generate more employment, their capital-labour ratio increase from continuous credit services. The key factor determining employment generation was found to be initial (before loan) size of labour force. Capital-labour ratio is basically the interaction of stock of labour and size of enterprise before loan. Therefore, introduction of these two factors make capital-labour ratio insignificant. The negative coefficient of size of enterprise supports the hypothesis that larger enterprises are less labour intensive.

Table 6: Factors affecting employment generation

Variables	Eq. 1	Eq. 2	Eq. 3	Eq. 4	Eq. 5	Eq. 6
(Constant)	99.947	135.695	-69.775	-71.373	-65.169	-137.937
	3.488	(4.379)	(-2.238)	(-2.522)	(-2.808)	(-3.017)
Growth of gross sales volume (Tk 000)	0.035*** (5.619)	0.037*** (5.882)	0.022*** (3.816)	0.022*** (3.863)	0.022*** (3.896)	0.022*** (3.868)
Manufacturing = 1, others = 0	303.740*** (5.219)	276.482*** (4.725)	32.601 (.603)	31.603 (0.589)	118.094* (1.721)	25.415 (0.476)
Repeat = , others = 0	40.770 (1.013)	66.921* (1.651)	16.286 (.460)	20.411 (0.592)	-	-
Drop =1, Others = 0	36.340 (0.772)	45.116 (0.969)	15.747 (.389)	18.942 (0.471)	-	-
Capital per worker (Tk 000)	-	-0.090*** (-2.907)	0.006 (.182)	-	-	-
total labour days before loan	-	-	0.172*** (12.910)	0.172*** (13.516)	0.176*** (13.723)	0.171*** (13.507)
size of enterprise	-	-	-0.030*** (-3.210)	-0.030*** (-3.503)	-0.030*** (-3.573)	-0.030*** (-3.506)
Manufacturing X Repeat	-	-	-	-	-169.992* (-1.794)	-
Length of membership	-	-	-	-	-	38.427* (1.949)
Adjusted R²	0.121	0.132	0.342	0.356	0.359	0.354
N	495	495	495	495	495	495

Figures in parenthesis are t values
*, **, *** denote significant at 10, 5 and 1 percent level respectively

The interaction term of repeat borrower and manufacturing unit (equation 5) yields a significant negative coefficient while manufacturing remains positive and significant. This suggests that manufacturers generate more employment at the early phase of growth while other sectors (mostly trading) generate at later phases. Length of membership of the enterprises, measured by the number of months after taking SME loan, is positively associated with employment generated, which demonstrates the importance of continuation of financial services for sustained effect on employment generation.

Determinants of increase in wage:

From the perspective of the employees as well as the owners of the enterprises, amount of wages paid to the workers is more important than the amount of employment generation. Therefore, it is worth exploring the factors having impact on increase in wage bills of the enterprises (Table 7). Extent of employment generated by the enterprises is understandably the key factor determining the increase in overall wage bill. However, the positive coefficient for repeat dummy is significant even after controlling for the extent of employment generation. The underlying cause may be that the intensity and/or productivity of the workers in the enterprises taking further loans have increased more than that of the new borrowers. This is reinforced by the positive coefficient of the interaction of manufacturing and repeat dummy.

Table 7: Factors affecting increase in wage

Variables	Eq. 1	Eq. 2
(Constant)	-8074.503	-7260.431
	(-2.674)	(-2.394)
manufacturing dummy	-2517.027	-15817.749*
	(-.404)	(-1.806)
repeat =1, others = 0	8558.078**	5830.082*
	(2.037)	(1.833)
Drop =1, Others = 0	8066.575	8571.387*
	(1.644)	(1.751)
growth of gross sales volume (Tk 000)	3.367***	3.434***
	(4.894)	(5.004)
Extent of employment generated (labour days)	76.119***	76.007***
	(16.107)	(16.142)
Manufacturing X Repeat	-	26045.303**
		(2.153)
Adjusted R²	0.428	0.436

Figures in parenthesis are t values

*, **, *** denote significant at 10, 5 and 1 percent level respectively

VII. Conclusion:

Innovations in addressing the credit market failures faced by poor households through microfinance have been a major development breakthrough of recent times. Micro and small enterprises have been shown in several studies to be largely underserved, giving rise to the term 'missing middle' in the literature. Yet, this is a critical market segment to support for both growth and poverty alleviation through employment generation. As a response to this demand and supply side changes in the traditional microfinance market, which has become significantly more 'crowded' in recent times, many microfinance providers in Bangladesh have started providing enterprise finance targeted at the small enterprises. Some formal banks have also started operating in this market. Brac established a licensed bank in 2001 with a view to supporting small and medium enterprises and since 2002 Brac bank has been providing small and medium enterprises credit. This paper is an early assessment of Brac bank's lending to small and medium enterprises with respect to employment generation.

We employ a fairly comprehensive method in order to capture the full extent of employment generation, by breaking down the employees for each enterprise into three groups – old employees (those who were recruited before the first loan), new employees (new jobs created after taking first loan) and replacements (those who were recruited after loan for positions that existed before loan). Apart from the total hours generated by new jobs, we consider the change in daily labour hours of old employees and the difference in daily labour hours between employees who left after the loan and their replacements. According

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to this definition of employment generation, 41 percent of the enterprises were found generating employment. Percentage of repeat borrowers generating employment is significantly higher than that of new borrowers which suggests a possible effect of SME credit of Brac Bank on employment generation. It is noteworthy that more than fifty percent of the new jobs are created by repeat borrowers though they represent 38 percent of total number of enterprises. This suggests that the first loan has a lower impact on creation of new jobs than successive ones, a finding that parallels impact assessment studies in microfinance. Thus the importance of sustained access to finance appears to be important from an employment generation perspective of SMEs.

Financing SMEs as a core business is still relatively new for formal financial providers in Bangladesh. This is fundamentally different to microfinance, which is essentially providing households with better money management facilities (Rutherford, 2001). Brac Bank's SME financing has quickly become its core product line and our analysis suggests that it is successfully financing growth of the SMEs supported, which in turn is generating employment. However, the product characteristics still appear to be more suitable for financing growth of relatively established trading based enterprises. Most of the investment being made is also in terms of increasing working capital. Future challenges of Brac Bank's SME lending operations would be to develop the right types of products to lend to manufacturing enterprises, and supporting fixed capital investments of SMEs. Such diversification would have greater potential of supporting growth and generating sustainable employment opportunities.

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