

The impact of commercial bank's characteristics on micro, small, and medium enterprises in India

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Abstract

The paper discusses the changes in the credit distribution to the micro, small and medium enterprises (MSME) sector. It analyses the relationship between commercial banking characteristics and its credit to the sector. It builds an econometric analysis on the relationship between share of credit to MSME and banking characteristics, namely the size, performance of bank, non-performing asset (NPA) out of MSME lending, and capital to risk weighted ratio (CRAR). It finds a negative relationship between the size of the bank and proportion of credit flows to the sector. It also finds that better performing banks are not interested in lending to the sector.

Abstrak

Makalah ini membahas perubahan dalam penyaluran kredit ke sektor usaha mikro, kecil dan menengah (UMKM). Makalah ini menganalisis hubungan antara karakteristik perbankan komersial dan kredit untuk sektor ini. Makalah ini juga menyusun analisis ekonometrik pada hubungan antara pangsa kredit untuk UMKM dan karakter perbankan, yaitu ukuran, kinerja bank, non-performing asset (NPA) dari pinjaman UMKM, dan modal untuk risiko rasio tertimbang (CRAR). Makalah ini menemukan hubungan negatif antara ukuran bank dan proporsi kredit yang mengalir ke sektor tersebut. Makalah ini juga menemukan bahwa bank berkinerja lebih baik tidak tertarik dalam memberikan pinjaman kepada sektor ini.

Introduction

The financing of micro, small and medium-size enterprises (MSMEs) has been a matter of great interest and concern both to policy makers and researchers. This is because of the significance of MSMEs in the economies of both developing and developed countries around the world. Banks are the main source of external finance for MSMEs across countries (Beck, Demirgüç-Kunt, & Maksimovic, 2008). The major problem for MSME particularly for MSE (Micro Small Enterprises) is their sole dependence on the banking system for institutional external finance. They cannot access capital market because of their relatively small size. Sulistya & Darwanto (2016) mention that high transaction costs becomes one of the obstacles for the MSEs to access banks financial loans.

An attempt to understand the trends in commercial bank's credit to MSMEs would be worthwhile. It will enhance the understanding of MSMEs financing from the supply side. The study will analyze, firstly, the trends in schedule commercial banks' credit to Small- scale industry sector/ MSMEs sector from 1970's to till 2010 and secondly, the influence of Size and performance of banks on the trends of credit to the MSME sector.

The conventional school of thought argues that 'supply-side' factors are at the root of the inadequate financing of MSMEs. The method of operation of different financial institutions, in particular banks, is such that they are biased against offering MSMEs financing. Many banks and financial institutions are not interested in servicing MSMEs (Torre, Soledad, Pería, & Schmukler, 2010).

Financial institutions including banks depend on the technical, managerial and marketing skills of borrowers to service the loan. MSMEs financing is mostly hampered by their 'opaqueness' (Torre et al., 2010; Berger & Udell, 1998; Cole, Goldberg, & White, 2004). It means it is difficult to ascertain if firms have the capacity to pay and the willingness to pay. Banks find problems in dealing with MSMEs due to lack of transparency and reliability of data, lack of financial discipline and inability to provide sound finan-

cial track record. It creates problem for the financial institutions and banks who engage in more impersonal financing. This kind of financing requires hard, objective and transparent information.

Relationship lending gives solution to the problem of opacity of firms. It is based on the 'soft' information gathered by the loan officer. Loan officer gathers information from his continuous and direct contacts and personal interaction with the managers and owners who run the Micro and small enterprises. It is also based on the officers' personal experience about the local community in which they operate. This is all to mitigate opacity problems. "A firms' credit history with the bank is the second most important criterion, with the owner's characteristics and the purpose of the loan being next in importance" (Beck et al., 2008).

A large literature such as Berger, Kayshap, & Scalise (1995); Keeton (1995); Berger & Udell (1996); Strahan & Weston (1996) had argued that small banks are more likely to finance SMEs because they are better suited to engage in 'relationship lending'. It is argued that small banks are close to the MSMEs, community or neighborhood. Small banks can provide finance to MSMEs through relationship lending. It is also argued that large banks are relatively less capable of collection and processing of information of the relevant sector because their headquarters are far away and it is not easy for them to handle personalized, community based nature of relationship lending. "Large banks are less willing to lend to informationally 'difficult' credits such as firms with no financial records"(Berger et al., 2005). Another form of credit to risky MSMEs is based on collateral. However, most of the time MSMEs do not have adequate collateral to get credit from commercial banks.

Research Method

The study analyses the credit to the MSME sector and various other indicators relating to the credit to the MSMEs from various issues of Basic Statistical returns, Statistical Tables Relating to Banks and Trends and Progress in Banking in India published by the Reserve Bank of India (RBI).

A descriptive analysis will be employed to look at the share and trends in the commercial bank credit to the MSMEs. A comparison of share and trends of this credit will be made with the share and trends in credit going to the total industry. A univariate analysis of share of MSE credit will be conducted by size and performance of banks. A two-way fixed effect model will be used to make the regression analysis of panel data of banks. It controls bank specific heterogeneity and the difference due to macroeconomic conditions over the years by taking into account the bank specific effect and the time fixed effect by introducing time dummies into the model respectively. To avoid heteroskedasticity, a robust variance estimator will be estimated. This will be done by using White's heteroskedasticity-consistent estimator.

The analysis on size classes and the regression on the relation between the credits flow to the MSE (Micro Small Enterprises) and banking characteristics are based on the data of public sector banks only. This is because bank wise data on MSE credit is available in the public domain only for the public sector banks. For the rest of the commercial banks, it is not available.

All the monetary figures are adjusted based on 2004-05 wholesale price indexes of manufacturing products. The public sector banks are divided into three size classes namely small, medium and large based on their total asset. Bank size is 'small' if total asset is less than Rs 35,000 crores, it is 'medium' if total asset is between Rs 35,000 crores to Rs.70, 000 crores and it is 'large' if total asset is above Rs.70, 000 crores.

Similarly the public sector banks are classified as performing 'poor', 'good' and 'very good' based on the Return on Asset (RoA). It is a profitability indicator of bank. Bank performance is 'poor' if RoA is less than 0.4 percent, 'good' if it is between 0.4 per cent to 0.9 percent and 'very good' if it is above 0.9 percent.

Result and Discussion

The performance of MSME sector

MSMEs play a key role in the development of economies with their effective, efficient, flexible and innovative entrepreneurial spirit. In India, the MSME sector spans non-agricultural sector of the economy subject to limiting factor size as defined in the MSME Act, 2006 in terms of original value of Plant & Machinery/ Investment. It is one of the vital sectors of the Indian Economy in terms of employment generation, providing strong entrepreneurial base. MSMEs, including khadi and village/rural enterprises are

credited with generating the highest rates of employment growth and account for a major share of industrial production and exports.

Table 1. SSI performance, 2006-07

Characteristics	Registered MSME	Unregistered MSME	Total MSME Sector
Size of the sector(in Lakhs)	15.64 (7.3)	198.74 (92.7)	214.38 (100)
Total employment(in Lakhs)	93.09 (18.5)	408.84 (81.5)	501.93 (100)
Total fixed investment (in Rs. Lakhs)	44913800 (65.1)	24081646 (34.9)	68995446 (100)
Total Gross Output (in Rs. Lakhs)	70751000 (65.7)	36970259 (34.3)	107721259 (100)

Source: Fourth Census Small Scale Industry, GoI, Ministry of Small Scale Industry, India.

The MSME sector contributes significantly to the manufacturing output, employment and exports of the country. It is estimated that in terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 per cent of the total exports of the country. The sector is estimated to employ about 501 lakhs persons in over 214 lakh enterprises.

The size distribution of the SSI sector is highly skewed. On the one hand, a large proportion of the SSI is under the unregistered sector and on the other hand, most of the total gross output is produced by the few units in the registered sector (Table 1). The unregistered sector gives most of the employment. The registered sector generated most of the total export.

Table 2. MSMEs performance: units, employment, investments, production and exports

Year	Total Working MSMEs	Employment	Fixed Investment	Production (current prices)	Exports
	Lakh numbers	Lakh persons	Rs. Crore		
2001-02	105.21	249.33	154349	282270	71244
	(4.07)	(4.44)	(5.11)	(8.03)	(2.07)
2002-03	109.49	260.21	162317	314850	86013
	(4.07)	(4.36)	(5.16)	(11.54)	(20.73)
2003-04	113.95	271.42	170219	364547	97644
	(4.07)	(4.31)	(4.87)	(15.78)	(13.52)
2004-05	118.59	282.57	178699	429796	124417
	(4.07)	(4.11)	(4.98)	(17.9)	(27.42)
2005-06	123.42	294.91	188113	497842	150242
	(4.07)	(4.37)	(5.27)	(15.83)	(20.76)
2006-07	261.12	595.66	500758	709398	182538
	(111.57)	(101.98)	(166.2)	(42.49)	(21.5)
2007-08	272.79	626.34	558190	790759	202017
	(4.47)	(5.15)	(11.47)	(11.47)	(10.67)
2008-09	285.16	659.35	621753	880805	N. A.
	(4.53)	(5.27)	(11.39)	(11.39)	
2009-10*	298.08	695.38	693835	982919	N. A.
	(4.53)	(5.46)	(11.59)	(11.59)	

Notes: The figures in brackets show the percentage growth over the previous year. The data for the period up to 2005-06 is Small Scale Industries (SSI). Subsequent to 2005-06, data with reference to Micro, Small and Medium Enterprises are being compiled. *: Provisional, N. A.: Not Available.

Source: Annual Report 2011-12, GoI, Ministry of Micro, Small and Medium Enterprises, India.

The performance in year 2006-07 cannot be analyzed with the previous years because of the change in the definition (Table 2). The annual growth rate of the number of working units is almost 4 per cent on year on year basis and that of the production at current prices is almost at 12 per cent or more than that. During the same period, employment increases in between 4 to 5 per cent. However, annual average growth rate of bank credit to the sector increased only at 7 per cent for the period 2000-2007 (Table 4).

MSMES and inadequacy of credit from commercial banks in India

Banking system is the most important component of the financial system in India. It has been an important source of external funding for firms. For example, commercial banks extend credit to firms in the manufacturing sector to cater to the needs of short-term and long-term investments. This is in the form of fixed and working capital, besides extending credit to various other economic units. These manufacturing firm shares are of varying size in terms employment, sales or total assets. There is a group of enterprises which is being classified as Micro, Small and Medium Enterprises (MSMEs) (Please refer to Appendix-I for the definition of MSME) by Government of India (GoI). Earlier to 2006, this group of Industry (excluding the medium size units) is being notified as Small Scale Industry (SSI) by the GoI.

The MSMEs sector faces a key market failure in the capital market (Mohan, 2002). These enterprises lack institutional finance for startup. They face higher cost of credit relative to large enterprises. Lack of proper credit assessment techniques and expertise, higher transaction cost and more importantly, the higher incidence of non-performing loans do not encourage the commercial banks to extend credit to the MSMEs sector (Rao, Das, & Singh, 2006)

Small scale industry (present day MSMEs) and inadequacy of finance are two terms that invariably go together in any discussion about the small scale enterprise sector. This phenomenon remains unchanged for more than four decades. Abid Hussain, P.J.Nayak, S.L.Kapur, S.P.Gupta, S.S.Kohli, and A.S. Ganguly, are some of the official committees that have gone into the problems of inadequate finance faced by the sector in the past few decades.

Analysis of trends in bank's credit to MSME sector vis-a-vis total industry

Table 3 and Table 4 present the growth in bank credit to MSME vis-à-vis the growth in credit to industry and total bank credit for the period 1973-1990 and 1991-2010 respectively. While the average annual growth of credit to MSME sector was 12.1 per cent during 1973-1980, similar growth of credit to total industry was at 8.5 percent and that of total credit was at 12 per cent. Thus, credit to MSMEs witnessed a same growth rate as that of total credit and higher growth rate as that in credit to total industry for the period under review. For the period 1981-1990, the credit to MSMEs witnessed a higher growth rate as that of credit total industry and total credit.

For the period 1991-2000, the credit to MSMEs witnessed a low growth rate as that of credit to total industry and of total credit. However, during the period 2000-2007, the average annual growth of credit to MSME was 6.9 percent, growth of credit to total industry was high at 15 per cent and that of total credit was at 18 percent. Thus the credit to MSMEs witnessed significantly low growth rate as that of credit to total industry and of total credit. By observing the average annual growth rate of credit to MSME, credit to total industry and total credit over the four different periods; the growth rate of credit to MSME sector is witnessing significant slowing down whereas that of credit to total industry and that of total credit, there is significant increase during the same periods.

It is also observed from the Table 3, the annual growth rates for the period 1973- 1990 of credit to the MSME sector fluctuated widely between -8.0 per cent and 32.1 per cent compared with the range of -8.1 per cent to 17.6 per cent for total industry. For the period 1991-2007, the annual growth rates in credit to the MSME sector fluctuated widely between -5.0 per cent and 17.5 per cent compared with the range of -0.8 per cent to 25.6 per cent for total industry (Table 4).

The behavior of share of credit to total industry in total bank credit and that to MSME sector in total bank credit for the period 1973-1990 can be observed from Table 3. The share of credit total industry in total bank credit was fluctuating 59 per cent to 41 per cent with an overall declining trend 57 per cent in 1973 to 49 per cent in 1990. During the same period, the share of credit to total MSME Sector in total bank credit was fluctuating in a narrow band of 11 per cent 14 per cent and over the period it was consistent. For the period 1991 – 2007, share of credit to total industry in total bank credit was almost consistent till 1999 at 48 per cent to 49 per cent and there after it declined from 46 per cent in 2000 to 38 per cent 2007. During the same period the share of MSMEs was declining continuously from 13 per cent in 1991 to just 4 per cent in 2007 (Table 4). This is a significant decline in share of credit going to the MSMEs.

Credit to the MSMEs is declining both in terms of both in share of total credit and in its growth rate over the period. This decline in credit to the MSMEs is likely to affect the growth of the sector and consequential employment and income generating capabilities by this sector. Therefore, it is very crucial to look into the factors those are creating problems and inhibiting the flow of credit to MSMEs sector.

Table 3. Growth in total bank credit to industry and MSE sector from 1973 to 1990

Year	Growth Rate in Bank Credit			Per Cent Share in		
	Total	To Total Industry	To MSME Sector	Total Bank Credit	Total Industry	Total Industry
				Total Industry	MSME Sector	SSI Sector
1973				57	12	21
1974	10.4	13.7	15.8	59	13	21
1975	-6.9	-8.1	-8.0	58	13	22
1976	27.8	10.2	10.6	50	11	22
1977	12.6	7.2	14.7	48	11	23
1978	16.0	15.3	24.2	48	12	25
1979	19.9	17.6	22.7	47	12	26
1980	-7.5	-5.0	-7.3	48	12	25
1981	-2.1	0.1	2.1	49	13	26
1982	13.1	9.0	9.2	47	12	26
1983	14.3	14.7	6.1	48	11	24
1984	16.6	3.9	32.1	42	13	30
1985	7.8	5.2	14.4	41	14	33
1986	6.1	9.5	-0.4	43	13	30
1987	9.3	13.9	7.1	44	13	28
1988	4.3	9.4	16.0	47	14	30
1989	12.9	14.6	14.1	47	14	30
1990				49	12	25
Average Annual Growth Rate						
1973-1980	12.0	8.5	12.1			
1981-1990	8.2	8.0	10.1			

Source: Volumes of Banking Statistics released under Basic Statistical Returns system, RBI.
Basic Statistical Returns of Schedule Commercial Banks (various issues), RBI

Table 4. Growth in total bank credit to industry and SSI sector from 1991 to 2010

Year	Growth Rate in Bank Credit			Per Cent Share in		
	Total	To Total Industry	To MSME Sector	Total Bank Credit	Total Industry	Total Industry
				Total Industry	SSI Sector	SSI Sector
1991	9.8	7.2	17.5	48	13	28
1992	-1.1	-0.8	-5.2	48	13	27
1993	7.1	9.2	0.2	49	12	24
1994	0.4	-0.5	1.2	48	12	25
1995	6.8	1.2	-3.3	46	11	24
1996	11.2	17.1	10.2	48	11	22
1997	9.4	12.5	2.6	49	10	20
1998	12.8	11.6	3.8	49	9	19
1999	11.0	11.8	6.5	49	9	18
2000	17.1	10.8	8.3	46	8	18
2001	13.3	7.1	0.0	44	7	16
2002	19.6	12.8	-5.4	41	6	14
2003	12.3	11.1	11.9	41	6	14
2004	10.2	2.3	-5.0	38	5	13
2005	23.2	25.6	15.6	39	5	12
2006	28.3	23.7	14.6	37	4	11
2007	21.7	24.0	16.4	38	4	10
2008	33.1	19.4		34		
2009	-1.3	15.1		40		
2010	14.9	16.8		41		
Average Annual Growth Rate						
1991-2000	8.5	8.0	4.2			
2000-2007	18.4	15.2	6.9			

Source: Volumes of Banking Statistics released under Basic Statistical Returns system, RBI.
Basic Statistical Returns of Schedule Commercial Banks (various issues), RBI

Table 5. Share of MSE in total bank credit according to size of public sector banks

Year	Size of Bank		
	Small (%)	Medium (%)	Large (%)
1998	16	15	13
1999	18	13	14
2000	17	11	12
2001	16	11	9
2002	17	8	9
2003	10	9	10
2004	9	9	9
2005	9	8	9
2006	9	7	8
2007	9	6	7
2008	8	6	6
2009	6	6	5

Source: based on own calculation using data of various issue of Statistical Tables Related to Banks published by RBI

Analysis bank credit to MSE by size of scheduled commercial banks

Usually, the small firms do not have financial records. Large banks do not want to take risk and lend to informationally 'difficult' credits such as firms with no financial records. Small banks are more interested in MSMEs because they can overcome MSMEs opaqueness through relationship lending.

Table 5 presents the credit going from the public sector banks, including State bank of India and Nationalized banks, to MSE as a percent of total bank credit according to the size of the banks. It can be observed from the table that the percentage of bank credit going to MSE from large banks is less whereas that from the small banks is higher. The small banks are providing higher share of credit to the sector. The results from the table also add to the point that the credit going to the MSE is declining at high rate over time irrespective of the size of the banks.

The effect of bank size and performance on credit to MSE

This section will examine whether the size and performance of commercial banks has any effect on their credit extension to the micro small enterprises. The performance of banks has been measured in terms of return on asset (RoA). RoA is defined as the ratio of net profit to average assets of bank. It is a profitability indicator of bank. This indicator is calculated out of the data of the balance sheet and income & expenditure account.

By splitting the public sector banks into small, medium and large size based on their total asset, it is observed that RoA has increased and reached highest point during 2003 and 2004. It was above 1 per cent in the year 2003 and 2004 for large banks, in the year 2003 to 2009 for medium size banks and in the year from 2003, 2004 in case of small banks. A comparison across sizes shows that it is higher for small banks during 1999 to 2003 and during 2004 to 2011; it is higher for medium size banks (Table 6).

Table 6. Return on asset according to size of banks

Year	Size of Bank		
	small	medium	large
1999	0.61	0.57	0.46
2000	0.69	0.43	0.80
2001	0.53	0.27	0.53
2002	0.78	0.68	0.82
2003	1.07	1.02	1.06
2004	1.32	1.26	1.26
2005	0.81	1.16	0.84
2006	0.61	1.13	0.73
2007	0.84	1.04	0.85
2008	0.96	1.04	0.93
2009	1.01	1.04	0.92
2010	0.91	0.98	0.97
2011		0.90	1.02

Source: related tables form various issue of Statistical Tables Related to Banks published by RBI

There is steep decline in share of MSE credit in total bank credit across all type of performance of the bank (table 7). It is observed a negative relation between the share of MSE credit and performance of the bank except for year 1999 and 2000. This might be because the banks with better profitability putting their credit to more profitable venture and projects. However, irrespective of the performance of the banks, the results from the table also add to the point that the credit going to the MSE is declining at high rate over time.

Table 7. Share of MSE in total bank credit according to size of banks

Year	Performance of bank		
	Poor (%)	Good (%)	Very Good (%)
1999	14	18	16
2000	13	17	16
2001	18	11	10
2002	25	12	11
2003	15	10	10
2004	14	-	9
2005	11	9	8
2006	9	7	8
2007	-	7	7
2008	12	6	6
2009	5	6	6

Source: based on own calculation using data of various issue of Statistical Tables Related to Banks published by RBI

Table 8. Average Share of MSE in total bank credit for the period 1999 to 2009 (average percent)

Performance of bank	Type of bank		
	Small	Medium	Large
poor	17	12	7
good	14	8	7
Very good	12	8	8

Source: based on own calculation using data of various issue of Statistical Tables Related to Banks published by RBI

The small bank with poor performance have higher share of MSE credit to total bank credit (Table 8). Size and performance of banks have negative relation with the share of credit going to the MSEs.

Econometric evidence

The above analysis is based on the univariate cross-tabulation approach. To understand and substantiate the results under the univariate approach better, the inter-relationships among the determinants of MSME lending and other financial parameters of bank, a multivariate regression framework is employed. This will also take into account the inadequacy of the univariate approach such as its inability to address the above mentioned inter-relationships among share of credit to MSE, size and performance of bank as bank characteristics would be correlated with each other.

Among the different bank characteristics, that can determine the proportion of lending to MSE sector, are size of the bank (log of total asset of the bank), the proportion of NPA arising from MSME lending (NPA_MSE_CREDIT), average return to asset (RoA) and capital to risk weighted ratio (CRAR). The proportion of MSE lending is measured by ratio of MSE credit to total credit. Based on Rao et al. (2006), the inter-relationship is captured by the following two-way fixed effect model as follows:

$$(\text{Credit to MSE/total credit})_{it} = \beta_0 + \beta_1 \text{size of bank}_{it} + \beta_2 \text{MSENPA}_{it-1} + \beta_3 \text{CRAR}_{it-1} + \beta_4 \text{RoA}_{it-1} + \alpha_i + d_t + \varepsilon_{it}$$

where $\beta_0, \beta_1, \dots, \beta_4$ are parameters to be estimated; $(\text{Credit to MSE/total credit})_{it}$ is the ratio of credit to MSE to total Credit of the bank in period t ; size of bank_{it} is the log of total asset of bank in period t ; MSENPA_{it-1} is NPA arising from MSE lending of the bank in the period $t-1$; CRAR_{it-1} is capital to risk-weighted asset ratio of the bank in period $t-1$; RoA_{it-1} is return on asset of the bank; α_i is bank specific time invariant effects and this allows for heterogeneity across banks, this is part of intercept, and varies across individuals; d_t is the year dummies to control the difference in macro-economic conditions (time specific effect); ε_{it} the error term or the disturbance term, varies across banks and time period.

This model is based on panel data of 243 observations over the nine years period from 2001 to 2009 on the above mentioned bank characteristics. Since bank wise data on NPA from MSE lending is available from 2001 to 2009, the time period is taken so. The data is compiled from various issues of Statistical Tables Related to Banks and Reports on Trends and Progress of Banking in India published by RBI. The information, about above mentioned variables, is available only for public sector banks. For example, the bank wise data on MSE credit is available in the public domain for only public sector banks. The result of regression of this model is presented in the Table 9.

The large banks are lending less credit to the MSE than the small banks. There is a positive relation between the non-performing asset arising from MSE lending and amount of lending to MSE. This may be because of the fact that the lending to MSE is part of priority sector lending and they have to lend them under statutory pressure. The earlier period performance, as measured by the RoA, has negative effect on the lending to MSE. This means if the bank is performing well in the previous year, it is more likely that it will reduce the lending to MSE.

Table 9. Results of panel regression of determinants of MSE credit of public sector banks

Variables and Name of Parameters	Estimated Coefficient and Parameters
Size of bank	-2.484** (1.180)
lag1_NPA_MSE_CREDIT	0.157* (0.0837)
lag1_CRAR	0.221 (0.228)
lag1_RoA	-3.546** (1.401)
Constant	36.14*** (11.34)
Observations	216
R-squared (within)	0.235
R-squared (between)	0.129
R-squared (overall)	0.205
Number of bank	27
Firm FE	YES
Year FE	yes
Adj. R-squared	0.194
F-test	5.511

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The findings are pointing to the reasons behind declining volume and trends of credit to the MSE. These are more associated to the fact that firstly, MSE credit is less profitable for the banks; secondly, higher transaction and monitoring cost associated with MSE lending; thirdly, opaqueness of micro, small enterprise leading information gap between banks and performance of the MSE. The first reason is implied from the finding by negative causal relation between the NPA of MSE lending and proportion of MSE lending going to the sector. The second and third reasons are implied from the findings like negative relation between size of the bank and proportion of MSE credit and positive causal relation between performance of bank and proportion of credit going to the sector.

Conclusion

The share of credit to MSME to total credit had declined from 12 percent in 1973 to 4 percent in 2007. Similarly, the share of credit to MSME to the credit distributed to the industry had also declined 21 per cent in 1973 to 10 percent in 2007. The comparison between the share of credit flows to industry and share of credit flows to MSME in total credit showed the fact that former's share was always more than 40 percent in the period 1973 to 2010, but the share of latter was always less than 14 percent and all the more it has declined to a great extent over years.

The size and performance of the banks appeared to have impact on the credit disbursal to Micro and small enterprises negatively. The percentage credit was higher for the small banks compared to the

medium and large size banks. The 'poor' performing banks had higher share of MSE credit. Moreover, the small bank with poor performance had higher share of MSE credit.

The percentage of credit flew to the sector was declining continuously across all size of banks. There was also general decline in credit to the sector irrespective of performance of the banks. It gave enough indication that the decline in credit to the sector was mostly related to the changes in economic environment, like policy changes in general and perceived riskiness of banks in offering credit to the MSEs in particular.

The negative relationship between the size of the bank and proportion of credit going to the sector was also found from the empirical relation. The amount of credit flowing to the sector was mostly because of the mandatory requirement on the part of the bank to lend to the sector. This was supported by the positive relation between NPA from MSE lending and the share of lending to the sector. The empirical finding also supported the fact that the better performing banks were not interested in lending to the sector (negative empirical relation between performance of banks and proportion of credit going to the sector).

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Appendix I

The present definition of MSEs under Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 is as follows. It recognized the concept of 'enterprise' to include both manufacturing and service sector besides, defining the medium enterprises.

The enterprises engaged in the manufacture or production, processing or preservation of goods as specified below:

- (i) A micro enterprise is an enterprise where investment in plant and machinery does not exceed Rs. 25 lakh;
- (ii) A small enterprise is an enterprise where the investment in plant and machinery is more than Rs. 25 lakh but does not exceed Rs. 5 crore; and
- (iii) A medium enterprise is an enterprise where the investment in plant and machinery is more than Rs.5 crore but does not exceed Rs.10 crore.

Enterprises engaged in providing or rendering of services as specified below

- (i) A micro enterprise is an enterprise where the investment in equipment does not exceed Rs. 10 lakh;
- (ii) A small enterprise is an enterprise where the investment in equipment is more than Rs.10 lakh but does not exceed Rs. 2 crore; and
- (iii) A medium enterprise is an enterprise where the investment in equipment is more than Rs. 2 crore but does not exceed Rs. 5 crore.