10. Determinants of Access to Institutional Credit for Small Enterprises in India

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1. Introduction

Financial inclusion emerges as a major policy concern in both developed and developing countries. India is no exception. Since the government has put stress on inclusive growth in the Eleventh Five Year Plan (2008-12), financial inclusion has been emphasised as well.[1] This is partly because there is a criticism that the progress of financial sector reform as part of economic liberalisation and the development in banking technology such as ATM, credit card, and internet banking has been leading to a growing divide between the rich and the poor in access to banking services.

Since the nationalisation of major commercial banks in 1969, commercial banks have been shaped to meet the socio-economic objective of balanced and equitable economic development. The quantitative targets have been set for commercial banks to expand their branches in rural areas and to allocate their credit to the vulnerable, called the 'priority sector', which consists of agriculture, small scale industries (SSIs), and other weaker sections. This role of banks in extending financial service to the poor has come to be known as 'social banking'.

Financial sector reform has initiated since the beginning of the 1990s. In order to create an efficient and profitable banking sector, greater operational flexibility and autonomy has been provided to commercial banks to meet such targets. As a result, the number of branches in rural areas has been decreasing, while the number of branches in urban and metropolitan areas has been increasing. Commercial banks have preferred to get around the priority sector lending requirement by subscribing to other eligible instruments, while they have been keen on retail banking.

Authorities such as the Government of India (GOI) and the Reserve Bank of India (RBI) have tried to grapple with this situation by setting up various working groups/committees/task forces and monitoring quantitative targets closely since the middle of the 2000s.[2] But question that comes to mind is the problem of financial exclusion can be solved by such supply-driven policies alone? While expanding bank branches in underbanked areas and setting credit allocation targets for the vulnerable may be a necessary condition for financial inclusion, it is not a sufficient

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[1] The Government of India (2008) defines financial inclusion as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as the weaker sections and low-income groups at an affordable cost. Sarma (2008) defines financial inclusion as a process that ensures ease of access, availability, and usage of the formal financial system for all members of an economy, considering several dimensions of financial inclusion. Sarma and Pais (2011) compute the multidimensional Index of Financial Inclusion and compare the extent of financial inclusion across economies.

[2] GOI (2004; 2006; 2008; 2009), RBI (2004; 2010).

condition. The aim of our paper is to find out a new direction in order for the authorities to implement these policies more effectively in the post-liberalisation period, where commercial banks tend to seek their own profitability rather than to achieve the national goal.

There are many studies which discuss access to institutional credit for agriculture and rural households within the priority sector.[3] On the other hand, there are few studies which discuss access to institutional credit for SSIs, though they are a vital sector for extracting India from a 'jobless growth' situation. Considering India's demographic transition, the growth rate of the working-age population will exceed that of the total population over the next decades, which fact reduces the burden of young and elderly dependents. Using the 'demographic dividend (gift)', India can continue with strong economic growth through the channels of increase in labour force, saving, and investment. However, this can be possible only if the economy provides its coming labour forces with productive jobs.[4]

Thus, we confine our focus to the SSI sector (currently the micro, small and medium enterprises (MSME) sector) which comprises 26.1 million enterprises and forms the second largest source of employment with 59.7 million people. The sector currently contributes 8% of GDP and accounts for 45% of the total manufacturing output and 40% of the total export. This fact, coupled with a high labour-to-capital ratio and high regional dispersion, makes this sector essential for achieving the objective of inclusive growth (DC (MSME), 2009).

This paper is organised as follows. Section II summarizes the role of SSIs and the banking sector in India's economic planning and gives a historical overview of credit support policies for SSIs, which are considered to belong to the vulnerable. In Section III, we show the theoretical framework of why smaller enterprises cannot access institutional credit adequately and review earlier works in this context. In Section IV, we attempt an empirical investigation into the factors affecting credit availability in the context of India's small enterprises. Section V concludes with some policy implications.

2. The role of SSIs and the banking sector in India's development planning

After Independence, rapid and equitable economic development among regions and citizens became an objective of development planning. In this context, both SSIs and financial intermediaries such as the banking sector[5] played a very important role in India's socio-economic development in the pre-liberalisation era.

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[3] For example, Kamath et al. (2010), Shah et al. (2007), Binswanger and Khandker (1992), Binswanger et al. (1993), Burgess and Pande (2005), Basu (2005), and Basu and Srivastava (2005).

[4] The notion of dependency ratio can be traced back to Coale and Hoover (1958). Bloom and Williamson (1998) showed that demographic gift had contributed substantially to East Asia's economic miracle by introducing demographic variables into an empirical model of the economic growth.

[5] The financial intermediaries in India consist of the banking sector and non-banking financial institutions. The banking sector comprises commercial banks and cooperative banks. (Scheduled) commercial banks are further classified into domestic banks (public- and private-sector banks), foreign banks, and regional rural banks (RRBs). On the other hand, non-banking financial institutions, which follow a different regulation from the banking sector, comprise non-bank financial companies, development financial institutions (DFIs), and primary dealers.

With regard to the SSI sector, in order to generate employment and to promote regional dispersion and equal income distribution, the government has supported the sector through various preferential policies. On the other hand, the banking sector has been formulated to mobilize saving in rural areas and deliver credit to the vulnerable including SSIs.

Although economic and financial liberalisation started in 1991, it did not mean the end of their roles. The Eleventh Five Year Plan (2008-12), whose theme is inclusive growth, describes SSIs as instruments of inclusion. And the Rangarajan Committee on Financial Inclusion set up by the government recommends that commercial banks play a vital role in financial inclusion through effecting improvements in products and services to meet the needs of the poor with the existing branch network and funding support for promotion of micro finance (GOI, 2008).

In this section, we describe the importance of both the SSI sector and the banking sector in the Indian economy and the evolution of credit policies for SSIs as part of the priority sector.

2.1. SSIs

The following factors often are cited to show the importance of SSIs in the Indian economy. The first factor is their contribution to the economy, because SSIs currently account for 8% of GDP, 45% of the total manufacturing output, and 40% of the total export. The second factor is their potential for employment generation because they tend towards a higher labour-to-capital ratio compared to large industries. The third factor is that SSIs tend towards higher regional dispersion and are more owned by the socially backward classes. These factors taken together made the sector imperative for achieving balanced and equitable economic development. Thus, the government has supported SSIs through various preferential policies such as credit policies, reservation of products for exclusive manufacture by SSIs, and purchase preference by government agencies since the 1950s. A series of credit policies for SSIs, which we discuss here, have been one of the most long-standing policies among them.

SSIs have faced severe competition from foreign firms since the 1990s, because the reservation policy[6] has been deregulated dramatically along with the abolition of quantitative import restriction under the WTO. However, they have been increasingly expected to act as a dynamic engine of a growing economy using their flexible and innovative nature to make cost-effective products and services as well.

In tune with the changing environment surrounding SSIs, the Micro, Small and Medium Enterprises Development (MSMED) Act was enacted in 2006 and ‘small scale industries (SSIs)’ were renamed ‘micro, small and medium enterprises (MSMEs)’.[7] Under the Act, the paradigm

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[6] The reservation policy was introduced in 1967 by creating a list of items that would be reserved for production exclusively for SSIs. Once an item was placed on the list, new medium and large industries were not allowed to enter and the production capacity of existing medium and large industries was frozen. For more details on the preferential policies for SSIs, see Tendulkar and Bhavani (1997), Nikaido (2004), and Mohan (2001).

[7] Prior to enactment of the Act, the principal act for the promotion of SSIs was the Industries (Development and Regulation) Act (IRDA) 1951, which provided a basic framework for the promotional measures of SSIs. The Interest on Delayed Payments to Small Scale and Ancillary Industrial Undertakings Act 1993 supported IRDA to ensure timely payments to SSIs. However, the need was felt for a comprehensive framework for the sector and

Table 1: Definitions of SSIs/MSMEs before and after Enactment of the MSMED Act 2006

Prior to the Act

SSIs	Manufacturing Sector (Investment in plant and machinery)
Small Scale Industries (Knitted, sports, and pharmaceutical goods)	Up to 1 crore (Up to 5 crore)

Under the Act

MSMEs	Manufacturing Sector (Investment in plant and machinery)	Service Sector (Investment in equipment)
Micro enterprises	Up to Rs. 25 lakh	Up to Rs. 10 lakh
Small enterprises	Above Rs. 25 lakh and up to Rs. 5 crore	Above Rs. 10 lakh and up to Rs. 2 crore
Medium enterprises	Above Rs. 5 crore and up to Rs. 10 crore	Above Rs. 2 crore and up to Rs. 5 crore

Source: DC (MSME) (2009)

shifts that took place are these: (1) the globally well-known concept of 'enterprises' was adopted instead of that of 'industries';[8] (2) the scope was expanded to medium enterprises; (3) Khadi and Village Industries Commission (KVIC) enterprises, coir board enterprises, and handloom and handicraft enterprises, which had not been part of the SSI sector before, were added into its fold; and (4) the rapidly growing service sector such as retail trade enterprises was included in the ambit as well.[9]

Table 1 shows the definition of the sector before and after enactment of the Act. MSMEs in the manufacturing sector are currently defined in terms of enterprises whose investment in plant and machinery does not exceed 10 crore, whereas MSMEs in the service sector are currently defined as enterprises whose investment in equipment does not exceed 5 crore. The investment limits within the MSME sector are also given in Table 1. It is necessary for enterprises falling under the ambit of the MSME sector to voluntarily register at the District Industries Centres (DICs) of the State/UT Directorates of Industries to enjoy the preferential policies. As shown in Table 2, the number of registered enterprises and unregistered enterprises is 1,552,492 (only about 6% of the total MSMEs) and 24,548,305 (about 94% of the total MSMEs), respectively. Due to inclusion of the service sector, 28.6% of the total MSMEs are engaged in manufacturing, while the rest of the 71.4% are engaged in services. Even though service enterprises outpace manufacturing enterprises in respect of the number of enterprises, we confine our analysis and discussion to micro and small manufacturing enterprises corresponding to former SSIs for two reasons.

First of all, manufacturing enterprises have more potential to create jobs relative to service enterprises. As seen in Table 2, 51.1% of total workers are employed in the manufacturing sector

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consequently, the government enacted the MSMED Act 2006 to ensure that all related regulations are covered under a single head (SIDBI, 2010).

[8] Industrial classifications in India had been divided into large/medium industries and small industries. Small industries comprised the traditional sector such as KVIC, coir board, handloom and handicraft, and the modern sector such as SSIs and power loom.

[9] So far, only service activities such as repair and maintenance (called 'industry-related service and business enterprises') have been included in the sector. After the enactment of the MSMED Act 2006, all other service activities such as wholesale and retail trade, and hotels and restaurants were included within the scope.

Table 2: Summary Result of Fourth All-India Census of MSMEs with Reference Year 2006-07

	Registered		Unregistered		Total MSMEs	
1. Total no. of working enterprises	**1,552,492**	**100.0%**	**24,548,305**	**100.0%**	**26,100,797**	**100.0%**
(a) manufacturing	1,035,102	66.7%	6,418,294	26.1%	7,453,396	28.6%
(b) services	517,390	33.3%	18,130,011	73.9%	18,647,401	71.4%
2. No. of rural enterprises (2/1)	**704,551**	**45.4%**	**12,808,326**	**52.2%**	**13,512,877**	**51.8%**
3. No. of SC/ST/OBC enterprises (3/1)	**767,742**	**49.5%**	**12,615,735**	**51.4%**	**13,383,477**	**51.3%**
4. Total employment	**9,203,664**	**100.0%**	**50,257,039**	**100.0%**	**59,460,703**	**100.0%**
(a) manufacturing	7,984,321	86.8%	22,422,264	44.6%	30,406,585	51.1%
(b) services	1,219,343	13.2%	27,834,775	55.4%	29,054,118	48.9%
5. The per unit employment (4/1)	**6**		**2**		**2**	
(a) manufacturing	8		3		4	
(b) services	2		2		2	

Note: The 'registered sector' means all enterprises registered with District Industries Centres(DICs), the Factory Act (ASI enterprises), KVIC/KVIB, and the Coir Board up to 31 March, 2007. the 'unregistered sector' means the rest of enterprises which are egilible for registration as MSMEs but were not registered as of 31 March 2007.

Source: DC (MSME) (2009)

and per unit employment in the manufacturing sector is higher than that in the service sector. India's economic growth in the past decade has been led by services and capital-intensive manufacturing whose contribution to employment has not been enough to absorb the abundant labour. In order to get India out of 'Jobless growth' and to create jobs for those who will enter the labour force, stimulating growth in labour-intensive manufacturing is imperative for India to enjoy 'demographic dividend (gift)'. Second, as the experience of East Asian countries such as Japan and Taiwan shows, competitive and innovative small and medium manufacturing enterprises are essential as a foundation for catching-up industrialisation.

2.2. The banking sector

Banking in the colonial period was perceived to be biased in favour of working capital to trade and large enterprises in urban areas and against agriculture and small enterprises in rural areas (Joshi and Little, 1996). After independence, towards attaining the objective of rapid and equitable economic development, the government tried to deliver financial services to the vulnerable in rural areas through cooperative banks and commercial banks.

The All India Rural Credit Survey (AIRCS), which was carried out in 1954, found that formal financial institutions provided less than 9% of rural credit needs. Informal sources such as moneylenders, traders, and rich landlords accounted for a major part of rural credit. Cooperative banks with a wide reach had already been in existence for fifty years but their share in rural credit was still less than 5% and they were found to be saddled with the problem of frozen assets because of overdue.[10] Even so, the then AIRCS Committee visualised cooperatives as the sole agency for

[10] Cooperative banks in India can be traced back to the late nineteenth century. The passing of the Cooperative Credit Societies Act in 1904, and then the enactment of the more comprehensive Cooperative Societies Act in 1912, marked the beginning of government policy of active encouragement and promotion of cooperatives (GOI, 2004).

delivering institutional credit to rural areas and recommended state partnership in terms of governance and management as well as equity. Besides, the Committee recommended the creation of one strong commercial bank by amalgamating the Imperial Bank of India and the major state-associated banks in order to take over cash work from informal sources and provide vast remittance facilities for cooperative banks by expanding branches in rural and semi-urban areas. Thus, the Imperial Bank of India was nationalised and redesigned as the State Bank of India (SBI) in 1955, and SBI then took over eight former state-associated banks as its subsidiaries in 1959 (RBI, 1954; GOI, 2004; Shah et al., 2007).

However, the desired objectives were not being met, because cooperative banks lacked resources and did not perform well.[11] The involvement of commercial banks emerged as an alternative social control measure. Fourteen major commercial banks were nationalised in 1969, so that twenty-two nationalised banks including the SBI group which accounted for 86% of total deposits were brought under the control of the authorities. After six more commercial banks were nationalised in 1980, the share of public-sector banks in total deposits increased to 92% (Krishnaswamy et al., 1987; Sen and Ghosh, 2005). Since then, public-sector banks have been shaped as major instruments for attaining the socio-economic objective. Over the years, private-sector banks have also been asked to get involved in achieving the goal.

Further, regional rural banks (RRBs) were established in 1975 with the objective of ensuring sufficient rural credit for small and marginal farmers, agricultural labourers, and rural artisans. RRBs are jointly owned by the government, the concerned state government and sponsored public-sector banks. The areas of operation of RRBs are limited to areas designated by the authorities covering one or more districts (GOI, 2008). Because of their proximity and wide reach with 14,000 branches, RRBs have been one of the main sources of credit for the vulnerable in rural areas (SIDBI, 2010).

2.3. Major policy directives to improve access to institutional credit for SSIs

The banking sector has been asked to extend financial services to the vulnerable including SSIs through the branch licensing policy and priority sector lending policy. The banking sector with its extensive network of branches dominates in the supply of institutional credit to SSIs. Commercial banks including RRBs and cooperative banks currently provide SSIs with 91.2% and 6.5% of total institutional credit.[12]

Branch authorisation policy

In order to ensure the geographical spread of banking services in underbanked areas, opening,

[11] As the financial involvement of the state government increased, its interference in all aspects of the function of cooperative banks also increased. Interference with the functioning of cooperative banks, often compelling them to compromise on the usual norms for creditworthiness, ultimately affected the quality of the portfolios of the cooperative banks. As a result, cooperatives were found to be burdened by growing overdue (GOI, 2004).

[12] These figures are as of March 2008. Development financial institutions (DFIs) such as the Small Industries Development Bank of India (SIDBI) and State Financial Corporation (SFC) provide SSIs with the rest of institutional credit (SIDBI, 2010).

relocation, merger, conversion, and closure of branches is governed by Section 23 of the Banking Regulation Act 1949. Commercial banks have been required to obtain a license from RBI if they want to open a new branch. In 1970, RBI formulated its first licensing criteria based on the list of underbanked areas. For each new branch in a banked area, banks had to set up at least three branches in an underbanked rural or semi-urban area. RBI directed that all semi-urban areas would have to be covered by the end of 1970. In 1977, RBI tightened up the ratio and introduced the so-called 1:4 branch licensing policy which required banks to set up four branches in an underbanked area in order to open one new branch in a banked area (Shah et al., 2007; Burgess and Pande, 2005).

The lead bank scheme, under which each district was placed with one of the commercial banks to spearhead deposit mobilisation and credit allocation in the district, was also introduced. In order to ensure that rural deposits were not used to increase urban credit, RBI mandated that every branch would maintain a credit-deposit ratio of 60% within its area of operation.

Table 3 shows that the branch authorisation policy encouraged commercial banks to open branches in rural and semi-urban areas in the pre-liberalisation era. The total number of branches increased from 8,262 in 1969 to 57,699 in 1989. The number of rural branches increased especially rapidly after 1970. The average population per office improved from 64,000 in 1969 to 14,000 in 1989. Along with the expansion of branches, per capita deposit and per capita credit also increased.

Since the beginning of the 1990s, RBI has relaxed the branch authorisation policy for commercial banks from time to time based on the recommendations of internal working groups.

Table 3: Progress of Commercial Banking

	1969	1974	1979	1984	1989	1994	1999	2004	2009
	June	March	March	March	March	March	March	March	March
1. No. of Commercial Banks	**89**	**83**	**136**	**247**	**278**	**276**	**303**	**291**	**170**
Scheduled Commercial Banks (SCBs)	73	74	131	243	274	272	302	286	166
of which, Regional Rural Banks	-	-	56	162	196	196	196	196	86
Non-Scheduled Commercial Banks	16	9	5	4	4	4	1	5	4
2. No. of Bank Offices in India 1)	**8,262**	**16,936**	**30,202**	**45,332**	**57,699**	**61,803**	**64,939**	**66,970**	**79,056**
Rural	1,833	6,166	13,337	25,380	33,014	35,329	32,857	32,080	31,489
Semi-urban	3,342	5,116	7,889	9,326	11,166	11,890	14,168	15,018	18,764
Urban	1,584	3,091	5,037	6,116	7,524	8,745	9,898	10,990	15,325
Metropolitan	1,503	2,563	3,939	4,510	5,995	5,839	8,016	8,882	13,478
3. Population per office (in thousands) 2)	**64**	**35**	**22**	**16**	**14**	**15**	**15**	**16**	**14**
4. Per capita Deposits of SCBs (Rs.)	**88**	**182**	**434**	**878**	**1,821**	**3,596**	**7,286**	**14,089**	**34,372**
5. Per capita Credit of SCBs (Rs.)	**68**	**133**	**290**	**593**	**1,097**	**1,854**	**3,763**	**8,273**	**24,945**
6. Share of priority sector in total credit of SCBs 3)	**14.0**	**24.2**	**30.9**	**38.1**	**42.6**	**36.5**	**37.3**	**34.5**	**35.2**

Note: 1) Rural, semi-urban, urban and metropolitan areas are classified by the number of population as per decennial Census.
2) Population per office, per capita deposits, and per capita credit are based on the estimated mid-year population figures, supplied by the Office of the Registrar General.
3) Scheduled commercial banks' advances to priority sector and the related ratios are exclusive of regional rural banks.

Source: RBI, *Banking Statistics* 1972-1995, *Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks*

The 1:4 branch licensing policy was abolished in 1990 and RBI has provided greater operational flexibility to commercial banks to open and close branches. Currently, domestic banks are free to open new branches in Tier 3 to Tier 6 centres (with populations of up to 50,000 according to the Census 2001, which covers all rural areas and some semi-urban areas) and are also free to open branches in rural, semi-urban, and urban areas in the north-eastern states and Sikkim without seeking prior permission. Domestic banks are free to close any branch in metropolitan, urban, and semi-urban areas without seeking prior approval. As for the closure of a branch in a rural area where served by more than one commercial bank branches, banks also can close it after obtaining approval.

As a result of such deregulation measures, the number of branches in rural areas has been decreasing, while the number of branches in urban and metropolitan areas has been increasing since the late 1990s (Table 3).

However, commercial banks still have to follow careful measures to improve access to banking services in general (RBI, 2009a; 2009b). First, opening of branches by domestic banks in Tier 1 and Tier 2 centres (with populations of over 50,000 according to the Census 2001, which covers some semi-urban areas and all urban and metropolitan areas) continue to require prior permission. In processing licensing requests, banks' performance and achievement in financial inclusion including priority sector lending are considered by RBI.[13] Second, closure of even loss-making branches in rural areas served by a single commercial bank branch is not permitted, because closure would render the area unbanked.

With regard to improvement of access to banking services for SSIs in particular, firstly, following the recommendations of the Nayak Committee which was set up to examine the issues confronting SSIs in the matter of obtaining finance, public-sector banks have been advised to open at least one specialised branch for SSIs in each district.[14] Besides, banks have been permitted to convert their general branches having 60% or more of their advances to the sector into specialised SSI branches in order to improve the outreach of bank credit and provide better service to the sector. Though RBI does not regularly disclose statistics on SSI branches, the number of specialised SSI branches operated by public-sector banks was 353 as of 31 March, 1997. Of the 353 branches, 215 branches were newly opened ones and 138 branches were converted ones (RBI, 1998).

Secondly, following the recommendation of the Ganguly Committee,[15] public-sector banks have been asked to ensure specialised SSI branches in identified clusters/centres with a preponderance of small enterprises to enable entrepreneurs to have easy access to bank credit and

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[13] Besides, RBI takes into account a bank's financial condition and the general character of its management, the adequacy of its capital structure, and earning prospects as well.

[14] The Nayak Committee (RBI, 1992) was the first committee to recommend opening of specialised SSI branches or conversion of those branches which have a fairly large number of SSIs borrowal accounts into specialised branches. The Abid Hussain Committee (GOI, 1995) and the Kapur Committee (RBI, 1998) supported the recommendation and emphasised the opening of more specialised branches.

[15] The Ganguly Committee (RBI, 2004) recommended adoption of a cluster-based approach for financing the sector. This approach may be beneficial in reducing screening and monitoring costs and sharing information on risk management by banks, if an appropriate rating mechanism for designated clusters is put in place.

equip bank personnel with the requisite expertise as a policy package for stepping up credit to the sector in August 2005. Banks also have been requested to make efforts to provide credit to at least five new enterprises at each of their semi urban/urban branches per year.

Priority sector lending

The other policy directive to penetrate institutional credit is priority sector lending, whereby the end-use of a fixed proportion of bank lending has been laid down by RBI.

At a meeting of the National Credit Council held in July 1968, it was emphasised that commercial banks should increase their involvement in the financing of the priority sector, viz. agriculture and SSIs. But the composition of the priority sector was still vague, resulting in wide differences among banks on the compilation of priority sector lending statistics. The definition of priority sector was formalised in 1972 on the basis of a report constituted by an informal study group on statistics relating to advances to the priority sector set up by RBI. The priority sector was defined as not only agriculture, SSIs, and industrial estates but also road and water transport operators, retail traders, small business, professional and self-employed persons, and education loans. Although there was initially no specific target fixed in respect of priority sector lending, in 1974, domestic commercial banks were asked to direct 33.3% of their credit at a concessional rate to the priority sector by March 1979. Subsequently, all domestic commercial banks were asked to direct 40% of their credit to the priority sector by March 1985 on the basis of recommendations of the Krishnaswamy Working Group set up to examine the implementation of priority sector lending. The Working Group found that even within the priority sector, credit was given more to the affluent sections. Thus, the Working Group also recommended the introduction of the concept of 'weaker sections' (RBI, 2009c; Shajahan, 1998; Dasgupta, 2002).

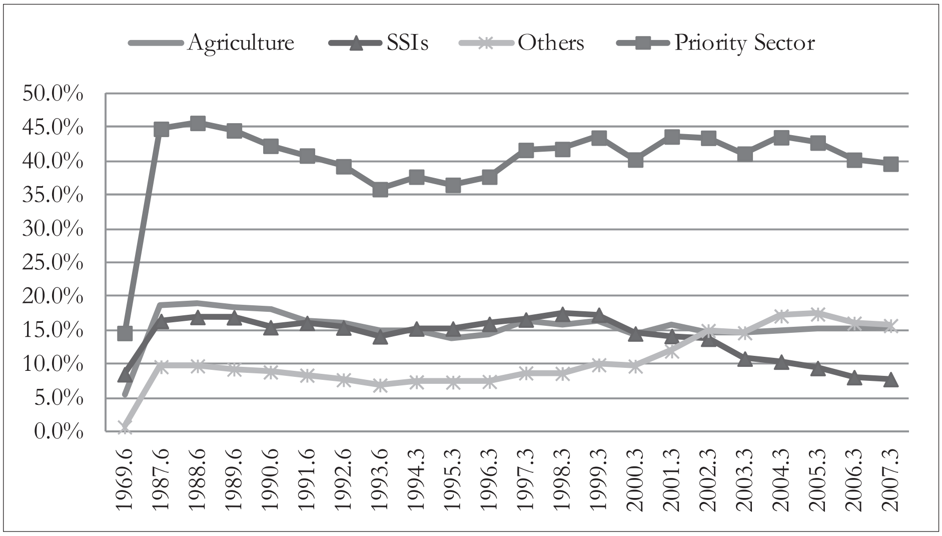
Sub-targets were also specified for lending to the agricultural and weaker sections within the priority sector. Considering the contribution of the agricultural sector to GDP in those days, a sub-target for agriculture was fixed at 16% by March 1987, which was raised to 17% by March 1989 and finally to 18% by March 1990.[16] A sub-target for weaker sections was fixed at 10% by March 1985 as well. But a specific sub-target was not fixed for SSIs (SIDBI, 1999; Shajahan, 1998; Dasgupta, 2002; Sen and Ghosh, 2005).

As shown in Table 3 above, the share of priority sector advance in the total credit of SCBs increased from 14.0% in 1969 to 30.9% in 1979, and then reached a peak of 42.6% in 1989 on the eve of financial sector reform. If we look at the performance of public-sector banks which dominate in total priority sector advances in Figure 1, the share of priority sector advance in net bank credit increased from 14.6% in 1969 to 44.6% in 1989.[17] The share of SSIs advance in net bank credit increased from 8.5% in 1969 to 16.9% in 1989. The setting of the target for the priority sector had a positive impact on channelling of credit to hitherto neglected sectors in the

[16] The contribution of agriculture's value added to GDP was as large as 35 to 40% in the 1980s.

[17] The share of public-sector banks in total priority sector advances decreased from 84.1% in March 1997 to 79.5% in March 2003, and now to 74.6% in March 2009, because latecomers such as private-sector banks and foreign banks have been requested to contribute to the priority sector lending.

Figure 1: Advances to the Priority Sector by Public-Sector Banks (% to net bank credit)



Source: RBI, *Report on Trend and Progress of Banking in India*, various issues.

pre-liberalisation era.

On the other hand, the income and profit of commercial banks had been eroded by providing concessional loans and accumulating non-performing assets (NPA) of the priority sector lending by 1990. The Narasimham Committee constituted by the government to evaluate the problems of the banking sector and to introduce financial sector reform found that priority sector lending had an adverse impact on the profitability of commercial banks. The Committee recommended that the priority sector be redefined as the truly weaker sections such as small and marginal farmers, tiny industries (micro enterprises), small businesses, and transport operators and that the target for the priority sector as a whole be reduced to 10% from 40% (GOI, 1991).

But the recommendations on the priority sector lending by the Committee were not accepted by the authorities. While its burdens on commercial banks were slightly eased by being permitted to set interest rates more freely,[18] the target of 40% has remained untouched. Further, what happened was an expansion and dilution of the definition of the priority sector, which was quite contrary to the recommendations. First, new sectors such as housing loans were introduced and ceiling limits on advances to education and housing loans were raised from time to time. More affluent borrowers who are not considered to be the weak and poor were included in the priority sector, because the upward revision of the loan ceiling would not have been justified on the grounds of inflation pressure. Second, commercial banks had options to get around direct lending to agriculture and SSIs by subscribing to other eligible instruments. For example, private-sector banks and foreign banks failing to achieve the target and sub-targets were given the option of

[18] Initially, commercial banks were free to set interest rates on loans above 2 lakh (Sen and Ghosh, 2005). After July 2010, regulation on the interest rate was totally abolished by the introduction of Base Rate System.

placing the shortfall as deposit with development financial institutions (DFIs) for a fixed period with an attractive interest rate. Public-sector banks were requested to contribute to the Rural Infrastructural Development Fund (RIDF) an amount equivalent to the shortfall in the sub-target for agriculture lending. In addition, investment in special bonds issued by certain DFIs was to be treated as part of priority sector lending.

As commercial banks had been asked to achieve an 8% capital adequacy ratio (CAR) by March 1996 and a 9% ratio by March 2001,[19] these options accelerated the slowdown in direct lending to the priority sector, especially to SSIs which have a greater propensity to generate NPA and higher-risk weight.[20] Although almost all banks had improved the level of NPA and attained the 9% CAR requirement by 2001, credit flow to SSIs did not bounce back. As Figure 1 shows, the share of SSIs advance in net bank credit by public-sector banks has been decreasing since the 2000s, while the share of others in net bank credit has been increasing.

The authorities have tried to grapple with this situation. The government announced a policy package for stepping up credit to the SSI sector in August 2005. Public-sector banks were advised to fix their own targets for funding SSIs in order to achieve a minimum 20% year-on-year growth in credit to the sector. The objective would be to double the credit flow to the sector within a period of five years. Further, on the recommendations made in September 2005 by the internal working group constituted by RBI, a decision was made to include only those sectors which are employment-intensive such as agriculture and micro and small enterprises (MSEs) under the umbrella of the priority sector. Thus, even if the scope was expanded to medium enterprises under the MSMED Act 2006, bank lending to medium enterprises is not included in the priority sector

Table 4: Target and Sub-targets under Priority Sector Lending for All Commercial Banks

Categories	Targets 1)	
	Domestic Banks (Public & Private)	Foreign Banks
Agriculture	**18%**	**no target**
Micro and Small Enterprises (MSEs)(previously SSIs)	**no target**	**10%**
up to Rs. 5lakh (M)/ Rs. 2 lakh (S) 2)	40% of total MSEs advances	
Rs. 5 lakh up to Rs.25 lakh (M)/ Rs. 2 lakh up to 10 lakh (S)	20% of total MSEs advances	
Export Credit	**- 3)**	**12%**
Micro Credit	**no target**	**no target**
Education Loans	**no target**	**no target**
Housing Loans	**no target**	**no target**
Weaker Sections	**10%**	**no target**
Total Priority Sector	**40%**	**32%**

Note: 1) Target and sub-targets are percentage to adjusted net bank credit (ANBC) or credit equivalent amount of off-blance sheet exporsure, whichever is higher.
2) (M) indicates manufacturing enterprises and (S) indicates service enterprises. 40% and 20% of total advances to MSEs are requested to be allocated to micro enterprises within the defined investment limits respectively.
3) Export credit is not included in the composition of the priority sector for domestic banks.
Source: RBI (2009b; 2009c).

[19] For details on the progress of capital adequacy norms in India, see Sarma and Nikaido (2007).
[20] In the 1990s, the number of SSI sick units accounted for around 99% of the total sick units (RBI, *Report on Trend and Progress of Banking in India*, various issues).

lending. The current target and sub-targets set under the priority sector lending alongside the latest guideline are shown in Table 4.[21] Advances to the priority sector by public-sector banks are given in Table 5. Though the sub-target for SSIs/MSEs is not fixed, out of the total MSEs advances, 40% is requested to be extended to manufacturing enterprises having investment in plant and machinery up to 5 lakh and to service enterprises having investment in equipment up to 2 lakh. And out of the total MSEs advances, 20% is also requested to be extended to manufacturing enterprises with investment in plant and machinery between 5 to 25 lakh and to service enterprises with investment in equipment between 2 to 10 lakh. 'Small road and water transport operators', 'small business', 'professional and self-employed persons', and 'retail trade', which were not categorised under SSIs/MSEs before, are now unified into the sector. For foreign banks, a target of 32% for the priority sector and sub-targets of 12% for export and 10% for SSIs/MSEs were introduced after 1991, i.e., after financial sector reform.

Table 5: Advances to the Priority Sector by Public-Sector Banks (Amount outstanding in Rs. crore)

	Agriculture1)	MSEs2)	Education	Micro Credit3)	Housing loans	Others4)	Total Priority Sector Advances
2000	52,579	66,328	543	66	9,215	921	129,652
% to total	40.6%	51.2%	0.4%	0.1%	7.1%	0.7%	100.0%
2001	59,852	69,591	1,028	142	17,029	1,687	149,329
% to total	40.1%	46.6%	0.7%	0.1%	11.4%	1.1%	100.0%
2002	63,193	79,264	1,527	303	25,027	2,497	201,811
% to total	31.3%	39.3%	0.8%	0.2%	12.4%	1.2%	100.0%
2003	74,572	80,293	2,870	1,084	38,703	1,910	199,797
% to total	37.3%	40.2%	1.4%	0.5%	19.4%	1.0%	100.0%
2004	88,474	90,230	4,179	1,233	56,647	3,712	244,475
% to total	36.2%	36.9%	1.7%	0.5%	23.2%	1.5%	100.0%
2005	111,460	105,238	6,398	1,843	78,791	3,316	307,046
% to total	36.3%	34.3%	2.1%	0.6%	25.7%	1.1%	100.0%
2006	158,508	146,884	10,804	4,047	85,832	3,673	409,748
% to total	38.7%	35.8%	2.6%	1.0%	20.9%	0.9%	100.0%
2007	207,552	157,939	14,012	3,898	133,057	4,918	521,376
% to total	39.8%	30.3%	2.7%	0.7%	25.5%	0.9%	100.0%
2008	249,397	191,657	19,748	2,707	146,868	73	610,450
% to total	40.9%	31.4%	3.2%	0.4%	24.1%	0.0%	100.0%
2009	298,211	234,368	26,913	3,943	156,590	58	720,083
% to total	41.4%	32.5%	3.7%	0.5%	21.7%	0.0%	100.0%

Note: Authors' calculation based on the latest guideline on priority sector lending (as of Sept. 2009).
1) 'Agriculture' includes 'funds provided to RRBs' and 'advances to the food & Agro-processing sector' which were classified separately before.
2) Along with the MSMED Act 2006, the category of 'micro and small enterprises (MSEs)' has appeared instead of 'small scale industries (SSIs)'. MSEs include 'small road and water transport operators', 'small business', 'professional and self-employed persons' and 'retail trade' which were categorised separately before.
3) 'Advances to self-help groups' has been classified under 'micro credit'.
4) 'Others' includes 'consumption loans', 'state sponsored corporations/organisations for on-lending to other priority sector', 'advances to software industries', 'setting up of industrial estates', and 'investment in venture capital', of which some categories have disappeared since 2007
Source: GOI, *Economic Survey*, various issues.

21 The guideline is as of September 18, 2009, see RBI (2009c; 2009d).

Because of these proactive policies by the authorities, credit flow to SSIs/MSEs has shown an increasing trend from 105,238 crore as of March 2005 to 234,368 crore as of March 2009 in amount outstanding. However, the share of SSIs/MSEs advances in the total priority sector advances has been decreasing. This may be the influence of a steep increase in housing and education loans (Table 5). There are various reasons why housing loans are growing. It is partly because of an increase in housing demand due to economic development, fiscal incentives of the government, and loan diversification by banks. The raising of the ceiling limit on housing loans has also encouraged banks to prefer lending to bigger borrowers. These factors may result in a lending squeeze for SSIs/MSEs. Further, the paradigm shift under the MSME Act might stimulate commercial banks to allocate their credit to service enterprises rather than to manufacturing enterprises within the MSE sector.

3. Factors affecting access to institutional credit by small enterprises

As shown in the previous section, supply-led policies worked in the pre-liberalisation era, while these policies seem not to work very well in the post-liberalisation era where banks tend to look for profitability rather than meet the national goal. It is time for the authorities to consider a new approach and dimension. In order to find a new approach, we review the theoretical literature on credit constraints and look into the factors which could affect small enterprises' access to credit.

3.1. The literature on credit constraints

Stiglitz and Weiss (1981) argue that credit rationing may turn out to be an equilibrium situation when there is imperfect information. This is because information asymmetries exist between lenders and borrowers in the ex-ante screening of projects (adverse selection) and ex-post monitoring of loan contracts (moral hazard). If a rise in the interest rate to adjust to clear the market lowers average borrowers' quality, lenders will choose to ration their credit.

Though credit rationing is not unique to small enterprises, small enterprises are more likely to face a restriction in the credit market because the transaction costs of lending to small enterprises are higher than those of lending to large enterprises. Transaction costs of lending to enterprises comprise administrative costs and default costs. Administrative costs are those which are attributable to the processing, delivering, and administrating of loans. Default risk costs are those expenses for provision for losses, loan guarantee fees paid, and actual bad debts (Saito and Villanueva, 1981).

Even if administrative costs are constant regardless of the loan size, the costs as a percentage of loan size decrease as the loan size increases. Assuming that the size of a loan is positively correlated with the size of an enterprise, the per unit transaction costs of lending to a small enterprise are higher than those of lending to a large enterprise. However, in practice, the default costs as well as administrative costs are not constant but rather higher for small enterprises than those for large enterprises for the following reasons.

It is well known that the provision of collateral may reduce the problems of information imperfection and cover losses through default. But small enterprises do not own sufficient assets for collateral. If any, because pledged collateral is often of a personal nature, some costs may be present in arranging and foreclosing such collateral (Tendulkar and Bhavani, 1997). Reliance on such personal assets may discourage a lender's investment (Bink and Ennew, 1996). Lenders may also utilize financial statements and enterprises' performance such as sales and profits to assess repayment prospects. Yet small enterprises in developing countries may not have complete financial statements and more time is therefore required to evaluate their creditability. Earlier studies on Indian small enterprises have found that a large number of owners do not maintain formal accounts. Moreover, in a number of cases, there is no clear separation between the account of the owner's household and that of the manufacturing enterprise (Pais, 2004; NCEUS, 2009). In addition, small enterprises may show relatively more volatility in the face of economic slowdown because they have less diversified products (Saito and Villanueva, 1981).

These factors taken together lead to higher transaction costs of lending to small enterprises. Saito and Villanueva (1981) estimate the real cost of lending to small enterprises is approximately twice that of lending to large enterprises in the Philippines.

Besides the above hard information, some studies argue that lenders may use alternative soft information such as the age of a firm, the relationship with banks, past communication with contractors, and other sources of finance in the case of informationally opaque small enterprises (Petersen and Rajan, 1994; Binks and Ennew, 1996; Berger and Udell, 2006). Conditional on its past experience with the borrower, the lender now expects loans to be less risky. This could reduce the transaction costs of lending. It is also possible that lenders could obtain information on an enterprise's ability to serve claims by observing its past interactions with contractors and prior creditors. If so, the age of an enterprise may positively affect the availability of institutional credit (Petersen and Rajan, 1994).

As RBI (2004) points out, there is strong evidence that small enterprises that are linked as suppliers and service providers to successful large enterprises are usually successful in their ventures in India as well as in many other countries. It can be expected that if a small enterprise has a contractual relationship with a large enterprise, it may then face less credit constraint. On the other hand, NCEUS (2009) and Pais and Sahu (2010) find that in the case of small enterprises in India, while working under sub-contract with larger enterprises is increasing in recent years, enterprises working under contract do not perform better than those not working under contract. In other words, it is concluded that in the case of India, really small enterprises working under contract may be driven to subcontracting under distress and eventually do not gain significantly from this relationship. In addition, the relationship has been found to be exploitative with issues of delayed payment and rejection.

Prior creditors in developing countries can be informal sources such as moneylenders, relatives, and friends unlike in developed countries. Kohli (1997) examined whether the past record of informal borrowings as an indicator of creditworthiness would influence access to institutional credit in India. Though it was not statistically significant, the sign for the coefficient was positive.

3.2. Other factors affecting access to institutional credit

Looking at other variables which could affect the credit availability of small enterprises in India, enterprises which register under any act/agency are likely to have better access to institutional credit as being registered in practical terms is a necessary condition for enjoying the government's support policies for small enterprises. Also, by the process of registration, the registered enterprises give their information to agencies and can therefore be expected to be more transparent than non-registered enterprises, and can hence be expected to have less information asymmetry. Thus, registration status should be positively associated with the probability of access to formal credit.

Enterprises with more educated owners can be expected to have more access to institutional credit than enterprises with less educated owners. This is because less educated owners tend to have difficulty with application procedures and expect to be rejected. Furthermore, better educated managers are more likely to have managerial skills in finance, marketing production, and international business that would lead to the firm's growth (Kumar and Francisco, 2005). Further, the gender of the owner of an enterprise may play some role in access to finance, as the literature shows that female owners are more likely to be financially excluded in India.

The extent of the formalness of an enterprise may also affect credit access. In India, a number of small enterprises rely on their own and family labour. Thus, reliance on hired workers other than family labour may be seen as an indication of higher forms of management and organisation.

As Rajan and Zingales (1998) point out, banks may prefer enterprises of specific industries such as growing industries. Further, enterprises belonging to capital-intensive industries with higher credit needs for initial project scale and continuing investment may face relatively greater constraints (Kumar and Francisco, 2005).

There may be location and regional effects. It is said that rural areas are more likely to be financially excluded than urban areas in India as in other developing countries. And enterprises belonging to regions with a high density of banking branches will have easier access to banking services.

In the context of India, Kolhi (1997) and Eastwood and Kolhi (1999) are the only existing studies examining the determinants of bank loans for small enterprises using panel data over the period 1965-78, obtained from the company finance studies of RBI. However, they mainly focus on hard information such as firm size, collateral, and sales except age and past record of informal borrowings as factors affecting availability of bank loans. Furthermore, the results of their study that the size, age, and collateral of an enterprise have a positive and significant impact on the probability of receiving bank loans may not be applicable to the current environment.

4. Empirical analysis

4.1. Data

We use the unit level data from the National Sample Survey (NSS) on unorganised manufacturing enterprises. The survey was conducted between July 2005 and June 2006 (NSS 62nd round). The National Sample Survey Organisation (NSSO) has conducted quinquennial round surveys on unorganised manufacturing enterprises. The term 'unorganised manufacturing' basically refers to all manufacturing enterprises which are not included in the factory sector and public sector undertakings. In India, the 'factory sector' consists of enterprises employing more than ten workers with the aid of power or more than twenty workers without the aid of power. Enterprises falling under the purview of the factory sector have to register under Sections 2m(i) and 2m(ii) of the Factory Act 1948. Those manufacturing enterprises under the Factory Act and public sector taken together are called the 'organised sector', while the remaining enterprises are called the 'unorganised sector'. Though the definition of unorganized manufacturing enterprises is in terms of workers not investment ceiling, the unit level data from the Fourth All India Census of Micro, Small and Medium Enterprises with the reference year 2006-07 conducted by the Development Commissioner (MSME) were not available at the time of preparing this paper.[22] Due to such data limitation, we use data from the NSS 62nd round as an alternative source.

A total of 82,897 enterprises were surveyed all over India in the NSS 62nd round. However, we exclude the north-eastern states except Assam, because of special treatment in branch licensing policy and priority sector lending for these states.

4.2. Model specifications

To examine the determinants of access to institutional credit in the context of India's small enterprises, we specify the model. We use a binary variable regression, where the probability (p) of an enterprise receiving institutional credit ($y = 1$) is modelled to depend on a regressor vector $\boldsymbol{x}$ and a $K \times 1$ parameter vector $\boldsymbol{\beta}$. The commonly used model is given by

$$p_i \equiv \Pr[y_i = 1 \mid \boldsymbol{x}_i] = F(\boldsymbol{x}_i'\boldsymbol{\beta}),$$

where we assume that $F(\cdot)$ is the cumulative distribution function of the logistic distribution, so $p_i = \frac{\exp(\boldsymbol{x}_i'\boldsymbol{\beta})}{1+\exp(\boldsymbol{x}_i'\boldsymbol{\beta})}$.

Following the suggestion of Cameron and Trivedi (2005) that weights are needed if the survey data are not from a simple random sample, we estimate weighted logit regression. We use the subsample-wise weights given by NSSO[23].

As we defined above, the dependent variable here ('formal finance') is a qualitative outcome, taking a value of 1 if an enterprise has received institutional credit and 0 otherwise. The survey specifically collects data on whether enterprises received any institutional credit over a five-year reference period. Institutional credit includes credit from commercial banks and co-operative banks, DFIs, and other government bodies.

The provability of an enterprise receiving institutional credit is regressed on several

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[22] The Office of the Development Commissioner (Micro, Small and Medium Enterprises) functions as the nodal agency to govern promotion and development of the MSME sector under the Ministry of Micro, Small and Medium Enterprises.

[23] With regard to strengths and weaknesses of the survey data by NSSO, see Manna(2010).

explanatory variables. It should be noted that data on the age of an enterprise is not available in the survey. A list of explanatory variables and their construction used in the logit regression are as follows:

Number of workers: This is a proxy for the size of a firm. As Kohli (1997) finds, it is likely that lenders prefer to finance larger firms within a more homogenous group of small firms.

Owned land and buildings: The value of owned land and buildings is used as a measure of a firm's ability to pledge collateral. The value of owned land and buildings should positively influence its chance to procure finance. To control the effect of size, the value is scaled by the value of fixed assets.

Gross value added: Gross value added is the estimate of the output of a firm and may also be an indication of demand for funds. We expect a positive sign for the coefficient corresponding to this variable. To control the effect of size, the value is scaled by the value of fixed assets.

Mixed activity dummy: This is a dummy variable with a value of 1 if a firm engages in mixed activity and 0 otherwise. This is used to indicate whether a firm has diversified activities or not. Firms having diversified activities are more resilient to economic slowdown and can hence be expected to perform better, and thus, should have better chances of procuring institutional credit.

Account dummy: This takes a value of 1 if accounts are maintained by a firm and 0 if not. Maintenance of written accounts reflects relatively higher levels of organisation and management and increases the transparency of an enterprise. The accounts variable is therefore expected to have a positive relationship with institutional credit.

Contract work dummy: This is a binary variable taking a value of 1 if an enterprise has undertaken any work on contract and 0 otherwise. It is said in the literature that past communication with contractors will positively affect credit availability. However, as we mentioned above, the sign for the variable is not unambiguous in the case of India.

Other finance dummy: This takes a value of 1 if an enterprise has received credit from non-institutional sources such as moneylenders, business partners, suppliers/contractors, friends, and relatives in the five-year reference period. If the past record of informal borrowings is seen as an indicator of creditworthiness, this could be a positive influence on receiving institutional credit.

Registration dummy: This takes a value of 1 if a firm is registered under any one of these and 0 otherwise: (i) District Industries Centres (DICs) as small scale industries, (ii) Khadi and Village Industries Commission (KVIC), (iii) Development Commissioner (handicrafts), (iv) Development Commissioner (handlooms), (v) Coir Board, (vii) Silk Board, (viii) Jute Commissioner, (ix)

Municipal Corporation, Panchayat or any other local body, (x) Section 85 of the Factories Act, or (xi) any other body. As registered enterprises are more likely to receive information on credit policies and are expected to be more transparent, the coefficient of the variable should be positive.

Owner's education dummies (base: illiterate): We use four dummies to reflect the level of education of the owner of an enterprise. These are: **illiterate** (1 if the owner is illiterate, 0 otherwise), **primary** (1 if the owner has primary education and 0 otherwise), **secondary** (1 if the owner has education up to higher secondary level and 0 otherwise), and **higheredu** (1 if the owner is a diploma holder, graduate, or postgraduate). We expect the likelihood of receiving institutional credit to be positively associated with the level of education.

Female owner dummy: This takes a value of 1 if an enterprise has a female owner. Females are more likely to be financially excluded, perhaps due to their underprivileged status, particularly in India. We expect a negative association of this variable with the likelihood of access to formal credit.

DME dummy: This variable is a proxy for the formalness of an enterprise. Directory manufacturing enterprises (DMEs) are defined as enterprises that employ six or more enterprises and use workers other than family labour in India. This is a dummy variable which takes a value of 1 if the enterprise employs more than six workers and the role of family labour is limited. Other firms where family labour dominates take a value of 0.

Rural dummy: This takes a value of 1 if a firm is located in a rural area and 0 otherwise. This is used to check for the rural-urban divide in access to institutional finance. It is well known that infrastructural facilities including formal financial infrastructure are grossly inadequate in rural areas as compared to urban areas in India. Therefore, we expect a negative coefficient for this variable.

Regional dummies (base: the south states): We use four regional dummies to indicate regional affect. They are: **North** (1 if a firm belongs to any of the northern states—Haryana, HP, MP, Punjab, Rajasthan, UP, Chandigarh, Delhi, Chhattisgarh, or Uttaranchal—and 0 otherwise), **East** (1 if a firm belongs to any of the eastern states—Assam, Bihar, Orissa, WB, or Jharkhand—and 0 otherwise), **West** (1 if a firm belongs to Goa, Gujarat, Maharashtra, Dadra & Nagar Haveli, or Daman & Diu; 0 otherwise), and **South** (1 if a firm belongs to Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Lakshadweep, or Pondicherry; 0 otherwise).

4.3. Results of the estimation

The results of the weighted logit estimation using Stata are reported in Table 6. As we expected, the coefficients on maintaining accounts, registration status, formalness of a firm (DME), and past record of informal borrowings are statistically significant determinants of receiving

Table 6: Results of the Weighted Logit Estimation

Number of obs = 73427 | Wald chi2(17) = 1346.69
Log pseudolikelihood = -3417952.4 | Prob > chi2 = 0.0000
Pseudo R2 = 0.2752

Variable name	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
No. of workers	-0.00048	0.000	-1.05	0.295	-0.001	0.000
Value added	0.00000	0.000	-1.26	0.208	0.000	0.000
Fixed assets	0.00000	0.000	-0.26	0.794	0.000	0.000
Account	**1.60631**	**0.150**	**10.68**	**0.000****	**1.311**	**1.901**
Mixed activity	**-0.69010**	**0.158**	**-4.36**	**0.000****	**-1.000**	**-0.380**
Contract work	-0.03905	0.144	-0.27	0.787	-0.322	0.244
Other finance	**0.40358**	**0.146**	**2.76**	**0.006****	**0.117**	**0.691**
Reg-status	**1.35453**	**0.110**	**12.36**	**0.000****	**1.140**	**1.569**
DME	**0.95851**	**0.114**	**8.41**	**0.000****	**0.735**	**1.182**
Female owner	-0.27016	0.133	-2.03	0.042*	-0.530	-0.010
Education dummies (illiterate omitted variable)						
Higheredu	**0.95064**	**0.218**	**4.36**	**0.000****	**0.524**	**1.378**
Primary	0.02135	0.196	0.11	0.913	-0.363	0.406
Secondary	**0.54579**	**0.189**	**2.89**	**0.004****	**0.175**	**0.917**
Regional dummies (south omitted variable)						
North	**-0.42215**	**0.118**	**-3.57**	**0.000****	**-0.654**	**-0.190**
East	**-0.56872**	**0.126**	**-4.53**	**0.000****	**-0.815**	**-0.322**
West	-0.06146	0.128	-0.48	0.631	-0.312	0.189
Rural	**-0.28087**	**0.089**	**-3.14**	**0.002****	**-0.456**	**-0.106**
Constant	-2.60723	0.241	-10.81	0	-3.080	-2.134

Note: * indicates significance at 0.05 level; ** indicates highly significant.

institutional credit. Enterprises headed by females are less likely to have institutional credit, as we expected.

However, the coefficients on firm size, gross value added, and owned land and buildings as a proxy for collateral are not found to be statistically significant determinants of access to institutional credit. These results are not consistent with the literature on credit constraint. In particular, the fact that firm size and the value of land and buildings are not positively associated with access to institutional credit would be a cause for concern. This may be partly because the authorities request banks not to insist on collateral for credit below a certain amount. Also, there may be an issue of property rights. Small enterprises are often housed on land and buildings for which the owner of the enterprise does not hold a clear title. This is either because the assets are jointly owned with others in the family or the title has not yet been formally transferred to the current owner.

Higher levels of education are highly and positively significant in determining the probability of access to formal credit, as compared to illiterate owners. This is very intuitive.

Firms located in the northern and eastern regions of India are less likely to receive institutional credit as compared to firms located in southern India. If states in India are categorised into more industrialised and less industrialised states, then the more industrialised states are in the south and west of the country. Similarly, the BIMARU states (Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh) have been found to be underdeveloped as compared to the rest of the country. Our findings that institutional credit to small enterprises in the north and east of the country are significantly different and less than in the south (and west) of the country is in line with these findings on regional differences.

Being located in a rural area significantly and negatively impacts the likelihood of access to institutional credit. This is a reflection of the higher level of financial exclusion of rural India.

Higher diversification of activities (mixed activity) seems to reduce the probability of access to institutional credit for small enterprises in India. This is contrary to the standard expectation and we try to explain why this may be so. In the unorganised sector in India, it is well documented that enterprises engage in multiple economic activities either simultaneously or during different parts of the year as part of their survival strategy (NCEUS, 2009). In other words, diversification is distress driven and therefore an indication of the financial and other vulnerability of the enterprise. Thus, if this explanation is valid and such enterprises dominate the enterprises that have mixed activity, then the empirical results we have obtained are not unexpected.

Finally, enterprises working on contract are not associated with higher access to institutional credit. This confirms that our hypothesis that contract work is dominated by enterprises that enter this arrangement by distress and does not arise from a particular specialisation or advantage that a larger contracting enterprise is looking for.

5. Conclusion

The slogan of attaining a ‘socialistic society’ in the pre-liberalisation era has now changed to that of attaining ‘inclusive growth’. Towards the objectives, the government has implemented support policies for SSIs since the 1950s and asked commercial banks to deliver financial services to the sector as part of the vulnerable.

As we overviewed above, however, the issue of financial exclusion is no longer solved by supply-side credit policies alone in the post-liberalisation era. In this study, we tried to find a new policy directive to address the issue by examining the determinants of receiving institutional credit.

The results of our empirical study show that being registered with any act/agency, keeping accounts, and higher education is positively associated with the likelihood of receiving institutional credit, which is in line with the literature on credit constraint by small enterprises. Indeed, about 90% and 95% of small enterprises in India are not registered with any act/agency and do not keep accounts, respectively. And about 46% of owners in Indian small enterprises are either illiterate or have primary education only. Thus, it seems that supply-side policies can reach down to the really small enterprises which need loans only if these factors are improved.

On the other hand, our results also show how the context of Indian small enterprises is different from that presented in the literature. Those with contract work for large enterprises and diversified activity are less likely to receive institutional credit and are rather driven by distress. This fact may explain why a large number of small enterprises remain small in India. Thus, deeper investigation into the state of contract work and mixed activity is needed.

Taking our results together, enhancing owners' ability or empowerment through higher education and technical training and providing them with proper information on policies will be a prerequisite condition to penetrate institutional credit. As Dev (2006) and Kamath et al. (2010) argue, addressing not only the supply side but also the demand side can be a new direction for financial inclusion.

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