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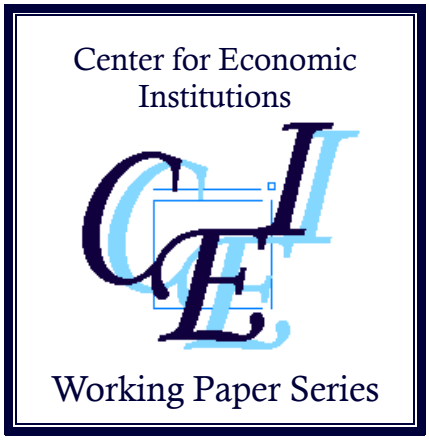

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Entrepreneurship in Micro and Small Enterprises
—Empirical Findings from a Baseline Study in Northeastern Areas of Delhi, India—

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Takashi Kurosaki, Kaushalesh Lal, A.K. Mangal, Asit Banerji, and S.N. Mishra*

Abstract

To deepen our understanding of the urban informal sector and small enterprises in developing countries, we conducted a baseline study of micro and small entrepreneurs in northeastern areas of Delhi, India. The questionnaire-based survey was implemented during November-December 2014, in which 506 entrepreneurs were surveyed who ran enterprises in the manufacturing or service sector. The sample was drawn from a business directory and all fell in the category of micro or small enterprises as defined in the Micro, Small and Medium Enterprises Development Act of 2006. In this paper, we present details of the baseline survey implemented under this project and describe the key variables collected. Out of 506 sample entrepreneurs, 97% were owned by single individuals, and 46% were unregistered with the government. In addition to the standard list of questions, some questions on trust were also included in the General Social Survey style. The trust level towards relatives and friends, neighbors, and business buyers/sellers was found to be significantly higher than the trust level toward government officials, the police, and law officers.

JEL Classification: O17, O14, L26

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1. Introduction

Micro, small, and medium enterprises (MSMEs) play a crucial role in the industrial development of developing economies. MSMEs are considered engines of growth and each country has adopted several policy measures to assist these enterprises. Despite inherent disadvantages of MSMEs arising from firm size and insufficient financial resources, they have the potential to become a powerful engine of manufactured export growth in the developing world. MSMEs generate employment and account for a major share of industrial production and exports. MSME promotion policies vary from one country to another, and so does the definition.

In India, MSMEs are defined solely on the basis of the size of investment in machinery and equipment. According to government estimates, the MSME sector accounts for about 37.5% of the manufacturing output and 7.3% of GDP in 2011-12.[1] The sector is estimated to have employed about 106.2 million persons in over 46.8 million units throughout the country in 2012-13. As far as the growth in the number of MSMEs is concerned, they have grown from 36.2 million in 2006-07 to 46.8 million in 2012-13, registering a compound annual growth rate of 4.4%. The MSME employment growth rate in the same period was 4.7% per annum.

While the performance of MSMEs is published every year by the concerned ministry, two aspects, namely, innovation and entrepreneurship, have rarely been touched by such reports. Studies on these aspects are common for large firms, but MSMEs are usually not covered. In a word, scientific evidence is lacking regarding what characterizes entrepreneurship in India's MSMEs. Most of quantitative studies on India's MSMEs use survey data covering either organized manufacturing or unorganized manufacturing firms. As exceptions, Kathuria et al. (2010, 2012) and Sato (2008) combine the two types of data. But the comparability of the two types of datasets is a problem. Some authors use a large-scale dataset focusing on unorganized firms, such as Iyer et al. (2013) using the Economic Census, and Deshpande and Sharma (2013) using the Fourth All India Census of MSMEs. These studies, however, do not examine the aspect of entrepreneurship in detail. Nikaido et al. (2015), Sasidharan and Raj (2014), and Sharma (2014) analyze unorganized firms in India in more detail. Sharma (2014), using micro data from the World Bank Investment Climate Survey, shows that unorganized firms' productivity improves when it registers with the government. Using a larger dataset collected by the Government of India, Nikaido et al. (2015) identify the improved credit access as the main route through which the positive impact of registration

[1] http://dcmsme.gov.in/AnnualReport-MSME-2013-14P.pdf (accessed on January 4, 2015).

under the MSME Development Act takes effect. None of these studies, however, cover the service-sector firms, although such firms occupy a large share of the MSME sector in India. Finally, there are several case studies that focus on a particular sector where informal-sector firms dominate, such as those of waste pickers (Hayami et al. 2006) and cycle rickshaws (Kurosaki et al. 2012). Such studies are insightful but they fail to capture the variety of business organizations in the MSME sector and issues associated with them.

To fill in these research gaps, we conducted a baseline study of micro and small entrepreneurs in northeastern areas of Delhi, India. A unique feature of our dataset is that it covers both the manufacturing- and the service-sector firms with different levels of formality. The baseline survey was conducted during November-December 2014 using a structured questionnaire. The questionnaire included detailed questions on innovation, trust behavior (in the style of General Social Survey: GSS), and policy opinions of the entrepreneurs, in addition to standard questions such as firm and entrepreneurs' background and management practices. This study perhaps for the first time explores entrepreneurship and innovation activities in MSMEs in Delhi, India. In this paper, we present details of the baseline survey implemented under this project and describe the key variables collected from 506 entrepreneurs spanning both the manufacturing and the service sector. Through the descriptive analysis, we hope to deepen our understanding of small enterprises in India and to shed light on the role of informal sector in economic development of developing economies (La Porta and Shleifer 2014).

The remainder of the paper is organized as follows. Section 2 explains our baseline survey, supplemented with information on institutional backgrounds. Section 3 describes key variables in the dataset. Section 4 concludes the paper.

2. Data and Backgrounds

2.1 Institutional Backgrounds

The MSME sector in India consists of any enterprises engaged in production of goods pertaining to any industry specified in the first schedule of Industry Development & Regulation Act, 1951, and other enterprises engaged in production and rendering services, subject to the limiting factor of investment in plant and machinery/equipment, as noted below. MSMEs are defined by the MSME Development Act of 2006, based solely on their investment in plant and machinery (for manufacturing enterprise) and on equipment for enterprises providing or rendering services.[2] For manufacturing enterprise, a micro firm is that in which the investment in plant and machinery does not exceed INR 2.5 million; a small firm is where

[2]The Gazette of India, Extraordinary, Para II, Section 3, Sub-section (ii), New Delhi, September 30, 2006, Government of India.

the investment in plant and machinery does not exceed INR 50 million and a medium enterprise is where the investment in plant and machinery does not exceed INR 100 million. In case of services, a micro enterprise involves investment in equipment that does not exceed INR 1.0 million; a small enterprise where the investment does not exceed INR 20 million and a medium enterprise where the investment in equipment does not exceed INR 50 million.

Under the MSMED Act of 2006, MSMEs are encouraged to register under MSMED implementing agencies. Registered firms become eligible for availing various types of MSME promotion policies, such as indirect tax exemption, ISO support, government credit, and government procurement. Incentive measures lean more toward manufacturing than services. In addition to these direct benefits, firms registered under the MSMED Act can expect indirect gains in credit access from the private financial institutions. The Fourth All India Census of MSMEs, which collected information on MSMEs during 2006-07, covered all firms registered under the 2006 MSMED Act on the census basis, and conducted random sampling surveys of unregistered MSMEs.

If a firm belongs to the manufacturing sector, it is under the restrictions on the Factories Act of 1948. Under the Factories Act, manufacturing firms employing ten or more workers (using power) or twenty or more workers (without using power) are required to register. Once registered under the Factories Act, firms are subject to labor and environment regulations. Manufacturing firms registered under the Factories Act are thus more formal than others. Registered factories comprise the so-called “Organised Manufacturing Sector.” Service firms in India are also classified similarly, depending on whether the firm is registered under the Companies Act, 2013. Unlike the case of manufacturing firms, the registration is not required for those firms employing workers over the given threshold. Thus registration is basically voluntary.

Both manufacturing and service firms whose capital investment is below stipulated limits and factories employing fewer than the threshold number of workers as defined by the Factories Act of 1948 can register under the MSME Development Act, 2006. Many micro and small firms that are not registered under the Factories (or Companies) Act are registered under the MSMED Act.

2.2 Baseline Survey

To collect unique information on MSMEs that is not available in the government statistics, we designed the baseline survey with the following objectives: To enquire about (1) the characteristics of the enterprise such as investment made, operational details, financing, output, cost, profit/loss, etc., (2) history of the enterprise, (3) social, educational, and economic

background of the enterprise head and the family including their migration status, (4) infrastructural facilities and bottlenecks, including those relating to training and skill development, (5) opinions of the entrepreneurs regarding public policies, and (6) the level of general or directed trust elicited from GSS-type trust questions. After the baseline survey using the questionnaire, artefactual experiments were conducted on the subset of the sample to measure unobservable characteristics of entrepreneurs such as attitudes to risk, time preference, leadership, and social preferences, etc. (the description of this part of the study is beyond the scope of this paper and shall be reported in a forthcoming paper). Based upon the data collected on these parameters, we describe the nature of entrepreneurship in the sample population.

The survey was conducted in northeastern areas of Delhi centered around Shahdara. Until 2014, most of the areas where our sample enterprises were located belonged to the Northeast Delhi District. In 2014, the district was divided into the (new) Northeast Delhi District and the Shahdara District. Furthermore, after the sampling and the survey, several of our sample enterprises were found to operate in the East Delhi District, bordering the Northeast and Shahdara Districts. For this reason, we call the location of our sample entrepreneurs/firms as "northeastern areas of Delhi."

The survey was conducted by the Centre of Economic and Social Research (CESR). CESR conducted similar surveys on waste pickers (Hayami et al. 2006) and cycle rickshaws (Kurosaki et al. 2007). Due to this advantage, CESR was able to access micro and small entrepreneurs who tend to be highly skeptical against outsiders.

As there is no official list on unregistered firms, we designed our sampling in consultation with methodologies adopted by NSS's unorganised sector surveys. First, we obtained *Shahdara Industrial Directory* prepared by the Jhilmil Industrialists Association. Through the cooperation of the association's president, we randomly selected firms listed in the directory (2013 version) and conducted a questionnaire-based survey of 506 firms out of approximately 1,000 firms in November-December 2014. The directory contains firms located not only in the Jhilmil Industrial Area but also in surrounding areas. The sampled firms are spread over ten locations (clusters), with the Jhilmil Industrial Area as the largest cluster. To obtain the representative sample, enterprises were surveyed in every industrial location proportionate to the firm numbers in each location. The directory contains both manufacturing- and service-sector firms but does not include self-employed business without fixed office/store/workshop or groceries or constructors or restaurants. In the sampling, those firms whose investment level is over the threshold for small enterprises under the 2006 MSMED Act were excluded.

The median number of employees among the 506 sample firms was four; about two thirds operated in manufacturing, and one third in services, both including various industries (see the next section for more details). Although the Jhilmil Industrial Area is characterized by copper and plastic industries, there are other industries as well, resulting in a diverse industrial composition in our sample.

3. Characteristics of Sample Entrepreneurs/Firms

3.1 Firm Identification: Location, Industry, and Ownership

Our sample of 506 firms belongs to ten locations in northeastern areas of Delhi. The distribution of enterprises according to their location is depicted in Table 1.

Table 1: Location of the sample enterprises

	Number	%
Friends Colony	115	22.7
Gokalpur	16	3.2
Jhilmil	121	23.9
Johripur	15	3.0
Karawal Nagar	35	6.9
Mandoli & Saboli	58	11.5
Maujpur	17	3.4
Nandnagri	36	7.1
Seelampur	30	5.9
Vishwash Nagar	63	12.5
Total	506	100.0

Source: The sample survey 2014. The source of data remains the same for all tables that follow.

Majority of enterprises are located in Jhilmil (23.9%) and Friends colony (22.7%) followed by Vishwash Nagar (12.5%) and Mandoli & Saboli (11.5%). The enterprises in other locations, namely Nandnagri, Seelampur, Karawal Nagar, Maujpur, Johripur, and Gokalpur, range between 3.0 to 7.1%. In two clusters of Jhilmil and Friends Colony, industrial estates form the core of the cluster. All other eight remaining clusters are not a part of any industrial estate.

The distribution of our 506 sample firms according to their products/services is shown in Table 2.

Table 2: Industry distribution of the sample enterprises

	Number	% to the subtotal	% to the total
Manufacturing sector			
Auto parts	12	3.5	2.4
Electrical wires	73	21.3	14.4
Electronics	6	1.7	1.2
Food products	23	6.7	4.5
Garments	68	19.8	13.4
Metal and steel	36	10.5	7.1
Plastic goods	62	18.1	12.3
Wood products	15	4.4	3.0
Other manufacturing	48	14.0	9.5
(Manufacturing, sub-total)	(343)	(100.0)	(67.8)
Service sector			
Auto/cycle repair	36	21.7	7.1
Electric/electronics repair & service	24	14.5	4.7
Garments stitching/embroidery/tailoring	13	7.8	2.6
Publishing service	40	24.1	7.9
Metal/steel related service	11	6.6	2.2
Other service	42	25.3	8.3
(Service, sub-total)	(166)	(100.0)	(32.8)
Total	506		100.0

Note: The sum of the manufacturing and services firms is 509 as three firms engaged both in manufacturing and services. They are (1) a firm manufacturing gate grills and providing engineering work services, (2) a firm manufacturing electrical goods and providing electrical repair services, and (3) a firm manufacturing paper products and providing publishing services.

The number of firms engaged in manufacturing is 343 (67.8%). The large shares are accounted for by those enterprises engaged in manufacturing of electrical components (mainly wires) (14.4%), garments (13.4%), and plastic goods (12.3%). This is followed by firms that are engaged in "Other manufacturing" that includes jewelry, handicrafts, chemicals, and other products (9.5 %), and metal and steel (7.1%).

The total number of firms engaged in services is 166 (32.8%). The highest number is in "Other service" (8.3%), which includes snapping (photography), videography, recycling etc., followed by publishing services including printing personal envelopes and business cards (7.9%), and auto/cycle repair (7.1%). The firms engaged in servicing of electrical and electronics products account for 4.7% of the total 506 firms.

Table 3 presents the type of ownership of the firms. Majority of the enterprises are owned by single individuals (97.2%). This is as expected, as our sample includes micro and

small enterprises only. The same table shows the registration status as well. In the National Capital Territory of Delhi there is only one agency, namely the Delhi State Industrial and Infrastructure Development Corporation Limited (DSIIDC) for registration of firms. In general, small firms can register themselves with District Industry Centres also. DSIIDC is expected to play a major role in propelling the development of Delhi by developing and maintaining the industrial areas. Out of total enterprises, 44.7% are registered with DSIIDC and 9.6% with other agencies, such as the District Industry Centre. As the information was sensitive, we did not ask whether the firm (if it was engaged in manufacturing) is registered under the Factories Act of 1948.

Table 3: Ownership and registration status of the sample enterprises

	Number	%
By ownership status		
Single proprietorship	492	97.2
Joint prop. with family members	6	1.2
Joint prop. with non-family	3	0.6
Private limited company	5	1.0
By registration status		
Registered with DSIIDC	226	44.7
Registered with other govt agencies	49	9.7
Unregistered	231	45.7
Total	506	100.0

ISO certification is useful in that it adds credibility to the product or service of the firm. To another query on the ISO certification of firms, we found that the majority of firms were not certified, as only 3.6 % of them replied in the affirmative. Out of these, majority of the firms were 9001-2008 certified.

3.2 Characteristics of Sample Entrepreneurs

Table 4 shows basic characteristics of 506 sample entrepreneurs. Regarding their age, out of the total sample, the majority of managers fall in the age group of 36-40 (22.7%) followed by 31-35 (18%) and 41-45 (18.6%). The average (standard deviation) of the respondents' age is 40.2 years (9.1 years).

The educational qualification of owners is shown in the table as well. It indicates that 207 businessmen (41% of the sample) are academically qualified with a university degree or higher. Out of them, 20 are educated in engineering or related technical fields. Those without tertiary education are those with very little (less than 10th grade: 3.8%) or moderate levels of

education (12th grade: 38.7%). Out of 196 (38.7%) with education around the 12th grade, 6 had technical diplomas. The overall picture thus shows that the technical education level among the managers is not high among the micro and small enterprises. Only 26 entrepreneurs (5.1%) out of the total 506 have technical diplomas or degrees.

Table 4: Basic characteristics of the sample entrepreneurs

	Number	%
Distribution of age		
15-30	77	15.2
31-35	91	18.0
36-40	115	22.7
41-45	94	18.6
46-50	74	14.6
51+	55	10.9
Distribution of education		
Less than 10th grade	19	3.8
10th grade	84	16.6
12th grade (incl. technical diploma)	196	38.7
University graduate (incl. engineering degree)	203	40.1
Master's degree	4	0.8
Sex		
Male	496	98.0
Female	10	2.0
Religion		
Hindu and others[1]	411	81.2
Jain	31	6.1
Muslim	64	12.6
Migrant status		
Migrant	19	3.8
Born in Delhi	487	96.2
Total	506	100.0

Note: 1. "Hindu and others" include 406 Hindus and 3 unidentified.

The majority (98.0%) of our sample entrepreneurs are males. The minority of female entrepreneurs run their business in tailoring, beauty parlors, etc. Our sample includes entrepreneurs belonging to religious minorities of Jains (6.1%) and Muslims (12.6%). Jain businessmen tend to register their firms more while Muslim businessmen less than Hindu businessmen.

As northeastern areas of Delhi have a large proportion of migrant population in them,

it was expected that a fairly large number of owners of micro and small enterprises would be migrants from neighboring areas. Contrary to our expectation, only 3.8% of respondents claimed that they are migrants from other states. Of the 19 migrants, three are from Haryana and the remaining are from Uttar Pradesh. Most of them are from districts bordering Delhi, i.e., Meerut, Baghpat, and Bulandshahar. Of the 19 migrants, only nine gave us information on their duration of stay in Delhi. The average duration is 23.8 years. Profession of all the migrants before coming to Delhi was agriculture. The share of migrants is higher among Muslim businessmen. Not a single respondent has disclosed his/her caste.

Regarding the relationship of respondents with the owner of enterprise, it was found that 94.5% were owners while 3% of respondents served the enterprise as managers. On an average, the number of years the respondents has been the head of the enterprise is 10 years.

3.3 Characteristics of Sample Firms

The distribution of the enterprises by age of enterprises is shown in Table 5. As many as 29.6% of enterprises were established during 2001-2005 followed by 24.9% during 1994-2000. About 21.2% of firms were established during 2006-2010. The oldest firm in our sample was established in 1955, which is currently run as an unregistered firm. The average age (standard deviation) of the firm is 12.4 years (7.8 years). To another question on who established the enterprise, 89.5% of respondents indicated that the owners themselves established it.

Table 5: Distribution of firm age

	Number	%
Distribution of firms by the year of establishment		
Before 1994	43	8.5
1994 - 2000	126	24.9
2001 - 2005	150	29.6
2006- 2010	107	21.1
After 2010	80	15.8
Total	506	100.0

To capture the employment creation by these micro and small enterprises, we asked respondents how many people are working under the respondent entrepreneur. These people are classified into males and females on the one hand and employees and unpaid family members on the other. As the manager himself/herself is also an important part of the labor force in micro and small enterprises, we calculated the total labor force as the sum of 1 (the

manager), unpaid family members (males and females), and employees (males and females). As shown in Table 6, the average (standard deviation) of the total labor force is 7.9 persons (7.5 persons). Out of them, 67.8% are employees, 2.7% are females, and 6.7% are unpaid family members. Although employees comprise the largest part of the total labor force, its distribution is skewed. Out of the 506 sample firms, 74 (14.6%) have no employees at all, implying the small size of their business as well as their strong self-employment orientation. The majority (60.1%) of firms employed only one to nine persons. There are only 34 firms (6.7%) that employed 20 or more persons. The median number of employees among the 506 sample firms was four.

In Table 6, we also show whether the firm has technical specialists in the labor force, either as an employee or owner or unpaid family member. Out of the 506 sample firms, only 64 (12.6%) had such specialists. As we already showed that out of the total 506 entrepreneurs, 26 entrepreneurs (5.1%) had some technical qualifications. Therefore, these data indicate that employing staff with technical qualifications is not frequent among micro and small enterprises in northeastern Delhi. The majority of employees in these firms obtain skills through a learning-by-doing method.

Table 6: Pattern of employment

	Average	(Standard deviation)
Total labor force[1]		
Number of labor force	7.87	(7.49)
Share of employees in the labor force	0.678	(0.319)
Share of females in the labor force	0.027	(0.073)
Share of unpaid family members in the labor force	0.067	(0.175)
	Number	%
Distribution of firms by the number of employees		
0	74	14.6
1-9	304	60.1
10-19	94	18.6
20 or more	34	6.7
Existence of technical specialists[2] in the labor force		
The number of firms with technical specialists	64	12.6
The number of firms without technical specialists	442	87.4
Total	506	100.0

Notes: 1. The total labor force is defined as the entrepreneur himself/herself, employees, and unpaid family members. Therefore, its minimum is 1.
2. A technical specialist is defined as a person having "Certificate", "Diploma", or "Degree" in the engineering or fields relevant to the business.

The amount of investment on the enterprises is shown in Table 7. The average investment is INR 1.21 million, with a large standard deviation of INR 2.05 million. One of the reasons for the large standard deviation is difference in investment size across industries. Although its details are omitted from this paper for brevity, enterprises in the manufacturing sector invest more than enterprises in the service sector. Within the manufacturing sector, firms producing wooden products, auto parts, electrical/wires, and steel products tend to invest more than other manufacturing firms.

All of the 506 sample firms fall in the category of micro or small enterprises under the criterion of the 2006 MSMED Act (see Subsection 2.1 for the criterion). If we compare the current investment in Table 7 with the MSMED criterion,-35 firms in the manufacturing sector and 44 firms in the service sector are classified as small enterprises, while the rest (by far the majority) are classified as micro enterprises. The actual share of small firms in our sample is even smaller than this because the MSMED criterion does not include land and building in the investment capital while our definition in Table 7 includes the value of land and building. As detailed information on assets is missing for the majority of our sample firms, we cannot show the investment values according to the MSMED criterion.

Table 7: Investment characteristics

	Sample size	Average	(Standard deviation)
Current investment[1] value (INR million)	500	1.211	(2.047)
Investment value at the time of firm establishment			
Nominal value at the time of estab. (INR million)	501	0.460	(1.232)
Real value in 2014 prices[2] (INR million)	501	1.111	(2.671)
		Number	%
How the initial investment was financed?			
Own saving only		104	20.6
Informal borrowing and own saving		222	43.9
Borrowed from banks and/or government		180	35.6
Total		506	100.0

Notes: 1. Investment in this table includes the total of values in land, building, machinery, and equipment. 2. Nominal values were converted into the value in 2014 prices using annual inflation rate of 0.065 (the average WPI inflation rate in India in the last decade taken from Government of India 2015) and firm age information.

The amount of investment at the time of establishment of the firm is also shown in Table 7. The average (standard error) initial investment is INR 0.46 million (INR 1.23 million).

Comparing the nominal values of initial and current investment gives the impression of a steady growth of investment over these years in these firms. However, adjusting for inflation, the average of the initial investment in 2014 prices is estimated at INR 1.11 million, which does not reveal a very large difference from the average current investment at INR 1.21 million. We need to be careful in interpreting the investment data, as there are five or six missing observations and the estimates are based on rough estimates by the respondent entrepreneurs.

We are more confident about the data quality regarding the funding of enterprises at the time of its establishment. In the questionnaire, we asked them about the source of funding out of ten possible choices. Based on the responses to these questions, we compile three dummy variables that are mutually exclusive. Its distribution is shown in Table 7. Out of the 506 sample firms, 104 (20.6%) used only their "own saving", which includes savings from previous occupation and the sale of land. The majority of 222 (43.9%) combined such own saving with various forms of informal borrowing. The most important source of informal borrowing was "friends/relatives", followed by Chit funds and moneylenders. Only 180 (35.6%) had access to formal credit from banks and/or government agencies, in addition to their own savings and informal borrowings. Our data thus indicate that entrepreneurs depend on friends and relatives more than public owned financial institutions.

Combining labor and capital, firms run their businesses, resulting in income for workers and profit for entrepreneurs. In the survey, we asked about details on costs and revenues, such as raw material, salary, electricity charges, repair and maintenance, consumables, license fees, taxes, service charges for work done by other enterprises, etc. However, many of the sample firms gave only total operating cost incurred and receipts during the previous month of the survey. For this reason, we summarize the sales and current profit information in Table 8 without showing details of their components.

Out of the 505 firms that reported us about their total cost and revenue, 497 firms (98.4%) had positive profits. A careful examination of the eight firms that reported negative profits shows that they either suffered a highly transient shock or they were subject to substantial measurement error. Therefore, we summarize the sales and profit information for the 497 firms only in Table 8. The average (standard deviation) of monthly sales is INR 0.542 million (INR 0.700 million) and the average (standard deviation) of monthly profit is INR 0.176 million (INR 0.442 million). The average profit is modest, in comparison to the salary level of middle classes in Delhi. What is more striking is the very large standard deviation. One of the reasons for the large standard deviation is heterogeneity across industries. Although its details are omitted for brevity, average monthly costs of units engaged in manufacture of wooden products are highest, followed by electrical goods and wire manufacturing. Within the

service sector, highest cost is incurred by publishing units followed by garments-related services. A clear contrast between manufacturing and service sector firms is that the average monthly operating costs is commensurate with receipts in the case of manufacturing. This may be attributed to the fact in case of the service sector, the cost of raw material is negligible, whereas manufacturing firms tend to incur higher operating costs.

Table 8: Sales and profits

		Number	%
Distribution of firms by current profit in the last month[1]			
Firms with positive current profit		497	98.4
Firms with negative profit		8	1.6
Firms with information on current profit		505	100.0
Firms with missing information		1	
	Sample size	Average	(Standard deviation)
Profit indicators among firms with positive current profit			
Sales (INR million)	497	0.542	(0.700)
Current profit (INR million)	497	0.176	(0.442)
Profit/Sales Ratio[2]	497	0.378	(0.226)
Returns on Assets [ROA][3]	491	0.214	(1.586)

Notes: 1. Current profit is defined as Sales - (intermediate input costs + fuel costs + labor costs + repair expenditure + transport expenditure + license fee + indirect tax + rental fee + contract expenditure + administration cost + other expenditure).
2. Profit/Sales Ratio is defined as the current profit divided by sales.
3. ROA is defined as the current profit divided by the current investment. Due to missing information on the current investment, n becomes smaller.

In Table 8, we report two measures of relative profitability: Profit/Sales Ratio and ROA. The absolute profitability measures tend to be higher among larger and registered firms in our sample, while the relative profitability measures tend to be higher among smaller and unregistered firms in our sample.

3.4 Innovation

To a query on innovation carried out since the time the enterprise was set-up or the respondent had been heading the enterprise, 409 firms (80.8%) of the total 506 responded that the enterprise has expanded while 19.2% indicated it has not. Expansion can be achieved through factor accumulation and/or improvement in productivity. Innovation is usually regarded as the key in productivity improvement. However, the expansion through factor

accumulation can also be facilitated by innovation, such as the improvement in workers' skill or quality improvement in product or capital equipment. Therefore, we interpret that these 409 firms adopted some kind of innovation.

We then asked these 409 firms what kind of innovation they adopted to achieve the expansion of their business. We listed 18 choices. In Table 9, we re-classify the answers by the firms with respect to these 18 choices and show results for four broad areas of innovation: Process innovation, Product innovation, Marketing innovation, and Training of workers. The "process innovation" dummy takes the value one if the firm achieves the expansion without changes in the nature/quality of products/services produced. Out of the total 506, 200 firms (39.5%) adopted such innovation. Such innovation was more often adopted by smaller, unregistered firms. The "product innovation" dummy takes the value one if the firm achieves the expansion through taking up production of new products/services or changing the quality of old products/services. Out of the total 506, 273 firms (54.0%) adopted such innovation. The definitions for the other two measures are obvious. Marketing innovation was adopted by 38.5% of firms while training of workers was conducted by 52.4% of the firms.

Table 9: Innovation

	Number	% to the total	% among innovators
Number of firms adopted the innovation since the establishment			
Any innovation	409	80.8	100.0
Process innovation	200	39.5	48.9
Product innovation	273	54.0	66.7
Marketing innovation	195	38.5	47.7
Training of workers	265	52.4	64.8
Total	506	100.0	

Notes: We asked questions about innovations in 18 areas. If at least one of them was adopted, the firm would be considered to have carried out at least some innovation.

Against those who did not adopt any innovation, we asked reasons for no innovation in the questionnaire. The major constraint of the enterprises for not innovating is "financial constraint", followed by "limited market for products", and "lack of will."

3.5 Entrepreneurs' Trust Behavior

In the survey, we measured trust attitudes of the head of enterprise towards general public and specific category of people. The level of trust is extremely important for any entrepreneur. The trust level also reflects the social behavior of the people. It may be difficult

to do business in a society that lacks trust among the people. With this understanding in mind, we employed a modified version of trust questions typically adopted in GSS. As the five-point Likert scales did not work well in the field, we employed three-point Likert scales, namely: most people can be trusted; some people can be trusted while others cannot be; most people cannot be trusted at all. The results are shown in Table 10.

Findings are a good reflection of Indian society. The results suggest that 37.5% of respondents opined that most people can be trusted while the percentage of those who opined that some people can be trusted while others cannot be is very high, i.e, 61.1%. A small percentage (0.2%) were also of the view that most people cannot be trusted. It may be inferred that business environment in India is friendly while due care has to be taken while dealing with new partners.

Table 10: Entrepreneurs' trust behavior

	Number (%) of choosing the option out of 506 sample entrepreneurs				
	Most people can be trusted	Some can be trusted while others cannot trusted	Most people cannot be trusted	No opinion	Average (std.dev) of trust indicators[1]
General	190	309	1	6	0.374
	(37.5)	(61.1)	(0.2)	(1.2)	(0.488)
Relatives and friends	398	101	0	7	0.787
	(78.7)	(20.0)	(0.0)	(1.4)	(0.410)
Neighbors	406	91	3	6	0.796
	(80.2)	(18.0)	(0.6)	(1.2)	(0.418)
Business buyers/sellers	432	65	2	7	0.850
	(85.4)	(12.8)	(0.4)	(1.4)	(0.369)
Municipal Corporation	261	223	14	8	0.488
	(51.6)	(44.1)	(2.8)	(1.6)	(0.553)
Govt officials for services	177	304	15	10	0.320
(water, electricity, etc.)	(35.0)	(60.1)	(3.0)	(2.0)	(0.527)
Police	159	314	20	13	0.275
	(31.4)	(62.1)	(4.0)	(2.6)	(0.528)
Law officers	183	307	4	12	0.354
	(36.2)	(60.7)	(0.8)	(2.4)	(0.495)

Note: 1. Each of the trust indicator takes the value +1 (most people can be trusted), 0 (some; no opinion), -1 (most people cannot be trusted).

Table 10 shows that entrepreneurs feel that the relatives and friends are trustworthy. Neighbors are also as trustworthy as relatives and friends. Police persons are considered as most untrustworthy while other government officials got slightly better rating but majority are considered untrustworthy. Largest percentage (85.4%) of sample entrepreneurs opined that most of the business transaction partners are trustworthy. An inference can be drawn that the potentiality of doing business exists in India but the business environment is spoilt by the business facilitators, i.e., government officials or the police. Corruptions or harassment by the police and administration are a real concern in India as pointed out in a study by Carlin and Schaffer (2012) based on the World Bank Enterprises Surveys as well.

In Table 10, as an aggregate measure of trust behavior, the four choices are aggregated into an indicator variable taking +1, 0, or -1. The average of the indicator shows a clear distinction of trustworthiness felt among Indian entrepreneurs: friends/relatives, neighbors, and business transaction partners comprise a high trustworthy group, whereas government officials, law officers, and the police comprise a low trustworthy group.

3.6 Policy Related Issues

We report below survey results related to policy issues in three parts. First, how entrepreneurs view their current conditions regarding various infrastructural facilities? As infrastructural development usually involves public action, this part shows potential demand for policy interventions. The results are shown in Table 11.

A fairly large percentage (59.5%) of the respondents feel that the supply of electricity is adequate. (However, many of our respondents claimed that electricity charges are very high; see below.) The opinion about availability of water is divided. Roughly a half (49.8%) consider that water supply to be adequate. The opinion about road connectivity is similar to that of water supply. Majority of the respondents are satisfied with the availability of ICT infrastructure.

Majority of the respondents are not satisfied with the core business infrastructure. For instance, 51.6% feel that product testing facilities are either poor or bad. Similarly, 58.1% of respondents are of the opinion that training and skill development facilities are not enough. More than 50% opined that banking infrastructure is inadequate in the district. Lack of appropriate banking facilities could be a major problem in running the business smoothly. Similarly, environmental protection facilities are considered inadequate by the majority of respondents. We can infer from the findings that, on the whole, the core business infrastructure is unsatisfactory in the district.

Table 11: Availability of infrastructure

Type of Infrastructure	Available and adequate	Available but poor	Available but very bad	Not available
1. Electricity supply	301 (59.5)	186 (36.8)	19 (3.8)	0 (0.0)
2. Water supply	252 (49.8)	204 (40.3)	49 (9.7)	1 (0.2)
3. Road connectivity	246 (48.6)	213 (42.1)	47 (9.3)	0 (0.0)
4. Internet connectivity	313 (61.9)	166 (32.8)	24 (4.7)	3 (0.6)
5. Telephone connectivity	307 (60.7)	161 (31.8)	33 (6.5)	5 (1.0)
6. Product testing facility	228 (45.1)	205 (40.5)	56 (11.1)	17 (3.4)
7. Product marketing facility	238 (47.0)	206 (40.7)	53 (10.5)	9 (1.8)
8. Skill development or training facility	186 (36.8)	236 (46.6)	58 (11.5)	26 (5.1)
9. Financial infrastructure				
9.1 Banking facility	183 (36.2)	219 (43.3)	62 (12.3)	42 (8.3)
9.2 Soft credit from institutional sources like SIDBI	158 (31.2)	236 (46.6)	57 (11.3)	55 (10.9)
10. Environment protection facility				
10.1 Facility for drainage, waste disposal and treatment of industrial effluents	145 (28.7)	285 (56.3)	74 (14.6)	2 (0.4)
10.2 Facility for disposal of toxic waste	150 (29.6)	272 (53.8)	77 (15.2)	7 (1.4)

Note: Row percentages out of the total 506 are reported in parentheses.

The second point of investigation was about the measures these entrepreneurs think important in improving the business environment faced by micro and small enterprises. We prepared a list of 15 possible measures and asked the respondents to choose a maximum of three measures they favored most. The results are shown in Table 12, which re-arranges the 15 measures in the order of popularity.

The suggestion supported by the largest number of respondents, 192 (37.9%) is banking services and loan at low interest rate. Finance is a major problem for micro and small enterprises in India. There are two major issues here, i.e., high rate of interest and archaic procedures and coditionalities. In fact the kind of procedures and the documents required for accessing loans are very complex. Consequently, the cost of loan becomes very high and causes enormous delays. Although there exists an exclusive financial institution named Small Industry Development Bank of India (SIDBI) for MSMEs, it is very difficult to get loans from there. Next to the credit, tax reduction is listed by 28.1% of the respondents as the most desirable measure. Apparently, the idea behind lower tax rate is to remain price competitive in the presence of Chinese goods. Improvement in road infrastructure and water supply is the suggestion given by the third largest majority of respondents (27.1%). The road conditions in the area are really in a bad shape. Another suggestion shared by the next highest percentage of

respondents (26.5%) is the reduction in electricity charges and improvement in supply. The supply of utility services is a real problem in the entire region of northeastern Delhi. Distribution of electricity in the areas is no longer with the government agency. It is supplied by BSES Yamuna Power Limited, which is unsubsidized and costly. Apart from being costly, its availability is also a problem. In the absence of electricity, enterprises need to use expensive generators. Other suggestions given by the respondents are provision of loan for machinery, and electricity at subsidized rate (24.7%), training facilities for new technology to the staff and management (24.3%), and good relationship with government agencies (19.8%).

Table 12: Important measures for improvement in micro and small businesses

Measure	Number in favor	% out of the total 506
Banking services and loan at low interest rate	192	37.9
All taxes should be reduced	142	28.1
Improve the road infrastructure and water supply	137	27.1
Reduce electricity charges/Improve supply	134	26.5
Provide loan, machinery, and electricity at subsidized rate	125	24.7
Availability of training facilities for new technology to the staff and management	123	24.3
Good relationship between enterprise head and Government representatives	100	19.8
Availability of raw material at reduced cost	78	15.4
Facility for drainage, cleaning and waste disposal	40	7.9
Improvement in marketing facility	33	6.5
Custom duty on goods made in China	24	4.7
Corruption and bribery should be removed	14	2.8
Change labor laws	11	2.2
Improvement in the Government rules and regulations	11	2.2
Industrial area should be approachable	10	2.0

Note: Respondents were allowed to choose a maximum three measures out of fifteen listed in this table.

4. Conclusion

To deepen our understanding of the urban informal sector and small enterprises in India, we conducted a baseline study of micro and small entrepreneurs in northeastern areas of Delhi. The questionnaire-based survey was implemented during November-December 2014, in which 506 entrepreneurs were surveyed who ran enterprises in the manufacturing or service sector. The sample was drawn from a business directory and all fell in the category of micro or small enterprises as defined in the MSMED Act of 2006. In this paper, we described details of the baseline survey and the key variables collected.

Out of 506 sample entrepreneurs, 97% were owned by single individuals, and 46% were unregistered with the government. The majority of them were established during the period between 1994 and 2005 and they currently hire very few employees (its median is four). To finance the initial investment, most of the entrepreneurs combined their own savings with informal credit. Formal credit from banks and government agencies was available only to approximately one third of our sample firms. Despite difficult environments, sample firms actively engaged in innovation, especially in product, process, and marketing innovation. With intense competition from large domestic firms and Chinese products in Indian market, firms are compelled to engage in some kind of innovation activities just to survive in the market. It is worth mentioning here that until 1991, certain products were reserved to be manufactured by small-scale industries (SSIs). Small firms no longer enjoy that protection as deregulation started in 1991 and by 2005 protection was completely removed. In addition to the standard list of questions, we included trust questions in the General Social Survey style. The trust level towards relatives and friends, neighbors, and business buyers/sellers was found to be significantly higher than the trust level toward government officials, the police, and law officers.

Based on the descriptive results in this paper, we may conclude that micro and small firms are facing intense competition but they are willing to sustain their business through innovations. Finance and physical infrastructure are emerging as major bottlenecks for these micro and small enterprises to grow further. Lack of skills and technology is also constraining these firms. The government needs to provide or coordinate measures for better infrastructure and services not only in quantity but also in quality. As shown in this paper, these issues are repeatedly raised by these businessmen. It remains a future research question, however, whether and how much such interventions lead to improvement in productivity. The trust behavior of these entrepreneurs needs to be investigated in more detail to understand the source of entrepreneurship. For this purpose, we are supplementing the data through behavioral economics experiments conducted on our sample entrepreneurs, regarding their social, risk, time, and leadership preferences. Combining the experimental data with the current data set is left for further research.

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