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INFORMAL MANUFACTURING SECTOR IN INDIA – PRE AND POST REFORM GROWTH DYNAMICS

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The informal manufacturing sector (IMS) in India has been a major part of the economy. Whether its growth is due to entry of people in distress, or whether it is a vibrant and growth oriented sector is debatable. In this paper, the growth dynamics of IMS in India over the period 1984 to 2000 is explored with special reference to the Structural Adjustment Programme (SAP) and plausible factors determining the growth pattern are sought to be identified. This growth is observed to be neither smooth nor uniform. The IMS cannot be labelled either a distress driven sink or a dynamic alternative economic avenue in blanket term as existences of both the segments are detected. While sustainability of the distress driven segment is questionable, the dynamic segment is likely to act as the engine of future growth. Distinctly different sets of policies are recommended for the two different segments of IMS.

INTRODUCTION

The informal sector in India has been a major part of the economy. It has been providing employment to a substantial number of people and is also contributing significantly to the national output. As a result, the informal manufacturing sector (IMS) has seen a flurry of research activities over the last few years. Apart from a large number of area and sector-specific micro level studies [Dhesi & Wadhwa (1980), Banerjee (1983), Romatet (1983), House (1984), Samal (1990), Shaw (1990), Swarooparani & Galab (1998), Patrick (1998)], there have been quite a few macro level studies on IMS in India to bring out the broad trends at the national perspective [Kundu (1993), Mitra (1994), Kundu & Lalitha (1998), Mitra (1998), Shah (1998), Chadha (1999), Unni (2003)]¹. Conceptually, the IMS in India is generally taken to be composed of three segments - OAMEs, NDMEs and DMEs². Extensive data on these segments of IMS have been provided by the periodical surveys of NSSO and CSO, the latest of which covers the period 2000-01. The size of the sector in terms of

enterprise number and employment has remained quite stable from 1984 onwards, (in fact, marginally decreasing during 1984-94 but increasing thereafter) and in 2000, there were 17 million enterprises in the IMS providing jobs to about 37 million people. There is no doubt that this sector has mitigated the problem of joblessness up to a great extent. Few scholars have argued that this growth occurred due to entry of people in distress who otherwise would have been openly unemployed. This argument seems untenable and has been readily refuted by others. They comment that there exists a vibrant and growth oriented segment within the informal sector, though presence of a distress segment cannot be ruled out altogether. Considering the fact that the growth of IMS in India has been neither smooth nor uniform over both space and time, this heterogeneity seems more plausible. In this paper, we try to look into the growth dynamics of IMS in India over the period 1984 to 2000. The segments exhibiting high growth are sought to be identified and plausible factors determining the growth pattern are explored. The NSS data available and used for this study refers to the periods 1984-85, 1989-90, 1994-95 and 2000-01³. This also helps us to analyse the growth dynamics with reference to the Structural Adjustment Programme (SAP) initiated in 1991. Movements during the period 1984-89 can be considered as pre-reform dynamics while that during 1994-2000 as post-reform dynamics. Movements during 1989-94 could be considered as the transitional period.

OVERVIEW OF GROWTH PATTERN

The growth of IMS in India has experienced a mixed trend. Both enterprise number and employment declined during the first two quinquenna but increased in the last one, and the total employment in 2000-01 surpassed the 1984-85 level. However, employment in the urban segment of IMS has shown a continuous increasing trend from 1984 to 2000. These broad trends however have not been uniform over the three periods (Table 1 and 2). Let us now explore them.

Pre-Reform Period

In the pre reform period, enterprise number in both OAMEs & NDMEs decreased while that of the DMEs increased. Employment decreased in the OAMEs & rural NDMEs but increased in the DMEs and urban NDMEs. Employment growth has been

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positive in all the segments of informal sector in Punjab and Gujarat (Appendix Tables A-1 and A-2). Enterprise numbers for these two states have also increased for all the segments except rural DMEs in Gujarat and rural segments of OAMEs and DMEs in Punjab. Employment increased for OAMEs in Haryana, Karnataka and Orissa; for the DMEs in all the states except urban areas of Andhra Pradesh, Karnataka, Tamilnadu, West Bengal and rural areas of Madhya Pradesh and Delhi. For the rural NDMEs employment decreased in most of the states except Maharashtra, Andhra Pradesh, Kerala, Himachal Pradesh and Rajasthan. For the urban NDMEs, employment increased in Delhi, Haryana, Maharashtra and Orissa. The highest growth in employment is observed for the rural OAMEs of Himachal Pradesh, while the highest decline is observed for the urban NDMEs of Kerala. When the growth rates are disaggregated according to the activity groups, similar variation is observed (Appendix Tables A-3 and A-4). In the rural areas positive employment growth is observed in all the segments for Natural Fibre Products, Paper Products, Basic Chemicals and Miscellaneous Manufacturing items. In the urban areas, employment increased in Wool & Silk Textile, Paper Product, Metal Product, Electrical & Electronic Machinery, Transport Equipment and Miscellaneous Manufacturing items for all the segments. Employment decreased in Food Products, Cotton Textiles, Leather Products and Basic Metals sector⁴. Among all the segments of the informal sector, most impressive growth is observed for rural NDMEs producing Natural Fibre Products while highest decline in employment is observed for urban NDMEs producing Textile Products.

Transition Period

The decreasing trend of enterprise number and employment continued during 1989-94 period also. Number of enterprises declined in the OAMEs and rural NDMEs, but increased in DMEs and urban NDMEs. However, employment increased only in the urban NDMEs and urban DMEs, and that too marginally by 0.8 per cent and 0.7 per cent per annum respectively. The decrease in employment however is lesser compared to the decrease in enterprise number, indicating an increase in employment per enterprise.

his invaluable guidance. The responsibility of all remaining errors is solely hers.

However, this trend of decline in extent was not experienced in all the states. Employment in all the segments of informal sector increased in Delhi and urban Maharashtra but Enterprise numbers have increased in all the segments only for urban Maharashtra (Appendix Tables A-5 and A-6). Employment increased for both rural and urban OAMEs in Uttar Pradesh and Bihar; for NDMEs in Karnataka and Madhya Pradesh; and for DMEs in Gujarat, Maharashtra, Punjab, Tamilnadu, rural areas of Bihar Haryana, Karnataka, Uttar Pradesh and urban areas of West Bengal. Among different segments, highest employment growth was exhibited by OAMEs in Delhi and highest decline in employment was observed for rural NDMEs in Himachal Pradesh. Industry group-wise study reveals that employment increased for the Food Products (NIC 21) and Wool & Silk Textile sector in the rural areas, and for the Food Products (NIC 20), Wood Products and Leather Products sector in urban areas (Appendix Tables A-7 and A-8). Employment has decreased in the Basic Chemical sector both in the rural and urban areas. Employment in all the segments has also decreased in rural units producing Non-metallic Mineral products and Transport Equipment and the urban units producing Cotton Textile and Paper Products. Highest growth rate of employment is exhibited by the rural DMEs producing Food Products and highest decline in employment occurred in the rural DMEs producing Paper Products.

Table - 1

Enterprises and Employment in the Informal Manufacturing Sector in India 1984 - 2000									
<i>Year</i>	<i>Sector</i>	<i>Enterprise Number</i>				<i>Employment</i>			
		<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>
1984	Rural	13438.5 (68.1)	1025.2 (5.2)	179.2 (0.9)	14642.9 (74.3)	21912.5 (59.5)	2362.3 (6.4)	1993.8 (5.4)	26268.6 (71.3)
	Urban	3648.1 (18.5)	1133.6 (5.7)	295.7 (1.5)	5077.4 (25.7)	5315.2 (14.4)	2537.0 (6.9)	2704.6 (7.3)	10556.8 (28.7)
	Total	17086.7 (86.6)	2158.8 (10.9)	474.9 (2.4)	19720.4 (100.0)	27227.7 (73.9)	4899.3 (13.3)	4698.4 (12.8)	36825.3 (100.0)
1989	Rural	11281.7 (69.2)	737.7 (4.5)	224.0 (1.4)	12243.4 (75.1)	19530.9 (55.1)	2174.9 (6.1)	2752.0 (7.8)	24457.8 (68.9)
	Urban	2822.1 (17.3)	889.4 (5.5)	343.1 (2.1)	4054.6 (24.9)	4985.2 (14.1)	2937.4 (8.3)	3093.5 (8.7)	11016.1 (31.1)
	Total	14103.8 (86.5)	1627.2 (10.0)	567.1 (3.5)	16298.0 (100.0)	24516.2 (69.1)	5112.3 (14.4)	5845.5 (16.5)	35473.9 (100.0)
1994	Rural	9534.9 (65.7)	668.0 (4.6)	294.2 (2.0)	10497.1 (72.4)	17844.7 (53.7)	1828.9 (5.5)	2452.4 (7.4)	22126.0 (66.6)
	Urban	2714.8 (18.7)	932.0 (6.4)	360.2 (2.5)	4007.0 (27.6)	4817.3 (14.5)	3057.0 (9.2)	3202.5 (9.6)	11076.8 (33.4)
	Total	12249.7 (84.5)	1600.0 (11.0)	654.4 (4.5)	14504.1 (100.0)	22662.0 (68.3)	4885.9 (14.7)	5654.9 (17.0)	33202.8 (100.0)

	Rural	11058.2 (65.0)	629.5 (3.7)	246.8 (1.4)	11934.6 (70.1)	19147.2 (51.6)	1932.9 (5.2)	2905.7 (7.8)	23985.7 (64.7)
2000	Urban	3607.2 (21.2)	1082.2 (6.4)	400.2 (2.4)	5089.5 (29.9)	5914.0 (15.9)	3628.8 (9.8)	3552.2 (9.6)	13095.1 (35.3)
	Total	14665.4 (86.1)	1711.7 (10.1)	647.0 (3.8)	17024.1 (100.0)	25061.2 (67.6)	5561.6 (15.0)	6457.9 (17.4)	37080.8 (100.0)

Note: Numbers in Thousands, Figures in parenthesis are Percentages to Total informal manufacturing employment. Percentage figures may not add up due to rounding off.

Source: NSSO (1989), NSSO (1990), NSSO (1995), NSSO (1998), NSSO (1998a), NSSO (2002), NSSO (2002a), CSO (1985), CSO (1985a), CSO (1990), CSO (1995), CSO (1995a).

Post-Reform Period

The post reform period however witnessed a reversal of trend. While employment increased in all the segments of IMS, number of enterprises increased for all the segments except rural NDMEs and rural DMEs. The increase in total employment is however less than the increase in enterprise number leading to a decrease in employment per enterprise. One possible reason of this may be fragmentation of existing units and increase in small enterprises⁵. In fact, the share of OAMEs in total number of enterprises has increased during this period thereby strengthening this notion. Only for the rural NDMEs and DMEs, there seem to be some consolidation exhibited by a rise in employment per enterprise. However, scholars are sceptical regarding this consolidation. It is noted that much of this is due to closure of existing units and accumulation of redundant labour in family owned units. Although merger of units, especially for the DMEs cannot be altogether ruled out. This increasing trend however is not all pervasive. Employment and enterprise number in IMS declined in Bihar, Gujarat, Orissa and Uttar Pradesh (Appendix Tables A-9 and A-10). Number of enterprises declined also in Himachal Pradesh. Enterprise number decreased in – Delhi for rural OAMEs; Delhi, Madhya Pradesh, Rajasthan and Tamil Nadu for rural NDMEs; Madhya Pradesh for urban NDMEs; and Andhra Pradesh, Delhi, Haryana, Karnataka, Tamil Nadu for rural DMEs. Employment decreased in Delhi and Himachal Pradesh for rural OAMEs; Himachal Pradesh for urban OAMEs; Delhi and Madhya Pradesh for rural NDMEs; and Delhi, Haryana and Tamil Nadu for rural DMEs. Among the different industry groups, employment increased in Food Products, Beverages, Textile Products, Paper and Paper Products, Basic Metals, Metal Products and the Equipment sectors in both rural and urban areas of almost all the states⁶. Employment declined in most of the states for the Textiles sector and the Leather products sector (Appendix Tables A-11 and A-12)⁷.

Table - 2

Growth Rate of Enterprises and Employment in the Informal Sector in India

<i>Year</i>	<i>Sector</i>	<i>Enterprise Number</i>				<i>Employment</i>			
		<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>
1984-1989	Rural	-3.44	-6.37	4.56	-3.52	-2.27	-1.64	6.66	-1.42
	Urban	-5.00	-4.74	3.02	-4.40	-1.27	2.97	2.72	0.86
	Total	-3.76	-5.50	3.61	-3.74	-2.08	0.85	4.47	-0.74
1989-1994	Rural	-3.31	-1.97	5.61	-3.03	-1.79	-3.41	-2.28	-1.98
	Urban	-0.77	0.94	0.98	-0.24	-0.68	0.80	0.69	0.11
	Total	-2.78	-0.34	2.91	-2.31	-1.56	-0.90	-0.66	-1.31
1994-2000	Rural	2.51	-1.04	-2.94	2.23	1.24	0.95	2.96	1.42
	Urban	4.91	2.53	1.85	4.11	3.52	2.94	1.69	2.76
	Total	3.10	1.14	-0.23	2.75	1.68	2.22	2.24	1.89

Note: Growth rates are annual compound growth rates.

Source: Author's calculation based on sources mentioned for Table 1.

It is thus evident that the growth pattern of IMS has changed significantly from the pre-reform period to the post-reform period. The slump witnessed during the pre-reform and transitional period changed to a significant growth during the post-reform period. Moreover, there has also been a transition regarding the industries exhibiting high growth. More and more sectors are exhibiting high growth and there seems to be certain synchronisation between rural and urban growth dynamics. Activities growing in the post-reform period include consumer non-durables like Food Products and Beverages; consumer semi-durables like Textile Products (probably fuelled by the tailoring segment); and Intermediate goods like Metal Products, Equipment and Paper Product sector. Some economists have argued that the post reform boom is basically supply driven where people enter IMS due to the post reform slump in the organised sector employment. However, this argument is refuted by the fact that much of the IMS boom is demand driven, specially the consumer semi-durables and intermediate goods sector. It may be inferred that the post reform growth in IMS is driven by both growth oriented and distress factors. There are substantial variations across segments and activity groups. Considering this, we now seek to identify the growth oriented and distress segments within the IMS.

GROWTH OF INFORMAL SECTOR - SOME POSSIBLE CAUSAL FACTORS

It has already been stated that there are two opposite views regarding the interpretation of the growth dynamics of the IMS. According to some scholars, the IMS, especially the urban segment of it, is a manifestation of an involuntary process. Backed by the theoretical premises of the basic Todaro Model (Todaro, 1969) of absorption of

surplus labour in urban informal sector, they conclude that the IMS, at least the urban segment of it, is by and large a distress phenomenon. It is found to be characterised by negative association with organised factories (Mitra, 1994) and positive association with urban poverty (Mitra, 1998) and majority of the units evolving as a surviving strategy for the urban poor (Kundu, 1998). So, the urban IMS is anticipated to be a distress phenomenon having close association with high incidence of poverty, slackening factory sector growth, etc. On the contrary, growth of rural non-farm sector is crucially dependent on the performance of the agricultural sector (Hazzel, 1991, cited from Chadha, 1999). The farm–non-farm linkage operates through improvements in agricultural performance leading to stimulation of demand for both consumer goods and agro-inputs. Thus, it is assumed that growth of small manufacturing enterprises (SMEs) in the rural areas will be closely associated with growth pattern of agricultural income (Per Capita Net State Domestic Product from agriculture - PCNSDPAg), level of rural development, etc.

In the next section, we consider the states as observations and explore the association between growth of urban IMS, growth of factory sector and incidence of poverty and then the growth of rural IMS, growth of PCNSDPAg and level of rural development indicated by Rural Development Index - RDI⁸. We consider the three broad segments of IMS separately.

Growth dynamics of the OAMEs

The growth rate of urban OAMEs is observed to be significantly negatively associated with the growth rate of factory sector for both the pre reform and the transitional period, indicating that they are having high growth in areas where factory sector growth is slackening (Table 3). This is evidence of absence of any scalar linkage between the factory sector and the smallest units among the IMS, whereby people are opening up their own tiny units in absence of opportunities in the formal sector. The association with base year incidence of poverty is observed to be positive for these two periods, which shows prevalence of their high growth in states with relatively higher incidence of poverty. For the rural OAMEs the association between its growth rate and both growth rate of PCNSDPAg and base year RDI are found to be negative for these two periods revealing that their growth is linked with low rural development. This indicates that the growths of both rural and urban OAMEs are manifestation of

distress in these two periods. Consequently, the OAMEs as a whole (rural and urban taken together) are considered and its association with total PCNSDP of the state is explored. It is observed that the association between growth rate of OAMEs and that of PCNSDP are negative for these two periods, supporting the notion that this segment has been distress driven in the pre reform and transitional periods.

Table - 3
Correlation between Growth of OAMEs and Possible Correlates

Segment	Correlates	1984-89		1989-94		1994-2000	
		Empt.	Ent. No.	Empt.	Ent. No.	Empt.	Ent. No.
Urban	Growth in Factory Empt.	-0.104	-0.103*	-0.134*	-0.086	-0.284	-0.318
	Incidence of Poverty	-	-	0.025	-	-	-
Rural	Growth in PCNSDP _{Ag}	-	-	-0.063	-0.062	-0.089	-0.086
	RDI	-0.096	-0.075	-0.030	-0.052	0.377	0.434
All	Growth in PCNSDP	-	-	-0.098*	-0.118**	-0.271	-0.160

Note: ** indicates significant at 5% level, * indicates significant at 10% level, coefficients with significance level above 20% are not reported.

Source: Author's calculation.

In the post reform period, the nature of association remained similar for the urban OAMEs. However, the magnitude of association has decreased and is no longer significant. For the rural OAMEs, while the association with PCNSDP_{Ag} has remained negative that with RDI has turned positive. This indicates a transition in the growth dynamics of the OAMEs. They are no longer as distress driven, as they were earlier, especially in the rural areas.

Growth Dynamics of the NDMEs

The growth dynamics of NDMEs exhibit substantial heterogeneity. It manifested itself as a distress driven phenomenon in the pre-reform period in both rural and urban areas (Table 4). Its urban segment had high growth in areas of slackening factory sector growth and high incidence of poverty, while the rural segment had high growth in areas with low agricultural growth and low level of rural development. In the transition period, the rural segment clearly broke out of distress syndrome and the association between its growth and that of agricultural income has become significantly positive. For the urban segment, the association with incidence of poverty has become negative in the transition period while with factory sector growth no significant association is observed. However, when the states are split according to

their PCNSDP into high income and low-income groups, interesting results are obtained. The association between urban NDME growth and Factory sector growth and that between rural NDME growth and RDI are found to be significantly negative for the low-income states and significantly positive for the high-income states (Table 5). This indicates that though in the low income states the NDMEs remained a distress driven phenomenon, at least in the high income states they have emerged as a growth induced segment during the transition period.

Table - 4
Correlation between Growth of NDMEs and Possible Correlates

<i>Segment</i>	<i>Correlates</i>	<i>1984-89</i>		<i>1989-94</i>		<i>1994-2000</i>	
		<i>Empt.</i>	<i>Ent. No.</i>	<i>Empt.</i>	<i>Ent. No.</i>	<i>Empt.</i>	<i>Ent. No.</i>
Urban	Growth in Factory Empt.	-0.217	-0.125**	-	-	-0.297	-0.317
	Incidence of Poverty	-	-	-0.026	-	-0.749**	-0.722**
Rural	Growth in PCNSDP Ag	-	-	0.094*	0.099*	-	-
	RDI	-0.100*	-0.062	-	-	0.530*	0.723*
All	Growth in PCNSDP	-	-	-0.016	-0.027	0.420*	0.463*

Note: ** indicates significant at 5% level, * indicates significant at 10% level, coefficients with significance level above 20% are not reported.

Source: Author's calculation.

The transition seems to continue in the post reform period. For the urban NDMEs, the association with poverty level is found to be significantly negative and for the rural NDMEs, the association with RDI is found to be significantly positive. The association with factory sector growth and agricultural income growth are observed to be insignificant. Combining the rural and urban segments strengthens this 'transition theory'. The association between growth of the NDMEs (rural and urban together) and total PCNSDP growth is observed to be significantly positive in the post reform period.

Table - 5
Contrasting Correlation for Different Groups of States for Growth in NDME Employment in 1989-94

	<i>High Income</i>	<i>Low Income</i>	<i>Low Poverty</i>	<i>High Poverty</i>
Urban NDMEs and Factory Empt growth	0.281*	-0.030	0.793*	-0.731*
Rural NDMEs and RDI	0.185*	-0.109*	-	-

Note: ** indicates significant at 5% level, * indicates significant at 10% level, coefficients with significance level above 20% are not reported.

Source: Author's calculation.

Growth Dynamics of the DMEs

The DMEs being the largest enterprises within the IMS are generally outcome of conscious economic decisions. Their expansion has naturally been growth oriented for all the three periods. The urban segments have been positively influenced by factory sector growth and negatively by poverty (Table 6). This perhaps indicates that the urban DMEs enjoy substantial linkages with the factory sector and some sort of complementary relationship exists between them⁹. The rural segments are positively associated with agricultural income growth and RDI. Combining the rural and urban segments together, the association with total PCNSDP growth is observed to be positive.

Table - 6
Correlation between Growth of DMEs and Possible Correlates

Segment	Correlates	1984-89		1989-94		1994-2000	
		Empt.	Ent. No.	Empt.	Ent. No.	Empt.	Ent. No.
Urban	Growth in Factory Empt.	0.425*	0.342	0.162**	0.069	0.086	-0.020
	Incidence of Poverty	-0.441**	-	-0.124*	-	-0.406*	-0.520*
Rural	Growth in PCNSDPAg	0.252	0.278	0.100*	0.124**	-	-
	RDI	0.309	0.191*	0.036	0.014	0.157	0.397
All	Growth in PCNSDP	-	-	0.114	0.087	-	-

Note: ** indicates significant at 5% level, * indicates significant at 10% level, coefficients with significance level above 20% are not reported.

Source: Author's calculation.

However, a hint of transition appears to be operative over time and the associations are weakening. The magnitudes of associations have decreased from the pre reform to the transitional period and from the transitional period to the post reform period.

It is thus evident that there is a clear segregation within the IMS regarding its growth dynamics. However, the segregation is not across location but across enterprise types. While the growth of the OAMEs are mostly distress driven in both rural and urban areas, that of the DMEs are mostly growth oriented¹⁰. The growth of the NDMEs overlaps both the factors. However, significant transition in this segmentation also is observed over time, especially for the NDMEs. While in the pre reform period they were mostly distress driven, a part of them became growth oriented during the transition period. And, in the post reform period, most of its expansion seems to be

growth oriented. Moreover, the OAMEs in the post-reform period are also less distress driven than they were in the pre-reform period, while the dynamism of the DMEs seems to be weakening¹¹. The compartmentalisation seems to have become less rigid in the post reform period compared to the pre-reform period. This brings up the possibility that even within these broad segments there may be activity groups that are distress driven and others that are growth-oriented, cutting across enterprise types. We try to identify them in the next section.

DYNAMIC ACTIVITY GROUPS

The growth dynamism of different activity groups are examined to determine which of them are distress driven and which are growth oriented. For this, association between growth of urban IMS (employment and enterprise number) and growth of factory sector employment has been examined for each of the activity groups separately with states as observations. Activity groups for which this association (indicated by correlation coefficient) is positive for the total urban IMS and at least two of the three segments of the urban IMS are labelled '*growth induced*' activities. If the association is negative, it is considered to be '*distress driven*'. Similar method has been applied for the rural sector where the association between growth rate of rural IMS and that of PCNSDPag has been examined. It is observed that in the pre-reform period, activities like Natural Fibre Products, Paper Products, Basic Chemicals and Electrical & Non-electrical Equipment were growth oriented in the urban areas indicated by positive association between their growth and factory sector growth (Table 7). In the rural areas, growth oriented activities having positive association with agricultural growth were Beverages, Natural Fibre Products, Non-metallic Mineral Products, Electrical & Electronic Equipment and Transport Equipment (Table 8). During the same period distress driven activities were Food Products in the urban areas and Textile and Metal products in the rural areas. During the transitional period, along with Natural Fibre Products and Non-electrical Equipment, Non-metallic Mineral Product emerged as growth oriented activities in the urban areas replacing Paper Products and Basic Chemicals. On the other hand, Leather products and Rubber & Plastic products emerged as distress driven activities in the urban areas along with Food Products. The dynamics of rural areas remained almost unchanged with the only exception that Metal Product no longer remained distress driven. The changes continued in the post

reform period with the rural and urban areas coming closer. Growth oriented activities have been Non-metallic Mineral Products, Basic Metals and Transport Equipment sector in both rural and urban areas. Along with them, Beverages in the urban areas and Basic Chemicals and Metal Products in rural areas have emerged as growth oriented activities. On the other hand, Food Products and Textile sector in both rural and urban areas seem to be distress driven. Other distress driven activities include Wood Products in urban areas and Beverages and Rubber and Plastic in rural areas.

Table - 7
Growth Dynamism According to Industry Groups - Urban

<i>Year</i>	<i>Distress Driven</i>	<i>Growth Oriented</i>
1984-89	20-21 - Food products, 39 & 97 - Repair Services.	25 - Natural Fibre Products, 28 - Paper Products, 30 - Basic Chemicals, 35-36 - Non-electrical & Elec. Machinery.
1989-94	20-21 - Food products, 29 - Leather products, 31 - Rubber & Plastic, 39 & 97 - Repair Services.	25 - Natural Fibre Products, 32 - Non-metallic mineral (cement etc.) prod, 35 - Non-electrical Machinery.
1994-2000	20-21 - Food Products, 23 - Textile Sector ^a , 27 - Wood Products.	22 - Beverages, 32 - Non-metallic mineral (cement etc.) prod, 33 - Basic Metals, 37 - Transport Equipment.

Note: Activity Codes are NIC-1987 Codes. a - includes Cotton Textiles, Natural Fibre Prod. and Wool and Silk Textiles.

Source: Author's calculation.

It may be noted that the growth oriented activities i.e. Non-metallic Mineral Products, Basic Metal, Transport Equipment, Urban Beverage and Rural Basic Chemicals & Metal Product sectors are also exhibiting positive employment growth in most of the states as well as in the national level in the post-reform period indicating that these are the dynamic sectors. Consequently, these activities must form the focus group where the institutional policies and economic incentives should concentrate on.

Table - 8
Growth Dynamism According to Industry Groups - Rural

<i>Year</i>	<i>Distress Driven</i>	<i>Growth Oriented</i>
1984-89	26 - Textile Products, 34 - Metal Products, 97 - Repair Services.	22 - Tobacco and Beverages, 25 - Natural Fibre Products, 32 - Non-metallic mineral (cement etc.) products, 36 - Elec. Machinery Products, 37 - Transport Equipment.
1989-94	26 - Textile Products, 97 - Repair Services.	25 - Natural Fibre Products, 29 - Leather products, 32 - Non-metallic mineral (cement etc.) products, 36 - Elec. Machinery Products, 37 - Transport Equipment.
1994-2000	20-21 - Food Products, 22 - Beverages,	30 - Basic Chemicals, 32 - Non-metallic mineral (cement etc.) products,

23 - Textile Sector ^a , 31 - Rubber & Plastic,	33 - Basic Metals, 34 - Metal Products, 37 - Transport Equipment.
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Note: Activity Codes are NIC-1987 Codes. a - includes Cotton Textiles, Natural Fibre Prod. and Wool and Silk Textiles.
Source: Author's calculation.

Activities that seem to be distress driven are those where entry is easy due to low capital and expertise required and which are mostly consumer goods. These include Food products, Textile products, Rubber, and Plastic. On the other hand, growth oriented segments, especially in the urban areas, are those that are also likely to have linkage with the factory sector like Non-metallic Mineral products, Basic Metals and Transport Equipment sector.

Let us now summarise the implications of the findings. Overview of the growth pattern and growth dynamics suggests that the IMS in India cannot be labelled either a distress driven sink (where people without any other earning opportunities come in) or a dynamic alternative economic avenue in blanket term. It has provided employment to a substantial number of jobseekers; especially in the post-reform period, it has expanded substantially to compensate the slackening employment opportunities in the organised sector. However, a significant part of such growth is linked to distress and the sustainability of this segment is questionable. But parts of the IMS seem to have linkage with the organised sector (in the urban areas) and the agro sector (in rural areas) and are likely to act as the engine of future growth. Considering such heterogeneity, it is thoroughly recommended that distinctly different sets of policies be provided for different segments of IMS. The vibrant group should be treated with certain push policies aimed at strengthening their linkage with the macro economic environment, assisting them with tertiary and ancillary support, and encouraging their commercial operation. On the other hand, though the sustainability of the distress driven segment is questionable, their role in providing employment can never be ignored. Considering that, efforts may be made so that they can improve their productivity levels and become viable wherever possible. A dual policy regime addressing application of proper technology, fulfilling the resource needs for productivity upgradation and promoting formal-informal linkages is the need of the hour.

Notes

- ¹ For an extensive bibliography on informal sector, refer to Kundu, 1993.
- ² OAME - Own Account Manufacturing Enterprise - manufacturing enterprise operating with no hired worker employed on a fairly regular basis; NDME - Non-Directory Manufacturing Establishments - units employing less than 6 workers including household workers; DME - Directory Manufacturing Establishments - units employing 6 or more workers with at least 1 hired worker but not registered under the Factory Act.
- ³ The 56th round (2000-01) NSS data uses NIC 1998 codes. They have been reclassified by the author using Annexe-III of 'National Industrial Classification 1998' to bring comparability with the earlier rounds that use NIC 1987 codes.
- ⁴ Basic Metal industry in the informal sector consists mainly of Casting of metals, Re-processing and Re-rolling of Metal Scraps, etc.
- ⁵ Fragmentation of units is quite common where the workers of a unit gain experience and then leave it to set up their own enterprises so as to augment wage income with profit income.
- ⁶ Tailoring enterprises have been included in the Wearing Apparel sector according to NIC-1998. The high growth of the Textile products sector, especially that of the OAMEs and NDMEs during 1994-2000 may have been fuelled by this expansion of coverage in 2000-01 survey.
- ⁷ The Textiles sector in the 2000-01 survey according to NIC-1998 includes Cotton Textiles, Natural Fibre products and Wool & Silk Textiles.
- ⁸ RDI has been constructed using Modified Principal Component method to capture Cropping and Irrigation Intensity, NSDP from agriculture per hectare GCA, Rural Road Connectivity, % of villages having electricity, and Rural per capita expenditure on foodgrains.
- ⁹ Existence of such linkages is also spoken of by Chadha, 1999. For theoretical discussions on linkages, refer to Bose (1978), Papola (1983), Sethuraman (2001).
- ¹⁰ The emergence of DMEs as dynamic segment of IMS has also been mentioned by Shah (1998).
- ¹¹ It may have been that because of shrinking employment size, many of the erstwhile DMEs are now transformed into NDMEs. Consequently, the growth dynamics earlier exhibited by the former are now to some extent taken up by the latter.

References

- Banerjee, Biswajit (1983) - "The Role of the Informal Sector in the Migration Process: A Test of Probabilistic Migration Models And Labour Market Segmentation For India", *Oxford Economic Papers*, Vol. 35.
- Bose, A.N. (1978) - "*Calcutta and Rural Bengal: Small Sector Symbiosis*", Minerva, Calcutta.

-
- Chadha, G. K. (1999) - "Non-farm Sector in Rural India : Past Experience and Future Growth Strategies", *I.F.P.R.I. Seminar*, November
- CSO (1985) - Annual Survey of Industries; Summary Results for Factory Sector 1984-85, CSO, Government of India, New Delhi.
- _____ (1985a) - Directory Manufacturing Establishments Survey, 1984-85 Summary Results, CSO, Government of India, New Delhi.
- _____ (1990) - Annual Survey of Industries; Summary Results for Factory Sector 1989-90 CSO, Government of India, New Delhi.
- _____ (1995) - Directory Manufacturing Establishments Survey, 1989-90 Summary Results, CSO, Government of India, New Delhi.
- _____ (1995a) - Annual Survey of Industries; Summary Results for Factory Sector 1994-95, CSO, Government of India, New Delhi.
- Dhesi, A. S. and U. Wadhwa (1983) - "The Informal Sector in Nangal 1980 (Punjab): An Overview", *Indian Journal of Regional Science*, Vol. 15, No. 1.
- GOI - Statistical Abstract, CSO, Various Years, Government of India, New Delhi.
- _____ - Estimates of State Domestic Product and Capital Formation, CSO, Various Years, Government of India, New Delhi.
- Hazell, P. B. R. and Haggblade, S. (1991) - "Rural Urban Growth Linkage in India", *Indian Journal of Agricultural Economics*, Vol. 46, No. 4.
- House, William J. (1984) - "Nairobi's Informal Sector: Dynamic Entrepreneurs Or Surplus Labour?", *Economic Development & Cultural Change*, Vol. 32, No. 2
- Kundu, Amitabh (1993) - "Urban Informal Sector: An Overview of Macro Dimensions, Socio-economic Correlates and Policy Perspectives in India", in H. Nagamine (ed) 'Urban Informal sector Employment - A cross National Comparative Study', *Research Institute for Regional Planning and Development, Nagoya*
- _____ and N. Lalitha (1998) - "Informal Sector in Urban India : Sectoral Trends and Interdependencies", *Indian Journal of Labour Economics*, Vol. 41, No. 3
- Mitra, Arup (1994) - "Industry, Informal Sector Employment and Poverty", *Indian Journal of Labour Economics*, Vol. 37, No. 3
- _____ (1998) - "Employment in Informal Sector", *Indian Journal of Labour Economics*, Vol. 41, No. 3

-
- Nagamine, H. (1993) - (edited) "Urban Informal Sector Employment - A Cross National Comparative Study", *Research Institute for Regional Planning and Development, Nagoya*
- NSSO (1989) - Tables with Notes on Survey of Unorganised Manufacture: Non Directory Establishments and Own Account Enterprises, *NSS 40th Round (July 1984-June 1985) NSS Report No : 363*, NSSO, June, 1989, Government of India, New Delhi.
- _____ (1990) - Processed Data on Survey of Unorganised Manufacture: Non directory Establishments and Own Account Enterprises, *NSS 45th Round (July 1989-June 1990)* on CD-ROM (CD 513) from NSSO, Government of India, New Delhi.
- _____ (1995) - Tables With Notes on Survey of Unorganised Manufacture: Non directory Establishments and Own Account Enterprises, *NSS 45th Round (July 1989-June 1990) NSS Report No: 396*, NSSO, March, 1995, Government of India, New Delhi.
- _____ (1998) - Basic and Multiplier Data on Survey of Unorganised Manufacture: Non directory Establishments and Own Account Enterprises, *NSS 51st Round (July 1994-June 1995)* on CD-ROM (CD 699 & 700) from NSSO, Government of India, New Delhi.
- _____ (1998a) - Unorganised Manufacturing Sector in India : Its Size Employment and Some Key Estimates, *NSS 51st Round (July 1994-June 1995) NSS Report no: 433*, NSSO, August, 1998, Government of India, New Delhi.
- _____ (2002) - Unorganised Manufacturing Sector in India 2000-2001 - Key Results, *NSS 56th Round (July 2000-June 2001) NSS Report no: 477*, NSSO, November, 2002, Government of India, New Delhi.
- _____ (2002a) - Unorganised Manufacturing Sector in India 2000-2001 - Input, Output and Value Added, *NSS 56th Round (July 2000-June 2001) NSS Report no: 480*, NSSO, November, 2002, Government of India, New Delhi.
- Papola, T.S. and R.S. Mathur (1983) - "Inter-sectoral Linkages in the Metal Engineering Industry in Kanpur, India", in S. Watanbe (ed) *Technology, Marketing and Industrialisation: Linkages between Large and Small Enterprises*, Macmillan, New Delhi.
- Patrick, Martin (1998) - "Discrimination, Time Allocation and Migration : A Study of Unorganised Women", *Indian Journal of Labour Economics*, Vol. 41, No. 3

Romatet, Emmanuel (1983) - “Calcutta’ s Informal Sector Theory And Reality”, *Economic and Political Weekly*, Vol. 18, No. 50, December

Samal, Kishore C. (1990) - “*Urban Informal Sector*”, *Manak Publications Pvt. Ltd*

Sethuraman, S.V. (2001) - “Urban Poverty and the Informal Sector : A Critical Assessment of Current Strategies”, *Development Policies Department, ILO, Geneva*, downloaded from www.ilo.org

Shah, Amita (1998) - “Scalar Linkages in Industries : Implications for Productivity and Employment”, *Indian Journal of Labour Economics*, Vol. 41, No. 3

Shaw, Annapurna (1990) - “Linkages of Large Scale Small Scale and Informal Sector Industries : A Study of Thana Belapur”, *Economic and Political Weekly*, Vol. 25, No. 7,

Swarooparani, G. and S. Galab (1998) - “Organisation and Economic Performance of Manufacturing Activities in Urban Slums of Hyderabad City: A Case Study of Sandle Making Activity”, *Indian Journal of Labour Economics*, Vol. 41, No. 3

Todaro, M.P. (1969) - “A Model of Labour Migration and Urban Unemployment in Less Developed Countries”, *American Economic Review*, Vol. 59, March

Unni, Jeemol and Uma Rani (2003) - “Changing Structure of Workforce in Unorganised Manufacturing”, *Indian Journal of Labour Economics*, Vol. 46, No. 4.

Websites - www.planningcommission.nic.in, www.mospi.nic.in, www.ilo.org

Appendix

Appendix Table – A-1
Growth rate of Enterprises in the Informal Sector by States 1984-89

State	Rural				Urban				Total			
	OAME	NDME	DME	Total	OAME	NDME	DME	Total	OAME	NDME	DME	Total
Andhra Pr	3.1	-5.0	8.7	2.5	-6.5	-11.2	-2.1	-7.2	0.9	-8.2	4.8	0.0
Bihar	-3.1	-2.0	6.0	-3.1	-3.7	-12.6	4.8	-5.6	-3.2	-5.6	5.3	-3.4
Delhi	-	-	3.1	-	-8.3	10.8	27.0	8.7	-9.4	9.9	24.1	4.3
Gujarat	3.2	5.4	-13.9	-0.5	10.8	15.4	11.3	12.2	5.9	12.0	0.1	4.8
Haryana	-5.8	-3.0	1.7	-6.1	6.9	-2.4	-31.7	-3.9	-2.1	-2.6	-28.7	-5.2
Himachal Pr	14.8	20.2	-	15.5	-17.0	-21.9	-	-17.3	12.2	8.0	-	11.8
Karnataka	5.6	-6.8	-0.1	3.9	-6.3	-5.2	-1.1	-5.8	1.8	-5.9	-0.6	0.5
Kerala	4.1	3.5	3.4	3.5	-13.6	-16.2	3.2	-13.1	0.0	-5.4	3.3	-1.1
Madhya Pr	-7.6	-12.1	-7.3	-7.9	-13.9	-18.2	3.3	-14.0	-9.1	-16.4	-1.3	-9.6
Maharashtra	-5.2	-1.1	6.0	-5.7	-9.9	-1.6	2.2	-6.6	-6.6	-1.4	3.0	-6.0
Orissa	5.8	-18.1	4.6	4.8	3.8	-1.0	6.7	2.8	5.7	-12.4	5.7	4.7
Punjab	-3.4	0.6	-9.1	-3.8	1.8	6.7	10.7	4.0	-1.7	4.6	8.5	-0.7
Rajasthan	-3.5	-2.3	4.6	-3.5	1.7	-2.0	6.1	1.1	-2.0	-2.1	5.5	-2.1
Tamilnadu	-3.1	-8.8	2.3	-4.5	-5.9	-7.6	1.1	-5.8	-4.4	-8.1	1.6	-5.1
Uttar Pr	-17.9	-17.4	6.3	-17.7	-2.4	-6.6	4.6	-2.8	-15.6	-12.8	5.4	-15.1

W Bengal	10.1	-4.9	2.5	8.5	-6.0	-7.0	-10.5	-6.6	7.7	-6.0	-5.7	5.5
INDIA	-3.4	-6.4	4.6	-3.5	-5.0	-4.7	3.0	-4.4	-3.8	-5.5	3.6	-3.7

Note: Growth rates are annual compound growth rates. 1989 Figures for Rural OAMEs and NDMEs of Delhi and 1984 figures for DMES of Himachal Pr are not available.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-2
Growth rate of Employment in the Informal Sector by States 1984-89

State	Rural				Urban				Total			
	OAME	NDME	DME	Total	OAME	NDME	DME	Total	OAME	NDME	DME	Total
Andhra Pr	3.5	2.8	12.6	4.4	-6.1	-8.0	-3.4	-6.2	1.2	-3.2	7.3	1.3
Bihar	-4.9	-4.5	10.3	-4.5	-1.4	-7.7	5.1	-2.4	-4.6	-5.5	8.0	-4.2
Delhi	-	-	-1.1	-	0.6	18.9	13.0	13.6	-0.8	17.9	11.1	11.9
Gujarat	13.3	9.0	23.4	15.2	24.0	25.3	13.8	19.2	17.1	20.6	16.3	17.6
Haryana	4.2	-1.4	13.9	4.5	16.6	0.7	4.5	7.5	7.7	0.2	7.3	5.9
Himachal Pr	25.5	16.1	-	25.2	-11.6	-19.1	-	-8.7	22.5	5.1	-	20.0
Karnataka	6.6	-5.2	1.5	4.4	0.9	-3.0	-3.6	-1.2	4.7	-3.8	-0.6	2.3
Kerala	3.2	3.2	3.9	3.4	-14.0	-19.8	2.3	-11.7	-1.2	-7.2	3.4	-1.4
Madhya Pr	0.0	-4.9	-2.5	-0.4	-12.3	-7.1	4.2	-8.8	-3.5	-6.5	0.9	-3.3
Maharashtra	-2.2	4.6	9.6	-0.2	-0.7	14.8	4.6	5.1	-1.8	11.1	5.8	2.2
Orissa	7.3	-16.8	9.7	6.2	5.5	1.5	5.0	4.3	7.2	-10.5	7.8	6.1
Punjab	2.4	2.7	2.4	2.5	10.6	13.5	10.2	11.6	5.1	10.0	8.9	7.2
Rajasthan	-2.6	23.4	11.2	0.3	3.7	-0.9	9.3	3.3	-0.8	8.1	10.0	1.4
Tamilnadu	-3.5	-11.5	2.3	-4.1	-8.0	-5.8	-2.9	-6.2	-5.5	-8.4	-0.9	-5.1
Uttar Pr	-17.9	-8.3	9.3	-15.6	1.2	-4.2	3.9	0.5	-15.2	-6.4	6.9	-12.4
W Bengal	10.0	-1.5	5.1	8.8	-3.8	-1.5	-10.2	-4.7	8.2	-1.5	-3.5	5.7
INDIA	-2.3	-1.6	6.7	-1.4	-1.3	3.0	2.7	0.8	-2.1	0.9	4.5	-0.7

Note: Growth rates are annual compound growth rates. 1989 Figures for Rural OAMEs and NDMEs of Delhi and 1984 figures for DMES of Himachal Pr are not available.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-3
Growth Rate of Enterprises in the Informal Sector by Industry Groups 1984-89

Activities	Rural				Urban			
	OAME	NDME	DME	Total	OAME	NDME	DME	Total
Food Products	-4.1	-6.2	-0.7	-4.3	-6.3	-9.6	-2.1	-7.1
Tobacco & Bev	9.9	-19.2	11.4	9.1	6.7	-4.9	-3.8	6.1
Cotton Tex	-11.2	-11.2	-1.7	-11.1	-8.7	-11.0	-4.6	-8.7
Wool & Silk Tex	-10.7	1.8	-3.1	-9.7	10.1	28.7	8.1	14.0
Natural Fibre Pr	16.4	83.2	67.3	17.4	53.6	-8.5	25.0	39.7
Textile Products	-19.0	-15.3	2.4	-18.3	-24.2	-30.1	-5.0	-24.4
Wood Products	3.7	-3.6	3.0	3.5	-5.0	-0.1	3.0	-3.7
Paper Products	10.9	4.6	7.2	9.7	3.7	6.9	3.1	4.9
Leather Products	-8.5	-26.3	-21.4	-8.9	-13.1	-12.8	-2.3	-12.1
Basic Chemicals	42.5	5.8	38.0	38.2	26.8	-10.0	3.2	13.3
Rubber & Plastic	-12.7	-4.8	-1.2	-10.9	-17.5	13.1	5.6	-8.2
Non-metallic Min	-2.0	-5.1	8.0	-1.8	-4.8	-5.7	14.0	-2.9
Basic Metals	-29.8	-10.8	-4.8	-24.1	-16.0	-12.3	-2.9	-10.9
Metal Prod	-12.7	-1.6	4.9	-11.3	2.5	5.1	6.5	4.2
Non-elec Equip	-4.5	-7.4	-2.2	-4.6	-9.5	-4.5	1.5	-3.8
Electrical Equip	3.4	35.1	-8.7	9.6	4.7	15.6	6.7	9.9
Transport Equip	-13.6	-7.6	15.8	-10.6	-2.7	-4.8	9.4	1.0
Misc. Manuf.	2.6	12.4	29.0	3.5	-2.7	1.2	9.5	-1.1

Repair of Cap	-31.7	-24.5	-16.3	-31.2	-37.6	-24.4	-14.6	-32.3
All Industry	-3.4	-6.4	4.6	-3.5	-5.0	-4.7	3.0	-4.4

Note: Growth rates are annual compound growth rates. NIC codes are NIC-1987 codes.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-4

Growth Rate of Employment in the Informal Sector by Industry Groups 1984-89

<i>Activities</i>	<i>Rural</i>				<i>Urban</i>			
	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>
Food Products	-3.4	-1.4	0.0	-2.7	-2.8	-3.3	-2.5	-2.9
Tobacco & Bev	8.9	-20.4	16.8	8.4	6.2	-0.8	-1.3	5.2
Cotton Tex	-15.7	-6.8	-3.2	-14.3	-8.5	-4.7	-5.4	-7.0
Wool & Silk Tex	-7.9	4.3	-3.0	-6.1	10.7	38.3	8.2	15.5
Natural Fibre Pr	11.4	99.5	64.6	15.3	50.2	-15.3	34.0	29.0
Textile Products	-13.9	-6.5	3.2	-11.2	-16.9	-24.5	-2.3	-15.8
Wood Products	7.5	-1.1	0.8	6.9	-1.1	5.1	-2.3	0.1
Paper Products	5.5	1.6	9.1	5.3	10.2	16.9	3.5	9.6
Leather Products	-5.0	-23.2	-22.9	-6.2	-10.1	-6.8	-0.9	-6.7
Basic Chemicals	44.7	4.9	47.0	40.2	41.8	-3.4	6.8	13.9
Rubber & Plastic	-21.0	7.1	0.4	-8.2	-19.0	26.1	-2.9	-4.4
Non-metallic Min	-1.6	1.5	10.3	1.1	1.5	-2.4	13.1	5.2
Basic Metals	-15.8	-0.7	-0.6	-8.5	-10.0	-5.5	-1.1	-3.5
Metal Prod	-8.2	-0.9	4.5	-6.2	6.7	65.6	4.9	14.2
Non-elec Equip	-4.3	-10.0	4.4	-3.9	-4.1	4.8	2.4	2.4
Electrical Equip	17.9	47.4	-2.3	11.3	9.3	30.7	10.6	14.6
Transport Equip	-13.3	0.5	13.2	-3.5	12.0	11.5	9.5	10.1
Misc. Manuf.	8.9	17.8	30.8	12.3	1.4	12.8	10.0	6.2
Repair of Cap	-26.0	-17.5	-17.4	-25.0	-31.5	-19.1	-13.8	-23.5
All Industry	-2.3	-1.6	6.7	-1.4	-1.3	3.0	2.7	0.8

Note: Growth rates are annual compound growth rates. NIC codes are NIC-1987 codes.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-5

Growth rate of Enterprises in the Informal Sector by States 1989-94

<i>State</i>	<i>Rural</i>				<i>Urban</i>				<i>Total</i>			
	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>
Andhra Pr	-7.3	9.9	9.9	-5.6	-4.5	1.9	1.8	-3.1	-6.7	6.6	7.8	-5.1
Bihar	2.1	-12.9	1.0	1.2	6.6	6.3	-3.1	6.2	2.6	-6.1	-1.2	1.9
Delhi	-	-	19.5	-	13.5	-0.4	-8.9	0.2	21.1	4.8	-5.7	5.3
Gujarat	-0.6	-10.0	13.5	-0.4	12.7	-4.0	3.5	7.0	5.6	-5.5	6.6	3.7
Haryana	-7.7	-2.5	-1.1	-7.2	-8.2	-1.5	-5.2	-6.2	-7.9	-1.7	-4.2	-6.8
Himachal Pr	-9.0	-25.3	-17.3	-10.5	14.9	5.3	-3.2	11.1	-7.8	-19.8	-9.9	-9.1
Karnataka	-2.8	6.6	30.1	-0.5	-1.4	4.1	-4.7	-0.6	-2.4	5.1	18.1	-0.5
Kerala	-15.6	-6.0	-11.4	-14.0	-10.7	-10.9	-23.1	-11.8	-14.8	-7.4	-15.5	-13.6
Madhya Pr	-4.0	9.0	-6.0	-3.6	2.1	11.3	-1.0	3.6	-2.7	10.5	-2.6	-1.7
Maharashtra	-8.1	-13.5	2.6	-8.3	0.6	2.0	9.9	2.4	-5.5	-2.4	8.3	-3.9
Orissa	6.8	8.6	7.2	6.9	0.8	-5.5	-7.6	-0.8	6.5	3.0	0.9	6.4
Punjab	-5.2	-6.7	5.2	-5.3	0.6	-2.4	0.2	-0.4	-3.0	-3.6	0.5	-2.9
Rajasthan	-6.4	-9.2	-11.1	-6.6	-6.7	-3.1	-7.1	-6.1	-6.5	-5.3	-8.6	-6.4
Tamilnadu	-4.3	-3.2	2.7	-3.9	-5.5	-1.8	-0.4	-4.4	-4.8	-2.4	0.8	-4.1
Uttar Pr	-0.1	6.7	4.7	0.5	1.1	7.7	-2.3	2.1	0.2	7.2	1.3	0.9
W Bengal	-9.6	-3.5	-0.4	-9.2	-1.5	0.4	3.7	-0.6	-8.7	-1.4	1.9	-7.9
INDIA	-3.3	-2.0	5.6	-3.0	-0.8	0.9	1.0	-0.2	-2.8	-0.3	2.9	-2.3

Note: Growth rates are annual compound growth rates. 1989 Figures for Rural OAMEs and NDMEs of Delhi are not available.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-6
Growth rate of Employment in the Informal Sector by States 1989-94

State	Rural				Urban				Total			
	OAME	NDME	DME	Total	OAME	NDME	DME	Total	OAME	NDME	DME	Total
Andhra Pr	-5.2	-5.2	-11.8	-6.0	-3.0	1.6	-2.1	-1.8	-4.7	-1.8	-9.1	-4.9
Bihar	4.2	-10.6	6.3	3.1	7.7	7.0	-4.6	5.7	4.6	-3.9	2.3	3.5
Delhi	-	-	26.9	-	16.4	0.0	6.4	5.1	23.2	5.1	9.1	9.1
Gujarat	-0.4	-6.5	12.7	3.9	12.5	-5.9	3.6	3.6	5.9	-6.0	6.8	3.7
Haryana	-7.5	-1.6	4.6	-5.1	-8.0	-1.0	-1.4	-4.0	-7.7	-1.1	0.9	-4.6
Himachal Pr	-12.6	-22.2	-11.0	-13.7	13.5	5.5	-5.8	5.5	-11.3	-16.2	-9.5	-11.9
Karnataka	-1.0	6.6	8.1	1.9	-3.9	3.7	-7.6	-3.1	-1.8	4.7	3.2	0.2
Kerala	-14.1	-5.1	-14.7	-12.4	-12.7	-6.8	-19.3	-13.3	-13.8	-5.5	-16.0	-12.6
Madhya Pr	-2.3	10.7	-14.0	-2.5	3.5	14.0	-3.3	4.7	-1.0	13.1	-7.4	-0.2
Maharashtra	-7.2	-12.6	0.2	-6.6	1.5	2.5	6.9	4.0	-4.5	-1.2	5.2	-1.0
Orissa	5.7	7.5	-2.6	5.6	-3.3	-5.6	-8.0	-4.6	5.4	1.9	-4.5	5.0
Punjab	-4.2	-7.2	11.5	-3.5	-0.2	-4.1	2.1	-1.0	-2.6	-4.9	3.6	-2.0
Rajasthan	-6.2	-20.3	-17.1	-8.5	-6.9	-2.8	-13.7	-6.8	-6.4	-10.4	-15.0	-7.8
Tamilnadu	-4.4	-2.5	0.4	-3.2	-4.0	-0.9	0.3	-2.0	-4.3	-1.5	0.3	-2.6
Uttar Pr	1.1	6.9	0.3	1.5	1.7	9.0	-1.1	2.7	1.3	8.0	-0.3	1.9
W Bengal	-8.7	-3.7	-2.6	-8.0	-2.4	-0.4	3.2	-0.5	-8.0	-1.9	0.2	-6.6
INDIA	-1.8	-3.4	-2.3	-2.0	-0.7	0.8	0.7	0.1	-1.6	-0.9	-0.7	-1.3

Note: Growth rates are annual compound growth rates. 1989 Figures for Rural OAMEs and NDMEs of Delhi are not available.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-7
Growth Rate of Enterprises in the Informal Sector by Industry Groups 1989-94

Activities	Rural				Urban			
	OAME	NDME	DME	Total	OAME	NDME	DME	Total
Food Prod. (20)	-1.5	-7.6	7.4	-2.1	1.4	1.4	1.7	1.4
Food Prod. (21)	0.0	3.7	34.4	0.7	-5.7	-4.7	-6.4	-5.6
Tobacco & Bev	-8.5	35.9	17.8	-6.8	-7.8	-7.3	-7.3	-7.8
Cotton Tex	-10.2	-2.8	1.6	-9.6	-11.4	-8.0	-0.5	-9.8
Wool & Silk Tex	4.2	16.2	23.4	6.7	-7.2	-10.2	3.6	-6.5
Natural Fibre Pr	-11.6	18.1	22.6	-8.7	-15.6	22.3	-14.0	-12.0
Textile Products	-1.2	-8.6	-0.6	-1.9	-5.8	-0.5	13.2	-2.4
Wood Products	-4.9	-1.3	-3.4	-4.8	1.5	5.4	1.7	2.3
Paper Products	5.1	24.7	-29.9	8.0	-0.3	-6.0	-4.6	-3.2
Leather Products	-14.2	3.3	24.8	-13.8	4.6	9.4	13.9	6.8
Basic Chemicals	-8.3	-13.5	-6.6	-8.4	-2.1	-5.3	-9.7	-3.3
Rubber & Plastic	0.9	3.1	2.1	1.3	-6.8	5.2	9.0	1.6
Non-metallic Min	-2.3	-4.7	0.8	-2.2	-2.2	7.9	-9.0	-1.5
Basic Metals	17.8	-7.6	-1.6	9.7	23.1	3.0	-6.2	8.0
Metal Prod	1.0	-4.3	1.1	0.4	-3.0	5.7	3.0	1.6
Non-elec Equip	1.9	-2.0	-5.4	1.5	2.6	4.5	-10.0	-0.7
Electrical Equip	6.6	7.5	10.7	7.6	0.0	-9.3	-7.2	-6.8
Transport Equip	-9.0	-19.7	-5.6	-11.6	2.4	5.8	-6.5	-0.1
Misc. Manuf.	8.3	-10.0	-5.1	7.2	9.2	-0.5	2.8	7.0

Repair of Cap	6.2	9.9	-4.2	6.4	-3.0	-1.6	1.0	-2.1
All Industry	-3.3	-2.0	5.6	-3.0	-0.8	0.9	1.0	-0.2

Note: Growth rates are annual compound growth rates. NIC codes are NIC-1987 codes.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-8

Growth Rate of Employment in the Informal Sector by Industry Groups 1989-94

<i>Activities</i>	<i>Rural</i>				<i>Urban</i>			
	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>
Food Prod. (20)	-0.4	-7.6	-0.4	-1.6	2.1	2.2	2.0	2.1
Food Prod. (21)	1.1	4.1	36.6	3.3	-5.5	-3.0	-7.6	-5.3
Tobacco & Bev	-3.9	13.8	-20.7	-5.2	-5.9	-6.5	-12.7	-6.3
Cotton Tex	-9.0	-3.2	0.2	-7.5	-10.8	-7.1	-2.9	-7.4
Wool & Silk Tex	6.9	18.9	23.2	12.0	-4.8	-11.9	1.0	-4.9
Natural Fibre Pr	-11.9	17.5	17.6	-3.5	-14.2	24.7	-13.6	-9.2
Textile Products	3.1	-8.7	-4.9	0.5	-4.3	1.3	12.9	3.6
Wood Products	-5.3	-1.5	2.0	-5.0	1.4	5.8	1.0	2.6
Paper Products	9.2	27.8	-26.6	10.2	-0.5	-6.6	-4.7	-4.3
Leather Products	-12.7	3.6	28.9	-11.6	6.7	13.4	11.8	10.1
Basic Chemicals	-13.7	-8.6	-9.5	-12.1	-5.2	-2.6	-8.1	-5.8
Rubber & Plastic	6.3	-0.2	-7.6	-1.6	-7.5	4.5	8.1	4.5
Non-metallic Min	0.0	-9.3	-3.1	-1.4	-1.2	8.0	-12.5	-4.2
Basic Metals	8.0	-11.7	-3.0	0.3	26.0	3.0	-7.5	2.1
Metal Prod	0.3	-3.2	-1.9	-0.5	-0.7	5.7	5.1	4.1
Non-elec Equip	8.0	2.7	-6.6	5.7	5.8	5.9	-10.6	-3.6
Electrical Equip	-2.7	8.6	8.7	6.2	-2.7	-9.8	-8.3	-8.4
Transport Equip	-2.0	-19.4	-8.0	-9.7	6.7	5.3	-4.6	-1.0
Misc. Manuf.	9.8	-10.4	-7.3	6.1	7.9	-2.3	4.7	4.7
Repair of Cap	6.4	8.9	-3.2	6.6	-2.1	-0.6	1.2	-0.7
All Industry	-1.8	-3.4	-2.3	-2.0	-0.7	0.8	0.7	0.1

Note: Growth rates are annual compound growth rates. NIC codes are NIC-1987 codes.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-9

Growth rate of Enterprises in the Informal Sector by States 1994-2000

<i>State</i>	<i>Rural</i>				<i>Urban</i>				<i>Total</i>			
	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>
Andhra Pr	5.1	-6.5	-9.4	3.8	7.4	2.4	6.4	6.4	5.6	-2.7	-4.6	4.4
Bihar	-0.8	-3.3	-3.3	-0.9	-1.0	-5.8	-8.4	-2.1	-0.8	-4.5	-5.6	-1.1
Delhi	-19.3	-20.6	-35.1	-22.1	3.5	11.3	5.6	7.4	-0.6	7.3	1.7	3.3
Gujarat	1.0	-10.1	-13.5	-1.0	-6.2	1.9	-6.4	-4.5	-2.7	-0.2	-8.7	-3.0
Haryana	4.4	7.5	-3.5	4.6	6.3	5.6	8.5	6.2	5.1	6.1	6.0	5.3
Himachal Pr	0.1	5.6	34.5	0.7	-8.8	-1.5	-1.6	-6.6	-0.6	3.3	18.3	-0.1
Karnataka	3.5	2.8	-12.3	2.1	8.4	0.5	4.1	6.8	4.9	1.5	-8.4	3.5
Kerala	10.4	9.0	10.9	10.2	5.9	8.1	12.0	6.9	9.7	8.8	11.2	9.6
Madhya Pr	8.4	-4.0	9.8	8.0	7.0	-1.9	2.1	5.1	8.1	-2.5	4.7	7.2
Maharashtra	8.0	1.6	0.3	7.3	7.9	1.7	0.1	4.9	7.9	1.7	0.1	6.2
Orissa	-5.9	-5.9	-1.6	-5.9	-1.1	-1.3	0.8	-1.1	-5.7	-4.4	-0.8	-5.6
Punjab	7.7	5.8	16.0	7.6	2.2	3.7	5.1	2.9	5.5	4.3	6.2	5.3
Rajasthan	4.5	-0.5	7.0	4.3	7.0	0.8	11.9	6.2	5.3	0.4	10.3	5.0
Tamilnadu	5.6	-0.3	-2.7	4.7	4.7	6.3	3.2	4.9	5.2	4.0	0.9	4.8
Uttar Pr	-0.8	-4.0	-1.1	-1.0	0.4	-1.1	-0.1	0.1	-0.5	-2.4	-0.6	-0.7
W Bengal	5.8	1.3	6.4	5.6	12.5	2.3	4.0	9.4	6.9	1.9	5.1	6.4
INDIA	2.5	-1.0	-2.9	2.2	4.9	2.5	1.8	4.1	3.1	1.1	-0.2	2.7

Note: Growth rates are annual compound growth rates.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-10
Growth rate of Employment in the Informal Sector by States 1994-2000

State	Rural				Urban				Total			
	OAME	NDME	DME	Total	OAME	NDME	DME	Total	OAME	NDME	DME	Total
Andhra Pr	4.5	6.1	4.9	4.6	5.6	2.7	8.9	5.4	4.7	4.2	6.4	4.8
Bihar	0.1	-2.5	-5.8	-0.4	-0.9	-4.9	-8.3	-2.6	-0.1	-3.7	-6.5	-0.7
Delhi	-22.6	-23.2	-36.9	-28.5	0.7	10.9	2.8	5.4	-3.0	7.0	-0.8	1.7
Gujarat	0.9	-10.6	-12.1	-5.2	-7.5	2.0	-6.7	-4.9	-3.5	0.1	-8.7	-5.0
Haryana	1.7	6.6	-5.1	1.2	6.4	5.9	6.4	6.2	3.5	6.1	2.4	3.9
Himachal Pr	-0.3	7.3	10.9	1.5	-8.4	-0.7	-1.6	-4.2	-0.9	4.4	7.6	0.7
Karnataka	0.9	6.9	-5.3	-0.3	7.3	1.1	6.6	5.6	2.8	3.5	-2.0	1.7
Kerala	7.6	9.6	7.1	8.0	5.6	8.3	9.1	7.5	7.3	9.3	7.6	7.9
Madhya Pr	7.8	-1.4	19.6	8.0	6.1	-1.5	3.1	3.6	7.4	-1.5	9.4	6.5
Maharashtra	5.5	2.9	1.8	4.6	6.5	1.4	0.8	2.6	5.9	1.6	1.0	3.4
Orissa	-5.7	-6.1	-1.0	-5.6	-0.8	-1.3	1.1	-0.6	-5.5	-4.3	-0.4	-5.4
Punjab	6.9	5.9	15.1	8.0	1.8	4.4	3.8	3.4	4.9	4.7	6.5	5.2
Rajasthan	3.6	2.9	11.6	3.9	5.8	2.0	13.9	5.9	4.3	2.3	13.1	4.8
Tamilnadu	4.3	-0.3	-2.1	2.3	3.1	6.2	2.9	3.8	3.8	3.9	1.0	3.1
Uttar Pr	-2.5	-4.7	7.5	-1.2	0.1	-0.6	0.4	-0.1	-1.9	-2.4	4.9	-0.9
W Bengal	4.6	2.1	7.7	4.7	9.1	2.8	5.8	6.3	5.2	2.5	6.7	5.0
INDIA	1.2	0.9	2.9	1.4	3.5	2.9	1.7	2.8	1.7	2.2	2.2	1.9

Note: Growth rates are annual compound growth rates.

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-11
Growth Rate of Enterprises in the Informal Sector by Industry Groups 1994-2000

Activities	Rural				Urban			
	OAME	NDME	DME	Total	OAME	NDME	DME	Total
Food Products ^a	2.5	-1.1	-4.8	1.8	5.9	3.5	7.1	5.3
Tobacco & Bev	9.9	-22.3	-13.1	8.1	10.4	-0.8	1.3	10.0
Textiles Sector ^b	-1.1	-4.5	-9.4	-1.7	5.1	0.2	2.0	3.8
Textile Products	20.4	18.0	-2.2	19.8	39.5	36.6	8.2	35.0
Wood Products	1.7	0.8	2.4	1.7	1.7	2.1	1.5	1.8
Paper Products	1.1	-10.0	33.2	-1.0	6.2	8.6	5.2	6.9
Leather Products	-4.4	-1.2	14.0	-4.2	0.1	1.3	-4.3	-0.3
Basic Chemicals	6.9	4.6	16.6	7.8	7.9	1.7	4.8	7.1
Rubber & Plastic	7.0	15.4	10.9	8.8	6.2	0.7	-6.4	0.5
Non-metallic Min	-2.2	3.4	6.7	-1.3	4.0	0.9	5.4	3.5
Basic Metals	21.3	12.0	16.0	19.9	-1.4	8.6	-1.2	2.0
Metal Products	7.0	7.1	-4.6	6.8	8.6	5.0	-2.0	5.2
Elec & Non-elec Equip ^c	10.5	8.2	9.1	10.2	16.9	10.6	12.2	12.7
Transport Equip	0.7	5.8	-1.1	1.7	-0.3	9.2	8.5	6.6
Misc Manuf	-9.9	3.9	-4.7	-9.4	2.8	11.4	-2.5	3.8
Repair of Cap	-9.8	23.0	4.6	-7.3	5.6	1.0	21.7	5.7
All Industry	2.5	-1.0	-2.9	2.2	4.9	2.5	1.8	4.1

Note: Growth rates are annual compound growth rates. NIC codes are NIC-1987 codes. a - includes 21 also. b - includes Cotton Textiles, Natural Fibre Prod. and Wool and Silk Textiles, c - includes Electrical, Electronic and Non-electrical equipment sectors

Source: Author's calculation based on sources mentioned for Table 1.

Appendix Table – A-12

Growth Rate of Employment in the Informal Sector by Industry Groups 1994-2000

<i>Activities</i>	<i>Rural</i>				<i>Urban</i>			
	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>	<i>OAME</i>	<i>NDME</i>	<i>DME</i>	<i>Total</i>
Food Products ^a	1.7	0.9	-1.0	1.2	5.1	3.3	6.6	4.8
Tobacco & Bev	6.4	-6.3	12.4	6.4	6.3	-0.7	2.7	5.9
Textiles Sector ^b	-0.7	-4.7	-9.8	-2.7	4.1	0.4	2.0	2.6
Textile Products	13.0	14.2	-1.0	11.9	30.7	32.1	7.3	21.9
Wood Products	1.9	2.5	-1.4	1.8	-0.3	2.1	1.2	0.7
Paper Products	0.2	-11.0	25.5	-2.0	4.3	8.3	6.1	6.4
Leather Products	-6.1	-2.0	11.7	-5.1	-1.9	-1.7	-2.5	-2.0
Basic Chemicals	5.6	3.9	19.9	11.6	7.1	-1.5	5.5	5.3
Rubber & Plastic	10.3	15.0	11.7	12.0	7.1	1.2	-5.3	-1.6
Non-metallic Min	-2.1	3.0	11.3	2.3	3.3	2.2	10.4	5.4
Basic Metals	15.3	14.1	22.1	17.3	-8.4	7.7	0.4	0.2
Metal Products	5.3	7.5	-3.2	5.0	8.1	5.0	-3.4	2.5
Elec & Non-elec Equip ^c	10.2	8.9	8.4	9.7	15.3	9.8	10.8	10.9
Transport Equip	-4.7	7.4	3.2	1.1	-3.5	8.5	6.5	6.0
Misc Manuf	-12.1	5.2	-3.2	-10.2	2.7	12.6	-2.9	3.2
Repair of Cap	-12.2	19.3	35.2	-3.2	7.9	1.4	20.3	8.5
All Industry	1.2	0.9	2.9	1.4	3.5	2.9	1.7	2.8

Note: Growth rates are annual compound growth rates. NIC codes are NIC-1987 codes. a - includes 21 also. b - includes Cotton Textiles, Natural Fibre Prod. and Wool and Silk Textiles, c - includes Electrical, Electronic and Non-electrical equipment sectors

Source: Author's calculation based on sources mentioned for Table 1.