Quality of Jobs Generated by Unorganised Establishments During Globalisation: A Diagnosis with a Case of Indian Punjab

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'What has been the quality of jobs generated by Punjab's urban unorganised establishments in an era of globalisation?' is the central question addressed in this paper. It is argued that the unorganised establishments' growth, under the conditions of exogenous technology, may be due to intensive and extensive usage of hired labour. Through secondary and primary data analysis, it is concluded that these unorganised establishments have generated a sufficiently large number of such jobs that may be characterized as of poor quality in terms of low earnings, limited upward mobility, unjust wage setting, uninformed job termination and low job satisfaction.

Unorganised establishments[1] are important constituents of unorganised manufacturing sector in Punjab. These establishments, during 2000-01, along with contributing an aggregate share of 75.03 percent in total gross value added, have been the source of livelihood for 55.43 percent of total workers working in Punjab's unorganised manufacturing sector. In comparison to their counterparts in other high-income states, such contribution of Punjab's unorganised establishments appears quite attractive (see Table A.1. in appendix). In absolute terms, Punjab's unorganised establishments have been the sole employers of 248,000 hired workers during 2000-01. The use of hired labour in Punjab's unorganised establishments has risen at the compound annual growth rate (CAGR) of 7.32 percent during the 1994-2001 period – the highest CAGR among the high-income states (see fig. A.1. in appendix). Specifically, it has been the urban segment, which dominates the overall structure of Punjab's unorganised manufacturing sector. During 2000-01, this segment has contributed 77.87 percent to the overall real gross value added along with providing employment to 71.91 percent of total workers and 69.48 percent of hired workers by utilising 68.31 percent of the overall real fixed capital (excluding land). In this segment, the real gross value added and the use of hired labour has risen at the CAGR of 9.26 percent and 6.01 percent respectively during the 1994-2001 period. Such attractive growth of hired labour along with real gross value added provides a sound base for inquiring the role/dependence on hired workers in the growth dynamics of Punjab's urban unorganised establishments. This detailed inquiry is spread over six sections. The first section outlines the motivation for the study. Section 2

[1] Establishment refers to that type of enterprise, which along with/without family labour relies heavily on the use of hired labour for carrying out its economic activities.

informs about the data inputs. Section 3 discusses the specificities of Punjab's urban unorganised establishments amidst their counterparts in other high-income states. Section 4 provides an analysis of Punjab's urban unorganised establishments' growth dynamics and the nature of employment growth. Following this, the vital issue of quality of employment generated by Punjab's urban unorganised establishments is analysed in section 5 through the analysis of primary data. Finally, the emerging conclusions are summarised briefly in the last (sixth) section.

1. MOTIVATION

1.1. The Prime Issue

Among other national and international policy measures related with trade, foreign direct investment, etc., it was India's de-reservation policy emanating from the recommendations of Abid Hussain Committee (Government of India, 1997) that exposed small firms to both internal as well as external competition. Such perilous policy change(s) has influenced the survival and growth prospects of small firms in an era of increasing competition and pressurised them for adopting some strategies to improve their disadvantageous positions. Under such circumstances, the ability to supply high quality products at relatively lower cost of production has become the desirable feature of small firms as it was only though this ability, the small firms could have survived and flourished in such hostile business environs. But, the development of this competing ability per se is strongly dependent on small firm's ability to use not only the latest technology but also the ability to update its technology level gradually with changing business needs. This remarkable competing ability has been already reflected by the growth patterns of small firms in Italian industrial districts. These small firms in Italian districts could develop this ability mainly because the technology is largely endogenous in these firms and consequently, a large effort is made at the firm level, through cooperation, to innovate, learn and adopt new technologies as per the business needs of the small firms. But, the technology in Indian small firms, in contrast to the Italian industrial districts, is an exogenous factor. Here, a large part of the technology is imported and most often, either no or negligible research and development activity is carried out by these firms. The self-learning and innovative capabilities of most of the unorganised firms are nil or very low. There are only few industrial clusters like Tirupur, which has grown through cooperation among firms (Chari, 2004). The growth pattern of small firms in India has reflected that the continuous up-gradation of technology is a costly option for the small firms.

Such handicap on technology fronts pressurises small firms to intensify their use of labour in the production process. As the organised segment of the manufacturing sector has recently shown its inability to provide adequate employments to increasing workforce (Ghose, 1994; Nagaraj, 2004), the unorganised segment remained the only option where a vast majority of the workforce has penetrated for seeking their livelihoods. Mostly, this workforce is illiterate, unskilled and unaware of labour rights. Moreover, the non-existence of strict rules and regulations regarding the recruitment, working, remuneration as well as tenure patterns provide employers an upper hand to exploit labour to the maximum possible levels by various 'tricks of the trade'. Such heavy dependence on hired hands urges for the need to examine the quality of employment in its entirety so as to move towards unveiling the survival and growth strategies of unorganised establishments in such environments where, given their resource endowments, they are bound to perish gradually.

1.2. Research Gaps

A recent study (Mukerjee, 2004), on the basis of evidence derived from NSSO data, has pointed out that there has been relatively more growth in India's unorganised enterprises both in terms of the number of enterprises and employment during the post-liberalisation period than that during the pre-liberalisation period. This evidence, if taken to be true, demands an explanation. Few explanations to support this growth pattern can be culled from literature.

Mukherjee (2004) itself attribute the growth of unorganised enterprises mainly the self-employed worker's manufacturing units (known as Own Account Manufacturing Enterprises, OAMEs) to the stress posed by unavailability of work. Similarly, another explanation for the growth of unorganised enterprises in the post-liberalisation period comes from the 'Linkage Approach' by which it is argued that the survival and growth of small firms in the hostile competitive business environs is facilitated by their linkages with large firms. The informal-formal relationships are the often-quoted prominent reasons for the growth of small firms (Mitra, 1994; Shah, 2001). The 'Cluster Approach' provides another explanation for the growth of small firms. By this approach, the geographic concentration enables small firms to develop competitive advantages through the interaction of various factors like the demand conditions, factor conditions, related and supportive industries and firm's strategy, structure and rivalry. This enhances the innovative capabilities of small firms and thus enables them to

withstand adverse situations. The findings made by studies like Das (1996) and Tewari (1999) justifies this approach[1].

It can be noticed very easily that all these assertions, arguments and approaches explain only a part of the story. These explanations though supportive enough to the growth of unorganised enterprises in the post-liberalisation period are not without any deficiencies. For example, Mukherjee's assertion of OAMEs being emerged out of stress may be true to some extent especially in rural areas where the possibilities of alternate employments in the non-farm sector are bleak. But, at the same time, there exists ample scope to deny this assertion as most often, the skilled workers in place of working as hired workers prefer to start their own business ventures as they consider it as the potential channel of growth. Our informal discussions with various establishment and OAME owners regarding the initial history of their firm reveal that many establishment owners started their firms as OAMEs not out of stress posed by the unavailability of work but as an opportunity provided by market. Similarly, the evidence derived from the NSSO data refutes the 'linkage approach' to some extent. The NSSO data provides information about the business performance of the unorganised firm over last 3 years and as per the 'linkage approach', only those firms who are having some linkage with large firms i.e. the sub-contracting firms, should be the expanding ones and the rest should be either declining or stagnating ones. But, the analysis reveals that not all the expanding unorganised enterprises engage themselves in sub-contracting activities. There are many unorganised enterprises, which in spite of their independent functioning have reported the improving performance of their businesses. Also, there are many sub-contracting firms who in spite of their linkage with large firms, are experiencing stagnation in their businesses. In the same line, the cluster approach too contains some weaknesses. By cluster approach, the small firms are able to perform better and develop their competitive capabilities in the conditions of endogenous technology – the potential of Italian small firms to compete with large concerns is the most cited example. But, as pointed out by UNIDO, most of the Indian clusters, due to lack of effective collaboration between firms and service institutions do not compete on the basis of improvements in their market connections, products, technologies and skills. There are also studies pointing the lack of 'learning nexus' between producers and consumers in spite of the existence of a variety of

[1] The recently conducted (Third) All-India Census of Small Scale Industries by identifying 1223 clusters of registered small scale units and 819 clusters of unregistered small scale units across India strengthens such argument postulated by the cluster approach.

technical institutions (Pillai, 2000). Similarly, by one of the UNIDO's case study, it has been pointed out that a majority of the Indian clusters are not exploiting their potential and the firms in these lagging clusters are surviving merely on the basis of low costs of labour. They do not participate in supportive production networks involving effective collaboration between firms and service institutions and thereby, they are not able to compete on the basis of improvements in their market connections, products, technologies and skills (Russo, 1999). All these facts hint towards the lack of generality in above approaches to explain the growth dynamics of unorganised enterprises in the context of a developing country.

1.3. Dearth of Studies in Punjab's Context

Another major motivation for this study has been the dearth of studies on Punjab's unorganised manufacturing sector. The available literature on Punjab's manufacturing sector has concentrated either on its linkages with agricultural sector (Bhalla, 1995) or the state role (Tewari, 1998). There is, to our knowledge, not a single study questioning the nature of employment generated by Punjab's unorganised manufacturing sector. This issue bears significance in the context of Punjab where there took place the highest employment growth in the unorganised manufacturing sector during the 1994-2001 period[1]. Also, Punjab's unorganised manufacturing sector serves as the employer of workers migrating from other poor states of Bihar, Orissa and Uttar Pradesh. The available research on migrant workers in Punjab has focused on agriculture (Grewal and Sidhu, 1981; Singh, 1997; Sidhu and Rangi, 1998) and there has been little research effort to examine the plight of migrant workers in the manufacturing sector[2].

2. DATA INPUTS

2.1. Secondary Data

The secondary data used in this study comes from the National Sample Survey Organisation (NSSO). The NSSO collected information on various facets of unorganised manufacturing sector since 1958-59 and till 2000-01, it has conducted about seven rounds of surveys on unorganised manufacturing continuously in 1968-69, 1974-75, 1978-79, 1984-85, 1989-90, 1994-95 and 2000-01. Various NSSO surveys differ from each other in terms of coverage,

[1] During the 1994-2001, the employment in Punjab's unorganised manufacturing sector has grown at the compound annual growth rate of 7.14 percent. This employment growth has been significantly high in comparison to other states (table 3 in Singh and Jain, 2007).

[2] There exist, as per our knowledge and the ISID index, only one study (Chand et al., 1998) on industrial migrant workers in Punjab.

sampling approach and the definition of various concepts[1]. Moreover, these surveys are based on different National Industrial Classifications (NIC). The 51st and 56th rounds, for example, are based on NIC 1987 and NIC 1998 respectively.

Owing to these discrepancies in various rounds, any worthwhile analysis urges for maintaining comparability between the data available at different points of time. But, the feasibility of this exercise depends strongly on the availability of unit level data. The data collected during the pre-1994-95 period is available in summary form i.e., it is either reported in journals like *Sarvekshana* or the reports released by NSSO itself. Consequently, it becomes quite impossible to make the pre-1994-95 data comparable over the period of time. Therefore, we preferred to focus on 1994-2001 period as the first complete set of unit level data became available in CD-ROM during 1994-95 (51st Round). The next round (56th) became available for 2000-01. As these two rounds are based on different NICs, we, in order to maintain comparability within these two rounds, have made the relevant adjustments with each round[2]. We reclassified the industrial codes in the 51st Round on the basis of Part-III of CSO (1998). Further, we have deflated the variables like the gross value added, gross output and gross input with the deflators derived from the gross domestic product at factor cost (base 1993-94) of respective states. For deflating the figures of fixed assets, we have used the deflator derived from the figures of all-India gross fixed capital formation (base 1993-94) available from the CSO[3]. Here, we took this deflator as the proxy for all the states because of the unavailability of information regarding gross fixed capital formation for all the states. We, by utilising the data available from Labour Bureau, have estimated the state-wise consumer price indices for industrial workers (base 1993=100) through the simple average of available region-wise consumer price indices in order to deflate the earnings of the hired workers.

2.2. Primary Data

We conducted our primary survey in urban segment where a majority of Punjab's unorganised establishments are located. This survey was conducted, during March-July, 2006, in the urban areas of Punjab's three districts viz. Ludhiana, Jalandhar and Sangrur. All

[1] For more detailed information about earlier rounds, see Saluja (1988), Kulshreshta and Singh (2001)
[2] For these data adjustments, see Singh and Jain (2007).
[3] The Annual Survey of Industries also provide information on gross fixed capital formation but this information is available for the organised sector and given the large differences between the capital generation potentials of the organised and unorganised segments, this may not serve as the better proxy.

these three districts are industrially developed and diverse in terms of 'Human Development Index'. We surveyed 125 establishments employing 543 hired workers. Further, we selected randomly 300 hired workers to collect the detailed work-specific information.

2.2.1. Establishments' Basic Characteristics

71.2 percent of the establishments are engaged in manufacturing activity, 23.2 percent are engaged in processing activity and the rest are engaged in repair (3.2 percent) and assembling activity (2.4 percent). 23.2 percent of the establishments are located within household premises and the rest are located either within industrial area (31.2 percent) or outside industrial area (45.6 percent). 91.2 percent of the unorganised establishments (N=114) have reported male proprietorship as their type of ownership.

From the information collected on establishments' profit or loss during last year, second last year and the third last year, we infer that all these establishments have earned profits during last three years. But, there have been variations in the level of profits earned so on the basis of this variation in profit levels, we have classified the surveyed establishments as per following criterion:

Striving: if establishment's profit level has fallen continuously over the period of three years

Surviving: if establishment's profit level has shown variation over the period of three years

Thriving: if establishment's profit level increased continuously over the period of three years

By this criterion, 61.6 percent of the unorganised establishments in our sample are thriving, 28 percent are surviving and 10.4 percent are striving to stay in business. There have been variations across establishments. It has been the publishing and printing industry in which a majority of the establishments are striving and the rest are surviving. There is no thriving firm in this industrial category. The inflow of computer-based printing has been one of the major factors influencing this industry. The establishments in the sports good industry constitute another group where a majority of the firms has been classified as striving and surviving. Then comes the leather industry and the food industry (Table 1).

39.20 percent of the sample firms are working on contract basis and 84 percent keep written records. 67.2 percent of the unorganised establishments are employing up to 5 hired workers, within which 23.2 percent employ two workers. The machinery used by sample firms is quite old and obsolete. For 29.6 percent firms, up to 50 percent of the machinery is three years old.

Table 1: Distribution of Sample Establishments as per their Business Performance

Industry type	Striving Firms	Surviving Firms	Thriving Firms
Food Industry	2 (15.4)	3 (23.1)	8 (61.5)
Textile Industry	3 (10.7)	5 (17.8)	20 (71.4)
Wearing Apparel Industry	-	-	2 (100.0)
Leather Industry	1 (20.0)	3 (60.0)	1 (20.0)
Wood Product Industry	-	2 (25.0)	6 (75.0)
Publishing & Printing	2 (66.6)	1 (33.3)	-
Fabricated Metal Industry	2 (8.70)	5 (21.7)	16 (69.5)
Machine Tool Industry	-	4 (80.0)	1 (20.0)
Transport Equipment Industry	1 (6.67)	4 (26.67)	10 (66.7)
Furniture Industry	1 (7.69)	5 (38.46)	7 (53.85)
Jewellery Industry	-	2 (33.3)	4 (66.6)
Sports Good Industry	1 (25.0)	1 (25.0)	2 (50.0)
All Industries	***13 (10.4)***	***35 (28.0)***	***77 (61.6)***

Source: Primary Survey

Table 2: Rating of Employer's Attitude towards Hired Workers

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
Is fully responsible for workers' safety and health	-	18.4	40.0	33.6	8.0
Provide prior notice before worker's retrenchment	-	3.2	18.4	57.6	20.8
Consider inflation while determining wage rate	0.8	32.0	40.8	20.0	6.4
Decides wage rate as per that prevailing in market	11.2	61.6	12.0	12.0	3.2
Gives low wages if business faces depression	16.8	55.2	28.0	-	-
Prefers migrant workers due to their low bargaining power	20.0	58.4	19.2	2.4	-
Employs native workers on better jobs and migrant workers on inferior jobs	4.0	47.2	47.2	1.6	-

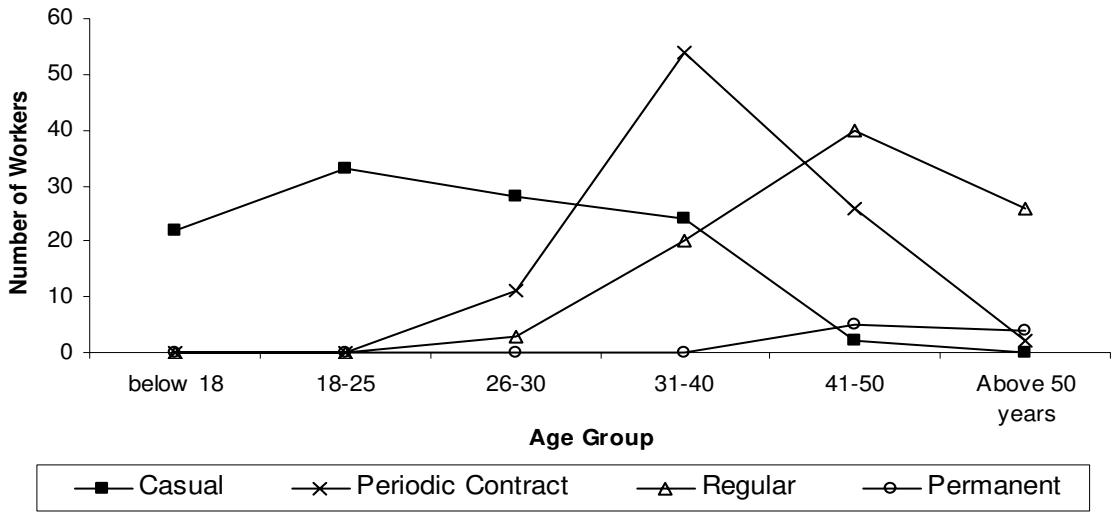
Source: Based on Primary Data

Similarly, for 49.6 percent firms, up to 50 percent of the machinery is six-to-ten year old. Moreover, only 29.6 percent of the sample firms have reported more than 70 percent of their machinery as new, otherwise the machinery used in production activity is either second-hand or self-constructed. Such practice of using old and obsolete machinery reflects the uneasiness and inability of Punjab's urban unorganised establishments in continuously updating their technology through new machines and innovations. It is a clear manifestation of technology being the exogenous factor in the production process. So, under these conditions, a consideration of employer's attitude regarding workers, their wages etc. reveals that the employers are quite unconcerned about the provision of decent working environs to the workers and there exist widespread practices of labour discrimination (see table 2).

2.2.2. Socio-economic Characteristics of Hired Workers

88 percent of hired workers are the male workers. The female workers are found in wearing apparel (62.5 percent), textiles (40.3 percent) and the sports good industry (9.8 percent). The major categories of employment are casual (36.30 percent), periodic contract (31 percent) and regular (29.70 percent). The share of permanent workers is quite negligible (3 percent). A distribution of age by type of employment indicates the presence of few child workers below 18 years of age. All of these work as casual workers. Some attending schools as well. The casual workers are mostly concentrated in the pre- 31-40 year age group whereas the regular workers are mainly concentrated in the post- 31-40 year age group. But, the periodic contract workers are spread over all the age groups with a majority in the age group of 31-40 years. Similarly, the permanent workers are mainly concentrated in post- 41-50 age groups (fig.1).

Fig.1: Age Distribution by Type of Employment in Punjab's Urban Unorganised Industry



Source: Primary Survey

Migrant workers constitute 60 percent of total surveyed hired workers. It is only the printing and publishing industry where the share of migrant workers is relatively low (42.9 percent) otherwise the migrant workers constitute the majority of the workforce in all the industries. A classification by employment status reveals that among total migrant workers, the share of the casual workers is 50 percent. 34.40 percent of the migrant workers work as periodic contract workers and 15.60 percent work as regular workers. There is no migrant worker enjoying the status of permanent worker. Such employment profile of migrant workers is worse than the native workers. 15.80 percent of native workers work as casuals, 25.80 percent work on periodic contract, 50.80 percent work as regulars and 7.50 percent work as permanent workers. Though apprentices are not surveyed, they belong to the category of native workers.

In terms of educational attainment, 8.3 percent of the workers are illiterate, 34 percent are semi-illiterate (can read and write), 19.7 percent are primary literates, 30.7 percent have education up to middle level, only 5.0 percent have education up to the secondary level and there are only 2.3 percent of the workers who are holding some kind of technical diploma. A comparison of workers' educational attainment with their respective skill level reveals that out of 8.3 percent illiterate workers, 3.30 percent are skilled workers and out of 34 percent semi-illiterate workers, 10.30 percent are skilled workers and 12.30 percent are the semi-skilled workers. Similarly, out of 19.7 percent primary literates, 7.30 percent are skilled workers and 5.66 percent are the semi-skilled workers. Further analysis of these least-literate workers as per their employment status reveals that these workers are working not only as the casual workers but also as periodic contract, regular and even the permanent workers.

From an age-wise comparison of these illiterate, semi-illiterate and primary literate permanent workers with secondary literate and diploma/degree holders, it has been found that all these least-literate permanent workers are of 40 years or above whereas those secondary literates and diploma/degree holders are of relatively younger age. Even then they enjoy the same/better employment status. It needs to be noted that a large part of the age of least-literate workers passed in learning adequate skills to enable them to reach at the higher rungs of the employment ladder. If they could have been provided with some skill in the earlier phase of their life, they could have enjoyed this or even better employment status at the concluding stages of their careers. But, it did not happen merely because of the lack of any institutional mechanism to facilitate an enhancement in their skills and human capital.

3. CHARACTERISING PUNJAB'S UNORGANISED ESTABLISHMENTS VIS-À-VIS THEIR COUNTERPARTS IN OTHER HIGH INCOME STATES

For characterising Punjab's unorganised establishments, we examine their distinctiveness vis-à-vis their counterparts in other high-income states of Maharashtra, Haryana, Gujarat and Tamil Nadu. All of these states form a group of high-income states among the 16 major Indian states[1] due to their achievements in having relatively high per capita income levels.

3.1. Industrial Composition

There are a few dominating industries viz. food products, textiles, wearing apparel, leather products, wood products, publishing and printing, fabricated metals, machine tools, transport equipments and other manufacturing, in the overall structure of Punjab's unorganised establishments. These industries together make significant contribution in both rural and urban areas but in comparison to other high-income states, it is Punjab's urban segment in which these industry groups reflect their dominance. These industry groups together contribute the largest share in all aspects ranging from spread, factor inputs, outputs etc. of the urban unorganised establishments in Punjab and this aggregate share is much more than contributed by its counterparts in other high income states and at the all-India level (Table 3).

Table 3: Major Industries' Share in Unorganised Establishments across High-Income States

	Rural						Urban					
	Pun	Mah	Har	Guj	TN	A-Ind	Pun	Mah	Har	Guj	TN	A-Ind
Enterprises	85.56	61.87	81.54	71.11	83.39	***78.96***	91.21	82.78	84.55	88.53	88.92	***84.95***
Total Workers	43.69	42.44	55.35	71.40	74.40	***62.12***	90.56	80.27	81.73	88.40	85.36	***82.46***
Hired Workers	33.14	36.84	46.08	72.47	69.17	***55.65***	90.19	79.23	80.42	88.48	84.63	***81.45***
Fixed Capital*	31.54	55.80	56.56	63.45	53.34	***57.75***	90.24	74.70	81.84	80.16	76.95	***73.71***
Output	30.56	60.18	48.32	54.87	65.18	***58.63***	88.44	26.20	78.34	78.25	79.82	***57.84***
Input	29.50	63.53	43.86	48.75	61.92	***59.07***	87.74	19.60	78.58	74.11	78.91	***51.42***
Gross Value Added	35.90	52.84	62.09	73.90	70.03	***58.33***	90.28	76.92	77.68	87.64	82.09	***79.61***
Emoluments	28.67	53.21	46.29	77.87	67.98	***54.39***	89.77	78.43	77.74	89.66	83.17	***80.83***

Note: Pun=Punjab, Mah=Maharashtra, Har=Haryana, Guj=Gujarat, TN=Tamil Nadu and A-Ind=All-India; * implies that the value of fixed capital excludes the value of land and building;

Source: Based on data generated from NSSO's CD-ROM for 56th Round (Schedule 2.2)

[1] From this group of major Indian states, we refer to the states of Andhra Pradesh, Assam, Bihar, Gujrat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. We excluded Jammu and Kashmir from this list due to inadequate coverage of the state

3.2. Gross Value Additions, Capital Intensity and Productivity

During the 1994-2001 period, the real gross value added (RGVA) has grown at the CAGR of 10.47 percent in Punjab's unorganised establishments – the highest growth rate vis-à-vis their counterparts in other high-income states. Though the unorganised establishments has grown in Punjab at the CAGR of 6.35 percent, the growth in RGVA cannot be attributed fully to the growth in number of units as the CAGR of RGVA per unit has been 3.88 percent during this period. Next to Punjab is the neighbouring state of Haryana in this respect. Interestingly, the CAGR of unorganised establishments in other high-income states like Tamil Nadu and Maharashtra has been very low. It has been negative in case of Gujarat. Average capital intensity (real fixed capital (excluding land) per worker) in Punjab's unorganised establishments during 2000-01 stands at Rs. 17,572, next to Haryana's Rs. 20825 among the group of high income states. This level of capital intensity is higher than that at all-India levels (Rs. 9,767). Analysis across sectors reveals that in rural segment, the level of capital intensity at Rs. 19,827 in Punjab's unorganised establishments is followed by its counterparts in Haryana (Rs. 14,940) and Maharashtra (Rs. 11,274) subsequently. But, in urban areas, the level of capital intensity at Rs. 16,692 places Punjab's unorganised establishments at the second position with the lead taken by their counterparts in Haryana at Rs. 22,734 (Table 4).

Table 4: Capital Intensity and Productivity in Unorganised Establishments

	Year	Punjab	Maharashtra	Haryana	Gujarat	Tamil Nadu	***All-India***
Capital Intensity							
Rural	1994-95	7282	6535	10695	11111	8410	***5466***
	2000-01	19827	11274	14940	6999	9756	***6858***
Urban	1994-95	11553	18884	13096	11405	12346	***10877***
	2000-01	16692	12187	22734	14443	14062	***11822***
All	***1994-95***	***10586***	***16257***	***12170***	***11341***	***10674***	***8504***
	2000-01	***17572***	***11992***	***20825***	***12615***	***12593***	***9767***
Capital Productivity (Partial)							
Rural	1994-95	2.19	1.27	2.24	1.51	1.44	***1.73***
	2000-01	1.06	1.35	1.08	2.38	1.34	***1.87***
Urban	1994-95	2.00	1.43	2.87	1.71	1.66	***1.91***
	2000-01	1.73	2.25	1.11	1.96	1.43	***1.92***
All	***1994-95***	***2.02***	***1.42***	***2.66***	***1.67***	***1.59***	***1.86***
	2000-01	***1.52***	***2.07***	***1.10***	***2.02***	***1.40***	***1.91***

Source: Based on data generated from NSSO's CD-ROM for 51st and 56th Rounds (Sch. 2.2)

By supplementing the analysis of growth in RGVA with the analysis of capital intensity, one may argue that Punjab's unorganised establishments managed to have such high growth rate of RGVA per unit due to high level of capital intensity, defined in terms of both real fixed capital (excluding land) per worker and per unit. But, it is not a sound argument as it demands, a priori, an analysis of the relative productivity of unorganised establishments' stock of fixed capital vis-à-vis other high income states i.e. the fixed capital of Punjab's unorganised establishments should be not only highly productive but also their productivity of capital must increase over the period under consideration. Analysis of (partial) capital productivity reveals that the capital in Punjab's unorganised establishments (both rural and urban) is not that much productive when compared to other high-income states. Also, the productivity of capital has declined in 2000-01 from its level in 1994-95. The similar has been the experience of Haryana and Tamil Nadu (Table 4). This implies that the high growth rate of RGVA per unit in Punjab's unorganised establishments cannot be attributed simply to the relatively higher stock of capital alone.

3.3. Employment: Growth and Structure

Owing to the combined impact of growth in the number of establishments, real gross value added, capital stock etc., the number of workers in unorganised establishments has increased during 1994-2001 period. At the all-India level, the employment in unorganised establishments has grown at the CAGR of 2.52 percent during this period. There have been variations among states in this aspect. Among high-income states, the unorganised establishments in Punjab recorded the highest rate of employment growth to the tune of 6.53 percent per annum. Such employment growth rate attained by Punjab's unorganised establishments has been quite higher than that attained by their counterparts in other high-income states of Maharashtra, Haryana and Tamil Nadu. In fact, Gujarat's unorganised establishments recorded the negative employment growth during this period. Further analysis of this employment growth across different types of workers reveals that these are the hired workers which have grown at the highest CAGR in Punjab's unorganised establishments whereas the family workers have grown at the highest CAGR in Haryana's unorganised establishments. Analysis across sectors reveals that in rural unorganised establishments, both the hired workers and family workers have grown at the highest CAGR in Punjab whereas in urban unorganised establishments, the highest growth of hired workers and family workers has been recorded by Haryana (Table 5).

Table 5: Employment Growth in Unorganised Establishments during 1994-95 to 2000-01

	Region	Punjab	Maharashtra	Haryana	Gujarat	Tamil Nadu	***All-India***
Hired Workers	Rural	10.82	0.48	-4.41	-2.09	-1.77	***2.08***
	Urban	6.00	1.19	7.12	-3.49	4.16	***3.12***
	All	***7.32***	***1.04***	***3.18***	***-3.14***	***1.88***	***2.68***
Family Workers	Rural	7.61	-4.47	-1.25	-3.18	-7.99	***-5.36***
	Urban	2.90	-1.42	8.66	-8.51	-0.16	***-0.72***
	All	***3.84***	***-2.05***	***5.86***	***-7.66***	***-3.27***	***-2.71***
All Workers	Rural	10.43	1.67	-3.70	-1.40	-1.50	***1.54***
	Urban	5.24	1.57	7.49	-3.92	4.51	***3.25***
	All	***6.53***	***1.59***	***3.86***	***-3.34***	***2.17***	***2.52***

Source: same as Table 4

Besides this growth analysis of employment, another insight into the pattern of employment growth can be made through a consideration of the incremental rise in hired workers vis-à-vis the incremental rise in total employment. By this measure, it is found that Punjab's unorganised establishments recorded the highest incremental rise in hired workers vis-à-vis incremental rise in total employment. The unorganised establishments of other high-income states do not reflect much attractive change in their structure of employment. Analysis of Punjab's unorganised establishments across sectors reveals that the rural establishments show slightly higher relative reliance on hired labour than their urban counterparts (Table 6). But, in absolute terms, these are the unorganised establishments located in the urban areas that during 2000-01, has employed 1,72,324 hired workers whereas the same has been 75,711 in case of unorganised establishments located in rural areas. As a whole, the unorganised establishments in Punjab has provided employment, on an average, to 14,278 hired workers annually during the 1994-2001 period.

Table 6: Incremental Rise in Hired Workers vis-à-vis Incremental Rise in Total Workers

State	Rural	Urban	All
Punjab	79.51	77.01	78.01
Maharashtra	20.49	55.76	47.85
Haryana	89.37	65.82	58.60
Gujarat	121.63	64.00	69.54
Tamil Nadu	80.17	64.00	59.68
Other States	98.15	66.83	76.69
All India	**92.09**	**66.32**	**73.04**

Source: Same as Table 4

Regarding labour mix, it has been inferred that 95.27 percent of the workers in Punjab's unorganised establishments are the male workers. Similar has been the pattern in other high-income states of Maharashtra (87.21 percent), Haryana (95.47 percent) and Gujarat (92.58 percent) except Tamil Nadu (73.97 percent). Across sectors, Punjab's urban unorganised establishments employed relatively more male workers (99.03 percent) than their counterparts in rural areas (85.63 percent). Such dominance of male workers in the urban segment again denotes the peculiarity of Punjab's unorganised establishments.

3.4. Average Real Earnings: Level, Growth and Elasticities

Before proceeding to a systematic examination of the earnings of hired workers, a caveat needs to be noted. These figures of earnings are the average figures as the NSSO in its round on unorganised manufacturing considered enterprise as the first sampling unit and thereby did not collect worker-specific information in detail. It only collected total emoluments paid to the hired workers and the total number of hired workers. From this information, we have estimated the average emoluments by simple division of total emoluments with the number of hired workers. Under such situation and given the heterogeneity among the set of hired workers in terms of their skill levels and background characteristics like migration etc., this average level of earnings may not answer accurately the question of just payments to the workers. But, still given these limitations, we have attempted to look into the earnings of hired workers by using the average earnings.

During 2000-01, the average real earnings of hired workers in Punjab have been Rs. 13,531. Such level of average annual real earnings in Punjab during 2000-01 is quite comparable with those given to workers in Maharashtra (Rs. 13,225) and Gujarat (Rs. 13,716). These earnings remained somewhat higher than those earned by the hired workers in Haryana (Rs. 12,688), Tamil Nadu (Rs. 10,621) and at the all-India level (Rs. 10,545). In 1994-95, the average annual real earnings of a hired worker in Punjab were Rs. 10,126. Since then these real earnings in Punjab have grown at the average annual rate of growth of 4.95 percent – a rate much higher than that in the states of Maharashtra (2.90 percent), Haryana (0.31 percent), Gujarat (-0.23 percent), Tamil Nadu (4.86 percent) and the all-India level (3.87 percent). Such attractive growth in making payments to the hired workers tells only a part of the story. We doubt that the situation in Punjab is not that rosy in Punjab at it seems to be. We try to

explore it further by examining the responsiveness of average real wages with the real gross value added (GVA) i.e., the elasticity of real wage to the real gross value added.

Table 7: Coefficients of Real Wage Elasticity to Real GVA across High Income States

State	β (SE(β))	t(β)	γ_2 (SE(γ_2))	t(γ_2)	γ_4 (SE(γ_4))	t(γ_4)	R^2
Punjab	.383(.004)	99.92	-.065 (.003)	-19.25	.059 (.004)	15.44	.391
Maharashtra	.478(.002)	251.69	-.005 (.002)	-3.01	-.021 (.002)	-10.69	.521
Haryana	.277(.004)	62.39	.082 (.005)	17.91	.047 (.005)	9.45	.323
Gujarat	.427(.002)	202.19	-.104 (.002)	-48.49	.061 (.002)	26.46	.458
Tamil Nadu	.468(.002)	297.10	.022 (.002)	13.35	.012 (.002)	7.17	.470
Other States	.564(.001)	813.79	.059 (.001)	71.88	-.080 (.001)	-93.01	.495
All-India	***.551(.001)***	***1010.21***	***.029 (.001)***	***48.06***	***-.063 (.001)***	***-98.09***	***.512***

Note: the specification used is:

$\ln W = \alpha + \beta \ln GVA + \gamma_1 D_1 + \gamma_2 D_1 \ln GVA + \gamma_3 D_2 + \gamma_4 D_2 \ln GVA$ [1] where W = real wage, GVA = real gross value added, D_1 = 0 for 1994-95 & D_1 = 1 for 2000-01, D_2 = 0 for rural & D_2 = 1 for urban areas, β is the elasticity coefficient for rural establishments during 1994-95, $\beta + \gamma_4$ is the elasticity coefficient for urban establishments during 1994-95, $\beta + \gamma_2$ is the elasticity coefficient for rural establishments during 2000-01 and $\beta + \gamma_2 + \gamma_4$ is the elasticity coefficient for urban establishments during 2000-01; t refers to the values of the t-test.

Source: Same as Table 4

From table 7, it can be inferred that the real wage elasticity has increased in the unorganised manufacturing sector at the all-India level in 2000-01 from its level in 1994-95. Similar trend has been recorded by the unorganised manufacturing sectors of the high-income states of Haryana and Tamil Nadu. But, the other high-income states of Punjab, Maharashtra and Gujarat showed the opposite trend. Among all the high-income states, the real wage elasticity in Punjab's establishments remained at the lowest levels during both 2000-01. In 1994-95, the wage elasticity of GVA in Punjab's establishments, though lower than other high-income states, was higher than that in Haryana's establishments but since then, it has deteriorated further whereas that of Haryana improved. In 2000-01, the real wage elasticity in Punjab stands at 0.384 whereas the same has been 0.450 in 1994-95. This deterioration in real wage elasticity reveals clearly the growing marginalisation of the workforce in Punjab's unorganised manufacturing sector. Also, it can be seen that the overall real wage elasticity,

[1] Someone may argue for controlling capital while estimating these elasticity coefficients. We are aware of this but we are not doing so as both the variables gross value added and capital are collinear

though being positive, has remained much below unity. It indicates that a unit increase in the real gross value added has not led to a unit increase in the real wage during both the periods of 1994-95 and 2000-01.

4. PUNJAB'S URBAN UNORGANISED ESTABLISHMENTS' GROWTH DYNAMICS AND THE NATURE OF EMPLOYMENT GROWTH: AN INTER-INDUSTRY ANALYSIS

After noticing the significance of Punjab's unorganised establishments in urban segment[1], we carry forward our inquiry through an inter-industry analysis of growth pattern and consequent variations in the nature of employment growth. Here, owing to constraints posed by the availability of secondary data, we restrict our analysis of the nature of employment growth to the domains of structure and wage returns only. It can be observed from Table 8 that during the 1994-2001 period, the real gross value added in Punjab's urban unorganised establishments has grown across all the industries except wearing apparel. The highest CAGR of real gross value added has been recorded by the leather product industry followed by fabricated metals, wood products and food products etc. Similarly, there has been growth in other parameters like real fixed capital (excluding land), workers, labour productivity and average real wage. Though the unavailability of panel data on unorganised establishments has put severe constraints on the analysis, a few inferences regarding the nature of employment growth can be derived from the cross-sectional analysis of available secondary data.

Table 9 provides elasticity estimates of hired workers' demand vis-à-vis the growth in real gross value added during the 1994-2001 period. This elasticity has been derived as the ratio of the growth rates of hired workers and the real gross value added. It can be inferred that during the 1994-2001 period, the responsiveness of demand for hired workers to the growth in real gross value added has not been uniform among all the industries. Even within the same industry group, there have been variations in this respect across establishments differing in terms of their size. In small establishments of industries manufacturing transport equipments, fabricated metals, publishing and printing, machine tools and wood products, the elasticity of demand for hired workers has been more than unity otherwise it remained below unity. The elasticity of demand for hired workers in medium establishments has been below unity across all the industries except fabricated metals and other manufacturing. Similarly, in

[1] Also, see Table A.2 in appendix

Table 8: Growth of Selected Parameters in Punjab's Urban Unorganised Establishments during 1994-95 to 2000-01

	Units	Real Gross Value Added	Real Fixed Capital*	Total Workers	Family Workers	Hired Workers	Labour Productivity (Partial)	Average Real Wage
Food Products	6.82	13.72	10.46	6.27	4.58	6.05	7.24	9.48
Textiles	6.36	8.77	25.80	2.88	0.86	3.98	4.60	7.83
Wearing Apparel	-3.17	-1.68	22.39	-2.10	-6.17	-0.85	-0.83	1.24
Leather Products	29.22	35.30	38.38	28.22	25.90	29.25	4.68	3.38
Wood Products	12.47	21.75	18.83	16.67	9.70	20.67	0.90	3.48
Publishing & Printing	-0.74	4.33	14.47	2.44	-5.36	7.48	-2.94	3.93
Fabricated Metals	20.37	25.90	24.45	21.87	15.38	24.17	1.39	3.54
Machine Tools	-5.49	3.82	0.97	-4.36	-8.04	-3.23	7.28	0.26
Transport Equipments	1.00	12.36	11.36	2.87	-0.52	3.72	8.33	4.27
Other Manufacturing	15.89	10.62	14.04	14.54	13.02	13.88	-2.87	1.58
All Industries	***6.25***	***9.26***	***11.90***	***5.24***	***2.90***	***6.00***	***3.08***	***3.23***

Note: * implies excluding land

Source: Same as Table 4

Table 9: Elasticity of Demand for Hired Workers vis-à-vis Real Gross Value Added in Punjab's Urban Unorganised Establishments, by Size during 1994-2001 period

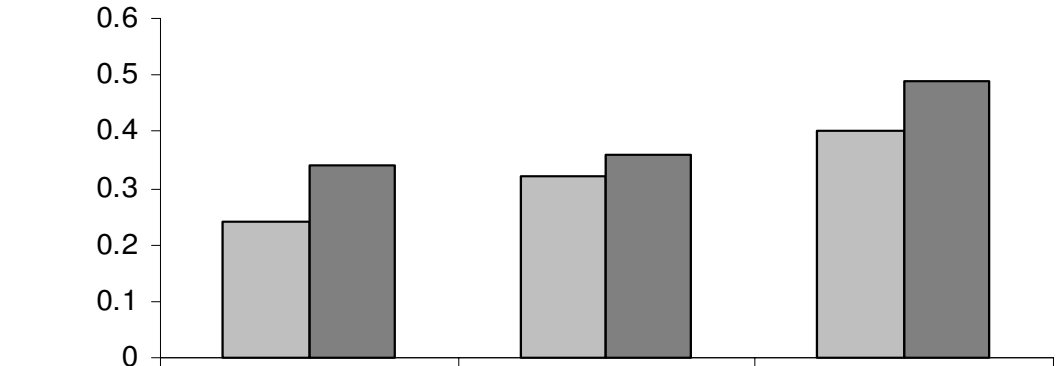
	Small	Medium	Large	All
Food Products	-0.46	0.47	0.73	0.44
Textiles	0.76	0.20	0.63	0.45
Wearing Apparel	0.79	0.64	0.81	0.51
Leather Products	0.75	0.92	0.80	0.83
Wood Products	1.02	0.91	1.00	0.95
Publishing & Printing	1.30	-0.42	2.09	1.73
Fabricated Metals	1.35	1.13	0.78	0.93
Machine Tools	1.26	0.65	-0.27	-0.85
Transport Equipments	1.77	0.36	0.35	0.30
Other Manufacturing	0.88	1.09	-1.82	1.31
All Industries	***0.39***	***0.76***	***0.62***	***0.65***

Note: The unorganised establishments are classified as small if their level of real fixed capital (excluding land), K* is less than Rs. 10,000; medium if K* is between Rs. 10,000 and Rs. 50,000; large if K* is more than Rs. 50,000

Source: Same as Table 4

case of large establishments, the elasticity of demand for hired workers has been below unity across all the industries except publishing and printing and wood products. Overall, the medium establishments have recorded the highest elasticity of demand for hired workers vis-à-vis real gross value added during this period. The large and small establishments follow medium establishments in this respect.

Fig. 2: Number of Hired Workers Used for Generating Real GVA worth Rs. 1 lakh



	Small	Medium	Large
1994-95	0.24	0.32	0.40
2000-01	0.34	0.36	0.49

Source: Same as Table 4

From the analysis of hired workers usage for generating real gross value added in Punjab's urban unorganised establishments, it becomes clear that the usage of hired workers for generating the real gross value added worth Rs. 1 lakh[1] has increased in 2000-01 from its level in 1994-95 (see fig. 2). For generating the real gross value added worth Rs. 1 lakh, the highest use of hired workers has been made by large establishments followed by medium and small sized establishments. All this analysis presents a dynamic profile of the demand for hired workers vis-à-vis the growth process. Nevertheless, a static profile of the demand for hired workers can be built through the correlation analysis.

[1] 1 lakh equals 0.10 million

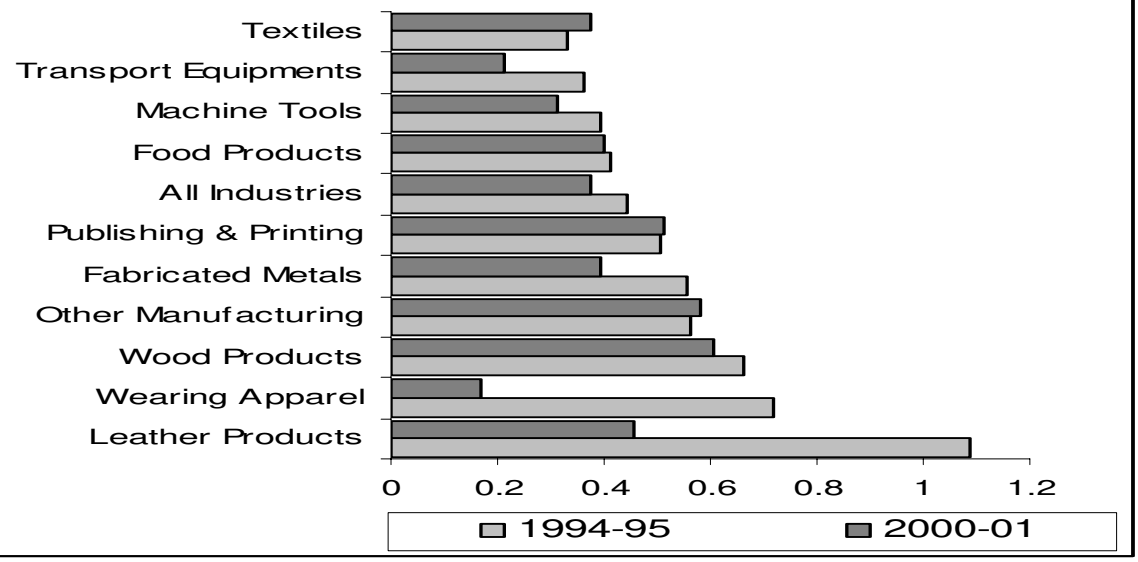
Table 10: Correlation Coefficients of Total Factor Productivity[1] and Use of Hired Workers in Punjab's Urban Unorganised Establishments, 2000-01

Industry type	Firm's Capital Intensity Level			
	Least	Moderate	High	All
Food Products	0.250	0.156	0.333	0.201
Textiles	0.388	0.545	0.484	0.400
Wearing Apparel	0.406	0.893	-0.804	0.254
Leather Products	0.227	0.754	0.980	0.250
Wood Products	0.569	0.269	0.572	0.310
Publishing & Printing	0.580	0.104	0.286	0.159
Fabricated Metals	0.701	0.485	0.091	0.431
Machine Tools	0.227	0.329	0.112	0.262
Transport Equipments	0.046	0.151	-0.064	0.085
Other Manufacturing	0.555	0.361	0.588	0.536
All Industries	***0.350***	***0.325***	***0.094***	***0.289***

Note: all correlations are significant at 0.01 level (2-tailed) of significance

Source: Same as Table 3

Fig. 3: Coefficients of Real Wage Elasticity to Real GVA across Punjab's Urban Unorganised Establishments, 1994-2001



Source: Derived from Table A.3 in Appendix

[1] The total factor productivity has been estimated as $TFP = \frac{Y_i}{L_i^{S_L} K_i^{1-S_L}}$; where TFP = total factor productivity, Y = gross value added, L and K are labour (in number) and capital respectively, S_L is the share of labour in the gross value added

Table 10 presents the correlation coefficients of total factor productivity and the demand for hired workers. Rather than analysing this aspect across establishments differing in terms of size, we prefer to classify establishments as per their level of capital intensity defined in terms of their use of real fixed capital (excluding land) per hired worker. It can be inferred that the correlation between the total factor productivity and the demand for hired workers is the highest among the least capital intensive establishments followed by moderate and highly capital intensive establishments. Though this correlation has been positive for all the industries across establishments at different capital-intensity levels, the correlation has been negative in case of highly capital-intensive establishments of wearing apparel and transport equipments.

After examining the nature of employment growth vis-à-vis growth in real gross value added and total factor productivity in Punjab's urban unorganised establishments, we examine the aspect of wage returns to the hired workers across different industries. It can be inferred from figure 3 that during the 1994-2001 period, there has been decline in the responsiveness of real average wage to the real gross value added in Punjab's urban unorganised establishments. The elasticity of real average wage to the real gross value added has declined in 2000-01 (from its level in 1994-95) across the establishments manufacturing wood products, wearing apparel, wood products, fabricated metals, food products, machine tools and transport equipments. It has increased only in the establishments of textile and publishing and printing industry. Such trend of real wage elasticity reveals the increasing exploitation of hired workers during the 1990s.

5. QUALITY OF EMPLOYMENT IN PUNJAB'S URBAN UNORGANISED ESTABLISHMENTS: FURTHER DIAGNOSIS WITH JOB QUALITY INDEX

5.1. Methodology

Choice of Indicators

The notion of job quality is quite broad and multidimensional per se. Owing to this, the construction of 'job quality index' is rather difficult unless we choose some selective indicators, which may be comprehensive enough to capture all desirable features of a job. The unorganised establishments are exposed to large inflow of labour. There is also the absence of strict rules and regulations regarding the employment of workers. So, in this context, we choose the following employment characteristics to include in the index:

1. Average Hourly Earnings
2. Skill Transferability at Work
3. Job Termination Possibility without Notice
4. Wage Settlement
5. Job Satisfaction

We have standardised all these five variables into three subcategories, which are allotted one, two and three points. Following this, we added up the points scored by each variable. This figure is then divided with five to get an individual score for each worker. The higher the individual score, the better the quality of job and vice versa. It can be observed that in our method of constructing the job quality index, we, like the Human Development Index, have weighted equally all variables included in the index. A brief description about each variable to explain its measurement and rationale for inclusion in the index is presented below:

1. Average Hourly Earnings

The choice of wages is the most obvious as the whole range of basic needs is dependent on earnings. In our survey of hired workers, we collected the information on following variables: monthly wage, number of days worked in a month and the usual working hours in a day. From this information, we estimated the average hourly earnings by dividing the monthly wage with the number of days worked in a month and the usual working hours in a day. This average hourly wage is then divided into three categories defined as the multiples of hourly minimum wage[1] (Rs. 93.67, as on March, 2006 – the date coinciding the survey period) for industrial workers in Punjab: one - if the average hourly wage is below the hourly minimum

[1] For estimating the hourly minimum wage, we divide the daily minimum wage with (assumed) decent working day of ten hours

wage; two - if the average hourly wage is between the hourly minimum wage and 1.5 hourly minimum wage; three – if the average hourly wage is greater than 1.5 hourly minimum wage. This classification considers that the earning level below the minimum wage is quite incapable of providing the most-needed basic needs to the hired workers. Similarly, it considers the second cut-off as 'somewhat good' and the third cut-off as the best one.

2. Skill Transferability at Work

In unorganised establishments where there is too much competition among workers to get the limited number of best jobs, any worker can be mobile upward in his career if he possesses reasonably good skills. Under the circumstances when the hired workers, at the time of their entry into the unorganised sector are most often unskilled, there exist the chances for upward mobility of the workers if the jobs of these workers facilitate them to learn skills at work. This variable has been assigned the value one, if there is no transferability of skills at work; two, if there does exist some possibility for the transferability of these skills at time of work; and three, if the skills at work are fully transferable.

3. Job Termination Possibility without Notice

This variable holds prime significance in the construction of job quality index as a mere possibility of losing job suddenly may affect the working life of a hired worker in two ways: first, it may expose the hired worker to a very tough situation both psychologically and economically; secondly, it affects the upward career mobility of a worker as the sudden job loss, in the midst of economic compulsions, may pressurise the hired worker to opt for a job to which he may not be deserving. We codified this variable by assigning the value one if there is too much possibility of job termination without notice; the value two is assigned in case of somewhat possibility whereas the value three is assigned if there is no possibility of job loss without prior notice.

4. Wage Settlement

The variable of wage settlement has been included in the job quality index so as to capture the bargaining strength of the workers. We assigned the value one if the employer himself sets the wages of a hired worker; two, if the prevailing wage rate is considered and three if the wage rates are settled with negotiation and bargaining with workers.

5. Job Satisfaction

The variable of job satisfaction is a simple average of worker's satisfaction with various characteristics of the job such as earnings, working place, nature of work, workplace safety, promotion prospects and the nature of employer. This simple average is then codified as the value one for low job satisfaction, two for moderate job satisfaction and three for high job satisfaction. We included this composite index of job satisfaction in the employment quality index mainly to add the subjective dimension to our index as it is argued in literature that the subjective evaluation by the individuals concerned reflects the real problems faced by themselves (Kingdon and Knight, 2004).

5.2. Analysis

It can be observed from next table that the thriving firms provided employment to 58 percent of the hired workers and among these workers, 38.66 percent are working in 'very low' quality jobs (15.0 percent) and 'somewhat low' quality jobs (23.66 percent). The percentage of workers working in medium and high quality jobs in the thriving establishments is relatively low. Likewise, the surviving establishments employed 29.66 percent of the hired workers – 17.33 percent of which are working in 'very low' and 'somewhat low' quality jobs. The striving firms too showed the similar pattern. Overall, 64.33 percent of the hired workers are working in poor quality jobs, 26.33 percent are having the medium quality jobs and only 9.33 percent are working in the high quality jobs (Table 11). It implies that the job quality of about two third of the hired workers is not up to the desired levels.

Table 11: Hired Workers by Job Quality Index and Establishment's Business Performance

Job Quality	Striving	Surviving	Thriving	All
Very Low	6 (2.0)	19 (6.33)	45 (15.0)	70 (23.33)
Somewhat Low	19 (6.33)	33 (11.0)	71 (23.66)	123 (41.0)
Medium	10 (3.33)	25 (8.33)	44 (14.66)	79 (26.33)
High	2 (0.66)	12 (4.0)	14 (4.66)	28 (9.33)
Total	***37 (12.33)***	***89 (29.66)***	***174 (58.0)***	***300 (100.0)***
Number of Establishments	***13***	***35***	***77***	***125***

Source: Based on Primary Survey

Table 12 reveals that the share of migrant workers in 'very low' and 'somewhat low' quality jobs is considerably high than the native workers. The migrant-native gap is relatively high in the 'very low' quality jobs than the 'somewhat low' quality jobs. About one-sixth of the migrant workers are working in medium quality jobs but in case of high quality jobs, the native workers capture a major chunk of jobs.

Table 12: Job Quality Index by Migration Status

Job Quality	Migrant	Native	Total
Very Low	62 (34.4)	8 (6.7)	70 (23.3)
Somewhat Low	86 (47.8)	37 (30.8)	123 (41.0)
Medium	31 (17.2)	48 (40.0)	79 (26.3)
High	1 (0.6)	27 (22.5)	28 (9.3)
Total	***180 (100.0)***	***120 (100.0)***	***300 (100.0)***

Source: Based on Primary Survey

Table 13 points out that the hired workers without any skill i.e. the unskilled workers constitute the majority of workers who are working in very low quality jobs. In somewhat low quality jobs, the semi-skilled workers take the lead, which are followed by skilled and unskilled workers. In medium and high quality jobs, the share of skilled workers is relatively more than the semi-skilled workers. Overall, it can be said that the unskilled workers are concentrated in 'very low' and 'somewhat low' quality jobs. Similarly, the semi-skilled workers are mostly concentrated in 'somewhat low' quality jobs, followed by medium and 'very low' quality jobs. The proportion of semi-skilled workers in the category of high quality jobs is quite negligible whereas the skilled workers are mainly concentrated in medium quality jobs. Though the skilled workers are also found in the high quality jobs, a relatively high proportion of these workers is found in 'somewhat low' quality jobs.

Table 13: Job Quality Index by Skill Status

Job Quality	Skilled	Semi-skilled	Unskilled	Total
Very Low	2 (1.7)	16 (15.8)	52 (61.9)	70 (23.3)
Somewhat Low	35 (30.4)	56 (55.4)	32 (38.1)	123 (41.0)
Medium	51 (44.3)	28 (27.7)	0	79 (26.3)
High	27 (23.5)	1 (1.0)	0	28 (9.3)
Total	***115 (100.0)***	***101 (100.0)***	***84 (100.0)***	***300 (100.0)***

Source: Based on Primary Survey

Table 14: Job Quality Index by Employment Status

Job Quality	Casual	Periodic Contract	Regular	Permanent	Total
Very Low	60 (55.0)	6 (6.5)	4 (4.5)	0	70 (23.3)
Somewhat Low	49 (45.0)	43 (46.2)	31 (34.8)	0	123 (41.0)
Medium	0	38 (40.9)	39 (43.8)	2 (22.2)	79 (26.3)
High	0	6 (6.5)	15 (16.9)	7 (77.8)	28 (9.3)
Total	***109 (100.0)***	***93 (100.0)***	***89 (100.0)***	***9 (100.0)***	***300 (100.0)***

Source: Based on Primary Survey

Such finding when considered along with the cross-tabulated results of the job quality index by employment status may provide an explanation for such inference. It can be observed from Table 14 that that a majority of the periodic contract workers are in 'somewhat low' quality jobs. It also needs to be noted that a most of the periodic contract workers are the skilled workers. Similarly, 34.8 percent of the regular workers are working in 'somewhat low' quality jobs. Again, these are the casual workers, which constitute the majority of workers working in low quality jobs. The periodic contact workers are found in all categories of the job quality index. Likewise, the regular workers are also found in 'somewhat low', medium and high quality job categories. But, the permanent workers are mainly concentrated in high quality jobs followed by the medium quality jobs.

6. EMERGING CONCLUSIONS

An analysis of the growth dynamics of Punjab's urban unorganised establishments from a labour perspective makes it clear that the growth in real gross value added in these unorganised establishments during the 1990s – a period coinciding the globalisation phase of the Indian economy, in spite of rising capital intensity cannot be attributed fully to the usage of capital as the level of capital productivity has been relatively low during this period – in fact, it deteriorated in 2000-01 from its level in 1994-95. The unorganised establishments relying on old and obsolete machinery has marginalized and exploited their hired labour to the maximum possible levels – a strand of which is unveiled by declining responsiveness of the real average wage to the real gross value added over the 1994-2001 period.

The analysis of primary data sheds more light on the type of jobs generated by Punjab's urban unorganised establishments. Though most of the urban unorganised establishments are found to be thriving in their business performance, a large majority of the hired workers in these establishments are working in poor quality jobs. Similar is the situation with the surviving and striving unorganised establishments. The average daily earnings of most of the hired workers are below the stipulated daily minimum wage. Their jobs lack any possibilities for on-the-job learning of skills. Employers are found to be the prime agents in wage determination. The tenure of jobs is quite insecure and the hired workers can be evicted from their jobs without any notice. Moreover, the hired workers are found to be largely unsatisfied with the job aspects such as earnings, working place, nature of work, workplace safety, promotion prospects and the nature of employer. All this reflects that the exploitation of hired workers has been the only possible factor that might have contributed towards continued survival and growth of unorganised establishments in urban Punjab – a fact hitherto neglected by most of the economists explaining the survival and growth of unorganised establishments in an era of globalisation!

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APPENDIX:

Table A.1: Establishments' Share in Overall Unorganised Manufacturing Sector

	Punjab		Maharashtra		Haryana		Gujarat		Tamil Nadu		All-India	
	1994-95	2000-01	1994-95	2000-01	1994-95	2000-01	1994-95	2000-01	1994-95	2000-01	1994-95	2000-01
Enterprises	29.10	26.52	31.99	27.24	25.42	25.17	26.89	33.53	20.45	20.38	14.81	14.50
Real Fixed Capital*	69.15	84.43	89.21	80.97	73.60	79.05	79.95	82.76	87.23	88.28	72.53	74.19
Total Workers	57.01	55.43	58.99	55.23	51.40	50.55	59.03	63.73	47.09	46.74	32.31	33.74
Real Output	83.64	86.22	86.80	92.02	83.72	79.14	81.82	86.68	79.80	81.01	68.49	74.29
Real Input	90.52	91.19	89.27	94.87	88.69	83.87	90.37	90.46	87.17	86.00	74.14	80.56
Real GVA	69.93	75.03	81.35	75.92	76.48	66.84	70.53	78.71	69.43	71.67	59.38	59.89

Note: * implies excluding land

Source: Same as Table 4

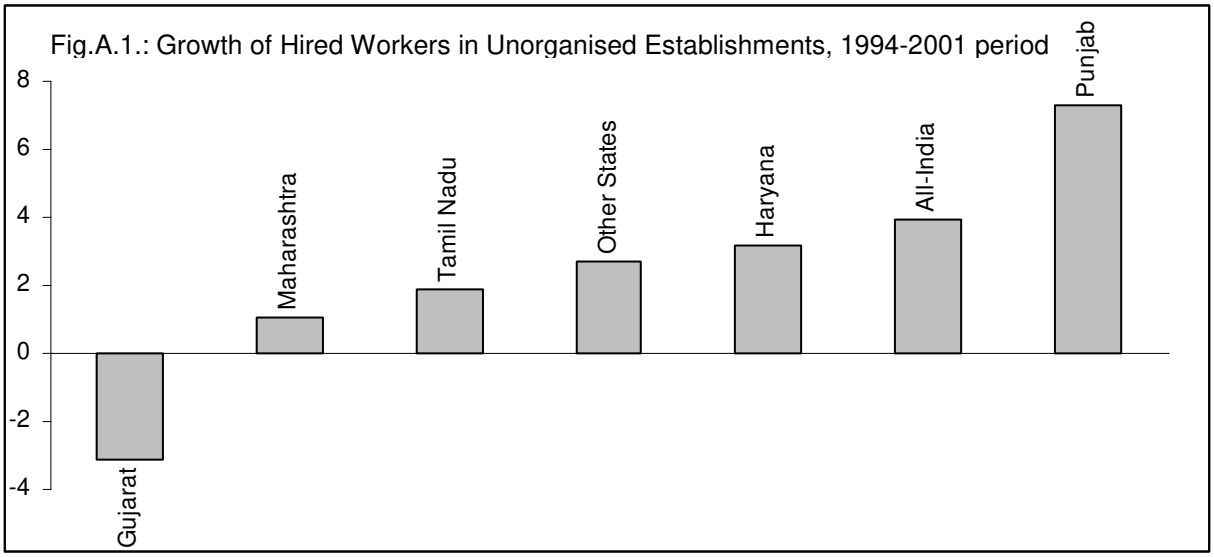

Table A.2: Distribution of Punjab's Unorganised Establishments across Sectors, 2000-01

Industry	Rural					Urban				
	Units	K*	Tw	Hw	GVA	Units	K*	Tw	Hw	GVA
Food Products	32.06	31.93	24.01	21.68	17.25	67.94	68.07	75.99	78.32	82.75
Textiles	18.01	0.62	12.21	11.72	3.24	81.99	99.38	87.79	88.28	96.76
Wearing Apparel	31.75	38.34	12.83	8.42	6.12	68.25	61.66	87.17	91.58	93.88
Leather Products	13.65	11.40	13.68	14.24	18.11	86.35	88.60	86.32	85.76	81.89
Wood Products	36.76	57.45	31.55	29.62	30.33	63.24	42.55	68.45	70.38	69.67
Publishing & Printing	9.11	0.93	5.44	4.27	3.50	90.89	99.07	94.56	95.73	96.50
Fabricated Metals	22.39	5.79	17.45	14.47	12.07	77.61	94.21	82.55	85.53	87.93
Machinery & Equipment	20.51	9.36	14.45	13.26	7.75	79.49	90.64	85.55	86.74	92.25
Transport Equipment	0.93	0.36	0.90	0.98	0.49	99.07	99.64	99.10	99.02	99.51
Other Manufacturing	12.55	8.60	9.58	8.82	8.40	87.45	91.40	90.42	91.18	91.60
All Industries	***23.18***	***31.69***	***28.09***	***30.53***	***22.13***	***76.82***	***68.31***	***71.91***	***69.47***	***77.87***

Note: K*=Fixed Capital (excl. land); Tw=Total Workers; Hw=Hired Workers; GVA=Gross Value Added

Source: Same as Table 3

Table A.3: Coefficients of Real Wage Elasticity to Real GVA across Industries in Punjab's Unorganised Establishments

Industry	β (SE(β))	t(β)	γ_2 (SE(γ_2))	t(γ_2)	γ_4 (SE(γ_4))	t(γ_4)	R^2
Food Products	0.384 (0.009)	44.487	-0.011 (0.009)	-1.32	0.029 (0.01)	2.973	0.421
Textiles	0.533 (0.02)	27.29	0.038 (0.008)	4.772	-0.199 (0.02)	-10.161	0.599
Wearing Apparel	0.752 (0.01)	76.361	-0.547 (0.015)	-35.821	-0.034 (0.003)	-13.222	0.745
Leather Products	0.902 (0.032)	28.276	-0.627 (0.033)	-18.752	0.184 (0.034)	5.402	0.651
Wood Products	0.702 (0.019)	36.326	-0.058 (0.02)	-2.939	-0.038 (0.018)	-2.162	0.408
Publishing & Printing	0.957 (0.16)	5.995	0.008 (0.026)	0.294	-0.45 (0.161)	-2.786	0.322
Fabricated Metals	0.478 (0.014)	33.141	-0.166 (0.011)	-15.57	0.08 (0.013)	6.181	0.406
Machine Tools	0.64 (0.012)	51.799	-0.077 (0.008)	-10.068	-0.249 (0.012)	-20.145	0.456
Transport Equipment	-0.05 (0.187)	-0.252	-0.148 (0.013)	-11.364	0.408 (0.187)	2.182	0.299
Other Manufacturing	0.649 (0.018)	36.529	0.015 (0.015)	1.013	-0.085 (0.02)	-4.247	0.398
All Industries	***0.383 (0.004)***	***99.924***	***-0.065 (0.003)***	***-19.25***	***0.059 (0.004)***	***15.447***	***0.391***

Note: the specification used is:

$\ln W = \alpha + \beta \ln GVA + \gamma_1 D_1 + \gamma_2 D_1 \ln GVA + \gamma_3 D_2 + \gamma_4 D_2 \ln GVA$ where W = real wage, GVA = real gross value added, D_1 = 0 for 1994-95 & D_1 = 1 for 2000-01, D_2 = 0 for rural & D_2 = 1 for urban areas, β is the elasticity coefficient for rural establishments during 1994-95, $\beta + \gamma_4$ is the elasticity coefficient for urban establishments during 1994-95, $\beta + \gamma_2$ is the elasticity coefficient for rural establishments during 2000-01 and $\beta + \gamma_2 + \gamma_4$ is the elasticity coefficient for urban establishments during 2000-01; t refers to the values of the t-test.

Source: Same as Table 4