

**THE RELATION BETWEEN THE TYPE OF OWNERSHIP AND THE  
SIZE OF BUSINESS: A STUDY OF SOME URBAN UNORGANIZED  
MANUFACTURING UNITS IN WEST BENGAL**

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**ABSTRACT**

*Some important propositions that emerge from the preceding analyses about the economic behaviors of the unorganized heterogeneous producing and/or repairing units/enterprises, on the one hand, as well as the relationships between the ownership patterns and the size of business on the basis of some proxy variables, on the other hand. However, the propositions regarding the behaviors of the unorganized heterogeneous enterprises having different production organizations can be pointed out sequentially. Firstly, the enterprises involving heterogeneous producing and/or repairing activities in the samples (first period and second period) are all household enterprises. Secondly, the sample from first period survey consists of 99% enterprises which are proprietary in nature (i.e. ownership vested with one person only), on the one hand, and partnership enterprises had a share of 1 per cent in total number of enterprises, on the other. The sample from second period survey consists of 100% enterprises which are proprietary in nature. Thirdly, About 60% of total units operate without hiring any labour, i.e. the producing and repairing units are mainly dependent on family labour. Thus the characteristic, 'Family Ownership of Enterprises' of informal sector proposed by ILO is observed in this case study. Fourthly, Here I find that the amount of initial variable cost is*

*overall low with maximum at 25000/= only. Thus the characteristic, 'Small Scale of Production' of informal sector proposed by ILO is observed in this case study. Fifthly, the micro-economic activities, such as, the amount of initial fixed cost, the amount of variable cost, the average three years' fresh fixed cost, the monthly turnover, etc for almost all unorganized producing firms are very low. Consequently, these economic behaviors establish the theoretical proposition regarding the characteristics of informal sector/ unorganized sector, especially 'the low level of organization' (ILO, 1972; NSSO, 1999-2000, 55th round. Sixthly, The size of the business in terms of micro-economic variables, such as, the amount of initial fixed cost, the amount of variable cost, the monthly turnover, of the joint family owners are relatively large compared to the individual owners.*

**Introduction:** The socio-economic-structural transformation of the dualistic economy (traditional-modern dualism), based on the inclusion of surplus labour of the traditional sector in modern sector and the commercialization of agricultural sector (Lewis, 1949), could be possible through accumulation centric dynamism of the modern sector, typically known as the formal sector.

The ineffectiveness of resource-driven path of development strategy in LDCs pushed out the surplus-migrant labour of agriculture to either rural non farm economy or to the urban informal sector (Hart, 1973). It is true that the creation of the urban informal sector was also due to some pull factor originating from the urban formal sector as proposed by Harris-Todaro (1970).

Several studies (Amjad, 1988) showed that hardly 2-3% of total increased workforce got employed in large scale manufacturing sector during last few decades in countries like India, Pakistan, and Bangladesh. It has been also found that overwhelming majority of working population of the LDCs continue to be engaged in the informal sector in spite of the high rate of growth of the formal sector.

However, the importance in terms of informal employment of the informal sector could be found in the below table (table: 1) which consisting of both formal and informal employment status in India for the years; 1999-2000 and 2004-05. It is pretty obvious that informal employment in the informal sector has increased from 341.3 to 393.5 (millions), on the one hand, and informal employment in the formal sector has increased from 20.5 to 29.5 (millions), on the other hand. The table also reveals that the formal employment in formal sector

decreased marginally from 33.7 to 33.4 in spite of high rate of accumulation and growth in modern sector/formal sector.

**Table 1: Informal Employment and formal employment in India (in millions)**

<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">↓</div> <div style="margin-right: 10px;">Sector</div> </div>	Year →	1999–2000			2004–05		
		<i>Informal workers</i>	<i>Formal workers</i>	<i>Total workers</i>	<i>Informal workers</i>	<i>Formal workers</i>	<i>Total workers</i>
<i>Informal/Unorganized Sector</i>		341.3	1.4	342.7	393.5	1.4	394.9
<i>Formal//Organized Sector</i>		20.5	33.7	54.2	29.1	33.4	62.6
<i>Total</i>		361.8	35.1	396.9	422.6	34.8	457.5

*Source: NCEUS, 2007, 3*

Thus, the greater dynamics and potentiality of the informal sector should be studied as far as the income distribution through broad-based employment generation of the vast asset-poor population is concerned (ILO, 1972; NCEUS, 2007).

**Conceptualization and Characterization of Informal Sector:** Though I will take up unorganized manufacturing only of urban locations, I may benefit from a quick review of the concepts of informal sector/unorganized sector<sup>1</sup>. In general, a sector consists of largely unrecognized, unrecorded, and unregulated, heterogeneous and/or homogeneous, legal and/or illegal, activities can be termed as informal sector. The informal sector is, However, of small-scale, self-employed activities (with or without hired workers), typically at a low level of organization and technology with primary objective of generating employment and income (ILO, 1972; NSSO, 1999-2000, 55th round).

The characteristics of urban informal sector is defined by ILO (1972) are as follows.

<sup>1</sup> ‘All unincorporated proprietary and partnership enterprises are defined as informal enterprises. This definition differs from the concept of unorganised sector. In the unorganised sector, in addition to the unincorporated proprietary or partnership enterprises (i.e. informal enterprises), enterprises run by cooperative societies, trusts, private and public limited companies (Non ASI i.e. not registered under Factories Act 1948) are also covered’ (NSSO, Report No. 459, p. 3). In general, the informal sector can be treated as a proper subset/sub-sector of the unorganized sector. However, we must add that there is very close correspondence between informal and unorganized. We use these two categories interchangeably.

- (a) Ease of entry
- (b) Reliance on indigenous resources
- (c) Family ownership of enterprises
- (d) Small scale of production
- (e) Labour intensive and adopted technology
- (f) Skills acquired outside the formal schooling system
- (g) Unregulated and competitive markets

***Conceptualization of the Informal Sector in the Formal-Informal Dichotomous Frame:***

Different Substantial Literature (Hart, 1973; Field, 1975; De Sato, 1989; ILO, 1972; etc) has defined the informal sector, particularly the urban informal sector, in different dimensions.

***The Anthropological Approach:*** According to this view the informal sector, particularly urban informal sector, is characterized by formal and informal income opportunities on the basis of whether the activities entailed wage or self-employment of both legal and illegal activities (Hart, 1973), implying that wage-earning employment is a characteristic of the formal sector only.

***The ILO Approach:*** The ILO view emphasized on a particular type of activities based on some characteristics rather than simply on individual engaged in self-employment (Sethuraman, 1976). ILO considered the main aim of the informal sector to be the provision of subsistence to families. It related the growth of the informal sector to its positive effects on the labour market and the distribution of income. It recognized its dynamics and potential for economic growth and employment (ILO, 1972).

***The World Bank Approach:*** A different approach in the formal-informal dichotomous frame developed by many economists (Majumdar, 1976; and other at the World Bank) is based on the labour market rather than the structure of enterprises. According to this approach the informal workers are unprotected in terms of working conditions, social security provisions, job security, and pension provisions in comparison with the formal workers. This benefit could be the outcomes of trade unions, of government, or of both acting together.

From this whole review of literature, it could be found that the informal or unorganized units are primarily tiny enterprises of different types of activities, involve with having different relationships with formal or organized sector, i.e. complementarity/conflict relationship. However, various categorizations have been discussed and in many cases the differences between the formal and informal sectors are identified.

However, the relevant contemporary issues involving the relationships among the informal production units have not been properly explored, especially, the relation between the type of ownership and the size of business. In this paper, I attempt to study only the relation between the type of ownership and their size of businesses.

**Methodology:** According to the NSSO report (Government of India, 2005-06, 62<sup>nd</sup> Round), unorganized manufacturing sector contributes about one-third of the total contribution of the manufacturing sector in GDP, which signifies the importance of our research. But I have concentrated only on urban unorganized manufacturing sector purposively, which has been an important issue of research in recent times.

But to fulfill the fundamental objective of this paper, i.e. the relation between the type of ownership and the size of business, I have required various qualitative and quantitative aspects based on primary data from field survey, as it is not available in secondary source provided by NSSO. Consequently, I have formulated a detailed structured questionnaire to get data from primary sources to fulfill my objective. I have done a primary survey on urban unorganized manufacturing activities under differential conditions. However, I need to point out It should point out that the primary data has been collected from two different time periods.

**First Period:** I have chosen two distinctly different locations to capture the heterogeneity of the unorganized production activities. These locations are: 1) Bolpur, a semi urban service based town surrounded by rural environment in Birbhum district of West Bengal which is one hundred and fifty kilometers away from the state capital, Kolkata, and 2) Hindmotor, an industry based urban area in Hooghly district and only fifteen kilometer away from Kolkata. Hindmotor is famous for the Hindustan Motors Car Factory producing Ambassador Cars.

I have also taken a sub-sample of Chapsora around Hindmotor, where both agriculture and industry are supposed to influence the unorganized manufacturing activities. The total fifty units of unorganized manufacturing and repairing units have been selected from Bolpur. On the other hand, I have taken 42 units in total of unorganized manufacturing and repairing units

from Hindmotor. I have also chosen Chapsora as a survey location, which is ten kilometer away from Hindmotor and twenty-five kilometer from Kolkata. Only eight units have been taken from this location.

I have chosen an industry based urban location, Hindmotor, to observe whether the unorganized manufacturing or repairing units operate independently or dependent on organized sector through sub-contracting or through other activities. On the other hand, the reason behind the selection of semi-urban based service location is to see whether the unorganized manufacturing or repairing units are independent from the rural agriculture or not.

However, the two locations have been chosen on the basis of *stratified sampling*. After *locational stratification*, due to the absence of actual size of the population I have observed different units having different production activities and thereby to get an idea about the size of the population.

After getting an idea about the population, the total sample size has been chosen from different locations. Each sample area of Hindmotor including Chapsora and Bolpur consists of 50 units. The two samples have been constructed with few sub-samples for different products (such as, pottery, cycle repairing, shoe repairing, shoe manufacturing, processing, carpentry etc.).

Size of a sub-sample for a product has been constructed keeping in view the approximate proportion of number of unorganized units of this product in each location. I have taken similar types of commodities in both the locations. I have purposively selected the units with replacement in the field with the size constraint of the sub-sample in each location.

I have taken both purposively and proportionately different producing and repairing units both to capture different situations of the unorganized producers and to make our sample as heterogeneous as possible. I have taken up different types of units, such as, cycle repairing unit, motor cycle repairing unit, carpentry, cloth manufacturing unit, stove repairing unit, wheat processing unit, tailoring unit, metal work unit, pottery unit, cloth printing unit etc.

**Second Period:** First, I have studied the basic characteristics of different unorganized manufacturing and repairing units (such as, cycle repairing unit, motor cycle repairing unit, carpentry, cloth manufacturing unit, stove repairing unit, wheat processing unit, tailoring unit, metal work unit, pottery unit, cloth printing unit etc) from the first period survey. Then I have realised that I should study some specific unorganized manufacturing and repairing units

depending upon the relative size of the units (such as, cycle repairing unit, carpentry unit and tailoring unit etc.) in the population.

Here I have seen that the concentration of cycle repairing unit, carpentry unit and tailoring unit in the observing population is relatively high, on the one hand, and the absolute size of these specific units are more or less the same, on the one hand. As a result, in the second period, sixty units (20 cycle repairing units, 20 carpentry units and 20 tailoring units) in total of unorganized manufacturing and repairing units have been selected from Bolpur *purposively*.

Each unit from each product has been chosen *purposively*. Here I have not considered the units which operate on temporary basis in our sub-sample. Here I should mention that fifty units, which have been surveyed in the first period, have not been taken into account in the second period. Here I have analysed separately for the different periods.

Econometric analyses and tabular analyses have been taken up to verify the objective. I have used statistical software, such as, *STATA and SPSS for econometric analyses*.

#### *Analyses Based on the First Period Primary Survey for Bolpur and Hindmotor*

However, before going into detailed analysis, I need to point out that the enterprises involving heterogeneous production activities in my samples (first period and second period) are all household enterprises<sup>2</sup>. The sample from first period survey consists of 99% enterprises which are proprietary in nature (i.e. ownership vested with one person only), on the one hand, and partnership enterprises had a share of 1 per cent in total number of enterprises, on the other. The sample from second period survey consists of 100% enterprises which are proprietary in nature<sup>3</sup>. But I have divided these household enterprises into three specific categories, such as, individual owner, joint family owner and partnership owner to fulfill the objective of this paper.

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<sup>2</sup> **A household enterprise:** A household enterprise is one which is run by one or more members of a household or run jointly by two or more households on partnership basis irrespective of whether the enterprise is located in the premises of the household(s) or not. In other words, all proprietary and partnership enterprises are household enterprises (NSSO, Report No. 524, 62<sup>th</sup> round, p. 13).

<sup>3</sup> According to NSSO, (Report No. 433, 1994-1995 51<sup>th</sup> round, p. 3) about 99 per cent of the enterprises in rural India and 95 per cent of the enterprises in urban India were proprietary in nature (i.e. ownership vested with one person only). Partnership enterprises had a share of 1 per cent in total number of enterprises in rural India and a share of 4 per cent in urban India.

The objective of this paper is to examine the economic behaviors of urban unorganized manufacturing enterprises<sup>4</sup> which are run by individual owners or/ and joint family owners or/ and partnership owners. These economic behaviors could be understood on the basis micro economic variables which are quantitative or/ and qualitative in nature, such as, the amount of initial fixed cost, the amount of initial variable cost, the monthly turnover, the amount of current year's fresh investment, the total amount of worker hired by the enterprises<sup>5</sup>, and the ownership types (whether the units/enterprises are operated by individual owners or/ and joint family owners or/ and partnership owners).

Further, to understand the behaviors I have incorporated different tables and regressions based on the above mentioned variables, these data on the mentioned variables are not available in the secondary source provided by NSSO. However, let us have a brief look at the below table to observe the overall size of businesses of unorganized manufacturing and repairing units/enterprises in terms of the volume of initial fixed costs.

*(a) Ownership type and business size in terms of initial fixed cost*

**Table 2: Different ownership patterns and their initial fixed costs<sup>6</sup>**

<i>Range of the</i>	<i>Total number of</i>	<i>Different types of ownership</i>
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<sup>4</sup> **Manufacturing Enterprise:** A manufacturing enterprise is a unit engaged in the physical or chemical transformation of materials, substances or components into new products. It covers units working for other concerns on materials supplied by them. Also included are units primarily engaged in maintenance and repair of industrial, commercial and similar machinery & equipment, which are, in general, classified in the same class of manufacturing as those specializing in manufacturing the goods (NSSO, Report No. 524, 2005-2006, 62<sup>th</sup> round, p.13).

<sup>5</sup> **Enterprise:** An enterprise is an undertaking engaged in the production and / or distribution of some goods and/ or services meant mainly for the purpose of sale, whether fully or partly. An enterprise may be owned and operated by a single household or by several households jointly on a partnership basis, or by an institutional body (NSSO, Report No. 433, 1994-1995 51<sup>th</sup> round, p. 12).

<sup>6</sup> The amount of both initial variable costs and initial fixed costs of different units of varied ages are deflated with the consumer's price index for agricultural labour of the respective year of installation with 1970-71 as the base year.

<i>amount of initial fixed cost</i>	<i>units belong to these groups</i>	<i>Individual</i>	<i>Partnership</i>	<i>Joint family</i>
<b>100-500</b>	<b>18</b>	<b>13 (72%)</b>	<b>0</b>	<b>5 (28%)</b>
<b>501-1500</b>	<b>15</b>	<b>9 (60%)</b>	<b>0</b>	<b>6 (40%)</b>
<b>1501-3000</b>	<b>23</b>	<b>18 (78%)</b>	<b>0</b>	<b>5 (22%)</b>
<b>3001-5000</b>	<b>18</b>	<b>18 (100%)</b>	<b>0</b>	<b>0 (0%)</b>
<b>5001-10000</b>	<b>15</b>	<b>11 (73%)</b>	<b>1 (6.6%)</b>	<b>3 (20.4%)</b>
<b>10001-125000</b>	<b>11</b>	<b>5 (45%)</b>	<b>0</b>	<b>6 (55%)</b>
<b>Total</b>	<b>100</b>	<b>74 (74%)</b>	<b>1 (1%)</b>	<b>25 (25%)</b>

*Source: Field survey*

*Range is exclusive.*

The figures of the above table provide an interesting insight about the relative size of ownership across different fixed cost range. It gives us a clear picture about the size of the business of the micro-unorganized enterprises in terms of the volume of initial fixed cost. I find the following observations.

- It is obvious from the above table that the amounts of initial fixed costs for almost all units are very low.
- About more than 50% owners belong to the initial fixed cost range at 100-3000.
- 69 individual owners out of 74 belong to the range of the amount of fixed (initial) cost 100-10000.
- I also find that most of the units are run by individual owners, which is about 74% in our sample<sup>7</sup>.

However, the above table reveals the overall size of the unorganized manufacturing enterprises and ownership structure. But to focus on the significant differences between the individual owners and the joint family owners I have done a dummy variable regression<sup>8</sup>, i.e. whether

<sup>7</sup> Out of 25 joint family owners, 8 joint family owners belong to Hindmotor and out of 74 individual owners, 41 units belong to Hindmptor.

<sup>8</sup> We have done four dummy variable regressions for both the two locations, where two dependent variables are the amount of initial fixed cost and the amount of variable cost, but we have got a insignificant result for Hindmotor and an significant result for Bolpur, i.e. for Bolpur there is a significant difference of both the amount

there is any significant difference between the individual owners and the joint family owners in terms on the volume of initial fixed cost.

**Regression: 1<sup>9</sup>**

The dependent variable is

Y: The amount of initial fixed cost

The independent variables are

D<sub>1</sub>: Whether the firm is run by the individual owner (D<sub>1</sub>=1) or not (D<sub>1</sub>=0)

The intercept measures, the amount initial fixed cost of the family owner, as the benchmark variable.

R <sup>2</sup>	F-Value	Significance-F	Number of observations
0.0455	2.31	0.1044	99

Variable	Coefficient	t-Statistics
Intercept	14554	4.01***
D <sub>1</sub>	-9029.676	-2.15**

Note:

\*\* and \*\*\* represent significance at 5% and 1% respectively

The regression result shows that the amount of initial fixed cost of joint family owners, on the average, is significantly (at 1% level) different from zero. The amount of initial fixed cost of the individual owners, on the average, is significantly (at 5% level) lower from joint family owners. Thus from the above result I can conclude that the requirement of initial amount of fixed cost to operate the business by individual owners is about R.S 5500 (on the average), on the one hand, and the size of business of joint family owners is relatively large compared to individual owners in terms of initial fixed cost, on the other hand. I may also infer that the size

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of initial fixed cost and the amount of variable cost between individual owner and joint family owner. The joint family owners in Bolpur have started their businesses with higher amount of both initial fixed costs and initial variable costs compared to the individual owners.

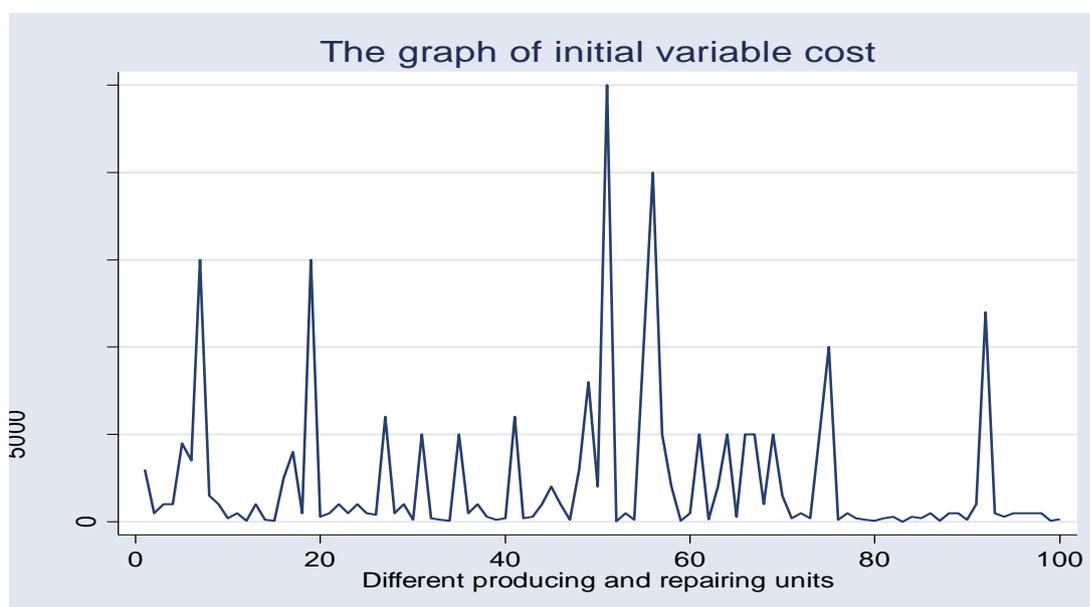
<sup>9</sup> Here we have not incorporated the partnership owner as an independent dummy variable both in regression 1 and regression 2 because there is only one partnership owner.

of business is not as large as of the organized sector because the average initial fixed cost of joint family owner in both the two locations is RS-14554<sup>10</sup>.

*(b) Ownership type and business size in terms of initial variable cost*

Now I focus on both the amount of initial variable cost of different units and the amount of initial variable cost of different owners, where the amount of initial variable cost can be treated as a proxy of business size. First I carry out the following graph to observe the business size of urban unorganized producing and repairing units in terms of the initial variable cost.

**Graph 1: The amount of initial variable cost of different units/enterprises**



The graph represents the amount of initial variable cost of hundred producing and repairing units. *Here I find that the amount of initial variable cost is overall low with maximum at 25000/= only. Thus the characteristic, 'Small Scale of Production' of informal sector developed by ILO is consistent in this case study*, i.e. the producing and repairing units operate with small scale of production in terms of both the amount initial fixed and variable cost. Now I have to find out whether there is any significant difference of variable cost among different types of ownership. Thus I need to go for the next regression analysis.

<sup>10</sup> Here we have found that there is no significant difference of the average of three years fresh cost of different ownerships.

**Regression: 2**

The dependent variable is

Y: The amount of initial variable cost (in rupees)

The independent variables are

D<sub>1</sub>: Whether the firm is run by a joint family owner (D<sub>1</sub>=1) or not (D<sub>1</sub>=0)

The intercept measures, the amount initial fixed cost of an individual owner, as the benchmark variable.

R <sup>2</sup>	F-Value	Significance-F	Number of observations
0.0770	4.05	0.0205	99

Variable	Coefficient	t-Statistics
Intercept	1661.108	3.50***
D <sub>1</sub>	2656.892	2.28***

Note:

\*\*\* represents significance 1%

The regression result shows that the amount of initial variable cost of the individual owner is significantly (at 1% level) different from zero (on the average). The amount of initial fixed cost of the joint family owner, on the average, is significantly (at 1%) higher from the individual owner. Thus from the above result I can observe that the size of the business of the joint family owner is relatively large compared to the individual owner in terms of the amount of initial variable cost.

***(c) Ownership type and business size in terms hired worker***

Next I have study the size of the business through incorporation of the amount of hired worker by micro-unorganized enterprises. Here I have represented a table on the basis of data

collected from different locations to observe the relation between ownership patterns and the employment status, as a proxy of the size of the business (if any)<sup>11</sup>.

**Table 3: Different ownership patterns and their worker hiring status**

<i>Range of the number of worker employed by the different producing and repairing units<sup>12</sup></i>	<i>The total number of producers belong to these groups</i>	<i>Different patterns of ownership</i>		
		<i>Individual business</i>	<i>Partnership business</i>	<i>Joint family business</i>
<i>Equal to zero</i>	<i>59</i>	<i>45</i>	<i>0</i>	<i>14</i>
<i>Equal to one</i>	<i>15</i>	<i>9</i>	<i>0</i>	<i>6</i>
<i>Equal to two</i>	<i>15</i>	<i>13</i>	<i>0</i>	<i>2</i>
<i>Equal to three</i>	<i>4</i>	<i>3</i>	<i>0</i>	<i>1</i>
<i>Equal to four</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>2</i>
<i>Equal to five</i>	<i>2</i>	<i>2</i>	<i>0</i>	<i>0</i>

*Source: Field survey*

*Range is exclusive.*

I can draw the following observations on the basis of the figures from the above table.

- About 60% of total units operate without hiring any labour<sup>13</sup>, i.e. the producing and repairing units are mainly dependent on family labour. ***Thus the characteristic, ‘Family***

<sup>11</sup> We have done two dummy variable regressions for both the two locations, where dependent variable is the total number of worker employed by the micro-units, but we have got a significant result for Hindmotor and an insignificant result for Bolpur, i.e. for Hindmotor the partnership owners are employing higher number of workers, on the average, followed by the joint family owner and individual owners. Relatively more joint family owners in Bolpur hire relatively less amount of hired labour compared to Hindmotor. It may be due to the active participation of the family member’s limits to hire more wage labour for Bolpur.

<sup>12</sup> **Own-account Enterprise:** An enterprise, which is run without any hired worker employed on a fairly regular basis is termed as an own account enterprise. If such an enterprise is engaged in manufacturing and/or repairing activities, it is termed as Own Account Manufacturing Enterprise (OAME) (NSSO, Report No. 459, 55<sup>th</sup> round, 1999-2000, p. 9).

<sup>13</sup> According to NSSO, Report (No. 433, 1994-1995 51<sup>th</sup> round, p. 12), about 84 per cent (91 per cent for rural and 68 per cent for urban) of the total number of enterprises in the country operated usually with the help of unpaid

*Ownership of Enterprises' of informal sector developed by ILO is consistent in this case study.*

- The above table also reveals that individual owners hire relatively more labour than joint family owners. Perhaps the active participation of the family members into the existing businesses limits to hire more wage labour compared to an individual owner.
- The above table also provides a significant insight to draw a comparison between the formal/organized sector and informal/unorganized sector in terms of employment status.

***(d) Ownership type and business size in terms of the volume of monthly turnover***

Lastly I try to find out whether the ownership patterns significantly influence the volume of (monthly) turnover, i.e. whether the volume of monthly turnover of joint family owners is higher compared to individual owners or partnership owners. Thus probable answer regarding the significant influence between the volume of turnover and ownership patterns can be given from the following dummy variable regression.

**Regression: 3<sup>14</sup>**

The dependent variable is

Y: The monthly turnover (in rupees)

The independent variables are

D<sub>1</sub>: Whether the firm is run by the individual owner (D<sub>1</sub>=1) or not (D<sub>1</sub>=0)

The intercept measures, the impact on the monthly turnover of the joint family owner, as the benchmark variable.

R <sup>2</sup>	F-Value	Significance-F	Number of observations
0.0365	3.72	0.0567	99

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household labour only. The remaining 16 per cent enterprises employed at least one hired worker (including paid household workers) on a fairly regular basis during the reference period of one year.

<sup>14</sup> We have done two dummy variable regressions for both the two locations, where dependent variable is the amount of monthly turnover, but we have got an insignificant result for Hindmotor and a significant result for Bolpur, i.e. for Bolpur the monthly turnover of the individual owners are significantly higher compared to the jointly family owners, on the average. But in Hindmotor, there is no significantly difference of monthly turnover between the individual owners and joint family owners.

Variable	Coefficient	t-Statistics
Intercept	14425.34	10.45***
D <sub>1</sub>	-5234.67	-1.93*

Note: \* & \*\*\* represent significance at 10% and 1% respectively

It is evident that the amount of turnover (monthly) of the family owners is significantly (at 1% level) different from zero (on the average). The regression also reveals that the amount of turnover of the joint family owners, on the average, is significantly (at 1%) higher than the individual owners. Thus I can conclude that the size of the business of the joint family owner is relatively large compared to the individual owners in terms of the amount of turnover.

However, the economic behaviors in terms of the disaggregate/micro-economic activities/variables, such as the amount of initial fixed cost, the amount of initial variable cost, the number of hired worker, the amount of three years' average investment, and the amount of monthly turnover etc, are overall low across the output producing firms/enterprises in comparison with the modern formal/organized manufacturing firms. *Consequently, these economic behaviors establish the theoretical proposition (ILO, 1972; NSSO, 1999-2000, 55th round) regarding the characteristics of informal sector/ unorganized sector, especially 'the low level of organization' on the basis of the above regression, graphical, and tabular analyses.* Moreover, the above analyses also propose that the business size in terms of the above mentioned micro-economic activities of the family owners is relatively higher than the individual owners.

#### *Analyses Based on Second Period Primary Survey for Bolpur*

Now I am presenting some findings sequentially from our analysis of sixty unorganized units/firms which belong to three specific categories, as mentioned above. First I will represent the economic behaviours on the basis of micro-economic variables, such as, the amount of initial fixed costs, the amount of initial variable costs<sup>15</sup>, the amount of average five years' fresh

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<sup>15</sup> The dummy variable regression shows that there is no significant difference of the amount of initial variable cost between individual owners and joint family owners, where the dependent variable is 'The amount of initial variable cost and the independent dummy variable is 'whether the firm is run by an individual owner'.

investments of the units<sup>16</sup>, the amount of monthly turnover, the employment generated by the units<sup>17</sup>. After that, I will try to establish the relation between ownership type (i.e. whether the unit is run by an individual owner or by a joint family owner) and business size on basis of some proxy variables, as mentioned above.

*(e) Ownership type and business size in terms of initial fixed cost*

**Regression: 4**

The dependent variable is

Y: The amount of initial fixed cost

The independent variables are

D<sub>1</sub>: Whether the firm is run by an individual owner (D<sub>1</sub>=1) or not (D<sub>1</sub>=0)

The intercept measures, the amount initial fixed cost of the family owner, as the benchmark variable.

R <sup>2</sup>	F-Value	Significance-F	Number of observations
0.0584	3.60	0.0629	60

Variable	Coefficient	t-Statistics
Intercept	15263.75	2.71***
D <sub>1</sub>	-12604.64	-1.90*

Note: \* and \*\*\* represent significance at 10% and 1% respectively

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<sup>16</sup> The dummy variable regression shows that there is no significant difference of ‘the amount of average five years’ fresh investment’ between individual owners and joint family owners, where the dependent variable is ‘The amount of average five years’ fresh investment’ and the independent dummy variable is ‘whether the firm is run by an individual owner’.

<sup>17</sup> The dummy variable regression shows that joint family owners generate more employment compared to individual owners.

The regression shows that the amount of initial fixed cost, as a proxy of business size, of the joint family owner is relatively large compared to the individual owner. I may also infer that the size of business is not as large as the organized sector because the amount of average initial fixed cost of the joint family owner is RS-15263.

*(f) Ownership type and business size in terms of the volume of monthly turnover*

In this section, I try to investigate whether there is any significant relation between the volume of turnover and ownership patterns. I can get an answer from the following dummy variable regression.

**Regression: 5**

The dependent variable is

Y: The monthly turnover (in rupees)

The independent variables are

D<sub>1</sub>: Whether the firm is run by the individual owner (D<sub>1</sub>=1) or not (D<sub>1</sub>=0)

The intercept measures, the impact on the monthly turnover of the joint family owner, as the benchmark variable.

R <sup>2</sup>	F-Value	Significance-F	Number of observations
0.0991	6.38	0.0143	60

Variable	Coefficient	t-Statistics
Intercept	31814.12	5.69***
D <sub>1</sub>	-16694.82	-2.53**

Note: \* & \*\*\* represent significance at 5% and 1% respectively

It is quite evident that the volume of turnover of the joint family owners, on the average, is significantly (at 1%) higher than the individual owners. Thus I can conclude that the size of the business of the joint family owner is relatively large compared to the individual owners in terms of the amount of turnover.

**Table 4: Different ownership patterns and their initial fixed costs**

<i>Range of initial amount of fixed cost</i>	<i>Total number of producers</i>	<i>Different sources of initial fixed cost</i>	
		<i>Individual</i>	<i>Joint family</i>
<i>15-700</i>	<i>20</i>	<i>13</i>	<i>7</i>
<i>701-1400</i>	<i>13</i>	<i>10</i>	<i>3</i>
<i>1401-3000</i>	<i>14</i>	<i>11</i>	<i>3</i>
<i>3001-23000</i>	<i>13</i>	<i>9</i>	<i>4</i>
<i>Total</i>	<i>60</i>	<i>43</i>	<i>17</i>

*Source: Field survey*

*Range is exclusive.*

**Table 5: Different ownership patterns and their initial variable costs**

<i>Range of initial amount of variable cost</i>	<i>Total number of producers</i>	<i>Different ownership patterns</i>	
		<i>Individual</i>	<i>Joint family</i>
<i>0-40</i>	<i>19</i>	<i>17</i>	<i>2</i>
<i>41-150</i>	<i>16</i>	<i>9</i>	<i>7</i>
<i>151-500</i>	<i>15</i>	<i>11</i>	<i>4</i>
<i>501-9000</i>	<i>10</i>	<i>6</i>	<i>4</i>
<i>Total</i>	<i>60</i>	<i>43</i>	<i>17</i>

*Source: Field survey*

*Range is exclusive.*

**Conclusion:**

Some important propositions that emerge from the preceding analyses about the economic behaviors of the unorganized heterogeneous producing and/or repairing units/enterprises, on the one hand, as well as the relationships between the ownership patterns and the size of business on the basis of proxy variables (as mentioned above), on the other hand. However, the propositions regarding the behaviors of the unorganized heterogeneous enterprises having different production organizations can be pointed out sequentially.

*Firstly*, The enterprises involving heterogeneous producing and/or repairing activities in the samples (first period and second period) are all *household enterprises*.

*Secondly*, The sample from first period survey consists of 99% enterprises which are proprietary in nature (i.e. ownership vested with one person only), on the one hand, and partnership enterprises had a share of 1 per cent in total number of enterprises, on the other. The sample from second period survey consists of 100% enterprises which are proprietary in nature.

*Thirdly*, About 60% of total units operate without hiring any labour, i.e. the producing and repairing units are mainly dependent on family labour. *Thus the characteristic, 'Family Ownership of Enterprises' of informal sector proposed by ILO is observed in this case study.*

*Fourthly*, Here I find that the amount of initial variable cost is *overall low with maximum at 25000/= only. Thus the characteristic, 'Small Scale of Production' of informal sector proposed by ILO is observed in this case study.*

*Fifthly, the micro-economic activities, such as*, the amount of initial fixed cost, the amount of variable cost, the average three years' fresh fixed cost, the monthly turnover, etc for almost all *unorganized producing firms* are very low. *Consequently, these economic behaviors establish the theoretical proposition regarding the characteristics of informal sector/unorganized sector, especially 'the low level of organization' (ILO, 1972; NSSO, 1999-2000, 55th round.*

*Sixthly*, About more than 50% owners belong to the initial fixed cost range at 100-3000. 69 individual owners out of 74 belong to the range of the amount of fixed (initial) cost 100-10000. I also find that most of the units are run by individual owners, which is about 74% in our sample.

*Seventhly*, The size of the business in terms of micro-economic variables, such as, the amount of initial fixed cost, the amount of variable cost, the monthly turnover, of the joint family owners are relatively large compared to the individual owners.

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