



Operations and Linkages: A Study of Nagaland's Urban Informal Sector

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Introduction

The urban informal sector has attracted renewed interest in the present day development circle despite the widely held notion in the past three decades that it would shrink once an economy achieved high growth. Due to its enormous capacity to sustain and provide livelihood to the urban poor, it is being reckoned as a significant sector in the economy of developing countries for providing income and alleviating poverty. Keith Hart an anthropologist first introduced the term 'Informal Sector' in 1971 in a conference at the Institute of Development Studies in Sussex on the theme urban unemployment in Africa. He delivered a paper on the Informal sector on the basis of a study he did in southern Ghana (the paper was published in periodicals only in 1973). He depicts that in the informal sector a part of the urban labor force worked outside the formal labor market. Even though the paper received severe criticism, it acted as a starting point for introducing the concept into more extensive areas for further deliberations. Within a year, the International Labor Organization (ILO) incorporated the concept in a substantially revised form in its World Employment Programme (WEP) to Kenya in a report titled 'Employment, incomes and equality' in 1972. Despite the fact that Keith Hart first used the term 'Informal Sector' in 1971, it was the ILO's World Employment Programme to Kenya that accelerated and made it known. The ILO (1972) describes informal sector as 'Informal activities are the way of doing things, characterized by (a) ease of entry, (b) reliance on indigenous resources (c) family ownership of enterprises, (d) small scale of operations, (e) labor-intensive and adapted technology, (f) skills acquired outside the formal sector system and (g) unregulated and competitive markets'. The informal sector is characterized by small-scale, labor-intensive, largely unregulated and unregistered, low-technology manufacturing or provision of services.

Research Objectives

The objectives of the study are as follows:

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- i. To explain the operational characteristics including the structure of capital, employment and turnover in the informal sector
- ii. To examine the linkages between informal and formal sectors.

Sample Design

We have used the method of street counting to prepare a universe of informal activities. We have purposely selected five blocks of the city where there is maximum concentration of informal activities. The areas that we have surveyed are new market, Duncan bosti, Hongkong market, Super market and Purana bazaar. On the basis of the street counting, we have listed out 2100 informal units spread over three important sub-sectors i.e. trading, transport and manufacturing. Sub-sector wise the total number of units are 672 units in the transport sector, 946 units in the trading sector and 482 units in the manufacturing sector. From each sub-sector, we have taken a predetermined number of 70 units by using simple random sampling, making the total 210 which is 10 percent of the overall universe.

Methodology

For our study, the operational definition of urban informal sector is ‘those units which operate with less than 10 workers including the owner operator, hired workers and family workers’. The study is based on primary data collected through sample surveys and interviews. Two sets of schedules were used: one for the enterprises administered to the entrepreneur of the unit and the other for the workers and interview method were used to collect the data. Quantitative analysis and presentation of field data have been undertaken with the help of tables, ratios, simple percentages, growth rates, measures of central tendencies and multiple regression models. Multiple regression models were used to analyze the determinants of turnover in the informal sector.

The regression models used is as follows:

Model –I is used to determine the association between turnover of informal sector and size of the firm, fixed capital, working capital, productive capital and age of the firm.

$$I. \quad Y = a + b_1X_1 + b_2X_2 + b_4X_4 + b_5X_5.....$$

Y= turnover of the informal sub-sectors

X₁= Fixed capital

X₂= Working capital

X₃= Productive capital

X₄= Size of the firm

X₅= Age of the Firm

Where ‘a’ is intercept and b_i’s are regression coefficients

Study Area

Nagaland is a hilly state in the north eastern region of India bounded by Assam on the west, Myanmar and Arunachal Pradesh on the east and Manipur on the south, a 100 mile long international border with Myanmar to the east. With a total area of 16,579 sq. km, Nagaland has a population of 19.81 lakh according to 2011 census. Nagaland is predominantly rural, where nearly 73 per cent of the population is engaged in agriculture sector. The literacy rate was 67.11 per cent in 2001 which has increased to 80.11 percent according to 2011 census. Dimapur district was inaugurated as the eighth district of Nagaland in December, 1997. Earlier it was a sub-division under Kohima district. Besides being referred to as a gateway of Nagaland and Manipur, main commercial activities of the State, is centered in Dimapur, the district headquarter. Dimapur district in Nagaland is bounded by Kohima district on the south and east, Karbi Anglong district of Assam on the West, the Karbi Anglong and stretch of Golaghat District of Assam, in the west and the north. Dimapur city, the district headquarter is distinct in its character where all the different communities have congregated, portraying a mini India.

Literature Review

Samal (1990) in his field study in the class-I town of Sambalpur in Orissa throws considerable light on issues of structure and productivity, size and growth, migration, socio-economic profile and linkages in respect of the urban IS there. The main findings of his study are: (i) Fixed capital requirements per job in the IS is around one-third of that in the FS. (ii) Value-added per worker in the IS is also around one-third of that in the FS. (iii) The size of IS employment forms 82 percent of the total urban employment in 1984. (iv) Most workers in IS of Sambalpur were migrants. (v) Backward linkages between the informal and formal sectors are substantial; the forward linkages between the two sectors are negligible. Upadhyay's (2007) study of informal activity in Arunachal Pradesh found that the share of informal enterprises is as high as 93 percent in the total spread of formal and informal enterprises and these account for around 50 percent of the total persons employed. There is little inter-district variation in the share of informal enterprises, which is lowest in West Siang (89.20) and the highest in Tawang (96.77). In terms of size of employment, 32 percent of the enterprises operate with only one worker, 24 percent employed between 2 to 3 workers, 26.7 percent employed 4 to 7 workers and 17.3 percent employed 6 to 9 workers. Majority of entrepreneurs in the IS have studied up to primary school. Only 9.3 percent of entrepreneurs are illiterate, only 5.3 percent have studied up to class 12 and 1.3 percent have studied beyond that. Out of the total workers surveyed, migrants constitute 86.2 percent. These migrants also include the workers who have migrated from other parts of the state to the capital in search of work. But largely the migrant population consists of migrants from other states and countries like Bangladesh and Nepal.

Essentially linkages between informal and formal sectors have been construed in two ways. One view is that informal sector would be benefited through strengthening of linkages between these two sectors. In contrast, others view that formal sector is an

obstacle to the growth of informal sector because the latter is exploited by variety of mechanism. It is observed that informal sector subsidizes part of the cost of formal sectors in developing countries, enabling the latter to pay comparatively low wages to their laborers. The basic needs of the workers in formal sectors are partially met by relatively cheap goods and services produced by informal sector employing low paid workers and unpaid family laborers. This subsidy consumption of formal sectors workers is the most important role played by informal sector (Portes 1978). Formal sector not only benefits from it for the maintenance of the low wage rate but by supplying casual labour- a product of highly competitive nature of its production and high failure rate (Gerry 1978) and some of its output which may be intermediate product for formal units (Richardson 1984). Thus it plays the role of a producer of wage goods and services for formal sector firms and of a “reserve army” setting the supply price of labor to formal sector (Godfrey 1979). This is the reason for which the elimination of informal sector is not sought by the formal sector. In view of this, the optimum strategy of formal sector is to keep it at an optimum size, not too big so as to have no influence on wages (Davies 1979).

On the other hand IS also depends on formal sector for its inputs and raw materials. IS plays a complementary role, it is at disadvantage when in competition with FS in various ways, viz, unit, cost, advertisement, product differentiation and protection (Godfrey 1979). Even when Informal sector is complementary to Formal sector, the former is exploited by the latter. The two sectors operate in basically two different markets. There is exploitation of Informal sector by Formal sector in manufacturing activities with skilled and sophisticated products mainly by controlling the marketing system (Bose 1978, Romatet 1983). At present it is observed that linkage between Informal and Formal manufacturing sectors is encouraged but its exploitative nature is not checked. In the case of IS units with linkages with formal sector, cautious and careful policy of utilizing the growth potential as well as regulating the arrangements so as to minimize the exploitative features of linkages need to be worked out.

Findings of the Study

Enterprises

In our study, the total sample size is 210 comprising of 70 units from each sub-sectors i.e. transport, trading and manufacturing. It was found that 98 percent of informal sector units are proprietary firms whereas two percent is in partnership (Table 1.1). The high prevalence of sole proprietorships reveals that these enterprises are the only source of livelihood for the owners. Most of the undertakings are small in nature which does not require much capital. Hence it is possible to establish the enterprises without entering into partnerships.

Table 1.1: Distribution of sample enterprises by Owner/ proprietorship

Type of Ownership/ Proprietorship	No. of sample Enterprises (In No.)	Percentage to total sample units/ Enterprises
Proprietary	206	98.09
Partnership	4	1.91
Total	210	100.00

Source: Field Data

In the trading sector 53 percent of enterprises did not have fixed premises. These traders comprised mostly of hawkers selling posters, watches, clothes and fruits on the streets. Only 48 percent operated their economic activities from fixed premises (Table 1.2).

Table 1.2: Distribution of sample enterprises by fixed premises/having no fixed premises

Sub-sectors	Fixed Premises	Having no fixed premises
Transport	-	-
Trading	33(47.15)	37(52.85)
Manufacturing	70(100.00)	-
Informal subsector as a whole	103	37

Source: Field data

N.B. Figures in bracket show percentage to total sample units

These premises had permanent structures including electricity connection in all the shops. The manufacturing sector painted a more positive picture with all the enterprises operating out of fixed premises. All the transport enterprises, quite naturally did not have a fixed location since they operated vehicles like autos, cart wheels and half manually operated cycle rickshaw. Table 1.3 shows the distribution of sample enterprises according to the location of informal units in industrial estate. The study found that none of the units were located in industrial estate. Even though there is a few number of small scale industrial units as a whole the data indirectly reveal the lack of industrialization in the city.

Table 1.3: Distribution of sample enterprises according to location in Industrial Estate

Sub-sectors	Located in Industrial estate	Not located in Industrial estate
Transport	-	100.00
Trading	-	100.00
Manufacturing	-	100.00

Source: Field Data

Table 1.4 depicts the different categories and types of informal activities operating in Dimapur. The transport sector comprises of autos, rickshaw and cart pulling. In the trading sector, the informal units are made up of activities like vending garments on the streets, grocery shops, pan shops, selling foot wears, selling fruits, selling spectacles, selling posters and selling tea& biscuits. The manufacturing sector consists of activities like carpentry, tailoring, manufacture of steel trunk, bamboo weaving (thatches), manufacture of ring well and handicrafts.

Table 1.4: Categories and Activities of Informal Units

Category	Business Type
Transport	Rickshaw
	Auto
	Cart pulling
Trading	Vending garments
	Grocery shop
	Pan shop
	Selling foot wears
	Selling fruits
	Selling spectacles
	Selling Posters
	Selling tea & biscuits
Manufacturing	Carpentry
	Tailoring
	Manufacture of steel trunk
	Bamboo weaving(thatch)
	Manufacture of Ring well
	Handicraft

Source: Field Data

The nature of operation in the transport and manufacturing sector is perennial throughout the year. In our study we found out that 100 percent of all the vehicles and the manufacturers carried out their activities throughout the year. In the trading sector 90 percent carried out their operation perennially whereas 10 percent were seasonal in character (Table 1.5).

Table 1.5: Distribution of sample enterprises by nature of operations

Sub-sector	Perennial	Seasonal
Transport	100.00	-
Trading	90.00	10.00
Manufacturing	100.00	-

Source: Field Data

This findings point to the fact, that the workers in informal activities are entirely dependent for their livelihood on this sector, which is depicted by their engagement in these activities throughout the year. Only 10 percent in the trading sector are seasonal, these are mostly workers who sell fruits or vegetables, since these products are seasonal in nature. In the informal sector as a whole, the average age of the units is 5 years. The average age of the enterprise is 3 years in transport, 5 years in trading and 6 years in the manufacturing sector (Table 1.6).

Table 1.6: Distribution of Sample Units by Age (Sector-Wise)

Age range of Units	Manufacturing	Trading	Transport	Total
Under one year	-	-	-	-
1 – 2	10	36	33	79 (37.62)
3 – 4	24	12	25	61 (29.05)
5 – 10	28	15	11	54 (25.71)
11 – 20	7	6	1	14 (6.67)
21 – 30	1	1	-	2 (0.95)
Total	70	70	70	210 (100)

Source: Field Data

N.B. Figures in bracket show percentage to total sample units.

This shows that the informal sector in the city of Dimapur is of recent origin unlike in the biggest city of the north east i.e. Guwahati where the average age is 32 years (see Saikia, 2009).

Employment Structure

Obviously by definition, the informal sector units are very small. But the establishment size differs significantly among different units showing the prevalence of both petty and small capitalist mode of production. Distribution of informal sector by type of workers is shown in table 1.7.

Table 1.7: Distribution of Informal Sub-Sector by Type of Workers

Informal Sub-Sector	Hired Workers	Unpaid Family Laborers	Self-employed	Paid Family Laborers	Total
Transport	35(50.00)	-	34(48.57)	1(1.42)	70
Trading	19(23.45)	3(3.70)	53(65.43)	6(7.40)	81
Manufacturing	69(54.33)	3(2.36)	49(38.58)	6(4.72)	127
Informal Sector as a whole	123 (44.24)	6 (2.15)	136 (48.92)	13 (4.67)	278(100.00)

Source: Field Data

N.B. Figures in bracket show percentage to total sample units.

The informal sector space in Dimapur city is dominated by self-employed persons (49 percent) closely followed by hired workers (45 percent). The high percentage of hired workers in the informal sector in Nagaland is a deviation from the general observation that the number of hired workers is usually low in informal sector units. This implies that the workers who migrate to Nagaland do not have enough capital to start their own business. They might be first working as hired workers and then starting their own undertakings after accumulating the required capital. In the manufacturing sector, we find that 55 percent are employed as hired laborers. This indicates that setting up a business in the manufacturing sector is not as easy as one need to possess certain skills and capital before venturing to start a business on their own. Thus initially they work as hired workers whereby in the process they learn the skill required under the supervision of the owner operator (works like carpentry, handicrafts, bamboo thatch weaving). Table 1.8 shows the distribution of informal sector by size of employment. The average size of employment is 2 workers per unit including self-employed, family workers and hired workers. This average is extremely low compared to the case of other cities. The informal sector is dominated by single workers (62 percent) and the rest are 28 percent employing two workers and 12 percent employing (3-6) workers. Hence, 89 percent of the informal units are operating with the engagement of 1-2 persons.

Table 1.8: Distribution of Informal Sub-Sector by Size of Employment

Sl. No.	Sector	No. of persons engaged per enterprise				Total no. of units
		1	2	3 - 6	7 - 9	
1	Transport	70	-	-	-	70
2	Trading	59	22	-	-	81
3	Manufacturing	42	54	31	-	127
	Total	171 (61.52)	76 (27.33)	31 (11.15)	-	278(100.00)

Source: Field Data

N.B. Figures in bracket show percentage to total sample units.

In our course of study, we found out that none of the informal sectors in our sample of 210 were neither located in industrial estate nor ancillary to any parent enterprise. In the transport sector 32 percent maintained accounts and 69 percent did not maintained, in the trading sector 88 percent maintained and 13 percent did not maintained accounts whereas in the manufacturing sector 98 percent kept accounts and 3 percent did not. Due to the insurgency issue in the State most of the prominent towns in Nagaland close down their shutters by 2:00 or 3:00 pm in the afternoon on a usual day. This immensely affects the earning capacity of the business section. But Dimapur being a commercial hub of the state, in spite of the conflicts have the advantage for running their business activities till 6:00 to 7:00 pm at night. This accounts for the long working hours in the city of Dimapur. In the transport sector 98 percent worked for 8 to 10 hours daily and 3 percent worked for 11 hours a day. In the trading sector 79 percent worked between 8 and 10 hours, 18 percent for 5 to 7 hours and 5 percent for 11 hours. In the manufacturing sector 93 percent worked between 8 and 10 hours, whereas 8 percent worked for 6 to 7 hours. There is no shift system in any unit, almost all the units operate in single shift. The workers in the transport and manufacturing sector is hundred percent dominated by male workers without even a single female employee (Table 1.9).

This indicates the fact that the state is still in the stage where female laborers are yet to take active participation when it comes to business activities. Only a meager female population of 3 percent is involved in the trading sector and among this majority was found to be owners of small pan shops located on the waysides. Our findings proved that the natives of the state were still on the sidelines when it comes to business activities. The figures reveal that 92 percent in transport, 87 percent in trading and 89 percent in manufacturing sector are migrants from other states of the country.

Table 1.9: Sex and Origin of Informal Sector Participants in the Sample Units
(In percent)

Sl.no	Sector	Sex		Origin	
		Male	Female	Native	Migrant
1	Transport	100	-	8.58	91.42
2	Trading	97.54	2.46	13.58	86.41
3	Manufacturing	100	-	11.81	88.18
Total	IS as a whole	99.28	0.72	11.51	88.49

Source: Field Data

Capital Structure

The average values of fixed capital¹, working capital² and productive capital³ in the informal sector as a whole are Rs. 13161/-, 69704/- and 82864/- respectively (Table 1.10).

Table 1.10: Average Value of Capital Employed in Different Informal Sub-Sector

Informal sub-sector	Fixed Capital	Working Capital	Productive Capital
Transport	29144.29	19155.14	48299.42
Trading	4393.75	37645.71	39654.28
Manufacturing	8329.29	152308.57	160637.86
Informal Sector as a whole	13160.71	69703.14	82863.85

Source: Field Data

Among the three informal sub-sectors, the most capital intensive sector is the manufacturing with an average productive capital investment of Rs. 160637/-. The least capital intensive is the transport sector at Rs. 39654/-. Coming to fixed capital, the average fixed capital investment is highest in the transport sector at Rs. 29,145/- and lowest in the trading sector at Rs. 4,394/-. Again the manufacturing sector has the highest working capital at Rs. 1,52,309/- and transport sector has the lowest at Rs. 19156/-. So in terms of average working capital investment and productive capital, the manufacturing sector has the highest of these both. In the informal sector as a whole, the fixed capital per employee is Rs. 39482/-, working capital per employee is Rs.52653/- and productive capital per employee is Rs.62595/-. (Table 1.11).

Table 1.11: Fixed, Working & Productive Capital per Employee in Different Informal Sub-Sector

Informal Sub-sector	Fixed capital per Employee	Working Capital per Employee	Productive Capital per Employee
Transport	29144.28	19155.14	48299.42
Trading	1735.80	32533.34	34269.13
Manufacturing	4627.38	83949.60	88540.56
Informal Sector as a whole	39482.14	52653.45	62595.01

Source: Field Data

The fixed capital per employee in the transport, trading and manufacturing sectors is Rs.29144/-, Rs.1735/- and Rs.4627/- respectively. The manufacturing sector has the highest amount of working capital per employee at Rs.83949/- and the lowest at Rs.19155/- in the transport sector. In the trading sector, the working capital per employee is Rs.32534/- and productive capital per employee is Rs.34269/-.

Productive capital for different sizes of the sample units is different. The maximum sample units i.e. 38 percent have the productive capital that ranges between Rs.1,00,000 to Rs.2,00,000. Around 8 percent of units have productive capital of value less than Rs.30,000. Only two units in the transport sector have productive capital ranging between Rs.4,00,000 to Rs.5,00,000 and one unit in the manufacturing sector between Rs.5,00,000 to Rs.6,00,000. The distribution of sample units by size of productive capital is shown in table 1.12.

Table 1.12: Distribution of Informal Sub-Sector Enterprises by Productive Capital Size

Range of productive capital size (Rs. 00')	Transport	Trading	Manufacturing	Total
0 – 30	14	2	-	16(7.62)
30 – 60	32	11	5	48(22.86)
60 – 100	-	23	7	30(14.29)
100 – 200	8	24	46	78(37.15)
200 – 300	11	6	9	26(12.38)
300 – 400	3	4	2	9(4.28)
400 – 500	2	-	-	2(0.95)
500 – 600	-	-	1	1(0.47)
Informal sector as a whole	70	70	70	210(100.00)

Source: Field data

Figures in bracket show percentage to total sample units.

Around 19 percent of the sample units, mainly consisting of vendors selling posters and fruits on the roadside in the trading sector, do not own any fixed capital and assets. Most informal sector units have very little capital assets. About 51 percent have fixed capital and assets less than Rs.5000; 18 percent between Rs.5000 to Rs.10,000 worth of fixed capital and around 6 percent between Rs.10,000 to Rs.50,000 (Table 1.13).

Table 1.13: Distribution of Informal Sub-Sector Enterprises by Size of Fixed Capital and Assets Size

Range of fixed Capital and Assets (Rs. 00')	Transport	Trading	Manufacturing	Total
NA	–	38	–	38(18.09)
0 – 5	38	16	52	106(50.48)
5 – 10	8	14	15	37(17.62)
10 – 50	8	2	2	12(5.72)
50 – 100	9	–	–	9(4.29)
100 – 200	6	–	–	6(2.86)
200 – 300	1	–	–	1(0.47)
300 – 400	–	–	1	1(0.47)
Informal Sector as a whole	70	70	70	210(100.00)

Source: Field data

Figures in bracket show percentage to total sample units.

Only one unit in the transport sector have fixed capital and assets of value between Rs. 2,00,000 to Rs.3,00,000 and one unit in the manufacturing sector between Rs.3,00,000 to Rs.4,00,000 value of fixed capital assets. The table 1.14 gives the details of the distribution of working capital of the sample units in the three sub-sectors of trading, transport and manufacturing. Around one percent of units have working capital less than Rs. 20,000. Further, 42 percent of sample units have working capital base between Rs. 1,00,000 to Rs. 2,00,000. Only three units (1.90) in the whole sample have working capital between Rs. 3,00,000 to Rs. 4,00,000.

Table 1.14: Distribution of Informal Sub-Sector Enterprises by Working Capital Size

Range of working capital size (Rs. 00')	Transport	Trading	Manufacturing	Total
0 – 20	1	1	–	2(0.95)
20 – 40	40	4	–	44(20.96)
40 – 100	5	32	13	50(23.80)
100 – 200	19	23	45	87(41.43)
200 – 300	5	7	11	23(10.96)
300 – 400	–	3	1	4(1.90)
Informal sector as a whole	70	70	70	210(100.00)

Source: Field Data

Figures in bracket show percentage to total sample units

Turnover

The annual turnover per unit as a whole stands at Rs. 2,58,520/- . The turnover is highest in the manufacturing sector at Rs. 1,16,685/- and lowest at Rs.78,700/- in the trading sector (Table 1.15).

Table 1.15: Annual Turnover per Unit and per Employee

Informal sub-Sector	Turnover	
	Per Unit	Per Employee
Transport	63134.71	63134.71
Trading	78700	68012.00
Manufacturing	116685.71	64825.40
Total	258520.42	195972.11

Source: Field Data

The annual turnover per employee in the three informal sub-sectors totals to an amount of Rs.1,95,972/-. The highest turnover per employee is Rs. 68,012/- in the trading sector. An attempt is made to determine the association between turnover of informal sector and size of the firm⁴, fixed capital, working capital, productive capital and age of the firm. A statistical analysis using the following models were conducted.

$$\text{I. } Y = a + b_1X_1 + b_2X_2 + b_4X_4 + b_5X_5$$

$$\text{II. } Y = a + b_3X_3 + b_4X_4 + b_5X_5$$

Where 'a' is intercept and b_i 's are regression coefficients

Y= turnover of the informal sub-sectors

X_1 = Fixed capital

X_2 = Working capital

X_3 = Productive capital

X_4 = Size of the firm

X_5 = Age of the Firm

On the basis of the above mentioned models, the following results were obtained:

$$\begin{aligned} \text{I. } Y &= 35824.331 + 0.341 X_1 + 0.476 X_2 + 10944.84 X_4 - 448.718 X_5 \\ &\quad (5.968)^* \quad (11.380)^* \quad (2.816)^{**} \quad (0.858) \\ R^2 &= 0.82 \quad \text{Note: } * - \text{significant at 1\% level, } ** - \text{Significant at 5\% level} \end{aligned}$$

$$\begin{aligned} \text{II. } Y &= 33980.158 + 0.427 X_3 + 13755.34 X_4 - 365.012 X_5 \\ &\quad (13.195)^* \quad (3.835)^* \quad (0.697) \\ R^2 &= 0.82 \quad \text{Note: } * - \text{significant at 1\% level} \end{aligned}$$

In the informal sector as a whole, the results of the regression show that the independent variables incorporated account for 82 percent in both the models for the total variation in the turnover. In model I, fixed capital, working capital and size of the firm are statistically significant explanatory variables. In model II, productive capital and size of the firm are also statistically significant variables. This implies that there exists a positive relationship between turnover in the informal sector and productive capital and size of the firm.

Value Added

Value added per employment, per rupee of fixed capital and per rupee of productive capital respectively is Rs. 23163/-, Rs. 2.32/- and Rs. 0.370/- (Table 1.16).

Table 1.16: Sub Sector Wise Value Added in the Informal Sector

Informal Sub-sector	Value added per unit of employment	Value added per rupee of fixed capital	Value added per rupee of productive capital
Transport	26891.57	0.983	0.593
Trading	25675.56	2.803	0.749
Manufacturing	18524.29	3.925	0.209
IS as a whole	23162.87	2.32	0.370

Source: Field Data

Among the three sub-sectors value added per employment is highest at Rs.26,892/- in the transport sector followed by Rs. 25676/- in the trading sector and the lowest at Rs. 18525/- in the manufacturing sector. Thus in terms of labor productivity transport subsector is the most productive and manufacturing sector is the lowest. Value added per rupee of fixed capital is Rs. 0.983/-, Rs. 2.803/- and Rs. 3.925/- for transport, trading and manufacturing sectors respectively. It is highest in the manufacturing sector. Value added per rupee of productive capital is highest at Rs. 0.749 in the trading sector and lowest at Rs. 0.209 in the manufacturing sector.

Table 1.17: Some Structural Characteristics of IS & FS

Characteristics (1)	Units (2)	IS (3)	FS (4)
Fixed capital per employee	(In Rs. Lakh)	0.39	1.11
Productive capital per employee	(In Rs. Lakh)	0.62	2.08
Fixed capital per unit	(In Rs. Lakh)	0.13	29.38
Productive capital per unit	(In Rs. Lakh)	0.82	54.74
Average size of employment	No.	1.32	26.25
Annual turnover per unit	(In Rs. Lakh)	0.85	143.22
Annual turnover per employee	(In Rs. Lakh)	0.64	5.45
Gross value added per employee	(In Rs. Lakh)	0.49	1.58
Gross value added per rupee of fixed capital	(In Rupees)	2.32	1.41

Source: (3) Field data (4) ⁵Annual survey of Industries, 2007-08, www.India stat.com.

Comparison of Structural Characteristics between Informal Sector and Formal Sector

Table 1.17 shows some structural characteristics between informal sector (IS) and formal sector (FS). The gross value added per rupee of fixed capital is higher in the IS (Rs.2.32) as compared to the FS (Rs. 1.41). This implies that in the IS one can start a business with less amount of fixed capital. The fixed capital per employee in the informal sector is Rs. 0.39 and Rs. 1.11 in the formal sector and productive capital per employee is Rs. 0.62 in the informal sector and Rs. 2.08 in the formal sector.

Direct Backward Linkages

Input Linkages

The informal sector has backward linkages with the formal sector by acquiring raw materials/inputs and credit from the later. Table 1.18 below shows the distribution of sample enterprises by major source of purchase of raw materials/intermediate products.

Table 1.18: Distribution of sample enterprises by major source of purchase of raw materials/ intermediate products (Percent)

Sub sectors	Sources				
	Formal	Informal	Both formal& Informal	Others	Total
Transport	-	46(65.71)	24(34.29)	-	70(100.00)
Trading	16(22.86)	54(77.14)	-	-	70(100.00)
Manufacturing	43(61.42)	27(38.58)	-	-	70(100.00)
I S as a whole	59(28.09)	127(60.48)	24(11.43)	-	210(100.00)

Source: Field Data

N.B. Figures in bracket show percentage to total sample units.

The informal sector as a whole, 29 percent is acquired from the formal sector, 61 percent from the informal sector and 11.43 percent from both sources. In the transport sector, 66 percent of inputs are bought from the informal sector and 34.29 from both the formal & informal sector. In the trading sector 22.86 percent is bought from the formal sector and 77.14 percent from the informal sector. In the manufacturing sector 61.42 percent is purchased from the formal sector and 38.58 percent from the informal sector. Table 1.19 presents the enterprises by their place of purchase of main raw materials. Out of the total 210 sample units, 152 (72.38 percent) acquires their raw materials from within Dimapur city and 58 (27.62 percent) from outside Dimapur city.

Table 1.19: Enterprises by their place of purchase of main raw materials

Place of purchase	Enterprises	
	Number	Percent
Within Dimapur city	152	72.38
Outside Dimapur city	58	27.62
Both within and outside Dimapur city	-	-
I S as a whole	210	100.00

Source: Field Data

Financial Linkage

Apart from raw materials, there exists direct backward linkage as regard to supply of credit. Data reveals that 8.09 percent of sample units have obtained credit from various formal financial institutions and 38.57 percent have received it from informal sources. This shows that the direct backward linkage as regard to credit is stronger with informal sources than with the formal sector.

Forward Linkages

Product Sale

Table 1.20 shows the forward linkage in terms of percentage of total money sale of sample informal sector units to different sectors. The linkage between the informal sector and formal sector is very weak as shown by the forward linkages. Only a small percentage i.e. 2.72 percent of the total sale (in terms of money) of the sample units is made to the formal sector. On the other hand, 7.30 percent of total sale is made to the informal sector. Major bulk of the total sale is made directly to consumers. The total sale to this group accounts for 89.98 percent.

Table 1.20: Forward Linkage: Percentage of Total (money) Sale of Sample Informal sector Units to Different Sector

Source of Disposal	Percentage of sale (in money terms)
Formal	2.72
Government	-
Informal	7.30
Directly to consumers	89.98
I S as a whole	100.00

Source: Field Data

Subcontracting

According to Watanabe (1983) subcontracting is defined as, “Subcontracting is a business practice whereby the party offering the subcontract (parent firm, enterprise or company) request another enterprise (subcontractor, or ancillary units or industry in India) to manufacture or process the whole or part of the product the first party sells as its own”. In the case of our study none of the sample units had any arrangement of subcontracting.

Linkages with the Government

Not only the forward and backward linkages but even the linkage with the government through registration, license and tax payment is accounted in our study.

Registration

Non-registration or non-recognition by the government is not a significant standard for inclusion of an enterprise in informal sector. This is evident from our findings as more than half of the sample units are registered with government agencies. Study reveals that 55.23 percent of sample units were registered with government agencies. The agencies with which the sample units were registered are District Transport Office, Dimapur Municipal Council and District Industrial Centre for Small Scale Units Dimapur. This finding is similar to studies by Samal (1990).

Conclusion

In the city of Dimapur it is found that 98 percent of informal sector units are proprietary firms and only 2 percent is in partnership. Thus majority of the informal sector units are proprietary firms without non- maintenance of accounts and having small size of employment. In the informal sector as a whole, the average age of the units is 5 years which shows that the informal sector is of recent origin in Dimapur. Majority of the workers in the informal sector are self employed closely followed by hired workers. The employment space in the transport and manufacturing sector is hundred percent dominated by male workers without even a single female employee. The manufacturing sector is the most capital intensive sector among the three sub sectors. Turnover level in the informal sector is also positively significantly correlated related with productive capital and size of the firm. Compared to the formal sector, the fixed capital per employee and per unit, productive capital per employee and per unit, average size of employment and annual turnover per unit are much less in the informal sector units. Although the gross value added per rupee of fixed capital is higher in the IS as compared to the FS. Thus, the informal sector in the city of Dimapur confirms to a quiet good number of characteristics of the informal sector as mentioned in the general literature of the informal economy.

The informal sector units in Nagaland have direct backward linkages in terms of raw materials with the formal sector but the linkages are not very strong. Only 28.09 percent of the informal units directly depend wholly or partly on the formal sector for their raw materials/ intermediate products needs. Direct backward linkages of the

informal units are found to be strong with other informal sector units. Majority of the informal sector units i.e. 73 percent purchase their raw materials from within Dimapur city. Direct backward linkage as regard to supply of credit from the formal sector is also very weak. Only 9 percent of the sample units have acquired credit from various formal financial institutions. Linkage in terms of direct forward linkage with the formal sector is also very weak. Only a meager 3 percent of the output is sold to the formal sector. There is no arrangement of subcontracting between the informal sector and formal sector. Thus, the informal sector in Nagaland is an independent entity as the linkage between the two sectors is virtually nonexistent.

End Notes

¹Fixed capital includes the present value of fixed assets and tools including plant and machinery. We have excluded the value of land building from fixed capital.

²Working capital (WC) = the present value of (raw materials, stores, fuels + semi- finished goods + inventory of mixed products and byproducts) + cash in hand and bank for meeting day to day operations of the unit.

³Productive capital is the total of fixed capital and working capital.

⁴Size of the firm is measured in terms of total persons working in the informal sector units including the owner.

⁵The data on formal sector variables are taken from the Annual Survey of Industries (ASI) for the year 2007-08.

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