CHAPTER - IV

GROWTH OF COTTAGE INDUSTRIES IN WEST DINAJPUR : A DESCRIPTIVE ANALYSIS

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4.1   The study of growth, ownership pattern, wage structure or residual character, capital output ratio, capital labour ratio etc. are important factors, without which, study of any industry remains incomplete. In this chapter we have tried to work out a few of these aspects of the cottage industries in West Dinajpur. Though a complete measurement of economic factors of unorganised sector is almost impossible due to lack of information, we have tried our best.

4.1.1.   CONCEPT OF GROWTH

The dictionary meaning of the term 'Growth' is gradual expansion or increase in size of something. Economists are found to use the term in this sense, when they speak of growth in output, sale, export ect. Thus Industrial Growth has been described by S. Kuznets to mean simply, a sustained increase in the volume of industrial output, and the absence of which means stagnation in an industry. Growth is "the result of a process of development, akin to natural biological process in which an interacting series of internal changes leads to increase in the size, accompanied by change in characteristic of the growing object."[1] According to Adam Smith, the fundamental of growth is the rate of capital formation. Karl Marx has defined growth under capitalism as accumulation of surplus value. To Messrs Meier and Baldwin, growth is " .... not only general end result of the development process ..... but also...... the underlying detailed changes that determine the result".[2]

Industrial growth should similarly mean not merely an expansion of output but also a progressively changing character of the industrial economy, which leads to such expansion. The character of the industrial economy generally, changes progressively, as a result of the application of new technology, protective measures, emergence of entrepreneurship, larger state aid, wide state participation, boost from external agencies etc., in this sector. All these accelerate the growth of an industry.

The term 'growth' is purposive. Rate of growth is calculated keeping in view a specific objective, i.e. in other words, we have different rate of growth to disclose various aspect of an industry/economy, e.g. capacity utilization, output, investment, capital formation etc.

We have innumerable methods for measurement of growth. These methods and definitions are not free from criticisms. Here we are not interested in the theoretical aspects of growth, rather, we are interested to know the expansion of cottage industries in the district of West Dinajpur.

The problem before us is, what we should measure to highlight the growth of cottage industries (?). To measure the growth of unorganised sector, literature of technique is just not available. It is really very difficult to measure the growth of cottage industries, in terms of so called terms, like productivity, output, investment etc. This is because :

* cottage industries are widely dispersed

* the ventures are so little that the producers do not keep any records

* entrepreneurs are mostly illeterate

* cottage products are of larger veriety

* input - output relation is ambiguous.

* capital output ratio is not unique. So also
  the capital - labour ratio

* details about average day worked or time
  worked are not available

* most of the artisans have dual occupation.
  Sometimes they operate in two sector namely
  agriculture and industry. Hence it is diffi-
  cult to seggregate them

* cottage industries are self-employment in nature.
  Family as a whole provides labour, hence compu-
  tation of actual labour hours and contribution
  of each worker is not just possible and

* that there is no standard level of efficiency.

OBJECTIVE :

In this present study of growth of cottage
industries we have studied the participation of peoples
and entrepreneurship. In cottage industries sector, parti-
cipation and entrepreneurship are two main aspects. Since
productivity is more or less constant; technology is inde-
geneous; fixed investment is less significant, wages is
residual in character, output is not known and above all
cottage industries are labour intensive, therefore the
study of participation of peoples and entrepreneurship
are most appropriate, and these information is near accu-
rately available. If we assume that :

* the artisans engaged in these industries earn
  a fair return to maintain their livelihood

* there are no obstacles on the entry and exist of the artisans

* the level of capacity utilization is constant

* the labour-capital, capital-output and capital turnover ratios are constant

* the labour-output ratio is constant, because of insignificant progress in technology

* the average working day and average working hours per artisan is constant and

* there is no change in per capita real income of artisans; then growth rate in participation gives us a gixяxxмsxя general view of progress in this sector and growth in entrepreneurship gives us, a view of structural change in this sector.

The limitation of this concept is that some of the above assumptions contradict each others in short run and in long run; for example in short run free entry or exist is not possible and in long run labour - output ratio does not remain constant.

Again if any one is interested to know production or investment or value added in cottage industries, then he can do so simply multiplying the participation by average production per person; by value of equipment per person (since, every individual in most cases constitute a complete process) and by average earning of artisans or craftmen.

4.1.2   METHODS FOR GROWTH-MEASUREMENT

Concept of industrial growth is difficult, but still more difficult is it's measurement. So various

methods have tried by economists, to ascertain rate of growth in industries, Some of such methods are :-

     i)   The Ratio Method

    ii)   The Absolute Change Method

  iii)   Total Factor Productivity Index

   iv)   The Relative Change Method and

    v)   Bodas Formula or Balkrishna Formula

These methods are inshort discussed below :

*   The Ratio Method   :

This devide has been developed at Cambridge by Messrs Reddaway and Smith for ascertaining growth due to productivity changes in British manufacturing industies. For this purpose, this method takes into account labour (Man-hours), Capital and Net output of each industry. However, instead of relating each input individually to net output the combined factor inputs are related in this method to it. The two factors, labout and capital, are combined with some economic weights (i.e. the base-period remuneration for labout and returns to capital). Thus result of this method, is NET-OUTPUT per unit of 'Combined Factors'. Consequently, efficiency change is ascertained by comparing these measures of net-output per combined factors between the given base and end year. So rightly efficiency change, as ascertained by this method can be defined as "the ratio of rates of changes is net-output and combined inputs".[3]

*   The Absolute Change Method   :

The paucity of information on industry-wise net capital stock has led to the formation of this method by the aforesaid economists for estimating growth due to productivity change in British industries. The name of this method, indicates

that variables considered in it, are expressed in terms of absolute changes, and thereby dispensing with the need for the base-year total figures.

* Total Factor Productivity Index :

This device has been employed by J. W. Kendrick for ascertaining 'Total Productivity' in thirty three industry groups excluding farming and private domestic economy of the United States. This device of Kendrick has some family resemblance with the methods, developed at Cambridge. Kendrick too, considered two broad classes of factor viz., labour and capital and output. He cheristens the two factors as 'Total factor'; output to him is real final output in case of economy or gross of products purchased from other industries in case of the industry.

* The Relative Change Method :

This measure of Relative Growth of industries has been employed by Prof. R. Balkrishna for estimating growth of Indian industries during 1951-56. The approach is simple and highly helpful only for ascertaining growth rate of an industry individual industry, relatively to those of the manufacturing sector, as a whole in an economy during a given period. The operative part of this method starts with the formula - $\frac{W(I-100)}{100}$, for estimating individual industry's contribution to the sectoral growth in the end year. Here 'W' stands for weightage ascertained by percentage of contribution to total value added in base year and 'I', stands for production index in the end year. This method will reveal the overall growth rate of an industry.

* Bodas Formula :

This is another method with the help of which 'overall' growth rate in an industry during short period

had been used by Luigi Bodas, an Italian Statistician, for estimating population growth rate during a given short period. Here the principle is to estimate annual average co-efficient of expansion of a given variable from the ratio between the end and first years' quantity of that variable. Then by substracting 'one' from the average co-efficient of expansion, net-rate of growth during a given short period is ascertained.

The formula of this method runs as follows :-

$$W = \left[\left(\sqrt[N-1]{\frac{E}{A}} \right) - 1 \right]^{28}$$

where 'W' stands for rate of growth, 'N' for number of years considered, 'A' for first year and 'E' for final year quantity of the given variable.

This method, has been used by Prof. R. Balkrishna and Mr. W. G. Hoffman for ascertaining growth rate for Indian and British manufacturing industries respectively with a little modification.

METHODOLOGY :

In our study, in the first phase, we have calculated the growth rate of two variables, which we have selected to disclose the growth of cottage industries, viz., participation and entrepreneurship in between 1951-61, 1961-71, 1971-81 and 1951-81. These rates are also calculated sector wise viz. household sector and non-household sector and area wise viz. Rural sector and urban sector.

In the second phase we have calculated the growth rate of participation and entrepreneurship of some specific industries belong to cottage industry, to have a sectional view of growth. Since cottage industry compose of a lot of industries, total view without sectional one may be misleading.

For measurement of the growth rate, we have considered BODAS[4] formula as it is modified by Prof. R. Balkrishna[5] for ascertaining growth rates for Indian manufacturing industries. The modified formula of Prof. Balkrishna is as follows :-

$$W = \left[\left(\sqrt[N-1]{\frac{E}{A}} \right) - 1 \right] \times 100$$

where 'W' Stands for mean rate of geometric growth,

    'E' Stands for final year quantity of the variable to be measured,

    'A' stands for first year quantity of the variable to be measured,

    'N' stands for number of years

By multiplying the rate by 100, Prof. Balkrishna wanted to express the average growth rate in terms of percentage. This method has been chosen for -

* sake of simplicity,
* easy understandability,
* easy computation and
* because of single variable formula which satisfied out requirement, as our objective is to measure growth in participation and growth of entrepreneurship.

LIMITATION OF THE METHOD :

This method simply considers an average increase from the first to end year during the period of measurement. It does not consider nor give any weightage to the other factors that affect the variable to be measured. This method is also not suitable to measure growth rate of those

Table T 4.1.1

OVERALL PARTICIPATION IN COTTAGE INDUSTRIES
IN WEST DINAJPUR FROM 1951 to 1981

Year	H.H.I Sector % of main workers	N.H.H.I. Sector % of main workers	Total % of main workers
1951	4.44	N.A.	4.44
1961	2'25	1.55	3.80
1971	1.34	1.71	3.05
1981	2.08	2.27	4.35

Source : Computed from census report.
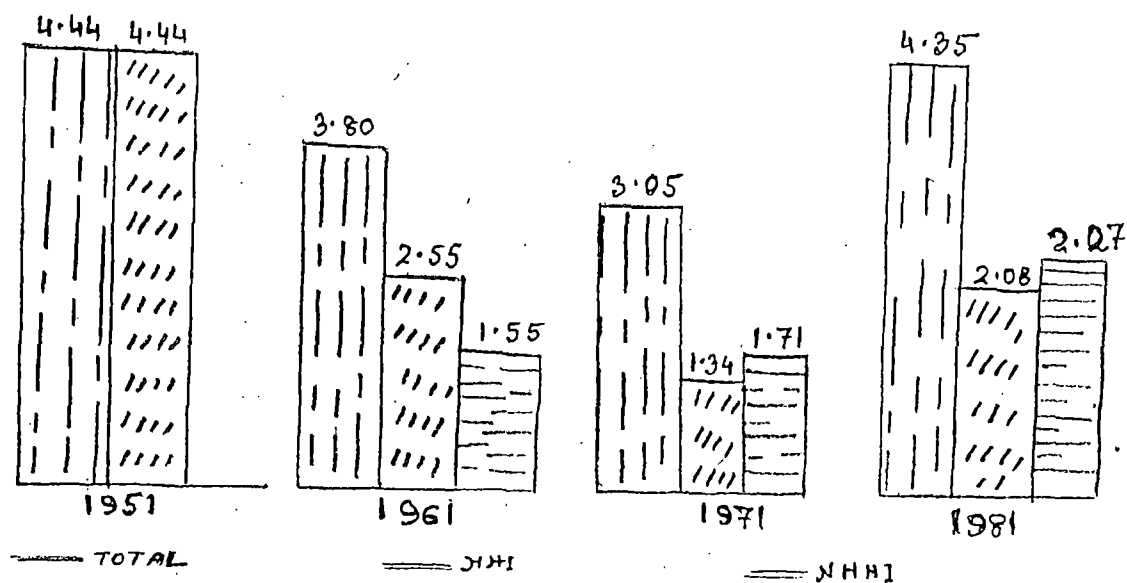
PARTICIPATION IN COTTAGAG INDUSTRIES
AS A PERCETAGE OF TOTAL WORKERS

aspects which are effected by multi-factors. Though growth in our area of study i.e. in unorganised industrial sector is resulted by a number of variables - like, participation, capital-output ratio, average man-hour, improvement in technology, investment etc. but due to paucity of information we have made a few assumptions which are clarified in the objective.

4.1.3 OVERALL PARTICIPATION COTTAGE INDUSTRIES IN WEST DINAJPUR :

During the last 3 decades, as it is evident from Table No. T 4.1.1, engagement in cottage industries gradually decreasing in comparison to total workers. In the year 1951 - 4.44%; 1961 - 2.25%; 1971 - 1.34% and in 1981 - 2.03% of total workers were engaged in cottage industries. The percentages are a bit lower than the state average. During these periods the overall participation of workers to total population in the district of West Dinajpur were 26.26% in 1951; 32.71% in 1961, 27.97% in 1971 and 32.05 in 1981, against state percentages of 27.69%, 33.10%, 28.09% and 30.93% respectively.

These show that overall participation of workers in cottage industries has decreased significantly, implying the negative attitude of workers or villagers towards cottage industries as a means of livelihood.

The absolute number of persons engaged in cottage industries in West Dinajpur both in HHI and NHHI sector given in Table No. T 4.1.2. According to this table, the growth rate of employment in cottage industries was 9.4% during 1951-61, 1.7% during 1961-71, 3.6% during 1971-81 and overall growth rate during 1951-81 was 4.3%. It appears from the rates that, period 1951-61 was the boom for cottage industries. The sharp increase in participation in

Table T4.1.2

PERSONS ENGAGED IN COTTAGE INDUSTRIES IN THE DISTRICT OF WEST DINAJPUR FROM 1951 to 1981

Year	HHI Sector	NHHI Sector	Total	GROWTH RATES IN PERCENTAGE Total		HHI	NHHI
1951	8136	–	8136	–	–	–	–
1961	9797	9816	19613	1951-61	9.4	1.9	–
1971	10018	13341	23359	1961-71	1.7	0.2	3.1
1981	14934	18452	33386	1971-81	3.6	4.1	2.3
–	–	–	–	1951-81	4.8	2.1	3.2

Source : computed from cencus report

Table T4.1.3

ENTERPRISES ENGAGED IN COTTAGE INDUSTRIES IN WEST DINAJPUR FROM 1951 to 1981

Year	Rural	Urban	Total	Growth Rates in Percentage Total		Rural	Urban
1951	5002	850	5852	–	–	–	–
1961	6210	1653	7863	1951-61	0.7	0.2	6.9
1971	2605	2354	4959	1961-71	-4.5	-8.3	3.6
1981	4773	2864	7667	1971-81	4.4	6.2	2.9
–	–	–	–	1951-81	0.9	-0.2	4.1

Source : computed from cencus report.

cottage industries during 1951-61 and 1971-81 was due to inflow of large number of refugees, who adopted cottage industries, as a means of livelihood, without finding any other job opportunities. The situation between 1961-71 was the worst of all. During that period two main incidents took place. One is China attack during 1962 and Bangladesh turmoil during 1969-72. Being a district at the boundary line, West Dinajpur affected severely and as a consequent the total economy including cottage industries hampered.

The increase in engagement in cottage industries during the period 1951 to 1981, at an average 4.8% (which is near to national average) signify that if the post partition incidents were not taken place, the district could attend a national position in cottage industrial sector.

A sectional view of HHI and NHHI sector shows that household sector was affected by great extent, whereas NHHI sector shows a continuous growth. This trend also indicates the phenomena of destructing rural economy.

So far entrepreneurship is concerned the rate of growth during the period 1951 to 1981 was 0.9%, which is very insignificant. The rural growth rate was negative, at (-) 0.2%; whereas urban rate was 4.1% during the period 1951 to 1981 (Table No. T 4.1.3).

The decreasing number of entrepreneurship in HHI sector and increasing employment in NHHI sector connotes that the village artisans or craftmen prefer wage work than self-employed job. This attitude in long run creates severe problems. So it is high time for taking such steps and measures, as it would expand the entrepreneurship in rural sector.

4.1.4 GROWTH RATES OF SOME SELECTED INDUSTRIES :

The growth rates of employment and entrepreneurship in some selected industries during the period 1961 to 1981 were as follows (Table No. T 4.1.4)

Industry	Growth rate in participation	Growth rate in entrepreneurship
Handloom(Weaving & allied)	10%	3.2%
Textile Misc.	8.1%	5.4%
Leather Industry	6.0%	N.A.
Beedi Manufacturing	5.2%	3.9%
Jute (Spinning & Weaving)	4.2%	(-) 2.75%
Bricks, Tiles & Pottery	3.7%	2.3%
Silk	2.4%	N.A.
Food Stuff Processing	2.1%	1.7%
Mat, Cane & Bamboo	1.7%	N.A.
Smithy(Copper & Iron)	1.4%	1.9%
Jewellery	(-) 0.7%	4.2%
Carpentry	(-) 1.63%	4.0%

It appears from the above statement that, handloom industry have made a phenomenal growth in the district of West Dinajpur during the last two decades.

Though the growth in employment in handloom industry is highest among the other cottage industries, it's expansion in terms of entrepreneurship was not as much as it ought to be. After handloom leather ranks second and beedi ranks third. Leather industry has a growth rate of 6% and beedi industry 5.2%. Carpentry and jewellery show a negative growth rate. Their growth rate of employment, during last 20

years calculated at (-) 1.63% and (-) 0.7% respectively.
Textiles miscellaneous shows a highest growth rate in
terms of entrepreneurship.

It appears from the above analysis that growth,
in participation in Cottage Industries does not conform to
any uniform rate. Hence there are factors responsible for
such differential growth rate : To have an insight into the
differential characteristic of various industries we have
carried out a multiple and partial correlation and regression
andlysis. The results of the analysis are as follows :-
*

* Dependent variable 'Y' = Sectoral Growth rate of Cottage
                                Industries.

* Independent variables X_1 = Earnings per labour hour
                        X_2 = Period of Expectation (guestation)
                        X_3 = Normal Capital requirement per unit
                        X_4 = Degree of External relation required
                                for the job
                        X_5 = Marketing factor (availability of job)
                        X_6 = Scope for subsidiary occupation
                        X_7 = Extent of risk
                        X_8 = Degree of family members involvement
                        X_9 = Time factor for learning the process

* About variables :

Name of Variable	Mean	Variance	ST. Dev.	Coeff.of varianc
Y	3.5392	11.622	3.4091	0.9632
X_1	3.4792	13.528	3.6780	1.0572
X_2	27.8330	358.330	18.9300	0.6801
X_3	50.4170	3779.4	61.4760	1.2194
X_4	32.0830	315.72	17.7690	0.5536
X_5	62.9170	288.45	16.9840	0.2699
X_6	1.5000	0.6364	0.7977	0.5318
X_7	26.6670	201.52	14.1960	0.5323
X_8	38.3330	524.24	22.8960	0.5973
X_9	2.6250	2.0057	1.4162	0.5395

CORRELATION COEFFICIENT MATRIX IS :

```
 1.00000
-0.38284     1.00000
-0.22805     0.52190     1.00000
-0.33340     0.76344     0.93047     1.00000
-0.30433     0.67886     0.85521     0.90003     1.00000
 0.66116    -0.62109    -0.34898    -0.30601    -0.38346     1.00000
 0.22615    -0.22851    -0.25887    -0.31977    -0.46499     0.18452     1.00000
-0.49365     0.15090     0.40540     0.56165     0.44451    -0.08798    -0.52181     1.00000
 0.63403    -0.28382    -0.47473    -0.34176    -0.48229     0.55133     0.09772    -0.39624     1.00000
-0.41790     0.53503     0.73840     0.80074     0.69313    -0.37560    -0.30176     0.63307    -0.63781     1.00000
```

PARTIAL CORRELATION COEFFICIENTS AND THEIR T WITH D.F. = 2

ASSOCIATE VARIABLE	PARTIAL CORRN. COEFF.	T
X1	0.5417121	0.9114
X2	0.6727090	1.2858
X3	-0.6907277	-1.3509
X4	0.5873567	1.0263
X5	0.7612158	1.6600
X6	-0.3818765	-0.5843
X7	-0.0884147	-0.1255
X8	0.8547735	2.3292
X9	0.7935919	1.8445

SQUARE OF THE MULT. CORRN. COEFF. (R) = 0.9175432 R=0.9578848
TOTAL RESIDUAL SUM OF SQUARES = 10.541
ROOT MEAN SQUARE DEVIATION DUE
TO RESIDUAL = 2.2958 WITH D.F. = 2, D.W.Statistics=1.5872.
CALCULATED F = 2.4723 WITH D.F. 9 AND 2
ABOUT COEFFICIENTS

VARIABLE	VALUE	ST.ERROR	T WITH D.F. = 2
Y	-24.581	13.967	-1.2959
X1	0.9348	1.0257	0.9114
X2	0.1517	0.1130	1.2858
X3	-0.1649	0.1221	-1.3509
X4	0.1835	0.1837	1.0263
X5	0.1838	0.1107	1.6600
X6	-0.9601	1.6431	-0.5843
X7	-.19970E-01	0.1591	-0.1255
X8	0.1602	.68799E-01	2.3292
X9	2.7348	1.4826	1.8445

It appears from the above analysis that 91.75% (R^2) of
the phenomena is explained by the variables stated. High R
value and low value of D.W.Statistics indicate the overall
reliability of the analysis. From the results of the partial
Co-relation we observed that X3,X6 and X7 i.e. capital requi-
irements, scope for subsidiary occupations and extent of risk
are negatively related with growth. Of these variables X3 i.e.
capital requirements per unit is the most influential factor.
The others two i.e. X6 and X7 marginally influence the partici-
pation of workers. On the other hand X1, X5 and X8 i.e. earning
per labour hour, marketing factor and chances of family workers
involvement positively influence the growth in participation.
Of these variables X5 and X8 have greater impact on participa-
tion. Variable X2, X4 and X9 i.e. period of expectation, degree
of external relation and time factor for learning process has
not been considered as they appeared fictitious, perhaps due to
the error in data collection (this is apparent from the high
value of T and Standard error of respective variables).

Therefore, we may conclude that the differential sectoral growth rates of Cottage Industries are due to their differential characteristics in respect of Earning per labour hour, Investment, Marketibility & demand, Scope for subsidiary occupation, Extant of risk and Possibilities of engagement of family members in the occupation.

4.2.1 OWNERSHIP PATTERN   :

The ownership pattern of the entrepreneurship given in Table No. T 4.2.1 shows that, of the total number of establishments as on 1971, the Government and Co-operative institutions were negligible. Out of 4959 establishments engaged in production only 4 were Government undertakings and 5 were Industrial Co-operative and the rest were in private Band. Thus it appears that lack of Government participation, failure of Co-operative movement and decreasing entrepreneurship in HHI sector, constituting a triangular problem which the cottage industries in the district of West Dinajpur are subject to.

4.3.1 NATURE OF WAGE/RESIDUAL :

The study of wages in unorganised sector is very difficult, because of non-availability of information. Wages in other words, income of the artisans or craftsmen are residual in character in case produce in households. Since family as a whole are workers, it is not possible to measure contribution of each member of the family separately. Again if any hire worker is employed, he is paid both in cash and kind.

The workers employed in cottage industries are unskilled. The nature of works is also variety. So there are variety of rates. Again there are some areas of production, where workers are paid by piece rate, namely handloom, jute (weaving and spinning), beddi manufacturing, brick manufacturing etc. Here also the rates are variety and depend upon the skill and experience of artisans and the artistic produce.

Table T4.2.1

DISTRIBUTION OF ESTABLISHMENT ACCORDING TO OWNERSHIP

Ownership	Registered factory	Unregistered factory	Household	Total
Govt.	—	4	—	4
Private	73	2272	2605	4950
Co-operative	2	3	—	5

Source : Cencus Report
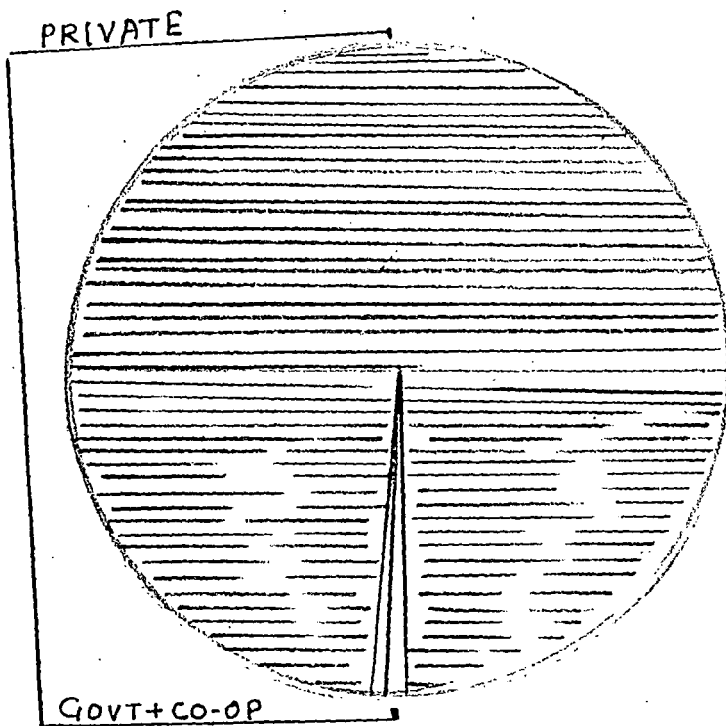
Pie- Chart showing ownership

A study of rates of wages of workers employed in NHHI sector shows that there were even not a single case that justify the minimum wage act. So far working hours is concerned, they are also variable and not confined to available rules and regulations. In most cases working hours vary in between 11 to 14 hours. Since there is no system in practice as well as records, no systematic study can be carried on.

As regards to the enhancement of rate, it is determined by joint appeal of workers to malik (owner) in NHHI sector. In HHI sector, since workers are paid, lion's share in kind, the wage automatically increases with the rise in price level.

Where wages are residual in character, it depends upon the mercy of market mechanism both in respect of raw materials and finished goods. Since artisans are not in a position to purchase raw-materials in bulk, directly by cash, when price remains low, they for both aspect, i.e. input and output, have to depend upon Mahajans and thus deprived. The overall growth rate in residual value is insignificant, showing decreasing real income of the artisans and craftsmen. Since both the markets i.e. market of raw-materials and finished goods are controlled by the Mahajans, who manipulate the price in such a way that the margin of the artisans remains the same.

A study of wage structure in handloom sector shows that for weaving a saree of 40S x 40S, the weavers got Rs.4/- in 1984 and in 1987, the wages has reached to Rs.5/- i.e. 25% increase in 4 years or in other words 6.25% (simple rate) per annum. During the same period cost of living index raised by 8.62% (simple rate) per annum. The entrepreneurs' residual

during the same period was more or less constant(Chapter-7).
The fact is same for other industries (cottage products) also.

4.3.2   LABOUR CONTRACT   :

At the very outset it is necessary to clearly
state that no formal contract is entered into by the employer
and the employees. Everything happens verbally. The labourers
are discharged even before the contract ends, without any
notice or benefit. Every labourer is a casual one. The word
'parmanent' is absent in the dictionary of the unorganised
sector. Generally labourers are employed for a day, or for
a sequence of days; or for a season or till the desire of
the employers. Where workers are employed for a day, they
are paid in the day wage rate. In all other cases a gross
amount is paid monthly or seasonally in cash or in kind. It
appears from the study that day workers are in a better
condition. They have a fixed amount after stipulated hours
of work. In other cases, workers have no stipulated time of
work. They have to do, not only the farm work, but also
domestic work of the employer. In unorganised industrial
sector incidents of day contracts are negligible. In this
sector workers are generally employed either for a season
(as followed in Brick yard) or for a long period, till the
desire of the employers. As some amount of skill is necessary
in production, or marketing of product, employers do not
prefer labour turnover. For this reason it appears that
labour turnover in unorganised sector is low. There are
cases where a worker employed at the age of 12 is continuing
even at the age of 70. In some cases workers are employed
only for a minimum subsistence. There are cases where employ-
ersprovide loan to labourers on any occasion (big debts are
most often incurred by labourers in connection with a marriage
and other social functions) and the latter will serve as a
farm servant as long as the loan remains unpaid. The degree

of monitization in the payment of wages appears negligible
in household sector.

4.3.3 EMPLOYER EMPLOYEES RELATION :

Labour dispute in unorganised sector is negli-
gible. Perhaps due to unlimited power of employers and
miserable condition of workers. Apparently employer-employees
relationship is healthy. Except where workers are engaged
for a day, employees become a family member of the employer.
Since workers are paid both in cash and in kind, (kind in-
cludes food, shelter, cloth etc.), sometimes employer and employees
take meals on the same table. Thus informal close relation
grows in between employees and employer. In household
sector as in most cases employers and employees both are
poor and belong to same economic class, no class troubles
generally arise.

4.4.1 CAPITAL-OUTPUT RATIO :

Now-a-days any systematic discussion on economic
growth analyses the capital-output ratio, either of an
economy or of industries, because the rate of economic
growth may be regarded as a function of two factors, viz.
i) the rate of capital formation and ii) the capital-
output ratio. This statement is particularly true for the
economic development of any under developed or developing
economy.

Capital-output (capital per unit of output ratio is
the ratio of capital or investment in fixed (capital as
equipments) and working assets (investment in stock, debtors
and circulating cash, payment for wages etc.) to output
which may be gross or net. The decrease in this ratio,
indicates rising efficiency or productivity of capital

equipments, technological change, improvement in capacity utilization etc. On the other hand increase in this ratio indicates inefficiency, low productivity, under utilization of capacity etc.

Cottage industries are labour intensive. Very little amount is required for investment in fixed assets. In some industries fixed investment is even almost nil. What is required is working capital i.e. the amount required for purchase of raw materials, stock of finished goods, for payment of wages or amount required for maintenance of livelihood during gestation period etc. Measurement of output in cottage sector is difficult, since one of the components of output cost, i.e. wage/residual is dependent upon the marketed proceeds of output. In other words value of output depends upon market mechanism.

Technology in cottage industries is indigeneous and progress in technology is limited. Therefore it appears that determination of capital-output ratio in cottage industries is just not possible. And also due to the peculiar nature of cottage industries, the concept of capital - output ratio does not hold good as a measurement of growth in this sector.

In view of peculiarity of this sector, we have measured working capital turnover ratio (sales divided by working capital) and labour turnover ratio (sales divided by labour). Working capital turnover ratio indicates efficiency and reciprocal of it shows requirement of working capital. On the otherhand, labour turnover shows productivity of labour and the reciprocal of it shows labour requirements. These two ratios are very much useful in cottage industrial sector since these two components i.e. working

capital and labour are the main factors of production.
Not only that, it is also simple and easy to estimate
working capital, quantity of labour and turnover (sales).
Cottage industries are varied and scattered. We have
restricted out investigation to a limited area. It appears
that both the ratios i.e. working capital turnover and
labour turnover are high in cottage sector. This is because
of the short gestation period of marketing. At an average
by investing Rs.2,000 as working capital, one can realise a
sales of Rs.30000 per annum, i.e. 15 times. Since capital-
labour ratio is constant, labour turnover ratio is also
constant. This ratio fluctuates from season to season,
depending upon the market demand. In some industries these
ratio are even 25 times. In handloom industry these ratios
are 8 to 10 times. The reasons for variation of these ratios
from industry to industry are   :-

* The nature of products :   for durable products these
        ratios are low and for consumerable products these
        are high.

* Gestation period : for long gestation period, e.g. in
        case of durable goods, these ratios are low and for
        short gestation period, e.g. in case of consumerable
        goods these ratios are high.

* The difference in the price of the commodity.

* The nature of stock (both finished and raw materials).

* The difference in the time taken in processing etc.

SUMMARY :

        In short, engagement in cottage industries gradually
decreasing as a proportion to the total workers and total
population. This shows a negative attitude of the villagers

towards this sector. It appears from the increasing entrepreneurship in non-household sector and decreasing entrepreneurship in household sector that the artisans are preferring wage work than of having their own workshop. This attitude may destroy the self-employment character of cottage industries. Individually,; handloom industry, leather industry, beedi industry and carpentry shows a moderate growth both in employment and entrepreneurship. But jewellery, which at one time provided employment to large number of persons shows a negative growth rate both in employment and in entrepreneurship. Most of establishments are being run by sole-proprietorship basis or joint hindu family basis. Little presence of co-operative institutions shows failure of co-operative movement in the district. It follows from the analysis that the real income of the artisans falling day after day. But the incidents of labour disputes reported almost nil. It appears that the capital-output ratio in unorganised sector is just not useful. But working capital turnover and labour turnover ratios, which were found useful to explain various characteristics of cottage industries, are constant over the period, indicating little or no advancement in technology.

Thus decreasing entrepreneurship in household sector, failure of co-operative movement and negative attitude of craftsmen towards these industries creating a triangular problem to the growth of this sector in the district of West Dinajpur.

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