

# **THE STRUCTURE AND PERFORMANCE OF SMALL SCALE INDUSTRY IN COIMBATORE DISTRICT**

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# INTRODUCTION

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## I. INTRODUCTION

The industrial policy statement of 1980 emphasised the balanced and harmonious development of all sectors of industries. It stated that while making all efforts towards integrated industrial development, it is proposed to promote the concepts of economic federalism with the setting up of a few nucleus plants in each district, identified as industrially backward, to generate as many ancillaries and small and cottage units as possible .(S.C KUCHHAL 1984)

The small scale sector has made a significant contribution to India's emergence as the world's tenth most Industrialised Nation. Both in terms of quantity and variety, small Industries have come to occupy a prominent place in the National economy. The development of small scale Industries has been given high priority in successive five year plans in view of its advantages in terms of low investment, high potential for employment generation and semi-urban areas.

Small scale industries have now been redefined to include those manufacturing and repairing units as have investment in plant and machinery upto Rs 20 lakhs. The traditional industries are generally artisan-based, located mostly in rural and semi-urban areas, involving lower levels of investment in machinery and provide largely part-time

employment. Modern small scale industries use mostly power-operated appliances and machinery, have some technological sophistication and are generally located close to or in the urban areas, including the large industrial sectors. Small scale industries also play a vital role in the National economy and act as ancillaries to the large scale units. The small scale industries sector, which from the technological point of view used to be a relatively backward sector using traditional methods of production has since developed as an integral part of the modern industries sector, using power and modern machines.

Small scale industries have important social and economic significance. They are relatively labour intensive and often generate more indirect jobs per unit of invested capital than the larger firms. It is argued (Sadasive Reddy, 1983) that smaller the size of industries and their dispersal over a wider areas, their comparatively smaller demand for infrastructure facilities and the simpler processes make for a smaller environmental risk. In India, the small firms provide parts and sub assemblies to large firms at considerably low unit cost. The small scale sector is a powerful tool for a more equitable distribution of national income and development of efficient decentralised sector.

The small scale industrial sector occupies an important position in the economy of the country having made a valuable contribution to economic growth in terms of national income, production, employment and foreign exchange earnings. Small scale units constituted about 90% of the total registered units accounted for about 38% of total industrial output and 14.1% of the total value added by all manufacturing units. Also, it contributed 10% total employment provided by all manufacturing units. It provided employment to 70 lakhs persons and contributed 15% to foreign exchange earnings. (KHILASH CHOPRA, 1983)

There were 81,769 small scale units operating in the state by the end of march 1987, out of which the newly established since April 1986 were 91,995 [Tamil Nadu -- An Economic Appraisal 1987-88] small scale industries have helped to lay the basis of a socialistic pattern of the basis of the society. In the states economic plans, small scale industries have been treated as a priority sector.

The small scale sector enjoys good organisational support at both the all-India and state levels. The government of India had set up the National small industries corporation and 25 small industries service institutes spread over the country. To the small industries service institutes were attached 18 branches, 41 extension-cum production centres and 3 training centres. (DIC official documents)

With the establishment of district industries centre, the phase of development in the small-scale sector has been fast besides the coverage spreading to comparatively backward areas. The number of small scale industrial units registered with the directorate of industries and commerce had increased from 18,789 in 1977-78 to 21,164 in 1978-79. By 31st December 1980, there were 33,883 registered units in the state and the worked unit to 7.9% of the total number of units at 4,28,189 the country had. The number of small scale industrial units increased from 11.58 lakhs in 1983-84 to 12.75 lakhs at the end of 1984-85.

The number of items reserved by government of India for production exclusively in small scale industrial units had been raised to 832 in 1980 from 804 previously. The number of item reserved for purchase by the directorate generals of supplies and disposals (DGSD) had been increased to 38.2%.

(Tamil Nadu-An Economic Appraisal 1981)

It is estimated that the small scale industrial sector turns out around 50% of the total industrial production in the country. Employment in the sector increased from 84 lakhs in 1983-84 to 90 lakhs in 1984-85. It is estimated that the small scale industrial sector turns out around 50% of the total industrial production in the country. In 1984-85 the total production in the small scale industries was valued at Rs 50.520 crores as compared to Rs 41.620 crores in

1983-84. This marked an increase of 21.4% over the value of production in the preceding year. The investment limit in the definition of small scale industries has since been revised upward in 1985 from Rs 20 lakhs investment in plant and machinery to Rs 30 lakhs and in the case of ancillary units from Rs 25 lakhs to Rs 45 lakhs.

To set up the tempo of industrial growth and to achieve balanced development are the basic objectives of the state industrial policy. The second five year plan fully appreciated the problems of unemployment and under employment and since then, the governments policy towards small scale industrial sector has undergone a welcome change to promote the sector, banks have also been directed to give them priority in the allocation of credit. To encourage the healthy development of small scale industrial units along modern lines, industrial estates have been established. The small scale industrial sector support at both national and state levels.

In this context, the present study is undertaken to appraise the small scale industrial sector in Coimbatore district. The objectives of the study were to :

- (1) find out the structure and concentration of small scale industrial units in Coimbatore district.

- (2) assess the performance of small scale industrial units in terms of production, employment and capital structure.
- (3) examine the relationship between factor inputs and output and
- (4) estimate the production function of the industry as a whole and the individual industry groups.

The hypothesis tested was that the value of production had no relation with the capital and employment of labour irrespective of the industry category.

The findings of the study will help the government and the entrepreneurs to set up new units in this area, and the government can frame new policies to encourage the expansion of small scale industrial sector in Coimbatore district.



# REVIEW OF LITERATURE



## **II. REVIEW OF LITERATURE**

The literature relating to the study on small scale sector in Coimbatore District is reviewed as follows :

### **I. Small Scale Sector in India**

The small scale industry in India has come to occupy a significant place in the industrial structure of the country.

The details are presented in the following tables:

TABLE 2.1

## GROWTH OF SMALL SCALE INDUSTRIES IN INDIA 1978-1984

Year	No. of Registered Units (lakh no.)	No. of unregistered units (lakh no.)	Total (lakh no.)
1978-79	3.34	4.00	7.34
1979-80	3.92	4.13	8.05
1980-81	4.45	4.26	8.71
1981-82	5.23	4.39	9.62
1982-83	4.52	6.03	10.55
1983-84	4.71	6.79	11.50

TABLE 2.2

## PRODUCTION, PRODUCTIVITY AND EMPLOYMENT OF SMALL SCALE UNITS

IN INDIA - 1978 - 1984

Year	Production at current prices (Rs. in crores)	Productivity at current prices (Rs. in crores)	Employment (in lakh persons)
1978-79	15,790	2,151	63.80
1979-80	21,632	2,687	67.00
1980-81	26,060	2,961	70.00
1981-82	32,600	3,389	75.00
1982-83	35,000	3,317	79.00
1983-84	41,300	3,591	84.00

The small scale units have a place of pride in India's economic development. The number of unregistered units is comparatively more than the registered units.

Productivity is the index of the performance of an industry. The table indicates that the productivity has increased from Rs. 2151 crores to 3591 crores. Small scale industrial units are labour intensive in nature in view of the growing population, it has high employment potential and it is clear from the employment figures.

TABLE 2.3

SMALL SCALE SECTOR SELECT INDUSTRY GROUP - BASIC INFORMATION 1979 - 80

No.	Industry group (1)	Number of units (2)	Productive capital (3)	Value of Production (4)	Workers employed (5)
			(Rs in Lakhs)		(Numbers)
1	Chemical & Chemical Products	4,282(15)	2,500(13)	9,686(21)	57,586(36)
2	Food Products	2,146 (8)	1,900(10)	6,620(14)	24,636(15)
3	Metal Products	4,970(18)	2,236(12)	3,303 (7)	11,448 (7)
4	Textile Products	1,527 (5)	1,156 (6)	4,201 (9)	6,365 (4)
5	Paper, Paper Pro- ducts & Printing	2,431 (9)	1,969(10)	2,349 (5)	9,189 (6)
	Total ( 1 to 5 )	15,356(55)	9,761(50)	26,159(57)	1,09,224(69)
	Others	12,530(45)	9,588(50)	19,646(43)	49,967(31)
	Grand Total	27,886(100)	19,349(100)	45,805(100)	159,191(100)

Among the small scale Industrial units, chemicals, food products, metal products, textile and paper products dominate in number and production. They constitute nearly 55% of the total number of units with 50% capital, 57% production and employed 69% in the total number of workers. These details exhibit the importance of the five industries group. The details of number of units and investment of small scale units in India are given in table 2.4.

TABLE 2.4

## NUMBER OF UNITS AND INVESTMENT PATTERN OF SMALL SCALE INDUSTRY IN INDIA

1986 - 87

Line of production (1)	Number of units (2)	Investment (Rs. in lakhs)
Food Products	11,109	14,664
Beverages	860	1,135
Cotton Textiles	5,492	7,249
Silk, Wood etc.	1,150	1,11,518
Jute, hemp etc.	96	127
Textile Products	4,535	5,986
Wool & Woolen Products	2,800	3,696
Paper & Paper Products	6,651	8,779
Leather & Furniture products	1,625	2,145
Rubber, Plastics etc.	4,095	5,405
Chemical & Chemical Products	9,897	13,064
Non-Metallic mineral Products	4,482	5,916
Basic metals & alloys	2,335	3,082
Metal Products	9,494	12,532
Machinery & Parts	9,490	1,527
Electrical Machinery & parts	2,144	2,831
Transport Equipments and parts	1,864	2,460
Others	3,650	4,818
<b>Total</b>	<b>81,769</b>	<b>11,07,935</b>

The small scale industrial units have diversified production activities. The concentration is more on textiles, food products and metals. The above table shows the share of different industry groups to the total number. Out of 81,769 units, 11,109 units are engaged in the production and processing of food products followed by chemical and chemical products. The statewise distribution of SSI units are given in table 2.5.

TABLE 2.5

## STATEWISE DISTRIBUTION OF SMALL SCALE INDUSTRY - 1980

S.No.	State / U.T.	Number
1.	Andhra Pradesh	22,958
2.	Assam	3,132
3.	Bihar	20,937
4.	Gujarat	27,790
5.	Himachal Pradesh	5,433
6.	Haryana	17,685
7.	Jammu & Kashmir	5,966
8.	Karnataka	16,970
9.	Madhya Pradesh	31,302
10.	Maharashtra	35,251
11.	Manipur	2,511
12.	Meghalaya	327
13.	Kerala	16,920
14.	Nagaland	203
15.	Orissa	8,036
16.	Punjab	33,532
17.	Rajasthan	23,930
18.	Tamil Nadu	30,397
19.	Tirupura	1,096
20.	Uttar Pradesh	33,364
21.	West Bengal	74,847
22.	Sikkim	25
23.	Andaman & Nicobar	73
24.	Arunachal Pradesh	145
25.	Chandigarh	948
26.	Dadra & Nagar Haveli	114
27.	Delhi	11,006
28.	Goa	1,496
29.	Lakshadweep	NIL
30.	Mizoram	471
31.	Pondichery	982

The statewise distribution of small scale industry are given in the above table. It is clear from the table that West Bengal state has more number of units and ranks first followed by Maharashtra, Madhya Pradesh, Tamil Nadu ranks fifth after Uttar Pradesh. One of the objectives of promoting small scale industries in the state is that it will gradually contribute to the dispersal of industries. Industrially backward regions had attracted the focus of attention in this context.

**Employment Potential :**

The number of units in small sector went up from 1.4 lakhs in 1972 to 5.30 lakhs in 1975. The output both in terms of both value and employment nearly doubled. This is indicative not only of high employment ratio of the small scale sector but also of its productivity. An investment of Rs 500 crores should possibly create one million jobs a year. It is this employment generating potential of small scale sector that had promoted the Janata government to lay emphasis on the sector.

**Export performance of small scale sector**

The small scale industrial sector provides significant contribution to exports. The total exports of the small

**Bank credit:**

To promote small industries, banks have been asked to give them priority in the allocation of credit. Banks are expected to raise the ratio of advances to the priority sector from 33.3% of their total advances to 40%. The credit made available to small scale units has gone up from Rs 1040.4 crores to Rs.2,066 crores during the past five years (1976-81). Small units having credit limits not exceeding Rs 2 lakhs covered by the credit guarantee scheme have been exempted from the minimum lending ratio.

As at the end of December 1985, Bank credits to small scale industrial sector formed 15.3% of net bank credit. The share of the small scale sector in the total outstanding of the priority sector at the end of December 1985 was 35.9%. The number of small scale units per borrowers assisted by the public sector at the end of December 1985 was about Rs. 15.67 lakhs and the amount of outstanding to the small scale sector Rs 7,375 crores. The amount of financial assistance sanctioned by the state finance corporation to small scale industries was Rs 540 crores and the amount disbursed Rs 369 crore during 1984-85.

**Share in plan funds:**

The diminishing share of the small scale sector in the five year plan outlays suggests that the concern voiced as about it is not always genuine. In the first five year plan,

the small scale sector had a 2.1% share in an over all outlay of Rs 3,760 crores. In the 2nd plan, it shot upto 4% but came down to 2.8% in the third. In the three annual plans from 1966-67 to 1968-69 it got only 1.9% of the funds. In the fourth plan, its share dipped to 1.5% and continued at the same level in the fifth. In the sixth plan Rs1,16,000 crores, the outlay of Rs 1,780 crores on the small scale sector is about 1.5%.

**Small Scale Sector in Tamil Nadu:**

In Tamil Nadu the small scale sector plays a significant role. The following table shows the progress of small scale industrial units in Tamil Nadu (selected indicators 1973-80).

TABLE 2.6  
 PROGRESS OF SMALL SCALE UNITS IN TAMIL NADU - SELECTED INDICATORS (1973-80)

Serial Numbers and Particulars	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1. Number of factories	6,458	6,664	7,995	8,570	8,473	9,059	9,743
2. Productive Capital (Rs. in Crores)	1,346.09	1,583.10	1,681.12	2,007.07	2,100.08	2,397.19	2,918.58
3. Number of workers	4,65,327	5,31,233	5,57,233	5,57,343	5,64,534	5,91,844	-
4. Wages to workers	143.37	178.57	214.34	226.71	235.54	274.24	-
5. Number of employees	5,65,456	6,02,459	6,70,567	6,98,158	7,03,615	7,40,575	7,90,239
6. Emoluments of employees (Rs. in crores)	217.81	276.18	331.64	346.40	380.51	471.37	-
7. Total Input (Rs. in crores)	1,317.42	1,943.75	2,343.06	2,721.50	3,162.64	3,699.13	4,410.39
8. Total Output (Rs. in crores)	1,828.70	2,598.23	3,025.07	3,552.14	4,102.95	4,801.72	5,642.56
9. Value added (Rs. in crores)	431.17	565.29	585.34	721.58	815.14	967.08	1,076.72

The table reveals that the small scale industrial units in Tamil Nadu had grown impressively in terms of number of factories, productive capital, number of workers and production.

TABLE 2.7  
SMALL SCALE INDUSTRIES - BASIC DATA - DISTRICTWISE  
1978-79 (RS. IN CRORES)

District	Number of Registered Units	Capital Invested	Value of Production	Number of Workers
1. North Arcot	1254	0.84	2.80	445
2. South Arcot	574	0.79	3.68	1,155
3. Chengalpattu	2063	17.09	50.12	8,928
4. Coimbatore	3105	8.16	22.11	3,982
5. Dharmapuri	528	4.42	4.48	3,264
6. Kanyakumari	522	3.95	13.15	17,204
7. Madras	4494	17.81	39.43	8,611
8. Madurai	1957	15.75	28.83	8,686
9. Nilgiris	89	0.09	0.20	31
10. Ramanathapuram	1978	28.43	57.65	30,976
11. Salem	1953	9.53	17.97	7,487
12. Tiruchy	978	12.65	24.57	8,812
13. Thanjavur	720	2.69	4.01	1,968
14. Tirunelveli	1541	11.51	51.61	34,678
15. Pudukkottai	408	33.68	5.62	3,497
Total	22164	137.08	325.74	1,39,124

The table 2.7 reveals that the small scale industrial units in Tamil Nadu had grown impressively in terms of value of production, employment, investment and number. It is clear from the table that in Tamil Nadu, Coimbatore District has more number of units with 3105, Kanyakumari district employs more number of workers with less number of small scale industrial units. In Ramanathapuram and Tirunelveli, the number of workers employed are more.

### **III. RELATED STUDIES:**

#### **(1) Scale and efficiency of small scale industry in India**

P.P.PILLAI has conducted a study on scale and efficiency of small scale sector in India in the year 1980.

#### **Findings of the study:**

(1) The overall findings are the law of diminishing marginal productivity of inputs operates and the elasticity of labour is much higher than that of capital in small scale industries.

(2) It is observed that scale and efficiency remain consistent in both cases of employment and capital. The average and the marginal ratio method lead to similar results on scale and efficiency.

#### **(2) Position and Prospects of Tractor Industry:**

State Bank Of India conducted a study on "Position and prospects of Tractor Industry" in February 1979.

This industry was established during the second five year plan period, when increasing emphasis was placed on the mechanisation of agriculture. Presently, there are 11 units engaged in the manufacture of agricultural tractors in the country, in the organised sector with a total licensed capacity of the order of 1.02 lakh tractors. The total installed capacity of these units is 69,600 tractors and their production is about 40,000 tractors. Total investment in tractor industry is of the order of 70 crores:

The main problems faced by the industry are the high costing production and the lack of effective distribution.

For minimising the above problems, the State Bank of India suggested to increase the existing production level by 30%.

### **(3) Small Scale Sector - Modernization Crucial for Progress.**

S.J.RELE has conducted this study in November 1980. Small scale industries have potential for growth. Industrially advanced countries such as U.S.A and Japan the national work force employed in small scale industry was to the extent of 65 and 83% respectively. In India, however, small scale industries have not received the right impetus.

40% of the sample examined industries were started without proper feasibility reports.

The author believed that there is need for restructuring the sector to ensure that units are based on a

scientific inventory of natural resources, both material and manpower.

**(4) A study on choice of technology for small industry - 1979**  
**- R.K Gupta.**

The new industrial policy envisages the promotion of small industries and small towns and curbing the growth of industries around large metropolitan and urban areas, while the aims and objectives envisaged in the policy are praiseworthy. The question arises as to what level of technology or technologies will be suited to achieve these goals.

The author analyses that what level of technology or technologies will be suited to achieve the goals in its various aspects in the light of experiences of developed and developing countries, particularly of labour surplus countries.

**(5) New perspectives for small industry development:**

RAM.K.VEPA has conducted this study on November-December 1979. The author discusses the existing situation and problem of small scale industries in India. It is pointed out that in the last two decades, the small scale industries has registered a remarkable growth both in terms of diversity as well as in production. The small scale sector has been accepted as an effective instrument in the development of backward areas and in generation of substantial employment opportunities. In spite of these, the factor faces several

problems relating to diffusion of new technology, credit and marketing problems, emergence of new entrepreneurship etc.

**(6) Small Scale Unit - Employment potential and capacity utilisation**

K.K.RUDRA conducted this study on November 1977.

The author states that small industries have a number of plus points from the point of view of location, capital and import needs, employment and income distribution. They are particularly suited for employment of women, fuller employment of the seasonally employed and self employment of the educated unemployed.

The author finds that there exist quite impressive prospects for the generation of additional employment in small scale industry.

(1) The author suggest that a quick review of the present capacity utilization of small scale units and factors responsible for low utilization should be made.

(2) Particular attention may be paid to industries.

(3) Employing more people per Rs 1 lakh investment in fixed assets.

(4) Fiscal, technical, financial and raw material supports should be given to them.

(5) Market guidance and entrepreneurial training are also necessary.

**(7) Marketing Problem of Small Industries. Productivity**

T.N. KAPOOR, BIDHI CHAND & S.K. KAPOOR has conducted this study on January - March 1983.

This study seeks to identify the marketing problems faced by the small scale industrial units to record their awareness of the availability of working capital assistance for the purpose from the government and to examine the extent of utilisation of the assistance based on sample survey of 26 industrial units in 2 centres, namely Chandigarh and S.A.S. NAGAR in Punjab.

The problems faced by these industries related to poor packaging, price fluctuations, competition in the market, lack of awareness of genuine distributors, lack of working capital etc.

(1) For growing of small units, the authors suggest the co-operation of larger units and creation of a trading organisation, both of which to help solving the problem of small scale industries.

(2) He also suggests for better performance of the government agencies in increasing the awareness of the small entrepreneurs about availability of the assistance and for simplifying the procedures.

**(8) Incentives and their impact :**

**Studies on small industry:**

J.C.SANDESARA has conducted this study on November 1982.

This paper comprises three sub themes :

- (1) First relates to long term financial assistance
- (2) The second to reservation and
- (3) The third to use and significance of incentives to small industry. This paper describes the genesis and scope of the study, findings on the hypothesis, summary and opinions on different kinds of incentives, rationale of the framework of explanations of the statistical results.

The author suggest that a

- (1) wide publicity of the activities of the aid giving agencies is still required
- (2) a more discriminating programme of assistance needs to be designed and operated for better allocational needs
- (3) streamlining of procedures and expeditious decision making would results in great impact of the assistance programmes.

**(9) Location of small Industry - A research study :**

This study is a product of the small industry extention training institute, Hyderabad in 1973.

1. There did not exist any significant relationship between the structural pattern and the size of the town.

2. The location was influenced largely by the factors as demand for the products, marketing facilities, social and infra-structure facilities and nearness to raw materials.

3. The Incentives and subsidies offered have not played a significant role in the concentration of industries in certain localities.

#### 10. An appraisal of Small Scale Industries in Tamil Nadu:

Nanthini conducted this study on May 1986.

The main objectives of the study is to

- (1) assess the performance of small scale industrial sector in terms of growth in number, production, capital, and employment.
- (2) examine the relationship between factor inputs and output.
- (3) find out the growth in the production, employment and capital and
- (4) to estimate the production function .

The study specifically tested the hypothesis that the value of production is not influenced by factor inputs and labour.

From the study, the crucial factors of employment potential, value of production and capital investment, it can be concluded that the chemical products and metal products industry groups contribute to significantly the development of small scale industrial sector in Tamil Nadu.



# METHODOLOGY



### III METHODOLOGY

The methodology adopted in the current study on "The structure and performance of small scale sector in Coimbatore District" is described under the following heads.

1. Selection of the area
2. Sources of data
3. Tools of analysis and
4. Definition of terms

#### Selection of the area

Coimbatore is one of the industrially advanced Districts in Tamil Nadu. The number of small scale units in this District had increased from 3,105 in 1978-79 to 11,735<sup>\*</sup> units in 1987 of which Coimbatore Corporation alone accounts for about 40 percent. Diversified production is being undertaken in these units. With the establishment of District Industrial Centre in 1978, the pace of development has been faster. Hence, to find out the present position of the small scale units in the District and examine the extent of concentration of some selected industries, this analysis is taken up. The analysis is confined only to the major units which are dominant in the total number of units.

<sup>\*</sup> Unpublished official documents - DIC Coimbatore - 1987.

#### Sources of data

The data relating to the current study were collected

from secondary sources. Information on the number of units in the District, value of production, capital and employment was collected from the unpublished official documents available in the Coimbatore District Industrial Centre, the head office of which is located in Coimbatore Corporation.

The disaggregated data on costs, profit and loss, sales are not available in the centre, and for the performance analysis of 'Small Scale units', only the crucial data <sup>was</sup> used. The details of production, capital and employment for India and Tamil Nadu were collected from the following sources.

1. Tamil Nadu - An Economic Appraisal, published by Finance Department, Government of Tamil Nadu (1980-83).
2. Industrial profile of Tamil Nadu - DIC publication
3. India - A reference manual, Government of India publication.

Relevant journals, magazines and books were also referred to.

### **Tools of Analysis**

The percentage of different industries to total number, the percentage contribution the selected units to the total units in terms of capital, employment and production were worked out. For finding out the functional relationship between capital labour employed and production on unrestricted production function of the form

$$Y = AK^{\alpha}L^{\beta} \text{ was fitted to the data}$$

where      Y = Value of production  
             K = Capital employed  
             L = Labour employed  
             a = Capital co-efficient  
             β = Labour co-efficient  
             A = Initial co-efficient

The  $R^2$  - coefficient of determination, 't' values of the co-efficients and standard errors were also estimated to find out the goodness of fit and statistical significance of the relation.

#### Definition of terms

1.	Capital co-efficient	=	$\frac{\text{value of output}}{\text{value of fixed capital}}$
2.	Labour co-efficient	=	$\frac{\text{value of output}}{\text{Number of workers}}$
3.	Capital-output ratio	=	$\frac{\text{Fixed Capital}}{\text{value of production}}$
4.	Capital-Labour ratio	=	$\frac{\text{Fixed Capital}}{\text{Number of workers}}$

The description of the present status of small scale units in Coimbatore District, and the results of the analysis of some selected industries in Coimbatore are discussed and presented in the subsequent chapter "Results and Discussions".

♪  
*RESULTS AND DISCUSSION*  
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#### **IV RESULTS AND DISCUSSIONS**

The results of the analysis carried out on the structure and performance of Small Scale Industrial units in Coimbatore District are discussed under the following heads:

- (1) General information - Block wise details
- (2) Industry wise details
- (3) Capital wise classification of industries - Industry groupwise
- (6) Efficiency ratios and
- (7) Production function Analysis.

##### **I. General information :**

Tamil Nadu state ranks fifth in terms of the number of small scale industrial units in India with 30,397 units. Coimbatore District is one of the industrially advanced districts of Tamil Nadu . The number of registered units in the district as on 31-3-1987 was 11,735 of which Coimbatore corporation alone accounts for about 40%, of the units with 5,015 units, twenty two production lines are in existence and all the lines of production are undertaken in the Coimbatore corporation. In Tirupur and Palladam Taluks also all lines of activities are undertaken. These two Taluks have altogether 3,620 units, of which 2,538 units are hoisery units in Tirupur. In Pollachi Taluk 650 Small Scale units are located. Hoisery units accounts for about 20 percent in the

Districts followed by machinery products and metal products.

In Coimbatore corporation, the dominant industry groups are metal products, machinery parts, chemical products, paper products and textile products. The detail description of the number of units, Block and Taluk wise are presented in table 4.1.

TABLE 4.1

BLOCK WISE AND CODE WISE CLASSIFIED STATEMENT AS ON 31.3.1987 (1926-1987)

Description	CBE Taluk						Avinashi Taluk	
	CBE Corporation	Perianaiken-palayam	Perur	Madukkarai	Sarcar Samakulam	Thondamuthur	Annur	Avinashi
Food and Rice Milling	65	4	3	2	-	4	5	9
Edible oil, tea, coffee, etc	68	3	5	-	2	3	4	8
Lignors, Tobacco etc.	15	-	-	-	-	-	-	1
Cotton Textiles	238	5	2	3	7	17	6	55
Wooden Synthetic Tex	11	-	-	-	-	-	-	-
Jute Industry	9	-	-	-	-	-	-	-
Hosierys Garments	88	1	1	-	-	-	-	6
Wood products	93	6	1	1	1	3	1	4
Paper Products	365	21	11	2	3	5	8	16
Leather Products	71	-	-	-	-	-	-	5
Rubber & Plastic Products	491	23	18	1	3	5	1	3
Chemical Products	242	24	12	5	1	6	4	9
Non-metallic mineral	157	28	19	21	1	19	3	6
Basic metal Products	434	74	46	26	7	6	3	22
Metal products	758	113	42	21	8	18	3	13
Machinery & parts	922	76	200	17	49	4	9	17
Electrical Machinery	554	61	48	3	5	6	2	9
Transport equipment	101	7	1	-	-	-	-	2
Miscellaneous manufacturing expenses	237	-	-	-	5	1	-	-
Cold Storage	2	-	-	-	-	-	-	-
Photographic Studies	4	-	-	-	-	-	-	-
Repairing and servicing	90	11	3	-	1	3	1	11
Total	5015	457	412	102	93	110	50	196

Description	Karamadai Mettupalayam Taluk	Pollachi Taluk				Valparai Valparai Taluk	Gudi- mangalam	Madathu- kulam
		Anaimalai	Kinnathu- kadevu	Pollachi (North)	Pollachi (South)			
Food and Rice Milling	17	8	4	15	48	4	2	2
Edible oil, tea, coffee, etc	4	3	1	9	31	2	1	-
Lignors, Tobacco etc.	6	-	2	1	6	-	-	2
Cotton Textiles	25	-	8	6	27	-	10	12
Wooden Synthetic tex	1	-	-	2	-	-	-	-
Jute Industry	2	1	1	3	1	-	-	-
Hosierys Garments	2	-	3	-	18	2	2	-
Wood products	2	2	2	2	43	-	-	-
Paper Products	19	4	2	4	-	4	1	2
Leather Products	2	-	-	-	9	-	-	-
Rubber & Plastic Products	12	1	-	3	145	-	-	2
Chemical Products	10	3	2	27	35	1	2	6
Non metallic mineral	14	3	3	7	6	-	3	1
Basic metal Products	32	1	4	3	18	-	1	2
Metal products	27	3	8	9	89	3	2	3
Machinery & parts	16	4	1	6	6	-	3	20
Electrical Machinery	14	1	-	2	-	-	-	-
Transport equipment	9	1	-	3	5	1	-	-
Miscellaneous manufacturing expenses	-	-	-	-	6	-	1	-
Cold Storage	-	-	-	-	-	-	-	-
Photographic Studios	-	1	3	-	-	-	-	-
Repairing and servicing	13	-	-	5	9	3	-	-
<b>Total</b>	<b>228</b>	<b>37</b>	<b>41</b>	<b>107</b>	<b>502</b>	<b>20</b>	<b>28</b>	<b>52</b>

Description	Udumalpet Taluk		Palladam Taluk				* Total
	Udumalpet	Pongalur	Sultanpet	Sulur	Tirupur	Palladam	
	Food and Rice milling	20	1	1	9	24	
Edible oil, tea, coffee, etc	12	1	-	2	29	9	197
Lignors, Tobacco etc.	-	-	-	6	5	21	46
Cotton Textiles	42	2	9	70	180	293	1017
Wooden Synthetic tex	-	-	-	1	1	2	18
Jute Industry	1	-	-	-	-	1	19
Hosierys & Garments	4	-	-	-	2538	15	2668
Wood products	2	-	-	5	21	4	168
Paper Products	7	1	2	15	50	9	594
Leather Products	-	-	-	-	5	2	85
Rubber & Plastic Products	4	-	-	6	22	2	606
Chemical Products	38	4	3	17	18	8	587
Non metallic mineral	10	1	-	21	27	9	388
Basic metal Products	8	-	-	46	10	17	748
Metal products	19	1	2	77	17	13	1178
Machinery & parts	80	2	5	49	73	86	1738
Electrical Machinery	-	-	-	32	3	19	767
Transport equipment	3	-	-	3	2	1	131
Miscellaneous manufacturing expenses	-	-	-	6	7	37	302
Cold Storage	3	-	-	-	-	-	2
Photographic Studios	-	-	-	-	-	-	5
Repairing and servicing	3	-	-	9	15	2	182
Total	256	13	22	374	3047	573	11735

\* This includes the Industry group's total

For the performance analysis, the industry group which are dominant in number is considered. As disaggregated data are not available in the DIC of Coimbatore, data on capital, investment, labour employment and production alone are considered for the analysis.

**II. The industry groups which are selected for the analysis are:**

- (1) Foundary units
- (2) Electric motor
- (3) Wet Grinder
- (4) Chemical products
- (5) Paper products
- (6) Non - metallic mineral products
- (7) Basic metals and alloys .

There are 347 units engaged in the lines of production as given below . The concentration of the Industrial units are given in table 4.2.

TABLE 4.2

## THE STRUCTURE OF SMALL SCALE INDUSTRY GROUP

S.NO.	Description	No. of Units	Percentage
1.	Foundary Units	49	14
2.	Electric Motor	94	27
3.	Wet Grinder	15	04
4.	Chemical Products	42	12
5.	Paper Products	62	17.8
6.	Non metallic minerals	40	11.5
7.	Basic metals & alloys	45	16.7
	Total	347	100.0

Of the total, basic metal group constitute 17.6% electric motor accounts for about 27%. The concentration of these industrial groups indicate, that the small scale units are supplying spares and other ancillary products to the large scale industry in Coimbatore, particularly to the cotton textile mills and engineering industries. This clearly shows that the small scale sector plays a vital role in the industrial development of the District.

Industry groupwise details on production, capital, investment and employment are presented in the following table:

TABLE 4.3  
BASIC DATA ON THE SELECTED INDUSTRY GROUPS

Major Industries	No. of Units	Capital Investment (Rs. in lakhs)	Production (value in lakhs)	Number of persons employed
1. Foundary Units	49	151.45 (21.07)	652.38 (18.33)	477 (19.54)
2. Electric Motor	94	160.70 (22.36)	856.30 (24.06)	526 (21.55)
3. Wet Grinder	15	15.73 (02.18)	92.09 (02.58)	88 (03.60)
4. Chemical & Chemical Products	42	62.32 (08.67)	434.40 (12.20)	299 (12.25)
5. Manufacture of Paper, Paper products & Printing	62	112.82 (15.70)	284.20 (03.98)	350 (14.34)
6. Manufacture of non-metallic mineral products	40	52.28 (07.27)	131.69 (03.70)	294 (12.04)
7. Manufacture of Basic metals & alloys	45	163.29 (22.72)	1107.59 (31.12)	406 (16.63)
<b>Total</b>	<b>347</b>	<b>718.59</b>	<b>3558.65</b>	<b>2440</b>

Figures in brackets represent percentages to totals.

It is evident from the table that, manufacture of basic metal and alloys group accounts for about 22.72% of the total capital investment, followed by Foundary units with 21% Electric motor with 22.36% indicating that these industry groups capital intensive in nature and they are ancillary units of the large scale engineering units.

In terms of value of production, the manufacture of metal and alloys group accounts for 31% followed by Electric motors and Foundary units. In employment also, these three industry groups provide jobs to 59% of the total workers in all the seven groups. 2,440 workers are employed in this group, of which 21.55% is employed in electric motors. These facts clearly indicates that as the capital investment increases, the employment potential also increases.

To analyse the capital intensity in each industrial group the units are classified on the basis of the capital investment. The details of foundary units are given in table 4.4

TABLE 4.4

## FOUNDRY UNITS - CAPITAL, PRODUCTION AND EMPLOYMENT

Capital	Number of Units	Capital Investment (Rs. in lakhs)		Total	Production (value in lakhs)	Number of persons employed
		Lands and Building	Machinery and equipments			
Below 1	20 (40.81)	6.88 (08.98)	3.88 (05.18)	10.76 (07.10)	78.22 (11.98)	111 (23.27)
1-2	9 (18.36)	9.40 (12.26)	4.41 (05.89)	13.81 (09.11)	80.56 (12.34)	78 (16.35)
2-3	6 (12.24)	10.90 (14.22)	5.04 (06.73)	15.94 (10.52)	63.45 (09.72)	69 (14.46)
3-4	3 (06.12)	7.78 (10.15)	3.37 (04.50)	11.15 (07.36)	47.00 (07.20)	35 (07.33)
4-5	2 (04.08)	4.75 (06.20)	4.15 (05.54)	8.90 (05.87)	3.40 (00.52)	19 (03.98)
5 & above	9 (18.36)	36.90 (48.16)	53.99 (72.14)	90.89 (60.01)	379.75 (58.20)	165 (34.59)
Total	49	76.61	74.84	151.45	652.38	477

Figures in brackets represent percentages to totals.

It is evident from the table that 40% of the group are very small units with less than Rs 1 lakh as investment. Nearly 19% of the units invest more than Rs 5 lakhs.

In all the units, nearly 60% of the capital investment is on land and building and 40% is on building and machinery. Of the total capital investment in this industry group, 60% is accounted for, the 20% of the large units with more than Rs.5 lakhs investment.

The contribution of small and large units to the total value of production accounts for about 70% and the remaining 30% is by the medium units. Similarly of the total workers employed in this group, 59% is in the small and large units. These facts show that in the Foundry sector, the large and small units are comparatively contributing more than the medium units.

The details of electric motor industry group are given in table 4.5.

TABLE 4.5  
ELECTRIC MOTOR - CAPITAL, PRODUCTION AND EMPLOYMENT

Capital	Number of Units	Capital Investment (Rs. in lakhs)		Total	Production (value in lakhs)	Number of persons employed
		Lands and Building	Machinery and equipments			
Below 1	55 (58.51)	20.14 (22.59)	10.22 (14.28)	30.36 (18.89)	122.70 (14.32)	198 (37.64)
1-2	14 (14.89)	12.62 (14.15)	10.38 (14.50)	23.00 (14.31)	87.88 (10.26)	124 (23.57)
2-3	11 (11.70)	16.10 (18.06)	10.30 (14.39)	26.40 (16.42)	103.98 (12.14)	89 (16.92)
3-4	3 (03.19)	5.19 (05.82)	4.83 (06.74)	10.02 (06.23)	37.24 (04.34)	19 (03.61)
4-5	2 (02.12)	4.62 (05.18)	4.73 (06.60)	9.35 (05.81)	72.00 (08.40)	16 (03.04)
5 & above	9 (09.57)	30.47 (34.18)	31.10 (43.46)	61.57 (38.31)	432.50 (50.50)	80 (15.20)
Total	94	89.14	71.56	160.70	856.30	526

Figures in brackets represent percentages to totals.

It is clear from the table that in this industry group, 58.5% comes under small units with less than Rs 1 lakh capital investment, of which 60% is on land and building and 40% is on machinery and equipments. 9% of the total units are large units with more than Rs. 5 lakhs investment. The 9 units constitute nearly 38% of the total capital investment in this industry group. But the contribution of these units to the total production is 50%. In terms of employment generation, the small units are important as these units employed 38% of the total worker employed in the industry group.

The details of wet grinder as given in table 4.6:

TABLE 4.6  
WET GRINDER - CAPITAL, PRODUCTION AND EMPLOYMENT

Capital	Number of Units	Capital Investment (Rs. in lakhs)		Total	Production (value in lakhs)	Number of persons employed
		Lands and Building	Machinery and equipments			
Below 1	8 (53.33)	2.18 (25.14)	2.95 (41.78)	5.13 (32.61)	59.20 (64.28)	50 (56.81)
1-2	6 (40.00)	4.97 (57.32)	3.39 (48.01)	8.38 (53.27)	27.14 (29.47)	33 (37.50)
2-3	1 (06.66)	1.50 (17.30)	0.72 (10.19)	2.22 (14.11)	5.75 (06.24)	5 (05.68)
Total	15	8.67	7.06	15.73	92.09	88

Figures in brackets represent percentages to totals.

The table reveals that the capital investment requirements of these units is less than Rs. 3 lakhs, but the employment potential is more.

The details of the industry group chemical products are given in table 4.7.

TABLE 4.7  
CHEMICAL AND CHEMICAL PRODUCTS

Capital	Number of Units	Capital Investment (Rs. in lakhs)		Total	Production (value in lakhs)	Number of persons employed
		Lands and Building	Machinery and equipments			
Below 1	28 (66.66)	7.33 (19.40)	2.61 (10.63)	9.94 (15.94)	64.80 (14.91)	145 (48.49)
1-2	5 (11.90)	4.09 (10.82)	2.15 (08.76)	6.24 (10.01)	10.80 (02.48)	43 (14.38)
2-3	3 (07.14)	5.54 (14.66)	2.16 (08.80)	7.70 (12.35)	25.21 (05.80)	21 (07.02)
3-4	2 (04.76)	6.00 (15.88)	1.43 (05.82)	7.43 (11.92)	29.39 (06.76)	20 (06.68)
4-5	1 (02.38)	4.00 (10.58)	0.50 (02.03)	4.50 (07.22)	30.00 (06.90)	17 (05.68)
5 & above	3 (07.14)	10.82 (28.63)	15.69 (63.93)	26.51 (42.53)	274.20 (63.12)	53 (17.72)
Total	42	37.78	24.54	62.32	434.40	299

Figures in brackets represent percentages to totals.

67% of the units have capital investment below Rs.1 lakh, contributing 15% of the total production, employing 49% of the total workers. Only 7% of these units have capital investment above Rs. 5 lakhs, contributing 63% of production, employing 18% of the workers. The employment potential is more for the small units and less for large and medium units.

The details of industry group paper product are given in table 4.8.

TABLE 4.8  
MANUFACTURE OF PAPER, PAPER PRODUCTS AND PRINTING - CAPITAL, PRODUCTION AND EMPLOYMENT

Capital	Number of Units	Capital Investment (Rs. in lakhs)		Total	Production (value in lakhs)	Number of persons employed
		Lands and Building	Machinery and equipments			
Below 1	30 (48.38)	8.15 (15.10)	9.06 (15.39)	17.21 (15.25)	20.49 (07.20)	100 (28.57)
1-2	17 (27.41)	12.04 (22.31)	12.47 (21.18)	24.51 (21.72)	41.24 (14.51)	95 (27.14)
2-3	5 (08.06)	4.64 (08.59)	8.55 (14.52)	13.19 (11.69)	28.19 (09.91)	28 (00.08)
3-4	4 (06.45)	8.92 (16.53)	3.73 (06.33)	12.65 (11.21)	79.50 (27.97)	55 (15.71)
4-5	2 (03.22)	4.50 (08.33)	4.22 (07.16)	8.72 (07.72)	11.19 (03.93)	11 (03.14)
5 & above	4 (06.45)	15.71 (29.11)	20.83 (35.38)	36.54 (32.38)	103.59 (36.44)	61 (17.42)
Total	62	53.96	58.86	112.82	284.20	350

Figures in brackets represent percentages to totals.

The table reveals that of the total 67 units, 47 (i.e.) 76% as capital investment below Rs 2 lakhs, employing 19% (i.e.) 56% of the total persons. Only 4 units have investment above Rs 5 lakhs. In all the units nearly 45% is invested in land and building and 55% on plant and machinery.

The details of non-metallic mineral products group are given in table 4.9

TABLE 4.9  
MANUFACTURE OF NON-METALLIC MINERAL PRODUCTS - CAPITAL, PRODUCTION AND EMPLOYMENT

Capital	Number of Units	Capital Investment (Rs. in lakhs)		Total	Production (value in lakhs)	Number of persons employed
		Lands and Building	Machinery and equipments			
Below 1	23 (57.50)	5.68 (28.86)	4.12 (12.63)	9.80 (18.74)	42.52 (32.28)	123 (41.83)
1-2	5 (12.50)	3.73 (18.95)	3.33 (10.21)	7.06 (13.50)	11.37 (08.63)	42 (14.28)
2-3	10 (25.00)	5.71 (29.01)	18.72 (57.42)	24.43 (46.72)	35.50 (26.95)	114 (38.77)
3-4	1 (02.50)	0.06 (00.30)	3.15 (09.66)	3.21 (06.14)	7.30 (05.54)	7 (02.38)
4-5	--	--	--	--	--	--
5 & above	1 (02.50)	4.50 (22.86)	3.28 (10.06)	7.78 (14.88)	35.00 (26.57)	8 (02.72)
Total	40	19.68	32.60	52.28	131.69	294

Figures in brackets represent percentages to totals.

The table shows that out of 40 units, 23 (i.e.) 57.5% are very small units with investment below Rs 1 lakh except one unit. The remaining 43% has investment ranging between Rs. 2 to 4 lakhs. Of the 274 persons, 41.8% is employed in the small units. In this industrial group the percentage of investment on building and machinery is comparatively more with 62.3% indicating the mechanical requirement of the industry.

The details of the industry group basic metals and alloys are given in table 4.10.

TABLE 4.10  
MANUFACTURE OF BASIC METAL AND ALLOYS - CAPITAL, PRODUCTION AND EMPLOYMENT

Capital	Number of Units	Capital Investment (Rs. in lakhs)		Total	Production (value in lakhs)	Number of persons employed
		Lands and Building	Machinery and equipments			
Below 1	19 (42.22)	8.00 (10.83)	4.13 (04.61)	12.13 (07.42)	101.45 (09.15)	104 (25.61)
1-2	5 (11.11)	4.76 (06.44)	1.30 (01.45)	6.06 (03.71)	162.00 (14.62)	33 (08.12)
2-3	8 (17.77)	11.52 (15.60)	6.98 (07.80)	18.50 (11.32)	89.75 (08.10)	75 (18.47)
3-4	5 (11.11)	12.72 (17.22)	4.10 (04.58)	16.82 (10.30)	123.52 (11.15)	48 (11.82)
4-5	--	--	--	--	--	--
b & above	8 (7.77)	36.83 (49.88)	72.95 (81.54)	109.78 (67.23)	630.87 (56.95)	146 (35.96)
Total	45	73.83 (45.20)	89.46 (54.80)	163.29	1107.59	406

Figures in brackets represent percentages to totals.

It is evident from the table that 42.2% of the units are very small units with less than Rs 1 lakh capital investment and 7.17% of the units are large units with more than 5 lakhs investment. In this industrial group also, machinery requirements are comparatively higher which 54.8% large units and small units employ 61% of the total worker employed in these units.

#### **IV. Efficiency Ratios :**

The performance of any industry can be found out from the efficiency ratios of capital-output, capital-productivity, labour-productivity and capital-labour ratio. These ratios are presented in table 4.11.

TABLE 4.11  
EFFICIENCY RATIOS

Major Industries	Output-capital ratio	Capital-output ratio	Output-Labour ratio	Capital-Labour ratio
1. Foundry Units	4.3075	0.2321	1.3676	0.3175
2. Electric Motor	5.3285	0.1876	1.6279	0.3055
3. Wet Grinder	5.8544	0.1708	1.0464	0.1787
4. Chemical & Chemical Products	6.9704	0.1434	1.4528	0.2084
5. Manufacture of Paper, Paper products & printing	2.5190	0.3969	0.812	0.3223
6. Manufacture of Non-metallic mineral products	2.5189	0.3969	0.4479	0.1778
7. Manufacture of Basic metal & alloys	6.7829	0.1474	2.7280	0.4021

The industry group chemical and chemical products, basic metals and alloys have high capital-output ratio, indicating that the capital productivity is comparatively higher than the other industry group. In paper and paper products and non-metallic mineral products the capital productivity is less.

The capital requirement is high in paper products and non-metallic mineral products and it is less in other products. Labour productivity is high in all the industry groups except paper products and non-metallic products. Capital and labour is high only in basic metal and alloy group. The ratios also indicate the capital and labour intensity of the units.

#### V. Production Function Analysis:

In order to assess the extent of relationship between capital and labour employed and value of production and to examine the elasticity of output to factor inputs, Cobb-douglas production function of the form

$$y = AK^{\alpha} L^{\beta} \text{ was fitted}$$

K = capital investment

L = Labour employed

$\alpha, \beta$  = capital, labour coefficient.

The equation obtained are:

$$\text{All industries } y_1 = .9465 K^{1.512} L^{-.637}$$

(1) Foundary units:

$$y_2 = .906 K^{.689} L^{.434}$$

(2) Electric motor :

$$y_3 = 1.07 K^{-.221} L^{1.78}$$

(3) Chemical and chemical products :

$$y_4 = 1.012 K^{.024} L^{1.1665}$$

(4) Paper and paper products :

$$y_5 = 1.01 K^{.136} L^{1.08}$$

(5) Non metallic mineral products :

$$y_6 = 1.117 K^{.0027} L^{1.379}$$

(6) Basic metal and alloys:

$$y_7 = .0143 K^{.541} L^{.752}$$

TABLE 4.12  
PRODUCTION FUNCTION

S.NO.	Description	Initial Co-efficient	Capital Co-efficient	Labour co-efficient	R
1.	All Industries	.9465	1.512 t1=2.15 *	-.637 t2= -.73	.98
2.	Foundary Units	.906	.689 t1=1.27	.434 t2=.558	.96
3.	Electric Motor	1.07	-.221 t1=-.579	1.78 t2=3.47 *	.99
4.	Chemical & chemical Products	1.01	.136 t1=.074	1.08 t2=3.08 *	.984
5.	Paper & paper Products	1.01	.136 t1=.23	1.08 t2=1.349	.976
6.	Non-metallic mineral products	1.117	.0027 t1=.005	1.379 t2=1.559	.963
7.	Basic metal & alloys	.0143	.541 t1=1.01	.752 t2=1.84	.995

\* Highly significant.

The exponent values of capital and labour represent the elasticities of production to factor inputs. As for as all industry groups are concerned in response of production to capital is positive with 1.512, explaining that one unit of capital is expected to increase output by 1.512 units. But the labour contribution is negative.

Industry wise production function explains that for chemicals, paper products, electric motor and non-metallic products, the response of output to labour is greater than one and for the others it is less than one. The capital contribution is comparatively less in all the units statistically, also the impact of capital is not significant (from the 't' values ). But for capital for all industries, the capital co-efficient is significant. All the estimated relations have very high  $R^2$  values indicating the dominance of capital and labour in the production process. In general the returns to the factors are increasing capital from the sum of the exponents of capital and labour.



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## *SUMMARY AND CONCLUSION*

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## V. SUMMARY AND CONCLUSION

The data on production, capital and employment of 347 small scale units were collected from the District Industrial Centre of Coimbatore was analysed with percentages, ratios and regression equations. The following are the findings of the study.

### **General information:**

(1) There were 11,735 units of which Coimbatore corporation alone had accounted for about 40%. In Tirupur and Palladam taluks 3,620 units were located of which 2,538 units were Hoisery units.

(2) Of the total units, Hoisery units alone accounted for about 20% in the district.

(3) In Coimbatore corporation there were 347 units with lines of production as Foundary, Electric motor, Wetgrinder, Chemical products, Paper products, Nonmetallic minerals, Basic metals of which Electric motors and Basic metals constituted 45%.

(4) The metal and alloys group accounted for about 22.7% of the total capital investment, followed by electric motors with 22.36% and foundary units of 21%. The value of production of metal and alloys group had a share of 31% followed by electric motors and foundary units. These three industry groups had an employment potential of 57% of the

total workers. (2,440 workers)

(5) In all the units nearly 60% of capital investment was on land and buildings and 40% was on building and machinery. In the foundry units 60% were very small and large units with below Rs. 1 lakh investment and above Rs. 5 lakhs investment. In the industry group 70% of the total production was contributed by the small and large units.

(6) Small and large foundry units had employed 59% of the total workers in the industry group.

(7) In Electric motor industry group 58% were small units with less than Rs 1 lakh investment and 9 units had investment more than Rs 5 lakhs. But these units constituted 38% of the total capital investment in that industry group. The small units in this groups are provided jobs to 38% of the total workers employed in this industry category group.

(8) There were only 15 wet grinder units. All of which had investment below Rs 3 lakhs.

(9) In the chemical products industry group, 67% of the units had capital investment below Rs 1 lakh, contributed 15% of the total production and 7% of the units had capital investment above Rs 5 lakhs, but contributed 63% of the production. The small units employed 49% of the total worker in that industry group.

(10) Of the total 67 units in the paper products group, 76%

had capital investment below Rs 2 lakhs, employed 56% of the total workers in that industry group and only 4 units had investment above Rs 5 lakhs. In this industry group, of the total investment 55% was on plant and machinery.

(11) Out of 40 units in non-metallic mineral products, 57.5% were small units with investment below Rs. 1 lakh. This industry had a high employment potential. Of the total investment, 62.3% was on plant and machinery.

(12) In the Basic metal alloys group, 42.2% were very small units with less than Rs 1 lakh investment and 7% of the units were large units with more than Rs 5 lakhs investment. In this industry group also, 55% of investment was on plant and machinery. The small units in the industry group had employed 61% of the total worker in the industry group.

(13) The industry group, chemical, basic metals had a high capital productivity. Paper and paper products, non-metallic products had low capital productivity. Labour productivity was high in all the industry group except paper products and non-metallic products. The capital - labour ratio was high in basic metal and alloy group.

(14) All industrial groups had high elasticity of production with respect to capital and negative labour elasticity coefficient. Chemical products, paper products and electric motor had a high labour response of output for the individual group a capital contribution was comparatively less.

(15) All industry groups had increasing returns for the factors (from the sum of the exponents of capital and labour)

### Conclusion

Small scale industrial units plays a vital role in the industrial development of Coimbatore District. The economic performance is satisfactory if the returns are fair for the factors capital and labour. The very small units have a high employment potentials, and hence a special attention can be given for this units. The economic viability of these small scale industrial units indicate that there is further scope for the diversification and expansion of the industry.



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