

CHAPTER – 4

SOCIAL PROFILE OF ENTREPRENEURS AND THEIR PERFORMANCE

Introduction

Different studies conducted at different times stressed the need for the study the social profile of the entrepreneurs. Pareek and Nandkarni (1979) observed that the four factors influencing entrepreneurial growth are the individual, socio-cultural tradition, support system and environment.⁸¹ The study conducted by Sharma and Singh (1985) revealed that caste background and family background of entrepreneurs had a significant influence on the performance of the entrepreneurs. They also found that government facilities are enjoyed largely by people with business background. In a study of 125 entrepreneurs in Kolhapur⁸², S.G.Bhanushali (1987), found that caste, education and parental occupation had great impact on attaining higher degree of entrepreneurial success⁸³.

The success of any entrepreneurship, as history shows, varies from area to area, community to community and people to people. For example, Tatas, Birlas and Ambanees (all from parsee community) are successful in heavy industries, Shettys from Andhra Pradesh are in gold and jewellery business, Bhand / Shets of Dakshina

⁸¹ Pareek and Nandkarni.(1979),”Counseling and Helping Entrepreneurs in Ahmedabad”,B.R. Publishing corporation, New Delhi, p.181.

⁸² . Krishnalal and Sharma. (1980), “Entrepreneurial Growth and Development Programmes in Northern India- A Sociological Analysis”, Abhinav Publications, New Delhi, p.13&18.

⁸³ S.G.Bhanushali.(1987), “Entrepreneurship Development”, Himalaya Publishing House, Bombay, p.101.

Kanada district are in hotel business (Non- vegetarian) and Kamath and Udupi Brahmins are successful in hotel business (Indian cuisine only)⁸⁴.

Entrepreneurship in India is even today prerogative of a section of the society. This class is the major beneficiaries of entrepreneurial schemes and programmes of the government and financial institutions. It has been proved time and again that those who have come from trade and industrial background get easy access to non-institutional finance, but those who have come from professional background mainly depend on institutional finance. Sadhak (1989) found that entrepreneurs who were formerly traders had better access to financial resources than technical or professional entrepreneurs⁸⁵. Manohar U. Deshpande (1989) found that the institutional agencies with such as IDBI, SFCs and commercial banks created by the government to help prospective entrepreneurs were not successful in developing entrepreneurs from all castes in the Marathwada region of Maharashtra state⁸⁶.

It is in the light of above analysis the study of the social background of entrepreneurs assumes importance. The knowledge of socio-economic factors is, therefore, of great help in formulating future policy regarding schemes of financial assistance, concessions, subsidiaries etc. In this present study some of the socio-economic factors like age, marital status, mother tongue, religion, location of the enterprise, family background, educational level, and the factors which motivate them to become entrepreneurs have been considered. The study has revealed the following details on the social profile of the entrepreneurs covered in the study.

⁸⁴ Anitha, H.S.(2003): "Entrepreneurship Development Role of Commercial Banks", Mangal Deep Publications, Jaipur.

⁸⁵ Sadhak, H. (1989) "Role of Entrepreneurs in Backward Area", Daya Publishing House, New Delhi, p.112.

⁸⁶ Manohor, U. Deshpande. (1989): "Entrepreneurship of Small Scale Industry- Concept, Growth, Management", New Delhi: Deep and Deep publications, p.67.

Sex wise classifications of the entrepreneurs

The sex- wise number of the entrepreneurs interviewed under the study is shown in Table 4.1.

Table- 4.1

Sex-wise classifications of the entrepreneurs

Sex	No. of entrepreneurs	Percentage
Male	114	77.02
Female	34	22.98
Total	148	100

Source: Survey Data.

Table 4.1 reveals that out of 148 entrepreneurs' 114 entrepreneurs representing 77.02 percent are male and remaining 34 representing 22.98 percent are female.

Age wise distribution of the entrepreneurs

The age of entrepreneurs holds much importance in the entrepreneurial success. The age group of the entrepreneurs is engaged in different types of entrepreneurial activities in the study area is shown in the Table - 4.2.

Table - 4.2

Age wise distribution of the entrepreneurs

Age (Years)	No. of Entrepreneurs	Percentage
Less than 35	30	20.27
36-45 years	72	48.65
Above 45 years	46	31.08
Total	148	100

Source: Survey Data.

Table- 4.2 shows that out of 148 entrepreneurs under study, majority i.e. 72 entrepreneurs are in the age group 36-45 years, 46 entrepreneurs are above 45 years and 30 are in the age group of less than 35 years.

Marital status of the entrepreneurs

Out of 114 were males, 102 were married and 12 were unmarried and out of 34 female, 24 were married and 10 were unmarried. The Table 4.3 shows the marital status of entrepreneurs:

Table - 4.3

Marital status of the entrepreneurs

Marital status	Sex				Total no. of Entrepreneurs	Percentage to total Entrepreneurs
	Male	Percent age	Female	Percentage		
Married	102	68.92	24	16.22	126	85.14
Un-married	12	08.10	10	06.76	22	14.86
Total	114	77.02	34	22.98	148	100

Source: Survey Data

Religion of the entrepreneurs

The entrepreneurs in the study area belong to different religion. Table - 4.4 reveals the religion of the entrepreneurs under the study.

Table - 4.4

Religion of the entrepreneurs

Name of the Religion	No. of Entrepreneurs	Percentage
Hinduism	75	50.67
Islam	64	43.24
Christian	09	06.08
Total	148	100

Source: Survey Data

Table 4.4 reveals that out of 148 entrepreneurs covered under the study, 75 entrepreneurs are Hindu, 64 Islam and only 09 Christian.

Mother tongue of the entrepreneurs

Mother tongue wise classification of the entrepreneurs is shown in Table 4.5

Table 4.5

Mother tongue of the entrepreneurs

Mother Tongue of the Entrepreneurs	No. of Entrepreneurs	Percentage
Bengali	122	82.43
Hindi	18	12.16
Manipuri	04	02.70
Bishnupriya Manipuri	04	02.70
Total	148	100

Source: Survey Data

Table - 4.5 shows that out of 148 entrepreneurs under study, the mother tongue of the majority of the entrepreneurs i.e. 122 were Bengali.. The number of Hindi, Manipuri and Bishnupriya Manipuri speaking entrepreneurs was 18, 04 and 04 respectively.

Caste-wise distribution of the entrepreneurs

The community system has been found to be exercising its own impact on the occupational mobility. The entrepreneurs under study has been classified on the basis of caste/ category as shown in the table - 4.6

Table 4.6
Caste-wise distribution of entrepreneurs

	No. of Entrepreneurs	Percentage
General	100	67.57
Schedule Caste	16	10.81
Schedule Tribe	11	07.43
Other Backward Class	21	14.19
Total	148	100

Source: Survey Data

Table - 4.6 reveals that out of 148 entrepreneurs under study, majority of them i.e. 100 are General followed by 21 OBC and 16 belong to Scheduled Caste and 11 Scheduled Tribe.

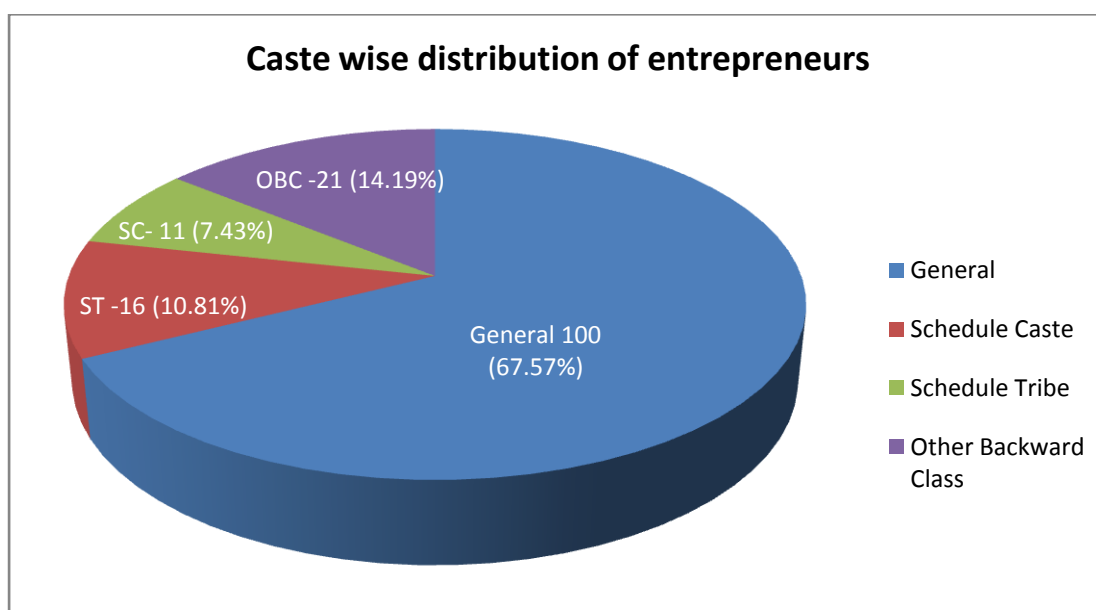


Fig – 4.1 Category-wise distributions of entrepreneurs

Family background of entrepreneurs

The influence of family background of the entrepreneurs has been great impact on the selection of entrepreneurial units by the up coming entrepreneurs. Several research studies. Study conducted by Manohar U. Deshpande (1989), revealed that caste, family occupation and fathers occupational status are important for entry into the business of manufacturing⁸⁷. But, several studies have revealed that entrepreneurs are increasingly emerging from diverse social groups.

The family background of the entrepreneurs covered under the study is shown the Table- 4.7.

Table 4.7

Present area of entrepreneurship and family background

Present area of Entrepreneurship	No. of Entrepreneurs	Family background		
		Agriculture and Allied Sector	Industrial Sector	Trade and Service Sector
Agriculture and Allied Sector	57	35	02	20
Industrial Sector	21	04	15	02
Trade and Service Sector	70	12	5	54
Total	148			

Sources: Survey Data

Table 4.7 reveals that majority of the entrepreneurs in a particular area of business comes from the same area in which their family members were accustomed.

⁸⁷ Manohar, U. Deshpande. (1989): "Entrepreneurship of Small Scale Industry- Concept, Growth, Management", p.57

Thus the family background of 35 out of 70 entrepreneurs doing business in agriculture and allied sector remains the same i.e. agriculture and allied sector. This is also true for the majority of entrepreneurs in industrial sector and in trade and service sector. But many entrepreneurs started their business in a sector which is different from their family business/ occupation. Thus, it can be safely stated that family background does not hold much importance in the selection of entrepreneurial units by the entrepreneurs.

Factors motivating an entrepreneur

A man is very much influenced by the environment in which he lives. As such the ambition or aspiration, compelling factors and facilitating factors make an entrepreneur. Ambitions or aspirations motivate men, activates them, broaden their vision and make the life meaningful. Various ambitions which motivate a person to become an entrepreneur is desire to achieve something in life, need for financial independence, desire to get gainfully occupied, to gain social prestige, continuing family business, etc., Ashok Kumar (1997), in his study on the entrepreneurship in small industry in two industrial estates of Andhra Pradesh, found that the ambition of becoming self reliant was ranked first and ambition of giving shape to their ideas skills received second rank. To make money, to continue the family business and gaining social prestige and power are the other influencing factors⁸⁸.

Ambitions or compulsion alone may not make an entrepreneur. At times, the encouragement of family members, friends and relatives, the experience gained in employment, the skill acquired or inherited, availability of finance from banks and

⁸⁸ Ashok Kumar (1990): Entrepreneurship in small industries” KSFC Head Office, Bangalore, p. 72

financial institutions, subsidies and concessions given by the government, success of others etc., also facilitate the exercise of entrepreneurship.

In the present study, the entrepreneurs surveyed were asked to rank the different factors which motivated them to become entrepreneurs in the order of importance listed in the Table - 4.13. The factors indicated by them were rated by weighted score by assigning 3 points to the factor ranked first, 2 points to the factor ranked second and 1 point to the factor ranked third. The Table 4.8 shows the different factors which motivated the entrepreneurs under the study to build up their career in entrepreneurship.

Table - 4.8

Factors motivating the entrepreneurs

Motivating Factors	1 st preference		2 nd preference		3 rd preference		Total weighted score	Rank
	No. of Entrepreneurs	Weighted score	No. of Entrepreneurs	Weighted score	No. of Entrepreneurs	Weighted score		
To solve the unemployment problem	30	90	28	56	25	50	196	II
Influence from others success	16	48	16	32	18	36	116	IV
Desire to get social status	05	15	09	18	16	32	65	VI
Need for financial independence	63	189	53	106	46	92	387	I
Desire to achieve something in life	17	51	13	26	21	42	119	III
Influence from EDP	10	30	19	38	14	28	96	V
Availability of subsidy	07	21	10	20	08	16	57	VII
Total	148		148		148			

Source: Survey Data.

Table - 4.8, it was observed that need for financial independence was ranked first which had to drive majority of the entrepreneurs to the threshold of entrepreneurship with total weighted score of 387 points. The next important factor which motivated the entrepreneurs under the study was to solve the unemployment problem with total weighted score of 196 (2nd rank). Desire to achieve something was ranked third with total weighted score 119 points, influence from others success was ranked fourth with 116 points, influence from EDP was ranked as fifth with total weighted score of 96 points, desire to get social status was ranked sixth with total weighted score of 65 points and availability of subsidy was ranked as seven with 57 points. Thus, the analysis of the above table makes it clear that among various factors which motivated the entrepreneurs under the study, need for financial independence was the main motive of most of entrepreneurs to take up entrepreneurship as the means of employment.

Educational level of the entrepreneurs

Education has always been considered as an important asset of an individual in building his occupational career in a bureaucratized society. Several studies on entrepreneurship have examined the relationship between levels of education on entrepreneurial growth. A.S.Rao (1991), in a study of chemical industries in Baroda city, found that the firms owned by graduates and entrepreneurs with technical background are better than other firms⁸⁹. Table - 4.9 shows the education level of entrepreneurs under study in Hailakandi district.

⁸⁹ Rao, A.S. (1991). *Entrepreneurship and Performance of Enterprises- A Case Study of Chemical Industry*”, Anmol Publications, New Delhi, p.240.

Table 4.9

Level of education of entrepreneurs

Level of Education	No. of Entrepreneurs	Percentage
Under Metric	37	25.00
Matriculate	48	32.43
Higher Secondary.	32	21.62
Graduate and above	31	12.62
Total	148	100

Source: Survey Data

Table - 4.9 shows that out of 148 entrepreneurs under the study, the majority of the entrepreneurs i.e., 37 are under metric, 48 Matriculate ,32 Higher Secondary, 28 Graduate and above. Only 03 entrepreneurs have Technical education.

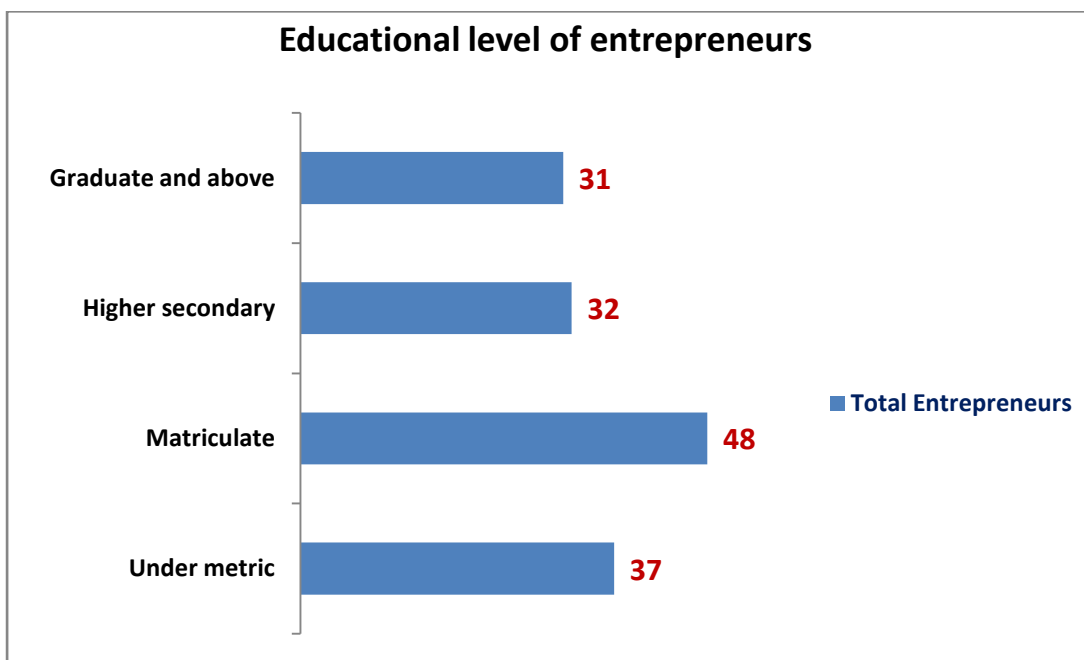


Fig – 4.2, Educational level of entrepreneurs

Number of enterprises established in different years by the entrepreneurs under study

The entrepreneurs under the study established number of entrepreneurial units during the period 2003-2004 to 2007-2008. Table 4.10 shows the number of enterprises set up the entrepreneurs in different years.

Table 4.10

Year-wise number of enterprises established by the entrepreneurs

Year	No. of entrepreneurs	Percentage
2003 – 2004	27	18.24
2004 – 2005	31	20.95
2005 – 2006	26	17.57
2006 – 2007	38	25.67
2007 – 2008	26	17.57
Total	148	100

Source: Survey Data.

Table 4.10 reveals that highest 38 enterprises were established in the 2006-07, followed by 31(20.95 percent) in 2004 – 2005, 27 (18.24 percent) in 2003-2004, 26 (17.57 percent) in 2005-06 and 26 (17.57 percent) of each in 2005-2006 and 2007 – 2008.

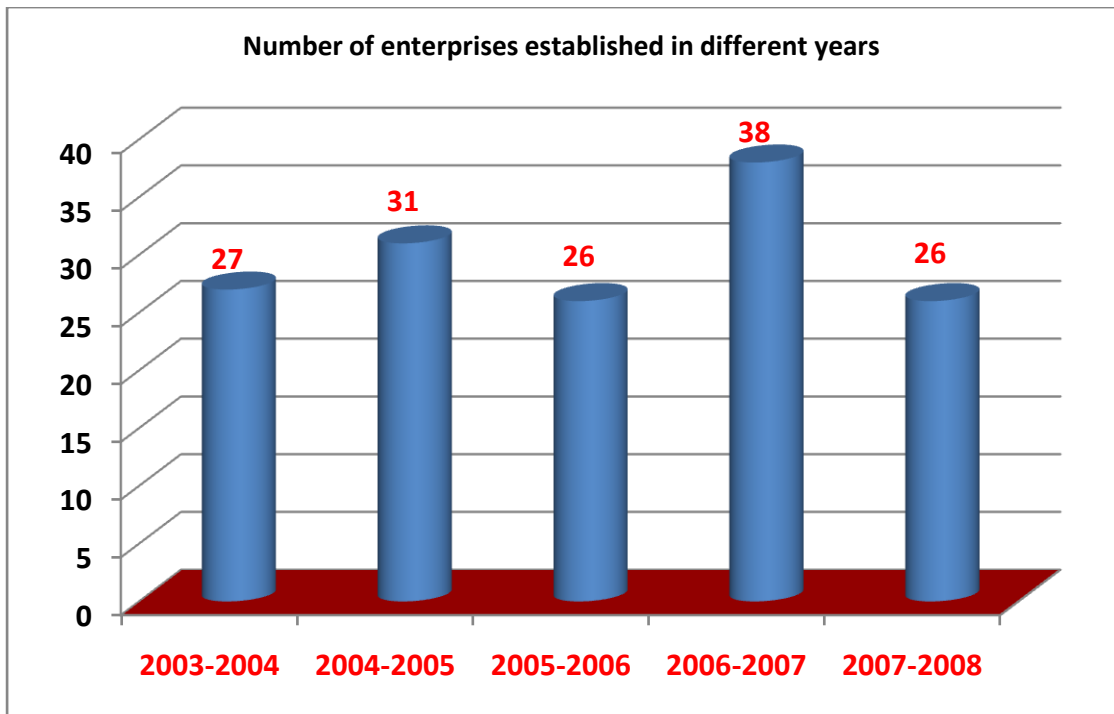


Fig – 4.3, Year-wise number of enterprises established by the entrepreneurs

Type of activities undertaken by the entrepreneurs in their entrepreneurial units

Different types of entrepreneurial unit are set up by the entrepreneurs under the study. The most common activities undertaken by the 32 (21.62%) entrepreneurs engaged in agriculture and allied sector are piggery, fishery, poultry and goatery. In regard to the 50 (33.78%) entrepreneurs engaged in industry sector, weaving, knitting, tailoring, electronics repairing, steel fabrication, jute diversified, bamboo mat and incense sticks, ventilator industry, brick industry, wood furniture, vehicle workshop, cane industry, ice-cream industry, hood industry and bag industry are the main economic activities while the activities related to the trade and service sector in which 66 (44.60%) entrepreneurs under study involved are grocery shop, pharmacy, stationery shop, auto spare part shop, book stall, cloth shop, hardware shop, computer printing- cum- training institute, zerox, hotel / restaurant, beauty parlor, electrical store, auto rickshaw and pick up van.

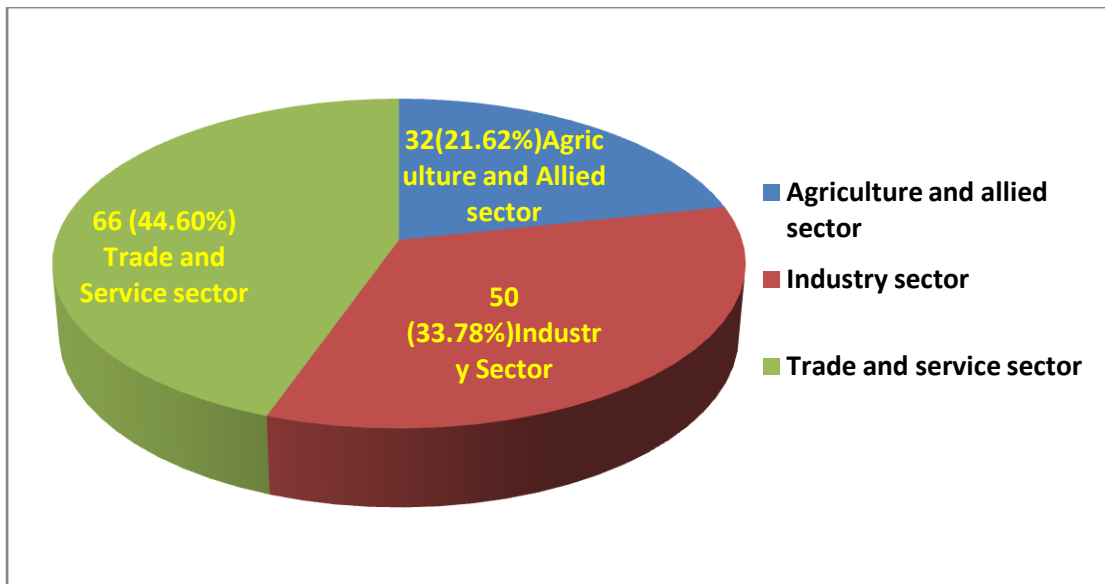


Figure 4.4 Sector-wise representation of the sample.

Reasons for the selection of the present industry line

To know the reasons for choice of present industry line under the study is shown in Table - 4.11. Out of 148 entrepreneurs, 55 were in favour of high profit margin as the reason for starting the present unit. 43 present line due to select the previous experience in present line of unit, 19 selected present line due to the technical knowledge, 18 entrepreneurs choice present business like as it is of easy to start and only 13 were any other reason to select the present line of industry.

Table 4.11

Reason for the choice of present line of industry

Reasons for Selection	No. of Entrepreneurs	Percentage
Easy to start	18	12.16
High growth or profit chances	55	37.16
Previous experiences	43	29.05
Technical knowledge	19	12.84
Any other reason	13	08.78
Total	148	100

Source: Survey Data

Performance of entrepreneurs

The performance of the entrepreneurs can be best measured by analysing the yearly changes in the production, turnover, net profit earned, profits re-invested into the entrepreneurial activities. Effectiveness of small enterprises depends upon the entrepreneurial and managerial capabilities of those involved in the business.

Changes introduced by the entrepreneurs

The change in the enterprises may take the form of addition of new product or service, improvement of the existing product or service, installation of modern machinery, establishment of a new unit etc. Peter Drucker (1991) defines an entrepreneur as one who always searches for changes, responds to it and exploits it is an opportunity⁹⁰. It is, therefore, required on the part of the enterprises to search purposefully the source of innovation and the opportunities. Table – 4.12 deals the changes introduced by the entrepreneurs. It reveals that highest 32 entrepreneurs installed modern machinery, 28 improved their existing product, 23 added a new product to their enterprise, 18 establishment of new unit whereas 17 expanded their units. 30 entrepreneurs made no changes in their activities after establishment of the unit.

⁹⁰ Peter F. Drucker.(1991):” Innovation and Entrepreneurship- Practice and Principles”, East and West Press Pvt. Ltd. New Delhi, p.19

Table – 4.12

Changes introduced by the entrepreneurs

Type of Changes Introduced	No. of Entrepreneurs	Percentage
Addition of new product	23	15.54
Improvement of existing product	28	19.92
Expansion of unit	17	11.49
Installation of modern machinery	32	21.62
Establishment of new unit	18	12.16
No changes	30	20.27
Total	148	100

Source: Survey Data.

Production capacity utilisation by entrepreneurs

The change in production by the entrepreneurs in different years covered in the study is one of the parameter for measuring performance of the entrepreneurs. Table – 4.13 shows the production capacity utilisation by entrepreneurs those who have borrowed loan and those who are not borrowed from commercial banks in different years under the study i.e. 2003-04 to 2007 - 2008.

Table – 4.13

Year-wise and activity-wise production capacity and production of the enterprises

Sequence of the year	No. of Machine used	No. of Employees	Production Capacity (in Rs.)	Production (in Rs)	Average production(in Rs)	Capacity utilisation (in	No. of Entrepreneurs
First	08	149	1,53,00,000	1,27,56,000	86190	88.37	148
Second	11	151	1,88,50,000	1,68,05,000	127432	89.15	146
Third	14	151	1,64,59,000	1,32,41,000	95949	80.44	138
Fourth	16	138	1,58,00,000	1,28,12,000	97060	81.08	132
Fifth	18	139	1,58,29,000	1,30,70,000	100538	82.56	130
Total	-----	-----	8,22,38,000	6,86,84,000		83.51	

Source: Survey Data

Table 4.13 reveals that on the average 83.51 percent of the total production capacity was utilised by the entrepreneurs within a period five years. In other words, the entrepreneurs produced goods and services amounting Rs .6, 86, 84, 000 out of total capacity of Rs. 8, 22, 38, 000. There is variation of percentage of total capacity utilisation in the five year period which ranges in between 80.44 to 89.19. The number of machines utilised by them has also increased from 8 in the 1st year to 18 in the 5th year. The number of employees in the 1st year was 149 but due to the failure of some units it came down to 139 in the 5th year. It is revealed that production by the entrepreneurs was highest in the second year, then after production decreased in the third and fourth year but again increased in the fifth year. The average production of the entrepreneurs was the highest in the 2nd year. The average production ranges in between Rs 86190 to Rs 127432.

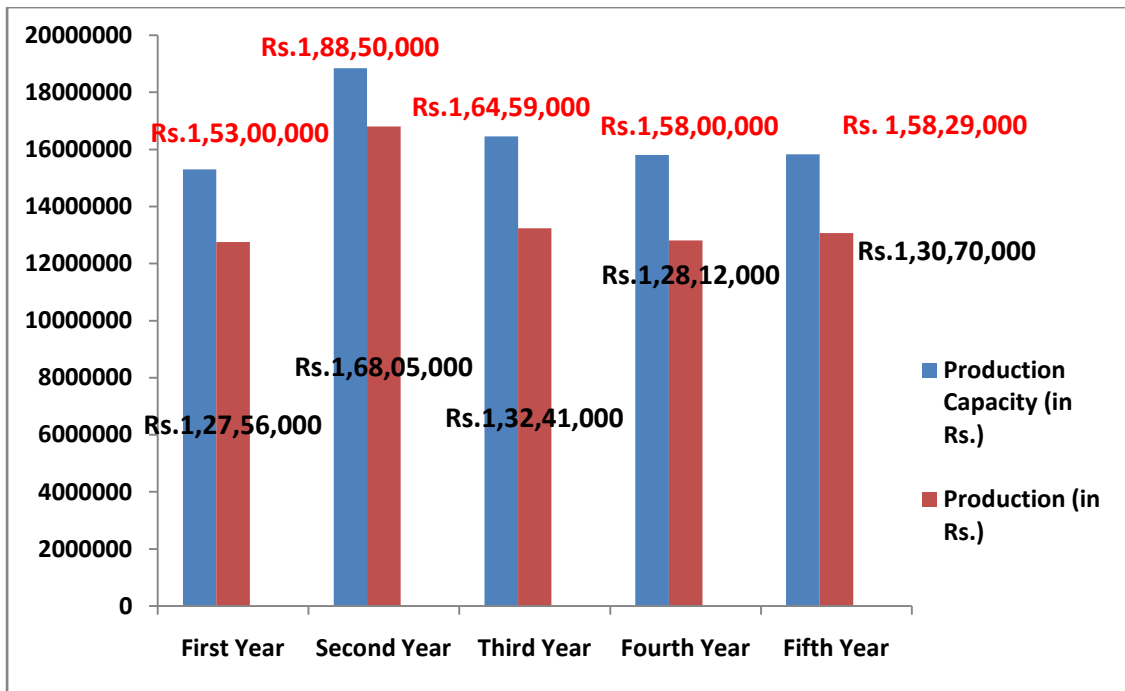


Fig – 4.5, Year-wise and activity-wise production capacity and production of the entrepreneurship activities

Turnover of the entrepreneurial activities

Turnover is considered as one of the criteria for measuring the performance of the entrepreneurship activities. The turnover of the entrepreneurs in the year 2003-04 to 2007-08 is shown in the Table – 4.14.

Table 4.14

Year-wise and activity-wise turnover the entrepreneurship activities

Sequence of the year	Turnover (in Rs)	Average turnover	Total Entrepreneurs
First	1,75,46,950	1, 18, 561	148
Second	1,95,00,500	1, 33, 565	146
Third	1,91,50,000	1, 38, 768	138
Fourth	1,87,60,000	1, 42, 121	132
Fifth	1,86,00,800	1,43, 083	130
Total	9,35,58,250	-----	-----

Source: Survey Data

Table – 4.14 reveals that total turnover within a period of five years was Rs. 9, 35, 58,250. The turnover in the first year was Rs.1, 75, 46, 950 by 148 entrepreneurs, Rs. 1, 95, 00,500 in the second year by 146 entrepreneurs, Rs. 1, 91,50,000 in the third year by 138 entrepreneurs, Rs. 187, 60,000 in the fourth year by 132 entrepreneurs and Rs. 1, 86, 00, 000 in the fifth year by 130 entrepreneurs. It is cleared that the total turnover of the entrepreneurs increased in the second year Rs. 1, 95, and 00,500 as compared the first year Rs.1, 75, and 46,950 but, from the third year the total turnover has decreased every year. Thus, it can be stated that the performance during the five years showed poor performance.

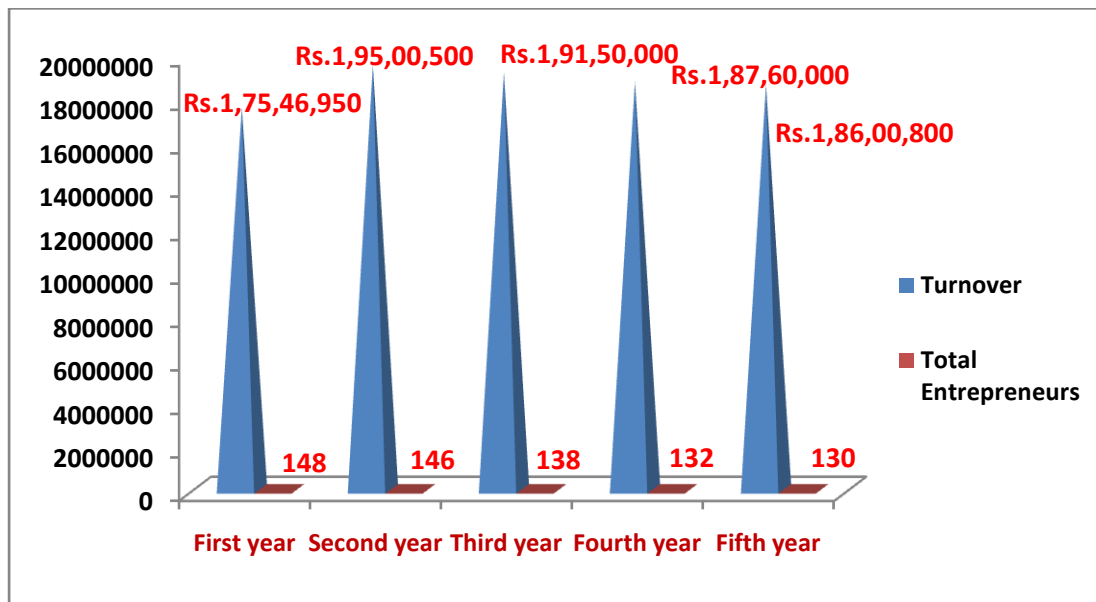


Fig 4.6, Year-wise and activity-wise turnover the entrepreneurship activities

Profit of the entrepreneurial activities

The profit earned by the entrepreneurs from their activities during five years is another important parameter to analyse the performance of the enterprises. It needs to be mentioned, here, that profit means net profit i.e. sales minus cost of production minus other expenses. The profit earned by the entrepreneurs under the study is shown in the Table – 4.15

Table 4.15

Year-wise and activity-wise profit of the entrepreneurship activities

Sequence of year	Profit (in Rs)	No. of Entrepreneurs	Average profit (in Rs)
First	48,27,926	148	32,622
Second	44,20,000	146	30,274
Third	51,00,000	138	36,957
Fourth	43,00,000	132	32,575
Fifth	44,00,500	130	33,850
Total	2,30,48,426		

Source: Survey Data

Table – 4.15 reveals that total profit earned by the entrepreneurs from their enterprises in the subsequent years except increased in the third year (Rs.51, 00, 000 and average Rs. 36, 957) as compared to the first year (Rs. 48, 27,926 and average Rs. 32, 622). The table also reveals that the profit earned by the entrepreneurs decreased every year up to the fifth year in comparison to the profit earned in the first year. Thus, it can be stated that the entrepreneurs engage their enterprises shown poor performance.

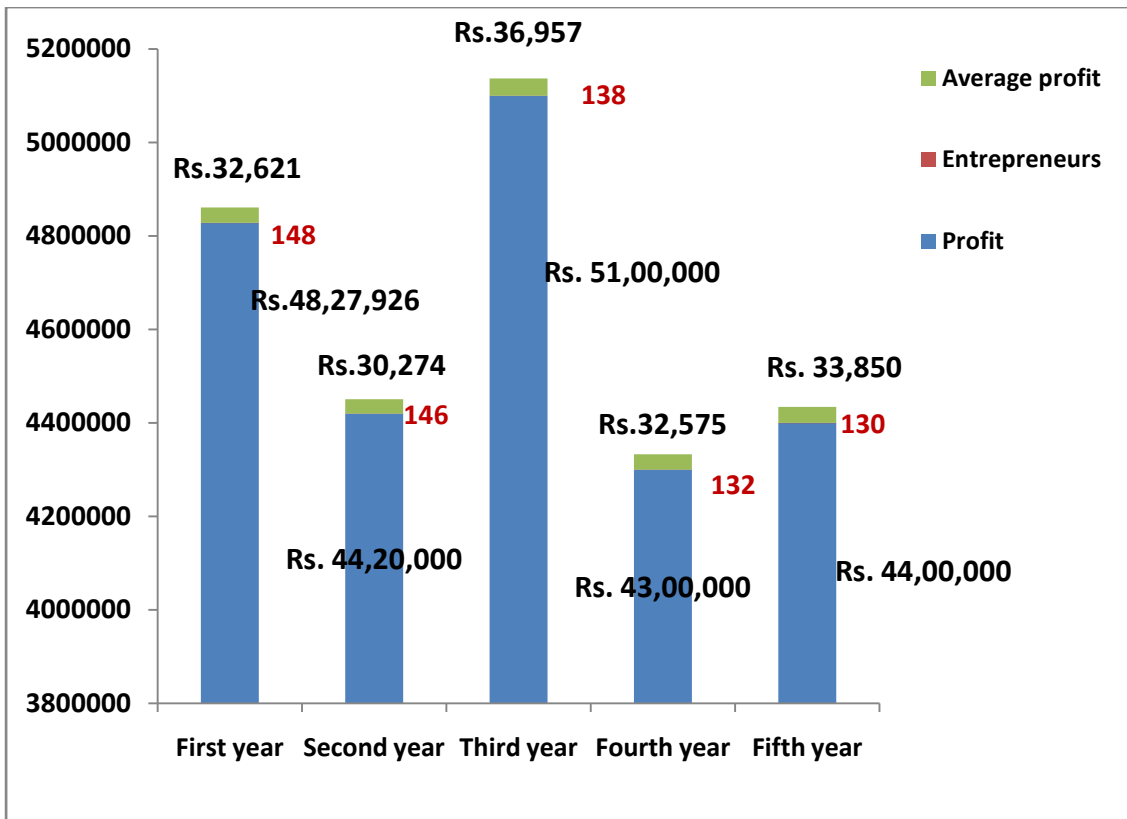


Fig- 4.7, Year-wise and Activity-wise profit of the Entrepreneurship activities

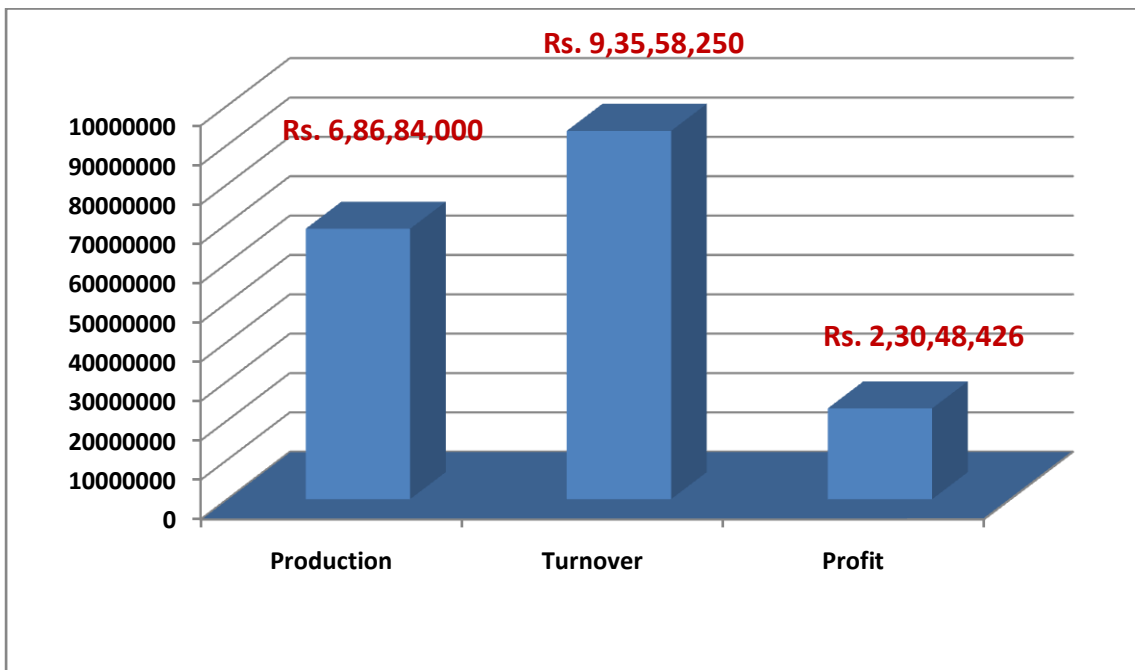


Fig 4.8: Activity wise Production, Turnover and Profit.

Return on investment

The performance of an entrepreneur can be measured on the basis of the return on capital employed. Table 4.16 reveals average annual return range on investment.

Table - 4.16
Return on investment

Range of Average Annual Return	No. of Entrepreneurs	Percentage
5 - 10 percent	39	26.35
11 - 15 percent	30	20.27
16 - 20 percent	22	14.86
21 - 25 percent	23	15.54
Total (A)	114	77.02
No profit and no loss	06	04.05
Loss	07	04.72
Refused to give details	21	14.19
Total (including A)	148	100

Source: Survey Data.

Table - 4.16 reveals that 114 (77.02 percent) out of 148 entrepreneurs reported their units earned profits. Among of these, highest 39 entrepreneurs earned an average of 5-10 percent on their investments, followed by 30 earned 11-15 percent, 23 earned 21-25 percent and 22 earned 16 - 20 percent on their investments whereas, 06 entrepreneurs were running their units on no profit no loss basis, 07 running under loss and 21 have either refused to give the data..

Educational level and type of ownership

The educational level sometimes influences the choice of the form of organization.

Table – 4.17

Educational level and type of ownership

Educational level	Form and Type of Ownership						Total	
	Sole Proprietorship		Partnership		Joint Stock Company			
	No.	%	No.	%	No.	%	No.	%
Under metric	37	100	---	---	---	---	37	100
Matriculation	34	100					34	100
Higher Secondary	18	43.90	23	56.10			41	100
Graduate and above	11	30.31	25	69.94			36	100
Total	100		48		-----	-----	148	100

Source: Survey Data.

Table 4.17 reveals that with increase in educational level the entrepreneurs moves from sole proprietorship to partnership business. Thus all entrepreneurs with lesser educational level- under metric and matriculation- restricted their business to sole proprietorship/ family business .Entrepreneurs with higher educational level in higher percentage go towards forming partnership business, Thus 56.10 percent of H,S passed and 69.94 percent of graduate and above passed entrepreneurs formed partnership business.

Educational level and marketing area

Education is helping the entrepreneurs to widen their marketing area.

Table – 4.18

Educational level and marketing area

Education	Marketing Area						Total	
	Local		State		National			
	No	%	No.	%	No.	%	No.	%
Under metric	30	81.08	04	10.81	03	08.11	37	100
Matriculate	34	100		00	00	00	34	100
Higher Secondary	22	53.66	12	29.27	07	17.07	41	100
Graduate and above	16	44.45	15	41.67	05	13.89	36	100
Total	102		31		15		148	100

Source: Survey Data.

No trend has emerged from the table-4.18 regarding the relationship between educational levels and marketing area. The share of the entrepreneurs with educational level under metric in the local market is 81.08 percent, but for matriculates, it is 100 percent. 53.66 percent entrepreneurs with higher secondary qualification, 44.45 percent of graduate and above qualified entrepreneurs have-widened their market to state or national level.

Test of null hypotheses:

Educational level and performance of the entrepreneurs

In order to examine whether performance of the entrepreneurs and their level of education dependent or not, we clubbed HSLC and below HSLC and renamed as Secondary or below. The performance of the entrepreneurs is categorized into three – High, Moderate and Low.

First of all, we set the following null hypothesis

H₀: Educational level and performance of the entrepreneurs are independent

H₁: Educational level and performance of the entrepreneurs are not independent.

Table 4.19 shows the data related to the level of education and performance of the entrepreneurs.

Table 4.19

Educational level and performance of the entrepreneurs

Level of Education	Performance			Total
	High	Moderate	Low	
Higher Education	6	20	5	31
Higher Secondary.	15	10	7	32
Secondary or below	40	30	15	85
	61	60	27	148

Source: Survey Data.

In order to find out χ^2 value, the values of E (6), E (20), E (5) etc. are calculated

$$E(6) = \frac{61 \times 31}{148} = 12.78, \quad E(20) = \frac{60 \times 31}{148} = 12.56, \quad E(5) = \frac{27 \times 31}{148} = 5.66$$

Similarly,

$$E(15) = 13.19, \quad E(10) = 12.97, \quad E(7) = 5.84, \quad E(40) = 35.03, \quad E(30) = 34.46,$$

$$E(15) = 15.50.$$

The value of χ^2 is calculated by ²

$$\chi^2 = \frac{\sum (O_i - E_i)^2}{E_i}$$

$$= 10.43$$

The table value of χ^2 at 5% level of significance for 9 d.f. is 9.49. And the calculated value is 15.35. As the table value is less than the calculated value, hence the null hypothesis is rejected. Thus we can conclude that the educational level and the performance of the entrepreneur are not independent.

Performance of the entrepreneurs and financial assistance provided by the bank

In order to test our second hypotheses, we set,

H_0 : The performance of the entrepreneurs is not dependent on financial assistance provided by the bank.

H_1 : The performance of the entrepreneurs is dependent on financial assistance provided by the bank.

For this, we have categorised our entrepreneurs into two:

- I. Entrepreneurs who have borrowed money from the bank.
- II. Entrepreneurs who have not borrowed money from the bank.

The entrepreneurs were asked to rate their performance as High, Moderate and Low. The table 4.20 shows the details

Table 4.20

Performance of the entrepreneurs and financial assistance provided by banks

	Performance			Total
	High	Moderate	Low	
Received loan from Bank	15	38	34	87
Not borrowed from Bank	30	20	11	61
Total	45	58	45	148

Source: Survey Data.

On the basis of the table, we have calculated χ^2 value.

We know,

$$\chi^2 = \frac{\sum(O_i - E_i)^2}{E_i}$$

Now,

$$E(15) = \frac{87 \times 45}{148} = 26.45, E(38) = \frac{87 \times 58}{148} = 34.09, E(34) = \frac{87 \times 45}{148} = 18.54$$

Similarly,

$$E(30) = \frac{45 \times 61}{148} = 18.55, E(20) = \frac{58 \times 61}{148} = 23.91, E(11) = \frac{45 \times 61}{148} = 18.35$$

$$\text{Now, } \chi^2 = \frac{\sum(O_i - E_i)^2}{E_i}$$

$$= 18.35$$

The table value of χ^2 at 5% level of significance for 2 d.f. is 5.99 and the calculated value of χ^2 is 18.35. As the table value is less than the calculated value, hence the null hypothesis is rejected. Thus we can conclude that the financial assistance from bank and the performance of the entrepreneur is not independent.