# CHAPTER III

## Entrepreneurship and Performance Of Enterprises

### 3.1 Entrepreneurship : Its Role in Development

The importance of entrepreneurship has been widely acclaimed for the vital role it plays in shaping the economy of underdeveloped nations. For achieving the goal of development in an underdeveloped country, the role of entrepreneur is of prime importance. Hence the quantity and the quality of entrepreneurship has vital role to play. Even though a country has all required resources its potentiality cannot be fully explored unless there is an adequate supply of entrepreneurs, who have the ability to organize the various factors of production.

It is impossible to imagine any industrial process without an entrepreneurial form. Entrepreneurship is clearly not a uniformly distributed quality, yet the appearance of the entrepreneurship is considered by most economists to be non - random. The entrepreneur may be an individual or a group of individuals. As one looks around the underdeveloped world, one finds that no ideal milieu for entrepreneurship exists, for at any given moment, the entrepreneur is playing many highly different roles. He belongs to a family, a religious sect, a political party, a kinship group, a caste and so on. These are all value determinants and constraints fashioned by his own particular world.

The industrial activity of a region is very much a part of the Socio - Economic structure of the region and is greatly influenced by it. The enterprises set up in a region, to a great extent, are the efforts of individuals or groups of individuals of that region. It has been observed by various economists and sociologists that in modern industry, unlike in the traditional industry, the inter-occupational mobility is very high. It may be right to say that opportunities for occupational mobility have increased because of growth of non - traditional activities. Sociologists are of the view that entrepreneurship can be developed and therefore neither caste, nor tradition holds back a prospective entrepreneur.

A number of social scientists have contended that the entrepreneurship is the key variable which links the socio - cultural factors with the rate of economic development. Many economists identify industrial entrepreneurship as a vital force in the process of industrialization in particular and economic development in general. "Underdevelopement cannot be identified only with the under-utilization of material resources, as it is only a symptom, under-utilization of human resources, including entrepreneurial skills is the surest diagnosis of underdevelopement[1] ....", In this regard it has to be stressed that quality of human resources, which includes among others, entrepreneurial ability, skilled man - power, the state of

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1. Bhagwati Jagdish : "The Eonomics of underdeveloped countries", World University Library, London, 1966, p.79.

administration and national character. Entrepreneurship does not always emerge out of industrial background with well developed institutions to support and encourage it and it is characterized by the conditions associated with underdevelopement.[2] Mc Clelland stresses that people with high achievement motivation are likely to behave in an entrepreneurial way, as they would not be satisfied with present status they have in the society, they would prefer entrepreneurial function. Entrepreneurship can emerge either as a result of individual efforts or collective and cooperative efforts. Industrial Entrepreneurship can emerge as a result of occupational mobility, educational achievements, business experience, organizational ability etc.

The inadequacy of entrepreneurship is an inhibiting factor to accelerate the process of industrialization in developing countries. Although there is no such thing as a zero level of entrepreneurship, the absence of an appropriate industrial climate and an industrial base coupled with lack of access to relevant technology has acted as a handicap for developing countries to achieve rapid growth. The lack of entrepreneurship has effected small scale units more than large scale units. However, the experience of developing countries, as that of India indicate that large enterprises are not able to produce adequate spread effects, either in terms of the number of people benefiting from them or in terms of geographical area covered.

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2. Mc Clelland D.C., "The achieving society", D.Van. Nostrand Co., Inc, New York, 1961, pp. 210-215.

Large undertakings are generally concentrated in a few ideal locations and they lead to highly polarized development.

With the increasing interest in economic development in India and other developing countries of the world the focus of entrepreneurial studies became some what more precise and application oriented. A number of studies have been conducted in India. These studies cover different aspects of entrepreneurship namely, castes succeeding in entrepreneurship, family background, education and technical know how, contacts and networks, religious and cultural factors, personality traits, finance and other amenities, government policies and measures and miscellaneous. In brief, these studies analyse the social, cultural, psychological and economic factors of the entrepreneurs. A mass data and findings regarding the above subjects have come about. It is no exaggeration to say that in more recent times the underdeveloped economies have proved to be the best laboratory for practitioners and scholars in this field.

It has been observed that entrepreneurs change with the course of development. In more general terms it is said that entrepreneurship frequently takes on a highly national or cultural shape and the degree of specialization in entrepreneurship changes with development.[3] Entrepreneur is not of fixed type, whether the "business like man" emphasized by Phelps Brown[4], the explosive or harding personality manipulator

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3. A.H. Cole, "A new set of stages, Explorations in entrepreneurial History", Dec, 1955, pp.97.

4. E.H. Phelps Brown, "Economic growth and Human Welfare", Ranjit, New Delhi, 1953.

distinguished by Erich Formm or the Schumpeterial innovator. National, cultural and even personal characteristics will intervene to the person and through him the business enterprise. In developing countries the functions given to person in entrepreneural capacity include innovation, promotion, capital provision and risk bearing. The entrepreneur must be of less stereotyped and cannot afford to be professionalized as in developed countries. The developing countries need persons who would be induced to take risk of starting new units and lead them to go ahead with their projects facing various odds and bottlenecks.

Coming to the problem of entrepreneurship in small scale industry sector, it can be said that entrepreneurship is much more vital to the development of small scale industries. A small scale entrepreneur has necessity to take on himself additional roles of manager, technician and so on. A medium or large scale entrepreneur, on the other hand, once he decides on a particular line and has the necessary financial support, can obtain assistance from a variety of skills which could translate his ideas into actions. Sustenance is more or less assured for him once he is off the ground. But not so with the small scale entrepreneur. Unlike his counterpart in the medium or large scale industry who recedes to the background after take off, the entrepreneur in the small sector has to be in the forefront all

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5. Erich Fromm, "Man for himself" rinehart and Co., Inc, New York, 1947, pp.62

the time. It is for these reasons that the entrepreneur in underdeveloped economies is known by terms such as `promoter', `organizer', `initiator' etc. Berna[6] concludes that entrepreneur is "in the concrete the person who brings into existence a new industrial enterprise, either alone or in collaboration with others. He is perhaps, a rather pedestrian figure by western standards, an adaptor and initiator much more than true innovator, a man who has much more in common with Marshall's organiser of the factors of production than schumpetrial creative disturber, but in a poor country attempting to industrialize, a patent change producing figure nonetheless".

Entrepreneurs contribute to the industrial development not only by the establishment of new enterprises, but also by sustenance and expansion of their industrial units. For sustenance and expansion of units, the performance of these enterprises become a crucial factor. In case of small scale enterprises, it is the entrepreneurial ability and vitality that determines their performance. Therefore, any exercise that tries to establish the relationship between industrial performance of the units and the important determinants of entrepreneurship would turn out to be useful and interesting.

### 3.2 **Entrepreneurship : Some Hypothesis**

In this chapter an attempt is made to study certain aspects of entrepreneurship and their contribution to the economic

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6. Berna. J.J., "Industrial entrepreneurship in Madras State" Asia publishing house Bombay, 1970.

development. The inception of a small unit in our environment as noted earlier is a product of several factors such as family background, education, training, experience, indiviudal and family desire to start an independent manufacturing unit. Some of the traits, habits and outlook are most involuntarily developed in families given to trade and business on the one hand and crafts on the other. These give necessary impetus, confidence and enable indiviudal to perceive an opportunity and establish a unit. Few studies have also been conducted in Gujarat on entrepreneurial aspects and the enterprise. A study by Pathak[7] reveals that, as large as 68 per cent of entrepreneurs related their perception of opportunity to previous experience in deciding the line of manufacture. This holds good both for individuals, with formal education and those with no such education. Jan. H. Vander Veen[8] observes that the proprietors of urban unregistered individual units possess a strong commercial orientation. They operate on a small scale for which flexibility is a highly prized asset. Patel[9] in his study brings out that entrepreneurs having previous experience ranging from 2 years at the lowest and more than 5 years were 73 per cent. He also

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7. Pathak, H.N. "Problems of small scale Entrpreneurs" (Report on study based on Gujarat, Industrial Development Bank of India, Bombay, 1975.

8. Jan H. Vander Veen, "A study of small Industries in Gujarat State, India" occasional paper No. - 5, cornell University.

9. Patel. V.G., "Entrepreneurial and Economic profile of a small scale unit", in "Entrepreneurship Development in small scale Industries" (Development Commissioner, small scale industsries), New Delhi, 1975, pp. 82-90.

evaluated the place of family background as providing a very effective support to entrepreneurial perception.

In what follows an attempt is made to analyse the impact of family background, business background, age and nativity of entrepreneur in establishing and their continual performance in the market. Some of the hypothesis tested are :

(1) Hereditary firms start with small finance initially, while majority of the non - hereditary firms have partners outside the company. Therefore, to begin with hereditary firms will have a smaller base and this trend may continue and we may experience the low capital base of hereditary firms in comparison with partnership concerns.

(2) Larger the number of partners in a firm, the capacity of the firm to rise resources is high. The initial funds by these firms are higher and larger is their size. This trend is expected to continue and we may expect with larger number of partners in a firm, larger is the present size of these firms.

(3) Smaller firms start with smaller finances and largely continue to run all these finances. The smaller firms cannot afford to borrow in the open market and their accessibility to governmental financing is limited. As a result we can expect that the smaller sized firms are largely dependent on own finances (that is, financing from partner and family members) to a greater extent than larger firms.

(4) In a competitive world, if a firm has to survive and grow, it has to perform well. The tasks such as procurement of raw material, production of final products and finally marketing of product are important equally. At every stage entrepreneur use his influence and makes use of family contacts for the better performance of the enterprises.

(5) The performance of the businessmen owned enterprises has been analysed by various studies, historically. The entrepreneurs with family or own business background have greater exposure to the market and can read the pulse of the market better than entrepreneurs without such background. Therefore, we can expect the entrepreneurs with business background to perform better than the ones without such background.

(6) In an underdeveloped country where skilled labour is scarce factor, the small scale enterprises become a training ground. The technical background of the entrepreneurs would be of great help to the firm in training manpower, supervise production, maintain quality control and in other managerial functions. Therefore, we can expect the enterprises managed by the entrepreneurs with technical background to perform better than firms managed by entrepreneurs with no such background.

(7) The local entrepreneurs have an inherent advantage over migrants in terms of local contacts to develop business. But the migrants are found to be generally hard working and readily seize opportunities available. They are aware of the competitive conditions in the market and are ready to adjust

to changes. Therefore, we can expect the performance of migrants to be better than that of locals.

### 3.3 Ownership Pattern

In the context of development the role of small scale industry is also visualized as that of encouraging first generation entrepreneurs, who may go in for business because of specially acquired skills or opportunities available due to easily available fianances and other inducements. The information collected regarding the type of ownership is presented in table 3.1. The first two columns show whether the enterprise is started by owners, or is hereditary. It is generally observed that the units which have been established in 1970's and 1980's are mostly being managed by the entrepreneurs themselves. The enterprises which were established long time ago are being run by the second generation. Out of 95 units surveyed, 88 of them were started by the entrepreneurs themselves and are being managed by themselves. Only 7 units are being run by the second generation of which 4 units are in Drugs and Pharmaceuticals. This is the oldest industry among the chemical and allied industries in Baroda. Overall it is observed that majority of units are started by the present owners.

The units surveyed have different installation dates. One unit was installed way back in 1932. Most of the enterprises came up after 1970. Only 12 (12.36 per cent) of the 95 units surveyed were installed before 1970; 26 units (27.37 per cent) between 1971 and 1975; 30 units (31.58 per cent) between 1976 and 1980

Table 3.1 : Type of ownership in Chemical Industry.

| Industry | Business Started by | | Type of ownship | | | | |
|---|---|---|---|---|---|---|---|
| | Owner/s | Hereditary | Individual (proprietorship) | Family partnership | Partnership with others | Others | Total |
| Inorganic chemicals | 16 | 1 | 4 | 6 | 7 | - | 17 |
| Organic chemicals | 11 | 1 | 2 | 3 | 6 | 1 | 12 |
| Fertilizers and Pesticides | 11 | - | 2 | 3 | 6 | - | 11 |
| Dyes and Paints | 14 | 1 | 3 | 3 | 9 | - | 15 |
| Drugs and Pharmaceuticals | 10 | 4 | 3 | 4 | 6 | 1 | 14 |
| Soaps and Cosmetics | 10 | - | 2 | 2 | 6 | - | 10 |
| Other chemicals | 16 | - | 3 | 4 | 9 | - | 16 |
| All | 88 | 7 | 19 | 25 | 49 | 2 | 95 |
| Percentage | 92.63 | 7.37 | 20.00 | 26.32 | 51.58 | 2.10 | 100.00 |

and 27 units (28.42 per cent) were installed between 1981 and 1984. This indicates that majority of the units are young, therefore, the average age of these units is low. The average age of surveyed units is found to be 9.6 years.

Information pertaining to type of ownership is presented (table 3.1) show that out of 95 units surveyed (below 100 H.P) 20 percent are proprietorship concerns. Around 26 per cent of units are family owned (including partnership with family members). 52 per cent of the firms are partnership with others. A number of other studies also have reported, 'partnership with others' as a major form of organization. Mainly one observes such phenomenon in modern industries than in traditional industries. Only 2 out 95 units reported other forms of organization. The pattern is not significantly different across groups. From the data it may be concluded that partnership with others is a dominant pattern of ownership among chemical industry, next prominent is partnership with family members, followed by proprietorship concerns. Among units above 100 H.P. it has been observed that proprietorship does not exist and all the firms are partnership in one form or other. Among units below 100 H.P., 18 firms reported to be having sister concerns. 13 out of the 95 firms below 100 H.P., connected reported the present activity as a subsidiary one, that is the entrepreneurs have some other activity as primary.

Hereditary firms start with small finance initially while non hereditary firms have partners outside the family as noted earlier. 52 per cent of firms have reported partnership with

others and therefore, it is expected, that, to begin with hereditary firms will have a smaller base of capital in comparison with firms with partnerships outside the family and this trend may continue for quite some time and we may experience the low capital base of hereditary firms as compared to that of partnership firm. To examine this aspect the present size of firms by different criteria; capital employed, horse power connected and employment generated in the enterprises for different ownership patterns is examined. The results are presented in table 3.2.

Table 3.2

Present size of firms by the Ownership pattern of the firms :

| Ownership Pattern | Capital employed (Rs.'000) | Horse Power connected | Workers employed |
|---|---|---|---|
| Heriditary | 1789 | 56 | 24 |
| Non-Heriditary | | | |
| (a) Proprietorship | 509 | 38 | 11 |
| (b) Partnership | 1301 | 45 | 15 |

The results indicate that hereditary firms are larger in size when measured by all the three criteria. The non - hereditary concerns are found to be operating on a lower scale with less of capital and labour employed.

The results indicate that on an average the size of hereditary firms, both interms of capital invested and horse power connected is higher than other types of ownership firms. The average size of proprietorship firms are found to be smaller

than firms with more number of partners and other forms of ownership. This gives us a rough indication that size of firms exhibit a definite relation with the type of ownership.

In small scale enterprises it is generally observed that the number of partners and working partners tend to rise with the size of enterprise. Various reasons are assigned for this phenomenon to occur. As the number of partners in an enterprise increase, it is more beneficial to the firms in terms of sharing the responsibility of organization. It is also observed that in larger firms the capital requirements are met with contributions from larger number of partners. In addition the social contacts of the partners are used for the well being of the enterprise in terms of marketing the products, raising funds, and in other ways. The correlation coefficients are estimated between the number of partners and size of the firm. Here size is measured by the capital invested and horsepower connected. The results indicate that the size of the firm is directly related to the number of partners in an enterprise

| Number of Partners | Correlation Coefficient |
|---|---|
| 1. and H.P connected | 0.1199 |
| 2. and Capital invested | 0.2233 |

Therefore, larger the number of partners, higher the size of firm. However, the results are significant when size is measured by capital invested. The presence of two or more partners is a common observation. With the increasing size of firm there is some delegation of power. However, even in the presence of more

number of working partners the crucial functions usually remain with a single boss. Generally it is one of the managing partners who function as the boss.

The entrepreneurs are found to take to entrepreneurship at right age. The median age of entrepreneurs at the time of starting enterprises is 32.7 years. Some of the studies have put forward the hypothesis that entrepreneurs age is negatively related to the performance of enterprise when we estimated the correlation coefficients between age of entrepreneur and performance as indicated by the value added and Gross profit, the results show an inverse relation.

| Age of Entrepreneur | Correlation Coefficient |
|---|---|
| 1. and Value added | -0.0882 |
| 2. and Gross profit | -0.1509 |

thus indicating that higher the age of entrepreneur lower the performance and vice versa. This suggests that older entrepreneurs are less inclined or less able to make firms grow.

It would be interesting to study the age of entrepreneurs at the time of starting their units with the education level. If the formal education is to be considered as a substitute for the practical experience, then, it can be expected that the levels of education and age of the entrepreneurs at the time of starting enterprise are inversely related. From the data collected it is concluded that majority of the entrepreneurs started their units in their late twenties and early thirties. The median age being

32.7 years. The minimum and maximum age at which entrepreneurs started units were 19 years and 55 years respectively. It is also observed that 44 percent of entrepreneurs took to entrepreneurship before attaining 30 years of age and 31 per cent in age 31 - 40 years.

It is widely observed that educational status and occupation background has an impact on entrepreneurial activity. Entrepreneurs with chemistry and technical background started their units at relatively early age than others, their average age being 31 years and 35 years for others. This indicated that the education which is relevant to the industry has a strong impact on entrepreneurial activity. The entrepreneurs with industrial work experience are observed to take to entrepreneurial activity at a latter age. Many successful entrepreneurs have left creative jobs in public and private sector enterprises as they felt that they had better motives to achieve.

The young entrepreneurs are highly ambitious and are ready to take greater risks in the market, on the contrary the older lot of the entrepreneurs can be expected to have achieved greater experience in the market. Therefore, the older entrepreneurs can read the pulse of the market and can contribute to the performance of enterprises. The older firms in the market are expected to perform better in the market as they have passed through infancy successfully. It is widely observed that young firms have higher mortality rates in the market than older firms. Therefore, it can be expected that the performance of older firms

is better when compared to younger firms. An attempt is made to test these hypothesis. A regression is fitted with value added as dependent variable and age of firm measured by number of years and age of entrepreneurs also measured by the number of years as independent variables, the result is as follows :

$$V.A = 45.975 - \underset{(-0.3814)}{.4073}\ X1 + \underset{(4.4929)}{2.3684}\ X2$$

$$R^2 = 0.3986$$

Where V.A. = value added

$X_1$ = age of entrepreneur

$X_2$ = age of firm

Figures in brackets are 't' values.

The results indicate that with higher age of entrepreneur the performance falls and the older firms are performing well in the market. The age of firm however explain the performance significantly and no such definite conclusion can be drawn pertaining to age of entrepreneur.

The official definition of small industry in India does not refer to the character of ownership as in some other countries. A firm can shift from proprietorship concern to partnership concern or to private limited company by including additional partners or family members.

It has been observed that there is a tendency of change in type of organization depending upon the nature of inclusion of the partners or breakup of partnerships due to various

difficulties. In case of partnership concerns or private limited concerns, it has been observed that one individual acts as manager, he runs the complete show and is the main decision maker. He is considered as the entrepreneur and is expected to represent the firm in every way. The analysis of entrepreneurship in this study takes the information pertaining to family background, caste and community, education and technical background, and regional origin.

### 3.4 Family Background

For a great proportion of firms in India, the basic unit of entrepreneurship is the family. India's industrialists are usually members of old trading families, which frequently control a number of firms through the managing agency firm. The studies on family background have focussed on themes as size and type of the families of single entrepreneurs and union of family and firm. These studies on family background emphasize on connections, background of crafts, political connections, property, social status, occupational background of the family as some of the important factors leading to successful entrepreneurship. A brief review of some of these studies is given below.

Gadgil and Milton Singer wrote on size and type of the families. Gadgil[10] held that the joint family provided an undivided family property to invest in and expand the family

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10. Gadgil, D.R. "Origins of the Modern Indian Business Class : An Interim Report", New York, Institute of Pacific Relation, 1959.

firm, Singer[11] endorsed this view in his study on Madras industrialists.

Mc.Crory, Fox, Zoe Mars, Sharma and Ramakrishnan's studies related to occupational and economic status of the families.

Mc Crory[12], studied small scale firms in Chopur and Moradabad towns in Uttar Pradesh. He considered family background in crafts as needed source of good industrial entrepreneurs, but he observed that in the initial stages such a background did not enable craftsmen entrepreneurs to protect their working capital and overcome crisis in the industry. Fox's[13] study on community change in Tezi bazaar, a market town in Uttar Pradesh, revealed that land lord (Zamindar) background of the family helped its members to get access to political power and show high level of entrepreneurship in industry.

Mars[14] studies a sample of firms drawn from six towns of different sizes in Kerala. He found that families with no land or less land operated small workshops in small towns, landed families showed relatively higher level of entrepreneurship in

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11. Singer, Milton, "When a Great Tradition Modernises" New York, Praeger Publishers, 1972.

12. Mc Crory, JT, "Small Industry in a North Indian Town : Case studies in Latent Industrial Potential", Delhi Ministry of Commerce and Industry, Govt: of India, 1956.

13. Fox, R.G., "From Zamindar to Ballot Box", New York, Cornell University press, 1969.

14. Mars, Z, "Assitance to Small - Scale Industrial in Kerala - An Indian Case", Development and Change Vol. Vi, No.2, April, 1975. pp. 61-88.

medium towns and cosmopolitan families began emerging as small capitalists in large towns.[15] Sharma studied 100 entrepreneurs selected from five towns in Uttar Pradesh. He held that there were four stages of entrepreneurial development, namely entry, manufacturing, finding of market, establishment of business and expansion of the firm. He observed that types of family background showed relations with these stages.

Ramakrishnan[16] studied 94 modern small scale units in 11 industrial categories in Delhi city. He classified the units according to those which succeeded in the industries. Those which dropped out after production began and those which failed to commence production. He concludes that social status and occupational background in addition to education of entrepreneurs as some of the determinants of successful entrepreneurship.

Harris, Joshi, Gaikwad and Tripathy made studies on single entrepreneurs. The studies by Harris[17] and Joshi[18] made their single entrepreneurs studies of J.N. Tata and Lala Sri. Ram respectively. Both the authors emphasize economic, educational and Political status of family as prime determinants of entrepreneurial development. The study by Gaikwad and Tripathy[19]

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15. Sharma, K.L., "Entrepreneurial Performance in Role Perspective", New Delhi, Abhinav Publications, 1975.

16. Ramakrishanan, P. "New Entrepreneurship in Small-Scale scale Industries in Delhi", New Delhi, Economic and Scientific Reasearch Foundation, July, 1975.

17. Harris, F.R. - "J.N. Tata : A Chronicle of his life", London Oxford University Press, 1925.

18. Joshi, A. "Lala Shri Ram : A Study in Entrepreneurship and Industrial Management", New Delhi, Orient Longman.

entrepreneurial development.[19] The study by Gaikwad and Tripathy focus on entrepreneurial characteristics of M. Harischandra Prasad of West Godavari in Andhra Pradesh. The authors emphasize the role played by family in nurturing the entrepreneurial attributes.

The study by Spodek[20], on traditional culture and entrepreneurship observed that union of family and firm implied conflict of goals of maintaining stability and maximizing profit and therefore, affected innovative abilities and spirit. The advantages of family controlled business are its ability to mobilize large amounts of resources, its quick unified decision making and its access to trust worthy personnel to look after operations.

Coming to the present study, it has been observed that entrepreneurs come from different family backgrounds. However, fathers occupation has influence on the occupation of the entrepreneurs. It is observed that major portion of the entrepreneurs have their fathers in business. Occupational structure of entrepreneurs father show that 54 per cent are in business, 27 per cent are in agriculture, 15 per cent in various jobs background. Though the business families participation in industrial activity is high, it has been of late observed that

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19. Gaikwad, V.R. and Tripathy, R.N., "Socio-Psychological Factors Influencing Industrial Entrepreneurship : A case study of Tanuku region of West Godavari" AP. Hyderabad, National Institute of Community Development, 1970.

20. Spodek, H. "Traditional Culture and Entrepreneurship" Economic and Political Weekly , Vol. IV, No. 8, 22 Feb, 1969. pp. M.27 - M. 31, Review of Management.

the mobility from agriculture sector to industry has been considerably increasing. The pre-dominance of entrepreneurs with agricultural backgrounds reflects the social change and dynamic occupational mobility in society in the recent decades.

The family background also play a crucial role in financing of enterprises. In a socio - economic inheritance process some benefits, resources and privileges are passed on from the father and other family members to the next generations. Entrepreneurs just cannot be considered as an individual phenomenon and strictly intrinsic to the personality involved. In Indian society where extended family system is still prominent, the phenomenon of entrepreneurship has to be viewed as an extrusion of family aspirations and ambitions which are ultimately realized by an individual. It is here the family background and family participations in entrepreneurial settings gain importance. Family help come to entrepreneurs in the form of supporting his formal education, financial help partially or wholly if necessary for raising risk capital, family connection and contacts at different levels also help in building ones occupational career.

The present study reveals that 25 of the industrial units surveyed were exclusively family owned. In these enterprises only the family members are partners and all the risk capital has come from the family only. 19 industries reported proprietorship and all of them to some extent or other have family finance. Overall it has been observed that out of the total finances, family contributions are to the extent of 42 per cent. Family

participation in financing of the enterprises is found to be high in all the industrial groups studied. Even in other forms of ownership, family property has positive role in the entrepreneurs starting new enterprises and their overall performance.

For majority of the firms it was observed that family contributions to the initial funding of enterprises were considerable. The data is presented in Table - 3.3, overall 42 per cent of the contributions came from family sources. The help from various family sources have contributed not only to the raising of risk capital, but also by indirect contribution through family contacts. Overall it is observed that 58 per cent of initial funds of the firms are in the form of loans. Loans from nationalized banks form 21 per cent, other government organizations, 33 per cent and private loans form nearly 5 per cent of initial fund. The loans from nationalized banks are largely to meet the short term financial requirements i.e., working capital. Loans from GSFC, GIIC and other government organizations are mainly to meet the fixed capital requirements. Own and family contributions to the initial finance vary from industry to industry. Approximately 50 per cent of initial funds in inorganic chemicals, Dyes and paints come from own or family sources. However, the contributions could vary from one firm to another.

Various studies have indicated that small firms are dependent on own resources to large extent in comparison with bigger firms. Smaller firms face greater problems with respect to working capital, as it is difficult for them to obtain loans from

Table 3.3 Sources of initial financing of enterprises by industrial category.

| Industry | Percentage contributions by | | | |
|---|---|---|---|---|
| | Own and family funds | Nationalised Banks | Other government organisations | Private Loans |
| Inorganic chemicals | 54.08 | 12.29 | 29.00 | 4.63 |
| Organic chemicals | 30.92 | 23.13 | 37.74 | 8.21 |
| Fertilizers and Pesticides | 38.23 | 26.95 | 31.02 | 3.80 |
| Dyes and Paints | 53.87 | 15.13 | 20.48 | 10.52 |
| Drugs and Pharmaceuticals | 34.87 | 29.87 | 32.38 | 2.88 |
| Soaps and Cosmetics | 23.66 | 24.29 | 46.26 | 5.79 |
| Other chemicals | 43.52 | 15.22 | 37.82 | 3.44 |
| All | 41.70 | 21.03 | 32.52 | 4.75 |

nationalized banks. To examine this observation by the previous studies the financing pattern of the enterprises have been worked out with respect to size of firm, where in, size is denoted by Horse power connected. The results are presented in table 3.4. The data reveals that in general the contribution by own and family sources to the initial capital is greater for smallest size firms and is found in general to reduce with growing size. The loans from nationalized banks form smaller portion of the initial funds in smallest sizes and is found to raise in general with increasing size. The private loans form a small fraction in general. The information about the borrowing from close relative and friends might to some extent have been included in the own and family contribution. Therefore, to some extent in the own and family funds there could be over reporting. In general it is observed that the contributions from family is considerable.

It would be interesting to know the category wise financing also. The family contributions to the overall financing is observed to quite high. What would be the nature of financing pattern for different groups of firms of varied ownership pattern. The results are presented in table 3.5 below

Table 3.4 Sources of initial financing of enterprises by their size.

| Horse power connected | Percentage contributions by | | | |
|---|---|---|---|---|
| | Own and family funds | Nationalised Banks | Other government organisations | Private Loans |
| 0 - 10 | 58.20 | 12.65 | 27.98 | 1.17 |
| 11 - 20 | 38.74 | 20.82 | 30.13 | 10.31 |
| 21 - 30 | 46.59 | 13.41 | 37.80 | 2.20 |
| 31 - 50 | 36.07 | 21.16 | 35.82 | 6.95 |
| 51 - 75 | 42.84 | 20.12 | 31.18 | 5.86 |
| 76 - 100 | 40.13 | 31.50 | 24.82 | 3.55 |

Table 3.5

Initial Financing of Enterprises by the Ownership Pattern.

| Ownership Pattern | Percentage Contributions by | | | |
|---|---|---|---|---|
| | Own funds and family funds | Nationalised Banks | Other government organiz-ation | Private Loans |
| Proprietor-ship concerns | 41.57 | 12.32 | 44.87 | 1.24 |
| Partnership concerns | | | | |
| a) Family | 49.37 | 15.78 | 31.98 | 2.87 |
| b) others | 36.16 | 28.45 | 32.47 | 5.63 |
| All Firms | 41.70 | 21.03 | 32.52 | 4.75 |

The data indicates that the own contribution by family concerns is highest towards the initial funding of enterprises. In case of partnership with others, the contribution of own funds is lowest. In case of proprietorship concerns, the government loans are higher. This partly explained, as number of proprietorship concerns established by technocrats, get 100 per cent finance from the government organizations.

The Indian situation in general and for businessmen and industrialists in particular, the joint family is the ideal and its the organizational principle behind most undertakings. In such a structure seniority is the basis for respect and authority, and the presence of a dominant father, older brother or uncle is among the most important characteristic features. In family partnerships and family business, the senior member of the family acts as major decision maker. This immediately allows us

to cast doubt on the contribution that a sharply individualistically oriented psychological approach can make to the understanding of Indian entrepreneurship. In their study Javillovar and Peters[21] have pointed out that the Indian entrepreneurial orientation is not an individual phenomenon and cannot be coupled with the individuals "need for achievement". It is a situational phenomenon in which family members play an important role.

The role of family members in the performance and development of enterprises has been widely discussed. Family contributions to the growth of an enterprise is of importance but does a family concern perform better than other types of organizations in the market. Over a period of time the large family houses have gradually changed over to the professional management. However, even to this day one comes across large number of small and medium enterprises being run on family lines.

Here an attempt is made to analyse the performance of family enterprises in comparison with that of other types of enterprises. The average size of firms, and performance by the ownership pattern is shown in the table 3.6 below

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21. Javillonar, Gloriav, Paters, George "Sociological and Social Psychological aspects of Entrepreneurship" British Journal of Sociology, No.3, 1973

Table 3.6

Average size and Performance of Enterprises by their Ownership Pattern.

| Ownership pattern | Average capital employed (Rs. '000) | Value added per firm (Rs. '000) | Average Profit rate (%) |
|---|---|---|---|
| Proprietorship concerns. | 509 | 360 | 47.74 |
| Partnership concerns | 1301 | 630 | 32.11 |
| a) Family | 958 | 453 | 36.73 |
| b) Others | 1525 | 711 | 29.97 |
| All firms | 1178 | 576 | 34.80 |

The above table reveal that the family concerns are operating with lower capital, but the return to capital invested is high. The average value added is lower in these firms. A similar situation exists in proprietorship concerns which are largely family concerns. Among the partnership concerns, other partnership firms employ more capital and generate greater value added. The profit rate in these firms is found to be much lower. this indicates that the family concerns are on greater look out for quick returns.

In family connections and contacts at different level also help in building occupational career. The family connections and contacts are governed by the socio - economic status of family and castes. The family connections help the entrepreneur in eliminating or atleast minimizing the hurdles in promotion, stabilization or development of enterprises. The information

collected reveals that majority of the entrepreneurs benefited from family background. The entrepreneurs with parents in business are observed to performing better than others. This is explained by the fact that the success of an enterprise depends on the marketing of products in addition successful production operations. The entrepreneurs with parents in business have much greater exposure and make use of their business contacts to market their products.

Entrepreneurs with business background are reported to be performing well by various studies. Some studies have indicated that right type of entrepreneurs are needed for country's rate of progress. Industrialists with short term approach are pre-occupied with trade and quick turnover as their sole aim is of profit. Professor Dupriez refers to the industrialists with "long - time horizon", who are willing to plough back earnings and wait for returns, to improve technology and are alert to new opportunities and willing to occur the risks involved in exploiting them. According to Dupriez, the country developed by entrepreneurs of second type, rather than first will move down the road of economic progress at a much faster rate. At any point of time entrepreneurs are a heterogeneous block with varied backgrounds. A large number of studies have indicated that the entrepreneurs with business background and with their parents in business have performed well in the market.

In our survey we have found more than 50 per cent of the entrepreneurs have come in with business background. A large number of them belong to communities that were traditionally non

- business oriented.

Here an attempt is made to analyse the relation between the business background of the entrepreneur with their activity and performance in the market. Entrepreneurs with business background have more money at hand and therefore afford to invest larger amount on the enterprise. With the business background of the entrepreneurs their performance in the market is expected to be superior than other entrepreneurs. Two regression equations* are run with Business background as an independent variable, represented as a Dummy variables, indicated by `1' in the presence and `0' in its absence. The size of the firm is denoted by capital invested and performance by the value added. The results however, indicate that performance of entrepreneurs with business background is better but are operating on a lower scale.

The business background of the entrepreneurs are found to have positive impact on the establishment and running an enterprise. The average size and performance of enterprise for entrepreneurs with business and no business background is presented in table 3.7 below

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* Two regression equations with business background as dummy variable (D) with value added and capital invested as dependent variables have been fitted. The results are as follows.

Capital invested = 1099449 + 4246216 D
(1.0066)

Value added = 520283 + 316611 D
(1.5539)

Table 3.7

Average size and Performance of Enterprises by the Business Background of Entrepreneur.

| Business Background | Average capital employed (Rs.'000) | Value added per unit (Rs.'000) | Average profit rate (%) |
|---|---|---|---|
| With Business Background | 956 | 748 | 44.90 |
| Without Busines Background | 1369 | 428 | 26.08 |

The results indicate that on an average the entrepreneurs with business background perform well in the market. They are found to operate on smaller scale with lower capital investments and more efficiently creating greater value added and higher profitability.

### 3.5 Education and Technical Knowledge

Education is said to be important variable which influences the supply and performance of entrepreneurship while enough evidence is accumulated in the industrialized economies to show the importance of education as a factor in economic development[22], such evidence has not been coming forth in considerable depth in respect to developing economies such as India. There has been enormous expansion of educational facilities in India in the post independence period. Studies are

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22. c.f. T.W. Schultz, "The Economic value of Education", 1963, Marc Blaug, Economics of Education, 2 Vol, Penguin Books.

being undertaken by economists, sociologists and planners to throw light on the relationships between the educational attainment of individuals and its effect on their earnings and performance.

Education plays an important role in day-to-day activity of entrepreneur. From installation to managing the plant, education has its own contribution. Although personal possession of technical knowledge by the entrepreneur is not essential to effective entrepreneurship, in underdeveloped countries, it is likely to be useful in some degree, because good technicians are difficult to find and hard to retain them with the small scale units. The personal possession of knowledge attains greater importance in case of modern industries. In the absence of education and technical know-how the entrepreneurs have to depend on expert counsultants for various decisions which is not always possible and a costly affair. Many studies conducted in India and abroad have indicated that entrepreneurial development depended on education, work experience and technical know how. Various studies conducted in developing countries have shown that education and technical background have positive association with entrepreneurship.

Gastav Papanek[23] stressed educational, occupational and financial backgrounds as sources of entrepreneurship in Pakistan.

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23. Papanek Gastav. F., "Pakistan's Development Social Goals and Parivate Incentives" Cambridge Mass; Harvard University Press, 1967.

Hammid[24] interviewed 430 business executives in Sudan and reported positive association between education and entrepreneurship. Alexander[25] in his study on Turkish entrepreneurs showed how a background in one occupation led one to become an entrepreneur in the same line of working. Harris[26] studied 250 private firms in saw milling, furniture making, printing, rubber processing, garment making and other urban - based industries in Nigeria. He found that entrepreneurial development depended upon several factors such as work experience technical knowledge, education, profitability, access to capital and management.

There are few studies conduced in India explaining the importance of education and technical background. These are studies by S.P.Sharma, M.A.Oommen, H.N.Pathak, Raymond Ownes, Zoe Mars, P.Babu, S.P.Mishra, B.P.Sinha and B.S.S:Rao. Various other studies have dealt with education but not in detail as above the studies.

Sharma[27] considered increased investment on human capital

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24. Hammid, K.A. "Enterprises : Industrial Entrepreneurship and Development" Sage Publications, Ltd., 1974.

25. Alexander, A.P. - "Industrial Entrepreneurship in Turkey : Origins and Growth", Economic Development and Cultural Chanage , Vol, VIII, No.4, July 1960, Part - I, pp. 349 - 365.

26. Harris , J.R., "Some Problems in Indentifying the Role of Entrepreneurship in Economic Development, The Nigerian Case" - Explorations in Economic History , Spring 1970, Vol, 7, No. 3, pp. 347 - 369.

27. Sharma, S.P., "The Emergence of Industsrial Entrepreneur : A Socological Process Indian Journal of Commerce , Vol, XVIII, Part IV, No.65, Dec 1965, pp. 369 - 373.

especially on education, as source of successful and good entrepreneurs.

Oommen[28] studied a sample of 45 small scale entrepreneurs in a light engineering industry in Kerala. He observed that Kerala had lesser proportion of entrepreneurs than the normal requirements which he attributed to inadequacy of education and technical knowledge in the state. Even the successful in the sample were found to be engineers or technicians.

Pathak[29] selected 12 units in different lines of manufacture and studied their problems are three levels of entrepreneurial development, namely inception, operational and expansion. He found positive association between these states and the levels of education. He also recognized the role of other essential factors such as net work of relations and finance in the entrepreneurial development.

Mars[30], found the positive role of education and engineering knowledge in the emergence of low-caste land less Hindus as small workshop owners in small towns.

Babu31, observed that entrepreneurs with less or no education were faced with a situation in which traditional values

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28. Oommen, M.A., "Small Industry In Econmic Growth; A case study Kerala", Trivendram, SB Press, 1972.

29. Pathak, M.N. 'Entrepreneur, Technician and Manager in Small Scale Units', Economic Political Weekly , Review of management, Vol. VIII. No. 48, Nov 1972, pp. M 179 - M 187.

30. Mars, op.cit.

31. Babu, P. "Education for Entrepreneurship : The need for Adoption" National Labour Institute Bulletin Vol. VIII, Nos. 3 & 4, 1982, pp.154 - 161.

education were faced with a situation in which traditional values and technology turned to be impracticable or less beneficial. On the other hand modern techniques became short-lived or difficult for acceptance. He felt that education would enable the entrepreneurs to adjust to much conflicting situations easily.

Rao[32], reported that the technically trained entrepreneurs showed higher levels of entrepreneurship than the entrepreneurs with no such training.

The present study indicates that entrepreneur selects an industry which is related to his education and technical background. The data collected pertaining to entrepreneurs reveals that approximately 60 per cent of entrepreneurs have technical background related to chemistry, pharmacy and other related subjects. Few of them reported formal training and a some of them had considerable previous experience. Entrepreneurs level of education and age at starting of an enterprise is presented in table 3.8. Overall it is observed that the levels education of entrepreneurs is high. It has been observed that 61 per cent of entrepreneurs are graduates and 25 percent are post graduates. The rest of the entrepreneurs have education of secondary and higher secondary levels. Few of them have reported have to diplomas which enhance their technical skills. An entrepreneur is classified as technically qualified if he has studied a subject such as chemistry, pharmacy, chemical technology, paint

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32. Rao. BSS, "Entrepreneurship Development Among Technical Personnel : A Few observations" , Sedme , Vol X, No.3, Sept 1983, pp. 33 - 46.

Table 3.8 Distribution of Entrepreneurs education and age at starting of the enterprise.

| Level of education | Age of entreprenuer | | | | Total |
|---|---|---|---|---|---|
| | 30 and less | 31-40 | 41-50 | 50 + | |
| Secondary | 4(50.00) (9.52) | 3(37.75) (10.34) | 1(12.75) (4.34) | - | 8(100.00) (8.142) |
| Higher Secondary | 1(33.3) (2.38) | 1(33.3) (3.45) | 1(33.4) (4.35) | - | 3(100.00) (3.16) |
| Diploma | 2(66.67) (4.76) | - | 1(33.3) (4.35) | - | 3(100.00) (3.16) |
| Graduate | 27(47.37) (64.29) | 13(22.81) (44.83) | 16(28.07) (69.57) | 1(1.75) (100.00) | 57(100.00) (60.00) |
| Post graduate | 8(33.33) (19.05) | 12(50.00) (41.38) | 4(16.67) (17.39) | - | 24(100.00) (25.26) |
| Total | 42(44.21) (100.00) | 29(30.53) (100.00) | 23(24.21) (100.00) | 1(1.05) (100.00) | 95(100.00) (100.00) |

Note : 1. Figures in the bracket with number of Entrepreneurs indicate the percentage of row.

2. Figures in the bracket under the number of Entrepreneurs indicate the percentage of column.

technology in graduation or post graduation. Therefore, some of the graduates and post graduates are also classified as technically qualified. The entrepreneurs who have diplomas and at least two years of formal training are classified as technically qualified. It is expected that the enterprises managed by the technically qualified persons fare well in the market. The information collected reveal that in general the levels of education of entrepreneurs is greater than their parents.

Higher levels of education and technical knowledge of entrepreneurs is expected to have its impact on the performance of enterprises. As education plays an important role in fulfilling activities of entrepreneur, the level of education of entrepreneur has a positive role in performance of enterprises. With the technical background of entreprenueurs their contribution to the performance of enterprise increases. A regression equation* has been fitted with value added as dependent variable; technical background of entrepreneurs and educational status (Graduate or Non graduate), as independent dummy variables. The results indicate that the performance of firms maintained by graduates and entrepreneurs with technical background is better than other firms. The impact of each of these variables on the performance is analysed separately. Let us first look at the results arrived at on the basis of level of

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* A regression equation with value added as dependent variable; level of education (D1) = 1, if graduate; '0' if non graduate) and Technical background (D2) as independent dummy variables respectively. The result is as follows

Value added = 83991 + 327641 D1 + 649190 D2
(0.3903) (4.3072)

education. Table 3.9 below gives us the performance, when measured by value added and profit rate, of the firms managed by graduates and non graduates.

Table 3.9

Performance of enterprises by type of ownership and education level of entrepreneur.

| Ownership Pattern/ education level | Value added perfirm (Rs.'000) | Average profit rate % |
|---|---|---|
| Proprietorship | | |
| a) Graduate | 352 | 45.82 |
| b) Non - graduate | 433 | 64.07 |
| Partnership | | |
| a) Graduate | 651 | 27.85 |
| b) Non - graduate | 469 | 63.79 |

The results indicate that the profit rate generated is higher for non graduates for both proprietorship and partnership concerns. However, no such definite relation is seen for value added. The overall average value added for graduates is greater than non graduates.

The performance of entrepreneurs with technical background is presented in table 3.10 below.

Table 3.10

Performance of enterprises by type of ownership and technical background of the enterpreneurs.

| Ownership Pattern/ technical background | Value added perfirm (Rs.'000) | Average profit rate % |
|---|---|---|
| Proprietorship | | |
| a) Technical background | 383 | 49.12 |
| b) No technical background | 312 | 44.76 |
| Partnership | | |
| a) Technical background | 635 | 44.14 |
| b) No technical background | 621 | 14.65 |

The results indicate that the entrepreneurs with technical background are performing better when value added or average profit rate are taken as criteria. This is observed for both proprietorship and partnership concerns.

### 3.6 Migration

Various business communities of India are spread all over India and are a force to reckon within different localities. The Marwaries, Jains, Sindhis, Parsis, Gujarathis etc., are few of the communities that are distributed all over. Lamb[33] in his study on Rise of India's business communities, focussed on the

33. Helen B. lamd, "The Rise of Indian Business Communities" Pacific Affairs" XXIII, No. 2 June 1955, pp. 98 - 126.

Marwaries, the Parsis and the Gujarathi trading castes. In the nineteenth century, a large number of Marwaris migrated to Calcutta and its vicinity and occupied key entrepreneurial positions, especially in trade and finance. Today they are the foremost business communities especially in Calcutta. During the post independence period, the refugees, Hindu traders from Sindh (now part of Pakistan), have become prominent in trade, real estate and construction in many major cities and they are likely to develop eventually into industrialists. In Maharashtra, local Brahmins and trading classes from Gujarat, Rajasthan, Saurashtra and Kutchch dominated business. In northern India the Bania (Marwaris) Hindus and Jain trading castes are the leading trading communities.

The emergence of Patels (Patidars) from central Gujarat who are basically an agricultural castes is of recent origin. They are the dominant land owning caste in central Gujarat i.e. the area between Baroda and Ahmedabad and have managed to attain a prominent position in business activity. The commercial activities of patidars are closely linked to their migration to Africa in the early 20th century. In Africa, they took to trade, the profits from which were invested in agriculture, cottage, commercial and industrial enterprises in Gujarat and all over India.

The Banias represent prominent traders and businessmen both in Gujarat and outside Gujarat. Among them one finds rural money - lenders and shop keepers and also owners of large business

concerns and industrial monopolits such as the Birlas (Jains). They are all descendants of migrants from Saurashtra and Kutchch and the frontier between Gujarat and Rajasthan. Gujarati and Rajasthani Bania mobility is virtually legendary and dates far back into their past. A large number of Banias migrated to Bombay, Central and South Gujarat on a large scale around 1900. This migration was Bania reaction to the poor economic opportunities in the numerous small Rajput states of Saurashtra.

The present study reveals that there has been migrations from all over India to Baroda for establishing industrial enterprises. The migrant entrepreneurs hail from different states, down south from Kerala to various other regions. It is expected that Gujarat being the origin of migrants of various entrepreneurial categories, the inflow of entrepreneurial migrants is expected to be low. The present sample shows that 18 percent of entrepreneurs migrated from other states. The migrants mainly indicate that favourable industrial climate in Gujarat as the important factor for establishing their units in Baroda region. Few of the industrial units have been shifted from Bombay region. 49 percent of the entrepreneurs in this survey hail from other districts of Gujarat and 33 per cent hail from Baroda district. The entrepreneurs who originated from Baroda district are treated as locals and others as migrants.

Overall the participation of Gujaratis is to the tune of 82 per cent which is high by all standards. However, the migrants from other states and other regions of Gujarat face large scale competition from the locals. The locals have a natural advantage

over the migrants in terms of contacts and family support. Does this result in better performance by the local entrepreneurs ? Some of the studies have indicated that local entrepreneurs take to entrepreneurial activity at an earlier age than migrants and that migrants have better qualifications than locals.

Table 3.11 gives the distribution of entrepreneurs by migration and age at establishing the units. The medium age of starting enterprises for natives of Baroda district is found to be 32 years and 34.5 years in case of migrants form other states. The late entry by the migrants could be partially explained by the time taken to settle at a new place, developing new contacts and getting used to the new surroundings.

Table 3.12, gives the distribution of entrepreneurs by level of education and place of origin. Majority of the post graduates hail from regions other than Baroda district. However, no definite conclusion can be drawn pertaining to educational levels and migration. It is found that educational levels of the local entrepreneurs is also high. In both the locals and non locals the entrepreneurs with chemistry and background in related field is found to be high.

From outside Baroda district, there are as many as 2/3rd of the total entrepreneurs, however this should not be taken as indication of lack of entrepreneurship in Baroda. There are only 3 chemical zones in Gujarat and Baroda is one of them. The entrepreneurs who wish to establish chemical enterprises has to select one of these zones. Therefore, the pull factors could be

Table 3.11 Distribution of entrepreneurs by Migration and age at starting of the enterprise.

| Migration | Age of entrepreneur | | | | |
|---|---|---|---|---|---|
| | 30 and less | 31-40 | 41-50 | 50+ | Total |
| Native of Baroda District | 11(35.48) (26.19) | 11(35.48) (37.93) | 8(25.81) (34.78) | 1(3.23) (100.00) | 31(100.00) (32.63) |
| Gujarat (other Districts) | 23(48.94) (54.76) | 15(31.91) (51.72) | 9(19.15) (39.13) | - | 47(100.00) (49.47) |
| Migrated from out of State | 8(47.06) (19.05) | 3(17.65) (10.35) | 6(35.29) (26.09) | - | 17(100.00) (17.90) |
| Total | 42(44.21) (100.00) | 29(30.53) (100.00) | 23(24.21) (100.00) | 1(1.05) (100.00) | 95(100.00) (100.00) |

Note : 1. Figures in the bracket with number of Enterpreneurs indicate the percentage of row.

2. Figures in the bracket under number of Enterpreneurs indicate the percentage of column.

Table 3.12 Distribution of entrepreneurs by Level of Education and Migration.

| Migration | Level of Education | | | | | |
|---|---|---|---|---|---|---|
| | Secondary | Higher Secondary | Diploma | Graduate | Post Graduate | Total |
| Native of Baroda District | 3(9.68) (37.5) | 2(6.45) (66.67) | - | 20(64.52) (35.09) | 6(19.35) (25.00) | 31(100.00) (32.63) |
| Gujarat (other Districts) | 3(6.38) (37.5) | - | 2(4.26) (66.67) | 27(57.45) (47.37) | 15(31.91) (62.5) | 47(100.00) (49.47) |
| Migrated from out of State | 2(11.76) (25.00) | 1(5.88) (33.33) | 1(5.88) (33.33) | 10(58.83) (17.54) | 3(17.65) (12.5) | 17(100.00) (17.90) |
| Total | 8(8.42) (100.00) | 3(3.16) (100.00) | 3(3.16) (100.00) | 57(60.00) (100.00) | 24(25.26) (100.00) | 95(100.00) (100.00) |

Note : 1. Figures in the bracket with number of Entrepreneurs indicate the percentage of row.

2. Figures in the bracket under the number of Enterpreneurs indicate the percentage of coluan.

responsible for large scale inmigration.

The general belief is that the natives have an advantage over the migrants and their performance is expected to be better. However, the migrants are said to be hard working and are ready to seize any opportunity, thus their performance should be in no way inferior to the natives. An attempt has been made to study this aspect. Regression equation* with local status as dummy variable indicate that the performance of locals is inferior to that of migrants. The results pertaining to the performance of migrants and locals is presented in the table 3.13 below

Table 3.13

Size and performance of enterprises by the nativity of the entrepreneurs.

| Ownership/ Nativity | Average capital employed (Rs.'000) | Average valueadded perfirm (Rs.'000) | Average profitrate (%) |
|---|---|---|---|
| Proprietorship | | | |
| a) Migrant | 368 | 421 | 57.25 |
| b) Local | 342 | 229 | 27.14 |
| Partnership concern | | | |
| a) Migrant | 590 | 746 | 38.11 |
| b) Local | 727 | 344 | 17.40 |

The results indicate that the performance of migrants is better than that of locals, both by value added and profit rate. No definite conclusion can be drawn about the size of firms.

* Regression equations with Local status as dummy variables (D) were fitted. The results are as follows.
Capital employed = 1249437 - 118113 D
(0.3396)
Value added = 816133 - 467468 D
(2.1447)

## 3.7 Caste/Social Community

The population of India is divided into several socio - religious communities, Hindu, Sikhs, Muslims, Jains, Parsis, Christians and few others. In Baroda district, the composition of various communities is as follows in 1981. Hindu (90.69%), Muslims (7.95%), Jains (0.74%), Christians (0.43%) Sikhs (0.14%), Buddhists (0.02%), others (0.03%). Within each region and socio - religious community, particularly among the Hindus, the society has been further divided into class, caste and sub-caste groups which have been fairly rigidly separated from each other. The Hindu community, which is the largest, is further segmented into classes, which are thought to have been based originally on functional occupation differentiations. The frequent specialization of economic function by social community means that the business elements of society often coincide with social communities. An analysis of entrepreneurship can thus be viewed in terms of social community and caste of entrepreneurs of various regions.

The industrial entrepreneurship in India has always been discussed and analysed in terms of entrepreneurs, castes and the pursuits associated with the castes. The caste system has had to some extent its effect on occupational mobility though the caste system amongst Hindus is being constantly denounced. The caste factor has to be considered in studying the entrepreneurs, as the entrepreneurship demands the presence of a particular culture which certain castes have imbibed in themselves.

The studies which focussed their attention on the issue of, castes, succeeding in entrepreneurship have arrived at different conclusions. Studies by Berna, UNESCO Research Centre, Spodek, Bhatia and Sharma observed that generally all non - entrepreneurial castes succeed in entrepreneurship with necessary education, capital and technical knowledge. However, majority of the studies observed that trading castes succeeded in entrepreneurship. The study by Gadgil[34], concludes that successful entrepreneurs mainly belong to trading, financing and money lending castes. He observed that financial communities were more entrepreneurial than the trading communities due to their access to credit and capital and background in banking and money lending.

Nafziger's[35] study of 54 small scale manufacturers in Vishakhapattanm of Andhra Pradesh conclude that twice born castes and rich families succeeded as entrepreneurs due to education, work experience, access to capital and government assistance. He also concludes that socio - economic status of businessmen is generally higher than that of general population. Pandit's[36] study of 19th century developments in Gujarat revealed that castes others than trading and agriculture also took to entrepreneurial

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34. Gadgil, op.cit.

35. Nafziger, E.W. "Class, caste and Community of South Indian Industrialists : An Examination of the Harate Alger Model" Journal of Development Studies, Vol, II, NO.2, Jan, 1975. pp.131 - 148

36. Pandit, D.P. "Creative response in Indian Economy - A regional analysis" The Economic Weekly Vol. IX, No. 8, Feb 23, 1957. pp. 283 - 286 and Vol. X, No.9, March 1, 1957. pp.315 - 317.

activity and succeeded. This has been attributed to higher status attached to business in the Gujarat setting. Berna[37], in his study of 52 medium scale firms in light engineering industry of Madras and Coimbatore evaluated their growth, technology and adaptivity to changing circumstances. He observed that though the entrepreneurs hailed from diverse castes, occupation and classes and started as only small - scale operators they came up to their present position and diversified their production. This he attributed to their education and technical training.

The UNESCO[38] study on metal working industry of Howrah in West Bengal observed that people took to entrepreneurship gradually as a result of shift of members from traditional occupations. this study emphasizes on educational attainment for entrepreneurial success. Spodek[39] observed in his study on entrepreneurs in Ahmedabad city, that it was non - Banias who started cotton textile industry, with the Banias financial support. Banias entered the industry at a latter stage and brought about considerable changes. Bhatia[40] studied 50 firms in Punjab and concluded that people from various castes and occupations participated in manufacturing and succeeded in it.

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37. Berna, J.J. "Industrial Entrepreneurship in Madras State", Bombay, Asia Publishing House, 1960.

38. "Social Aspects of Small Industries in India : Studies in Howarah and Bombay" - Delhi, UNESCO, Research Center On Social and Economic development in Southern Asia, 1962.

39. Spodek - op.cit

40. Bhatia, B.S., "New Industrial Enterpreneurs. Their origins and problems", Journal of General Management, Vol. 2, No. 1, Autumn, 1971. pp.69 - 71.

Capital and experience in trading were reported to have accounted for their transition and success. Sharma[41], studied 316 manufacturing units in the corporate private sector. He arrived at mainly two conclusions : firstly, trading and financing communities like Parsis, Banias or Chettiyars etc., were no longer the only entrepreneurial castes. Rather new springs of entrepreneurship had developed among other communities like Brahmins, Khatris, Patels, Naidus, Kayasthas, Sikhs, and Sindhis. He further concludes that the latter communities were more entrepreneurial than the former and are shifting from traditional industrial sector to modern industrial sector.

The study of H. A. Millman, Lamb, Hemalata Acharya, Singh, Pavlov, Shoji, Ito, Leighton Hezlehurt, Thomas Timberg, Amlender Guha and Mahadevan, observed that trading castes succeeded in entrepreneurship. These studies indicate communal customs, business enterprise, profit motive, willingness and ability to adjust to changing conditions, joint family, trading background as various factors leading to successful entrepreneurship in trading castes.

Various studies have indicated that during eighteenth century, Gujarat and Saurashtra had a highly developed Hindu and Jain trading community. The Banias in addition to Muslim communities comprising converts from Hindu trading and artisan

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41. Sharma, R.A. "Entrepreneunial Change in Indian Industry," New Delhi, Sterling Publishers Pvt., Ltd., 1980.

communities took to entrepreneurship. . , Later in the present century, an indegeneous Parsi group became active in trade. In Maharashtra, local Brahmins and trading communities from Gujarat, Rajasthan, Saurashtra and Kutchch dominated business. However, during the latter period, it was observed that castes other than trading took to entrepreneurial activity. During the late 19th century and in 20th century agricultural communities took to entrepreneurship and succeeded. their participation in the entrepreneurial activity has been increasing over time.

A number of studies have indicated that the trading class and money lending communities have become successful entrepreneurs in a number of states in India. Of late it is widely observed that the rich agricultural peasantry have been diverting their surpluses from the agriculture to the entrepreneurial activities in industry. A similar phenomenon is observed in Gujarat as well. In Gujarat, the agricultural communities took to entrepreneurship quiet early. Today they are in a dominant position in various industries. In the present sample Patidars, the traditional agricultural community form the largest share. The data is presented in table 3.14.

Out of 95 small scale enterprises surveyed 76 were started by Hindus and the rest by entrepreneurs from other religions. Among the Hindus, the Patidars form the largest group; 26 enterprises were established by them. 35 per cent of them have reported business background. The next largest group is the Banias, wherein a greater proportion reported to have business

Table 3.14 Caste and Religious Background of Entrepreneurs and Their performance in the Market.

| Sr. No. | Caste /Religion | Number of Enterprises | % of entrepreneurs with business background in the group | Capital invested per firm (Rs. Lakhs) | Value added per firm (Rs. Lakhs) |
|---|---|---|---|---|---|
| 1 | Hindu | 76 | 47.4 | - | - |
| | a. Patidars | 26 | 34.6 | 13.24 | 6.42 |
| | b. Brahmin | 12 | 58.3 | 12.74 | 5.69 |
| | c. Banias | 25 | 64.0 | 11.68 | 9.55 |
| | d. Rajputs | 7 | 28.6 | 11.27 | 5.51 |
| | e. Others | 6 | 33.3 | 8.16 | 6.76 |
| 2 | Muslims | 8 | 62.5 | 10.60 | 4.86 |
| 3 | Jains | 6 | 66.7 | 15.91 | 11.03 |
| 4 | Sindhis | 4 | 100.00 | 11.88 | 11.32 |
| 5 | Parsis | 1 | - | 4.09 | 0.86 |

background. In the sample there are 4 enterprises established by Sindhis and all of them reported business background. Overall, just over 50 per cent of entrepreneurs have reported business experience. In column 3 and 4 of the table the average capital invested and average value added are presented. The firms established by Patidars and Jains show greater average capital invested. The value added per firm is the highest in firms established by Sindhis and Jains, who have greater business exposure.

The business background of the entrepreneurs are found to have positive impact on the establishment and running an enterprise. The average size and performance of enterprise for entrepreneurs with and without business background has been analysed earlier and the results indicate that entrepreneurs with business background are performing better.

Many factors other than community and business background play a role in the development and performance of enterprises. Taking various factors into consideration, it is observed that entrepreneurs emerge from varied communal and family background. Though social background of the entrepreneurs have influence on entrepreneurial endeavour, factors such as education, nativity, previous experience too have a role to play. Therefore, looking at entrepreneurial development and performance from caste and social community point of view would be very narrow and would not explain many real aspects of entrepreneurship.

## 3.8 Performance of Enterprise : A Cross Section Analysis

There exists no undimentional measurement of highly diverse behaviours of entrepreneurs. Entrepreneurship is considered exceedingly complex entity, hardly capable of evaluation in totality. Therefore any attempt to look at entrepreneurship from a particular angle would yield only a partial analysis. Studies on small scale industry development carry reference to social, economic, cultural, educational and other aspects of entrepreneurs. However, characters of entrepreneurs change from one sample to another sample, they vary from one region to another region and change over time. The measurement of entrepreneurial ability in individual cases is of interest to the psychologist but it is not the concern of economists. What is of importance from the economic point of view is the evaluation of performance of entrepreneurs. The present study makes a modest attempt in this direction. It is impossible to include all the dimensions of entrepreneurs, but it is possible to analyse the important factors cohesively. In this section an attempt is made to establish the relationship between industrial performance and the determinants of entrepreneurship.

This section examines the performance of entrepreneurs in terms of entrepreneurial qualities. It takes into consideration relevant sociological, economic, technical and factors of the entrepreneurs. The entrepreneurial characters taken are age, number of partners, business background, technical background and nativity of the entrepreneurs. In addition to these certain variables pertaining to the enterprise are also taken, these are

age of the firm, capital intensity, horse power connected and capital employed. Among these variables some are qualitative variables, hence, cannot be quantified. These variables are treated as dummy variables therefore denoted by `1' in their presence and `0' in their absence. The business background, technical background, non-local or migrant from regions other than Baroda District are denoted by `1' and the absence of these characters is denoted by zero. The performance of enterprises is measured by the amount of value added generated, value added per man day of labour and the gross profit rate of firm. Multiple regression analysis has been used to examine the relation between these variables.

3.8.1 Dependent Variables :

The performance of enterprises is measured by indicators of value added, value added per labour and rate of profit. Regression estimates are also done with gross profit as dependent variable.

Value added is defined as the difference between total ex-factory value of output and inputs of both goods and services and is represented at 1984 - 85 prices. Given various constraints the first goal of any firm would be to create largest possible net output (i.e. value added). For a given size of the plant, the value added could be maximized, if the material and non material inputs are efficiently used. It is from the value added that a firms pay remuneration to the factors of production. What ever be the ultimate goal of the firm, be it profit maximization, sales

maximization, maximization of profit growth or market share, a firm will try to create largest value added as creation of value added is more a pre - condition to attain various other goals. Therefore, value added could be treated as a representative of firms performance. Higher the value added, better would be the performance, given the size.

Productivity is denoted by value added generated in the process of production per man day of labour employed. this is generally denoted as the labour productivity. Higher the productivity, better is the performance of this factor of production employed. However behind labour there are other factors such as capital, technology, infrastructure. entrepreneurs and management etc., which all together would influence the productivity of the labour, as a factor of production. The aim of an enterprise is to combine the different factors of production effectively so as to maximize the total productivity.

Given the size of plant, higher profit generated indicates better performance. Gross profits is here defined simply as gross value generated less the wage bill. Higher gross profits indicate lower cost of production. Lower cost of production is achieved by the efficient use of material inputs and the factor inputs. Therefore, in the short run gross profit is a good representation of performance of the firm.

Rate of profit or profitability is defined as the profit per unit of capital invested. A firm with higher profitability is

said to be performing better as the surplus generation is faster and this could be used for further investment and this measures the return to invested capital. From a firms point of view profitability is an indicator of better performance.

3.8.2. Hypothesis and Measurement of the Variables :

The study considers ten factors affecting performance of enterprises, of these four factors are attributed to the firm and six are attributed to the entrepreneur. Among the factors attributed to the entrepreneur some are qualitative in nature and hence represented as dummy variables. In what follows a brief look at the various hypothesis tested is presented.

Horse Power Connected :

Horse Power is a measure of electric connection given to a plant. Higher horse power is connected to plant with a greater capacity, that is to say larger machines require greater load and consume more electricity. With increasing size of plant there are economies of scale. Therefore, greater the Horse power connected, the higher the performance of the plant.

Age of the Firm :

Over a period of time the efficient firms survive and grow in the market. An older firm has well established market and is expected to be using its capacity to a greater extent. Because of its efficiency and stability in the market older firm could be expected to perform better. Age of the firm is denoted by the number of years.

Capital Invested :

Capital is a produced means of production with increasing capital investment in plant and machinery there is more sophistication in the production process. Generally capital brings along with it technical progress and is associated with technological development. As more of capital is available in combination with other factors of production, their productivity increases and as a result the overall performance is raised. Therefore, capital invested is expected to exhibit direct relation with performance of a firm.

Capital invested is measured at the 1984 - 85 prices. The undepreciated value of the plant and machinery at 1984 - 85 prices is added to the value of the inventories to represent the capital invested in a firm.

Age of Entrepreneur :

The popular belief is that with experience of entrepreneurs, the performance of the enterprise is better. However, there is another view that, with younger entrepreneurs the firms perform better in the market, as they are highly ambitious and are ready to take greater risks. Hence, we would expect an inverse relation between the age of the entrepreneur and performance of the firm. Age of the entrepreneur is denoted by the number of years.

Number of Partners :

There are number of advantages to a firm as the number of partners increase. Larger number of partners can create greater financial base to a firm and this can result into larger scale of operation. With more number of partners, the firm has access to varied skills of different partners who have different educational qualifications and levels. Above all the joint decision taking would be beneficial to the firm, and the responsibilities of production, control and management in a firm gets shared, as a result are performed more efficiently. Therefore, we can expect that with greater number of partners in a firm, the performance would be better.

Capital Intensity :

Capital intensity denotes the ratio of capital used per labourer (or per man day of labour). Higher capital intensity is associated with advance technology and greater sophistication in the methods of production, with greater emphasis on industrialization, capital labour ratio is bound to change rapidly through substitution of capital for labour or due to application of labour saving techniques. Chemical industry is observed to be a capital intensive industry, it can be expected that, higher the capital intensity higher would be the performance.

Capital intensity is denoted by the ratio of capital invested (measured as discussed earlier) in a firm to that of man days of labour employed. Man days of labour employed is the

number of days worked by the labourers and other staff in a firm during a year. Therefore, capital intensity denoted capital employed per man day of labour.

Business Background :

Business communities in India have contributed considerably to the industrial development of the country. As these communities are moderate risk takers, their raise in industrial sphere was fast in the past and is still high today. However, various social scientists are of the contention that, entrepreneurs with business background are interested in short run gains; rather than development in the long run. Kilby focuses on the crucial role of `production orientation' in the entrepreneurship development, as against a `commercial orientation' which is often found predominant in developing countries. Business background is a qualitative variable, which is expected to have a positive impact on the performance of the enterprises.

Business background is a dummy variable. If the entrepreneurs has Business background, the presence of it is denoted by `1' and `0' when the entrepreneur does not have business background.

Educational Level :

In a competitive industry, an entrepreneur has to face a number of complicated situations. Unlike in a medium or large scale enterprises, the entrepreneur in small industry have to

overcome these hurdles all alone. In medium and large scale enterprises, it is the management that looks after the day to day problems. Education of entrepreneurs would have a positive role to play in crossing the day to day hurdles and improving the performance of the enterprises. Education is a dummy variable. If the entrepreneur is a graduate, it is denoted by '1' and '0' if non graduate.

Technical Background :

Unlike in traditional and cottage industry which is based on skills and craftsmanship, the modern small scale industry uses more complicated techniques and processes. Chemical industry is a modern industry and is of a very specialized nature. Basic knowledge of the processes and technology used would certainly help the entrepreneur in enhancing the productivity of the enterprises. As small scale enterprises cannot afford to employ highly skilled personnel, they will have to depended on consultants to tide over technical problems. If the entrepreneur has the requisite technical background, he can be of continuous help to the enterprise. Technical knowledge of the entrepreneur would help the firm maintain quality standards of the products and high yields in the processes as well. Therefore, we can hypothesize that technical background of the entrepreneur has positive contribution to the performance of the enterprise.

Technical background is a dummy variable. If the

entrepreneur has technical education with chemistry, pharmacy background or two years of training is classified as `1' and `0' other wise.

Migration :

Availability of opportunities elsewhere would force an entrepreneur to migrate. Migration to foreign lands on look out for opportunities has been observed over centuries. Even in India, we observe that certain races and communities are distributed all over the country, dominating the business activity. A migrant has to operate in foreign lands under various environments. Therefore, a local has inherent advantages over a migrant and can use his social contacts to develop his business. But the migrants are found to be generally hard working and readily seize the opportunities available. They are aware of the competitive conditions in the market and are ready to adopt to changes. They are also found to be high risk bearers. It is for these reasons the social scientists advocate that migrant entrepreneur's performance is in no way inferior to that local entrepreneur.

Migration is treated as a dummy variable in the regression analysis. An entrepreneur who originated from outside Baroda district is indicated as migrant and is denoted as `1' and if the entrepreneur is from Baroda district (non - migrant or local) is denoted by `0'.

### 3.8.3 Regression Analysis and Results :

To examine the performance of the enterprises in the light of the above hypothesis, in what follows an attempt in made to examine the various relations. The regressions are run with respect to value added, value added per man day of labour and rate of profit taken each as dependent variable to measure the performance. Before we run these regressons, it is necessary to check the inter relations (Multi Collinearity) among the various explanatory variables to be considered for the regresson analysis. Some of the explanatory variables are qualitative variables, hence their correlations with other variables would give us only direction of the relation and the significance of the correlation coefficient is not looked for. Therefore only the inter relations between the quantifiable varibales are presented. The quantifiable variables are Horse Power conected, Age of firm, Age of entrepreneur, Number of partners, capital employed, and capital intensity. The results are presented in table 3.15. It may seen from the table that Horse power connected is significantly correlated to capital employed and age of enterpreneur, capital employed also exhibit significant correcation with Age of firm and Number of Partners. Age of enterpreneur exhibits significant correlation with Horse Power connected, Age of firm and Number of Partners. Equations are fited with these interrelations in mind.

1. $V.A.L. = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 D_1 + \beta_8 D_2 + \beta_9 D_3 + u$

2. $V.A.L. = \alpha + \beta_4 X_4 + \beta_6 X_6 + \beta_7 D_1 + \beta_8 D_2 + \beta_9 D_3 + U$

3. $P.R = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 D_1 + \beta_8 D_2 + \beta_9 D_3 + u$

4. $P.R. = \alpha + \beta_4 X_4 + \beta_6 X_6 + \beta_7 D_1 + \beta_8 D_2 + \beta_9 D_3 + u$

5. $V.A. = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_5 X_5 + \beta_7 D_1 + \beta_8 D_2 + \beta_9 D_3 + u$

6. $V.A. = \alpha + \beta_3 X_3 + \beta_4 X_4 + \beta_7 D_1 + \beta_8 D_2 + \beta_9 D_3 + u$

Where

(i) Independent variables

$X_1$ - Horse power connected (H.P.)

$X_2$ - Age of the firm (Number of years)

$X_3$ - Capital employed (Rupees)

$X_4$ - Age of entrepreneur (Number of years)

$X_5$ - Number of partners in the firm

X6 - Capital intensity (Capital employed per man day of labour)

$D_1$ - Business background (`1' if yes, `0' if no)

$D_2$ - Technical background (`1' if yes, `0' if no)

D3 - Migrant (`1' if origin of entrepreneur is outside Baroda district, `0' if the entrepreneurs origin is Baroda district).

(ii) Dependent variables

V.A.L. - Value added per man day of labour (Rupees)

V.A. - Value added (Rupees)

G.P.R. - Gross Profit rate (%)

After eliminating the inter - related variables the multiple regressions are run using firm wise corss-section data for the year 1984-85. (Table 3.15) The multiple regression equation with labour productivity, profit rate and value added as dependent variables are run. The results are reported in table 3.16 some equations with education as dummy variables were also run but not reported here. Some regression equation dropping some of the independent variables were also tried. When labour productivity and profit rate are taken as dependent variables capital intensity is taken as independent variables along with others. The regression equations with gross profit, as dependent variable was also run, when value added and gross profit are taken as dependent variables, capital employed as a proxy to size is taken as independent variables along with other independent variables. The results are as follows :

**Value added per manday of labour (labour productivity) :**

Labour productivity is significantly explained by the independent variables. The capital intensity is found to explain variations in labour productivity significantly at 1% level. Higher the capital intensity, higher is the labour productivity. the technical background of the entrepreneurs is found to explain variations in labour productivity significantly at 5% level. This

Table 3.15 COEFFICIENT OF CORRELATION

| Variables | X1 | X2 | X3 | X4 | X5 | X6 |
|---|---|---|---|---|---|---|
| X1 | 1.0000 | - | - | - | - | - |
| X2 | 0.1820 | 1.0000 | - | - | - | - |
| X3 | 0.5919 | 0.6258 | 1.0000 | - | - | - |
| X4 | -0.1950 | 0.2096 | -0.1738 | 1.0000 | - | - |
| X5 | 0.1199 | -0.1085 | 0.2233 | -0.5614 | 1.0000 | - |
| X6 | 0.1841 | 0.0195 | 0.1085 | 0.0838 | 0.0836 | 1.0000 |

Note : The critical values of coefficient of correlation (with 94 degrees of freedom) at 1% level and 5% leels, of significance are 0.2540 and 0.1946 respectively.

Table 3.16 Factors affecting te performance of chemical enterprises Regressions Results.

| | Dependent variables | | | | | |
|---|---|---|---|---|---|---|
| | Value added per man day of labour | | Profit Rate | | Value added | |
| Variables | 1 | 2 | 3 | 4 | 5 | 6 |
| | d.f=87 | d.f=89 | d.f=87 | d.f=89 | d.f=89 | d.f=87 |
| | | | | | ** | |
| X1 | -0.2155 | - | -0.1251 | - | 10543 | - |
| | (0.3081) | | (1.2323) | | (4.3100) | |
| | | | | | ** | |
| X2 | 0.7250 | - | 0.5790 | - | 22970 | - |
| | (0.2738) | | (1.5069) | | (2.3975) | |
| | | | | | | ** |
| X3 | - | - | - | - | - | 0.4324 |
| | | | | | | (4.5711) |
| X4 | - | -3.6346 | - | -0.3516 | - | -12333 |
| | | (1.5617) | | (1.0140) | | -(1.5488) |
| X5 | -6.1859 | | 1.2224 | - | 6952 | - |
| | (0.7106) | | (0.9677) | | (0.2211). | |
| | ** | ** | * | * | | |
| X6 | 0.3271 | 0.3208 | 0.0246 | 0.0223 | - | - |
| | (4.5644) | (4.7309) | (2.2324) | (2.1221) | | |
| D1 | 13.9754 | 2.1639 | 0.0575 | -1.0500 | 89242 | 9214 |
| | (0.3361) | (0.0534) | (0.0095) | (0.1793) | (0.5930) | (0.0664) |
| | * | * | ** | ** | ** | * |
| D2 | 84.0773 | 81.9609 | 17.8854 | 16.7233 | 124809 | 132774 |
| | (1.8561) | (1.8637) | (2.7208) | (2.5520) | (2.8281) | (1.9266) |
| | | | | | ** | ** |
| D3 | -23.8853 | -38.4113 | -1.0522 | -1.9353 | 124360 | 368079 |
| | (0.5733) | (0.9168) | (0.1740) | (0.3100) | (2.8197) | (2.4566) |
| | 60.9155 | 209.0491 | 7.7288 | 27.9376 | -334940 | 386254 |
| $R^2$ | 0.2481 | 0.2618 | 0.2103 | 0.1191 | 0.2843 | 0.3799 |
| $\bar{R}^2$ | 0.1876 | 0.2203 | 0.1468 | 0.0696 | 0.2355 | 0.3450 |
| | ** | ** | * | | ** | ** |
| F-Ratio | 4.0999 | 6.3120 | 2.5415 | 2.3299 | 5.8262 | 10.9043 |

Note : Figures in the brackets are 't' values. The dependent and independent variables are defined in the text.
* indicates significant at 5% level.
** indicates significant at 1% level.

indicates that the firms managed by the entrepreneurs with technical background perform well, than the ones being managed by entrepreneurs without technical background. Age of the firm, business background of the entrepreneur show positive coefficient but do not explain variations significantly. The size of firm denoted by horse power connected. Age of entrepreneur and migrants performance is lower, as the coefficients denoted are negative, though not significant. No definite conclusion can be drawn pertaining to each of these variables. All these variables together explain variations in labour productivity significantly. The F-ratio for both the equation presented in significant of 1% level. Regression equations were tried dropping some of the dummy variables and adding few others, but the results are not found to vary much.

Profit Rate :

The variation in profit rates are not satisfactorily explained by the independent variables. The results are mixed in nature. Out of the two equations presented are set of independent variables explain profit rate significantly at 5% level, but the other do not. Capital intensity is found to explain variations in profit rate significantly at 5% level in both the equations. The technical background of the entrepreneur is found to explain variations in profit rate significantly at 1% level. Age of the firms, age of entrepreneurs, show positive coefficient in both the equations but are not significant. Business background shows a positive coefficient when introduced along with the first

equation, but reveals a negative coefficient in the second equation. No definite comment can be made on this behaviour as the coefficients are not significant. Age of entrepreneur, migrant are two variables indicating negative coefficients but are not found to be significant. Equations were tried introducing educational level as dummy variables and also by dropping some of the quantitative variables, but the results are more or less the same.

Value Added :

The first equation reveal that the selected variables explain 28% of variations in value added generated. The results indicate that the variables Horse power connected, age of the firm, capital employed, technical background and migrant status of entrepreneur explain the variations in value added significantly. Among the variables attributed to the entrepreneur technical background and migrant status explain the variations significantly. Age of the entrepreneur give negative regression coefficient.Business background give positive regression coefficients but they do not explain variations in value added significantly.

Number of partners in a firm exhibit positive regression coefficients but are not found to be significant in any of the equations. The independent variables are found to explain variations in value added significantly in both the equations. The F - ratio is found to be significant at 1% level. Results indicate that size of firm, age of firm, technical background and migrant,

as independent variables explain variations in value added significantly.

When we take into account all the three sets of equations we find that technical background of the entrepreneur explain variations significantly. The size of firm explain variations in value added significantly, but show a negative coefficient for labour productivity and profit rate. Capital intensity is another important variable that explains variations in labour productivity and profit rate. Business background of the entrepreneur show a positive coefficient in all equations except one, but is not found to be significant in any of the equations. Age of the firms shows positive coefficient in all the equations indicating that older firms perform better, but this cannot be said with confidence. Age of entrepreneur exhibit positive coefficients for value added and profit rate but not for the labour productivity.