CHAPTER V
PERFORMANCE OF ENTREPRENEURS ENGAGED IN THE PRODUCTION OF AYURVEDIC MEDICINES AND THEIR PROBLEMS AND PROSPECTS

5.1 Introduction

Present growth and future development of any industry depends on the performance of the entrepreneur, running that industry. The performance of the entrepreneur is a multi facet concept. It is the quality of the entrepreneur to make the decisions regarding the important parameters of the production which influences his/her performance. If these decisions are correct then they succeed in the business. But if some of the decisions go wrong then they have to bear huge losses. The performance of the entrepreneur in a way depends on his/her power to take the decisions correctly.

5.2 Performance of the entrepreneur

Performance of the entrepreneurs selected in the sample can be broadly divided into three categories.

a) General performance of the entrepreneurs
b) Performance of the units emerging in the post reform period
C) Performance of women entrepreneurs in the sample

a) General performance of the Entrepreneurs

Performance of the entrepreneurs can be judged by three important parameters namely profit, annual turnover and innovations carried out by them in their business.

Profit

Profit is the most important indicator of entrepreneurial performance or success. It was believed to be a barometer of the performance of any business, for many years. But the recent trend shows that entrepreneurs prefer to increase their sales turnover rather than profit. They decide some profit margin and concentrate fully on the turnover. This fact does not totally forgo the role of profit in any line of business.

It is interesting to examine the effects of various socio-economic variables on profit. This can be done by applying Chi-square test to check the independence/association between these variables and profit.

Regional status of the entrepreneur and profit
Null Hypothesis: Profit is independent of regional status of the entrepreneur. The value of Chi-square is 0.68. Since this value is much less than the table value of Chi-square at 5% level of significance, we have to accept the null hypothesis of independence. This value is not suggestive of any association between the two. Two Maharashtrian (10.52%) and two Non-Maharashtrian entrepreneurs (6.89%) from the sample are making losses so there is no reason to assume that only Maharashtrian people are lagging behind in the business. Two Maharashtrian entrepreneurs out of 19 (10.52%) are incurring losses. Out of remaining, eight entrepreneurs (47.05%) are earning profit between 5-10 percent and nine (52.94%) are earning profit over 11 percent. Even two Non-Maharashtrian entrepreneurs (6.89%) are incurring losses. Out of remaining, entrepreneurs earning profit between 5-10 percent and more than 11 percent is 17 (62.96%) and 10 (37.05%) respectively. Two groups do not differ statistically, so we can draw a conclusion that as far as the present sample is concerned, profit earned by the entrepreneur and his/her regional status are not associated.

Age of the Entrepreneur and Profit

The present sample shows that getting profit from the business is not related to the age of the entrepreneurs. Majority of the entrepreneurs from the sample seem to be satisfied with 10 percent profit margin. Out of 17 entrepreneurs having the age upto 45 years, 12 (70.58%) get the profit in the range of 5-10 percent. There are 13 entrepreneurs (41.93%) above 45 years of age getting the same percentage of profit. The value of Chi-square for 1 degree of freedom is 1.32. Even though the data show that three entrepreneurs (9.67%) from older age group and only one (5.88%) from younger group make losses still two age groups do not differ much as far as profit percentage is concerned. The younger generation in the sample might have practiced new innovative and cost reducing techniques so only one entrepreneur out of them is making loss.

Qualification of the entrepreneur and Profit

Profit is independent of the qualification of the entrepreneur. The value of Chi-square is 0.34. Sample consists of 24 suitably qualified and 24 not suitably qualified entrepreneurs. Thirteen entrepreneurs (54.16%) with suitable qualification and twelve entrepreneurs (50%) without suitable qualification earn the commonly accepted profit (upto 10%). Manufacturing of Ayurvedic medicines requires qualified entrepreneurs, but there is no guarantee that these entrepreneurs will get sufficiently high profit from the business.

Type of family and profit
Null Hypothesis: Profit is independent of the type of family in which entrepreneur lives.
Null hypothesis is accepted due to 0.07 value of Chi-square. Type of family and profits are independent. Fourteen entrepreneurs (53.84%) having joint family earn profit in the range of 5-10 percent and 11 entrepreneurs (50%) from nuclear families also earn the same level of profit.

Family Background of the Entrepreneur and Profit

It is common belief that entrepreneurs having business background can easily get profit because their earlier generations have already faced the hardships in the business and in most of the cases these older entrepreneurs have already earned sufficient profits. The entrepreneurs with business background of the family just continue the business already established by their fathers and grandfathers. But the value of Chi-square obtained for testing the association between profit and family background (0.07) is not sufficient enough to reject the Null Hypothesis of independence between profit and family background. Two entrepreneurs from both the categories (6.06% and 13.33%) i.e. entrepreneurs having business background and service background of the family, are making losses. Out of remaining 16 entrepreneurs (57.14%) and 9 entrepreneurs (56.25%) (Out of 28 and 16 with two backgrounds respectively) are earning profits in the range of 5-10 percent. The present sample of Ayurvedic drug manufacturers could not establish any association between profit and family background of the entrepreneurs.

Income at the time of establishing the Business and Profit

Null Hypothesis: Profit is independent of the income earned by the entrepreneurs at the time of establishment of the business.
Income of the entrepreneur at the time of establishing the business is associated with his/her profit. This association is supported by the value of Fisher’s exact probability p=0.046 which is less than 0.05.
The following table can prove the association.

<table>
<thead>
<tr>
<th>Table no 5.1 Income at the time of Establishment of the Unit and Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit (%)</td>
</tr>
<tr>
<td>Initial Income (Rs)</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
</tbody>
</table>
Since some cell frequencies in the above table show the value less than 5 Fisher’s exact probability test can be used instead of Chi-square test. The value of Fisher’s probability is calculated by considering only profit making entrepreneurs (44), so as to establish some association between profit and income. The above table shows highest number of entrepreneurs, earning profit, in the first income group i.e. income below Rs.10,000 per month and lowest number in highest income group. Out of 25 entrepreneurs earning profit between 5-10%, 14 entrepreneurs (56%) were earning less than Rs.10,000 per month initially. But only 5 entrepreneurs (20%) earning more than Rs.20,000 per month initially were earning such a low level of profit. This picture clearly shows that more entrepreneurs from lowest income group and fewer entrepreneurs from highest income group earn the minimum amount of profit. Proportion of entrepreneurs making profit is associated with their initial income. As the income increases the number of entrepreneurs making a particular percentage of profit falls.

Though initial income and profit are associated, present income and profit do not show any association according to 1.5 value of Chi-square. Four entrepreneurs (16%) from lowest income group earn profit in the range of 5-10 percent and one entrepreneur (10%) earns more than 16 percent. In the highest income group (Above Rs.60,000 per month) eight entrepreneurs (32%) earn 5-10 percent profit and five entrepreneurs (55.55%) earn 11-16 percent and five entrepreneurs (50%) earn more than 16 percent profit. There are entrepreneurs in higher income group i.e. 32% satisfied with only 5-10 percent profit and also there are some (55.55%) earning profit between 11-16% and 50% entrepreneurs earn more than 16 percent profit. The percentage of profit is independent of the level of current income of the entrepreneur.

### Reasons for Entry in the Business and Profit

Null Hypothesis: The reasons for entry in the business and percentage of profit are independent. The value of Chi-square is 0.45 which suggests that the profit and reasons for entry in the business are independent. Profit is determined by some other factors and not by the reasons behind the entry of the entrepreneurs in their business. Twenty nine entrepreneurs out of 47 (61.70%), giving the first two reasons i.e. to achieve something and to make money and 18 entrepreneurs out of 33 (54.54%) giving the other four reasons for entry earn 5-10 percent profit. Thus two groups do not differ much in respect of percentage of profit.
Co-operation from the spouse and Profit

Null Hypothesis: Profit is independent of the co-operation from the spouse. The value of Fisher’s exact probability $p=0.1013$ which is greater than 0.05, so we accept the null hypothesis of independence. Fourteen entrepreneurs (56%) getting co-operation and 11 entrepreneurs (44%) not getting co-operation from spouse are earning 5-10% profit.

Previous Experience in the same line and Profit

Null hypothesis: Previous experience in the same line and profit are independent. The value of Chi-square is 0.01, which accepts null hypothesis of independence. Sixteen entrepreneurs out of 29 (55.17%) and nine entrepreneurs out of 15 (60%) having and not having previous experience respectively are earning 5-10% profit. Majority of the entrepreneurs having previous experience in the same line do not seem to be earning more profit using their experience but remain satisfied with the profit margin of 5-10%.

Profit and Forms of Organizations

Null hypothesis: Profit is independent of forms of organization accepted by entrepreneurs. The value of Chi-square is 0.18. Null hypothesis is accepted at 5% level of significance. Profit margin of 5-10% is earned by 10 entrepreneurs (50%) having proprietorship form of business, 8 (57.14%) and 7 entrepreneurs (50%) having partnership form and private limited companies respectively earn 5-10% profit. Thus three groups having different forms of organization earn same level of profit.

Profit and Entrepreneurial Training

Null hypothesis: Profit is independent of the training undergone by the entrepreneur. Chi-square, giving value 0.09, accepts null hypothesis of independence. Out of 14 entrepreneurs who got some training and out of 30 entrepreneurs who did not get any training 8 (57.14%) and 17 entrepreneurs (56.66%) respectively get 5-10% profit. Entrepreneurial training cannot fetch more profit, at least for the entrepreneurs from the selected sample.

Profit and initial investment made by the Entrepreneur

Null hypothesis: Profit is independent of the initial investment made by the entrepreneur. Fisher’s probability $p=0.9358$ compels us to accept null hypothesis. Out of 36 entrepreneurs investing up to Rs. 30 Lacs in the initial stage 20 (55.55%) are earning profit in the range of 5-10% and out of 8 entrepreneur
investing more than Rs.30Lacs in the business 5(62.5%) are getting 5-10% profit. It shows that majority of entrepreneurs get the profit in the margin of 5-10% irrespective of the investment they have made.

**Profit and Present Investment**

Null hypothesis: Profit is independent of the investment made by entrepreneurs recently. The value of Chi-square 0.01 does not show any association between profit and present investment. Fifteen out of 27 entrepreneurs (55.55%) making investment up to Rs. 60Lacs are earning profit in the range of 5-10% and 10(58.82%) out of 17 entrepreneurs investing more than Rs. 75 Lacs are also earning same profit. Investment made by the entrepreneurs currently does not determine the profit.

**Profit and Type of Market selected for Sale**

Null hypothesis: Profit is independent of the type of market selected for selling the products. The value of Chi-square is 0.38 which shows the acceptance of Null hypothesis at 5% level of significance. Fifteen entrepreneurs (30%), sixteen entrepreneurs (32%) and thirteen entrepreneurs (26%) selling in local, state and national markets are earning 5-10% profit. No particular market can fetch higher profit for the entrepreneurs. Profit earned by the entrepreneur is affected by investment made at the time of establishment of the unit and current investment, age of enterprise, age of entrepreneurs.

**Initial Investment made by the Entrepreneur and Profit**

Correlation between initial investment and profit is -0.016. Magnitude of the correlation is small and insignificant, but the direction is important. These two variables change in opposite direction for the present sample. Those who make less investment at the time of establishment, get comparatively more profit and those who invest more in the beginning, get less profit.

**Present Investment and Profit**

Present investment and profit also show negative correlation. Those entrepreneurs from the sample who have invested more recently get comparatively less profit and those who have invested less get comparatively more profit. The value of correlation coefficient r = -0.041

**Age of Enterprise and Profit**
Age of enterprise and profit are negatively correlated. The value of correlation coefficient $r$ is -0.113, which shows that profit is negatively correlated with the age of enterprise. The value of correlation coefficient is very low and week, so it shows that there are some cases of older enterprises getting less profit and comparatively newer enterprises earning more profit. Most of the old enterprises are run by entrepreneurs of older age group so they may not be using innovative and cost effective techniques resulting in more profit.

**Age of Entrepreneur and Profit**

The present sample of Ayurvedic medicine manufacturers is dominated by middle aged and old entrepreneurs. Thirty entrepreneurs out of 48 (62.5%) are having the age more than 45 years. The value of correlation coefficient calculated to study the relationship between age of entrepreneur and profit is -0.050. Profit is negatively correlated with the age of the entrepreneur. Units run by older entrepreneurs fetch less profit compared to units run by younger entrepreneurs.

**Annual Turnover**

Annual turnover of the entrepreneur is another important measure of the performance of the entrepreneur. It may or may not be influenced by different socio-economic factors.

**Regional Status of the Entrepreneur and Annual Turnover**

Null hypothesis: Annual turnover of the entrepreneur is independent of the regional status of the entrepreneur. The value of Chi-square is 0.12. It shows the independence between annual turnover and regional status of the entrepreneur. Four Maharashtrians (21.05%) and eight Non-Maharashtrian entrepreneurs (27.58%) out of 19 and 29 Maharashtrian and Non-Maharashtrian entrepreneurs respectively, could achieve the annual turnover of less than Rs 25 Lacs. Sample also shows that two Maharashtrians (10.52%) and two Non-Maharashtrians (10.52%) could increase their annual turnover above Rs.4 Crore. This fact shows that impressive growth of the turnover is not community specific.

**Age of the Entrepreneur and the Annual Turnover**

Null hypothesis: Annual turnover and age of the entrepreneur are independent. The value of Chi-square 1.46 indicates that null hypothesis can be accepted at 5% level of significance. The lowest age group of entrepreneurs having age up to 35 years and highest age group of the entrepreneurs exceeding 55 years of age show that four entrepreneurs (33.33%) each from these two groups could achieve annual turnover below Rs.25 Lacs.

**Qualification and Annual Turnover**
Null hypothesis: Annual turnover made by the entrepreneur is independent of his/her qualification. The value of Chi-square 0.77 does not support this hypothesis. Equal number of suitably qualified and not suitably qualified entrepreneurs [six (25%)] could make the annual turnover below Rs 25 Lacs. It seems that there is no reason to assume that qualified entrepreneurs can achieve higher growth of their turnover.

**Type of Family and Annual Turnover**

Null hypothesis: Annual turnover is independent of the type of family in which entrepreneur lives. This hypothesis is accepted at 5% level of significance. Value of Chi-square for 1 degree of freedom is 0.04. Eight entrepreneurs out of 26 entrepreneurs (30.76%) from joint families and four entrepreneurs out of 22 entrepreneurs (18.18%) from nuclear families have reached the target of annual turnover up to Rs. 25 Lacs. Two entrepreneurs each (7.69% and 9.09%) from both the families have crossed the level of annual turnover beyond Rs. 4 Crores. No evidence is found to say that entrepreneur from a particular type of family can achieve higher growth of his/her annual turnover.

**Family Background and Annual Turnover of the Entrepreneur**

Null hypothesis: Annual turnover is independent of family background of the entrepreneurs. Value of Chi-square is 0.09. The independence between family background is shown by the fact that 9 from a group of 30 entrepreneurs (30%) having business background and 3 from a group of 18 entrepreneurs (16.66%) having service background, are making turnover less than Rs. 25 Lacs. Since there are more entrepreneurs in the sample with business background their absolute number in different categories of turnover is large, but we cannot establish any positive link between business background and annual turnover.

**Initial Income of the Entrepreneur and Annual Turnover**

Null hypothesis: Annual turnover of the entrepreneur is independent of the initial income of the entrepreneur. Null hypothesis is accepted. Value of Chi-square is 0.07 which shows the independence between initial income and annual turnover of the entrepreneur. Though seven entrepreneurs having initial income less than Rs. 10, 000 and two entrepreneurs having initial income less than Rs. 20, 000 make annual turnover less than Rs. 25 Lacs, their percentage is exactly the same (22%). Thus entrepreneurs from two different income groups make same turnover

**Present Income and Annual Turnover of the Entrepreneur**

Null hypothesis: Annual turnover is independent of present income of the entrepreneurs. The value of Fisher’s probability is 0.012 which is less than 0.05, so we reject the null hypothesis of independence between annual turnover and present income. Actually these two factors are associated.
The following table shows the association between annual turnover and present income.

### Table no.5.2 Present income and annual turnover

**Annual Turnover (Rs)**

<table>
<thead>
<tr>
<th>Present income (Rs)</th>
<th>Below 25Lacs</th>
<th>25Lacs-75Lacs</th>
<th>75Lacs-2Crores</th>
<th>2Crores-4Crores</th>
<th>Above 4Crores</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 20,000</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>20,000-40,000</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>40,000-60,000</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Above 60,000</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>16</strong></td>
<td><strong>10</strong></td>
<td><strong>6</strong></td>
<td><strong>4</strong></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

Table shows that there are six entrepreneurs (75%) having present income below Rs.20,000 per month making annual turnover below Rs.25 Lacs. But there are only three entrepreneurs (23%) from the income group Rs.20,000-40,000 making the lowest turnover of less than Rs.25Lacs. Comparatively less number of entrepreneurs from higher income groups are making annual turnover of below Rs.25Lacs. Very high level of turnover i.e. Rs 2-4 Crore and more than Rs 4Crores is made by 4 entrepreneurs each having monthly income of over Rs.60,000. These are the entrepreneurs having medium and large scale units. They have invested huge amount of money in the business and are exporting their medicines to different countries. These well settled units in the sample are able to increase their turnover tremendously.

### Reasons for Entry and Annual Turnover

Null hypothesis: Annual turnover is independent of the reasons for entry in the business. Value of Chi-square is 4.17 which accepts the Null hypothesis of independence between the reasons for entry and annual turnover. Six entrepreneurs out of 35(17.14%) entering the business to achieve something and to make money have reached the level of annual turnover of less than Rs.25Lacs and 10 entrepreneurs out of 30(33.33%) entering the business due to other four reasons have reached the same level of turnover.

### Co-operation from Spouse and Annual Turnover

Null hypothesis: Annual turnover is independent of co-operation from the spouse. Fisher’s probability gives value 0.01216 which is less than 0.05, so null hypothesis of independence is rejected by this value. It seems that annual turnover is associated with the co-operation from the spouse.

The following table shows the association between co-operation from the spouse and annual turnover.

### Table no.5.3 Co-operation from spouse and annual turnover
Table shows that entrepreneurs who get co-operation from their spouse can increase their turnover considerably. 58.33% entrepreneurs, getting cooperation from the spouse are making the turnover below Rs. 25 Lacs. All those entrepreneurs (100%) getting cooperation from the spouse are able to increase the turnover above Rs. 4 Crore. In the group of highest turnover i.e. above Rs. 4 Crore, only those entrepreneurs who get co-operation are seen. There is nobody from the category of the entrepreneurs not getting co-operation.

Previous experience and annual turnover

Null hypothesis: Annual turnover is independent of the previous experience of the entrepreneurs. Value of Fisher’s probability is 0.4970 which is greater than 0.05, so the null hypothesis of independence is accepted at 5% level of significance. Out of 32 entrepreneurs having previous experience, eight (25%) could increase the annual turnover up to less than Rs. 25 Lacs and 4 out of 16 (25%) not having previous experience could increase the turnover to the same limit. Thus two groups do not show the difference in the matter of annual turnover.

Forms of Organization and Annual Turnover

Null hypothesis: Annual turnover is independent of forms of organization. The value of Fisher’s probability is 0.042 which is less than 0.05. Null hypothesis of independence is rejected. Forms of organization and annual turnover are associated. This is shown in the following table.

<table>
<thead>
<tr>
<th>Co-operation from spouse</th>
<th>Below 25 Lacs</th>
<th>25 Lacs-75 Lacs</th>
<th>75 Lacs-2 Crores</th>
<th>2 Crores-4 Crores</th>
<th>Above 4 Crores</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get cooperation</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td>Do not get co-operation</td>
<td>5</td>
<td>10</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>16</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td>48</td>
</tr>
</tbody>
</table>
Eight entrepreneurs (66%) having proprietorship form and two entrepreneurs (16.66%) each having partnership unit and private limited companies make the annual turnover of less than Rs. 25 Lacs. Data show that more entrepreneurs having proprietorship fall in the category of annual turnover below Rs. 25 Lacs and fewer entrepreneurs having other forms of organization fall in this category of turnover. Comparatively higher turnover is made by entrepreneurs having partnership and other forms of organization. Those having proprietorship form of organization, have to handle all the activities related to the business like developing clientele, purchasing of raw material, supervising production process, establishing marketing network, looking after accounts and finance single handedly. One person finds it difficult to look after everything. This fact naturally affects his business.

### Entrepreneurial Training and Annual Turnover

Null hypothesis: Annual turnover is independent of the training undergone by the entrepreneurs. The value of Chi-square is 0.62. This value leads to the acceptance of null hypothesis of independence. Four entrepreneurs out of 15 (26.66%) undergoing some entrepreneurial training, and eight out of 33 (24.24%) not undergoing training make the same turnover. Two groups do not differ significantly.

### Initial Investment and Annual Turnover

Null hypothesis: Annual turnover is independent of initial investment made by the entrepreneurs. Value of Fisher’s probability $p=0.8197$ allows us to accept Null hypothesis. Two entrepreneurs out of 10 (20%) and 9 entrepreneurs out of 30 (30%) investing less than Rs 50,000 and up to Rs. 30 Lacs respectively are able to increase the turnover up to Rs. 25 Lacs. Hence two groups do not differ statistically.
Present Investment and Annual Turnover

Null hypothesis: Annual turnover is independent of present investment. Fisher’s probability p=0.0016 is less than 0.05, so Null hypothesis of independence is rejected.

The association between initial investment and annual turnover is shown by the following table.

Table no. 5.5 Present investment and annual turnover

<table>
<thead>
<tr>
<th>Present investment (Rs)</th>
<th>Below 25 Lacs</th>
<th>25 Lacs-75 Lacs</th>
<th>75 Lacs-2 Crores</th>
<th>2 Crores-4 Crores</th>
<th>Above 4 Crores</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Lacs-15 Lacs</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>15 Lacs-60 Lacs</td>
<td>2</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>75 Lacs-5 Crores</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Above 5 Crores</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>16</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td>48</td>
</tr>
</tbody>
</table>

Above table shows that maximum number of entrepreneurs making lowest investment (5 Lacs-15 Lacs) are satisfied with lowest level of annual turnover (Below Rs 25 lacs) and those investing more than Rs 5 Crore are able to increase the turnover up to Rs 4 Crore and even more than 4 Crore. One medium Scale industry from the sample is able to increase their annual turnover above Rs 400 Crore with huge investment. Data provide us sound reason to draw a conclusion that larger size of investment made recently results in higher annual turnover.

Type of Market and Annual Turnover

Null hypothesis: Annual turnover is independent of type of market in which entrepreneurs sell their products. The value of Chi-square is 2.46. Null hypothesis is accepted at 5% level of significance. Nine entrepreneurs out of 31 (29.03%) sell their medicines at local level, six out of 30 (20%) sell at state level, five out of 21 (23.8%) sell at national level and one out of 11 (9.09%) sell at international level. All these entrepreneurs make an annual turnover of less than Rs 25 Lacs. The sale of Ayurvedic medicines in different markets does not have much influence on the annual turnover of the entrepreneurs. Annual turnover is also affected by initial and latest investment, age of entrepreneur and age of enterprise.

Investment at the time of Establishment of the Unit and Annual Turnover

Initial investment and annual turnover are weakly correlated as depicted by the value of r=0.072. But the positive sign of this correlation coefficient shows that
these variables are positively correlated. Increase in investment may bring some increase in the annual turnover.

**Present Investment and Annual Turnover**

Value of correlation coefficient to express the relationship between present investment and annual turnover is 0.191. This is also weak positive correlation, indicating that increase in present investment brings increase in annual turnover.

**Age of Entrepreneur and Annual Turnover**

Annual turnover is negatively correlated with the age of entrepreneur. The value of correlation coefficient is –0.049. This weak negative correlation suggests that annual turnover of older entrepreneur is less than annual turnover of younger entrepreneurs.

**Age of Enterprise and Annual Turnover**

Age of enterprise is positively related with the annual turnover of the enterprise. Value of correlation coefficient is 0.408. It shows that enterprises with higher age can increase their annual turnover sufficiently.

**Innovations**

An innovation is third important criterion of judging the performance of the entrepreneurs. Entrepreneurs introduce innovations in different forms like, addition of new product, improvement in existing product, expansion of the unit, installation of new/modern machinery and establishment of new unit.

In an attempt made to check the possibility of any association between various socio-economic factors and innovation, it was found that except for the cooperation from the spouse, there is independence between innovations and all other factors.

**Regional Status of the Entrepreneurs and Innovations**

Null hypothesis: Innovations are independent of the regional status of the entrepreneurs. Value of Fisher’s probability $p=0.1841$ which is greater than 0.05, so the null hypothesis of independence is accepted. Sixteen (84.21%) and twenty one entrepreneurs (72.41%) out of 19 and 29 Maharashtrian and Non-maharashtrian entrepreneurs carry out innovations in different forms. Introducing innovations in the business is not community specific activity.

**Age of the Entrepreneur and Innovations**

Null hypothesis: Innovations are independent of the age of the entrepreneurs. The value of Fisher’s probability $p=0.6103$. Null hypothesis is accepted. Seven
entrepreneurs out of nine entrepreneurs (77.77%) from younger age group of 25-35 year of age are carrying out innovations in the business. Exactly the same number out of nine entrepreneurs (77.77%) having age between 35-45 years is also practicing innovations. Even in older age group i.e. 45-55 years 14 out of 15 entrepreneurs (93.33%) carry out innovations. This sample shows that not only young entrepreneurs, but old entrepreneurs as well practice innovations in their business.

**Qualification of the Entrepreneurs and Innovations**

Null hypothesis: Innovations are independent of the qualification of the entrepreneurs. Value of Fisher’s probability is \( p = 0.08 \). Null hypothesis is accepted. Out of 24 suitably qualified entrepreneurs 21 (87.5%) are practicing innovations and out of 24 not suitably qualified entrepreneurs 16 (66.66%) are not practicing innovations. Though the number of qualified entrepreneurs, practicing innovations is larger than those practicing innovations, without suitable qualification, the difference between two groups is not statistically significant.

**Type of Family and Innovations**

Null hypothesis: Innovations are independent of type of family. Value of Chi square is 0.1 which rejects null hypothesis of independence. Out of 26 entrepreneurs from joint families and 22 entrepreneurs from nuclear families 21 (80.76%) and 16 (72.72%) respectively have introduced innovations in their business. Thus no particular type of family is conducive for introducing innovations.

**Family Background and Innovations**

Null hypothesis: Innovations are independent of family background of the entrepreneurs. This hypothesis is accepted due to 0.07 value of Chi-square. Out of 30 entrepreneurs with business background and 18 entrepreneurs with service background 24 (80%) and 13 entrepreneurs (72.22%) respectively are carrying out innovations in their business. Actually the entrepreneurs having business background find it more convenient to introduce innovations in the business, because most of them get well settled business to handle and they have to grow that business by practicing innovations.

**Initial Income of the Entrepreneurs and Innovations**

Null hypothesis: Innovations are independent of initial income of the entrepreneurs. Value of Fisher’s probability \( p = 0.1213 \) accepts this null hypothesis. Twenty two entrepreneurs out of 31 entrepreneurs (70.96%) from lowest income group and seven entrepreneurs out of eight entrepreneurs (87.5%) from highest income group i.e. more than Rs. 20,000 per month are practicing innovations.
**Present Income of the Entrepreneur and Innovations**

Null hypothesis: Innovations are independent of present income. Fisher’s probability $p=0.09$ accepts this hypothesis of independence. Six entrepreneurs (75%), eight entrepreneurs (61.53%) and seven entrepreneurs (77.77%) out of 8, 13 and 9 entrepreneurs from three different income groups ranging between Rs. 20,000 and Rs. 60,000 and above are practicing innovations.

**Reasons for the Entry and Innovations**

Null hypothesis: Innovations are independent of the reasons for entry in the business. The value of Chi-square is 0.21. The hypothesis is accepted at 5% level of significance. Out of 51 entrepreneurs 44 entrepreneurs (86.27%) entering the business for the first two reasons i.e. to achieve something and to make money, are practicing innovations. Out of 41 entrepreneurs, entering the business for the other four reasons 33 entrepreneurs (80.48%) are practicing innovations. Introducing innovations in the business does not depend on the reasons for which the entrepreneurs are entering the business.

**Co-operation from the Spouse and Innovations**

Null hypothesis: Innovations are independent of co-operation from the spouse. The value of Fisher’s probability $p=0.032$ which is less than 0.05. Null hypothesis of independence is rejected.

The following table shows the association between co-operation from the spouse and innovations carried out by the entrepreneurs.

<table>
<thead>
<tr>
<th>Co-operation from spouse</th>
<th>Practicing innovations</th>
<th>Not practicing innovations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting co-operation</td>
<td>27</td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td>Not getting co-operation</td>
<td>10</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>11</td>
<td>48</td>
</tr>
</tbody>
</table>

Out of 31 entrepreneurs getting co-operation from the spouse 27 entrepreneurs (87.09%) are able to practice innovations. Seventeen entrepreneurs in the sample are not getting any co-operation from the spouse. Out of them only 10 (58.82%)
are able to practice innovations. Thus 87% of the entrepreneurs getting co-operation from the spouse are practicing innovations whereas only 58% entrepreneurs, not getting co-operation are practicing innovations. Co-operation from spouse in different matters of business leaves some free time for the entrepreneurs to think about different plans of innovations to develop the business.

**Previous Experience and Innovations**

Null hypothesis; Innovations are independent of previous experience in the business. The value of Fisher’s probability \( p=0.1490 \). Two groups of entrepreneurs (having experience and not having experience) do not differ in the context of innovations. Twenty three entrepreneurs out of thirty two entrepreneurs (69.69%) having some previous experience in the similar line have introduced innovations in the business and 14 entrepreneurs out of remaining (87.5%), without having any previous experience are also practicing innovations. This shows that previous experience in the same line is not necessary for carrying out innovations in the business.

**Forms of Organization and Innovations**

Null hypothesis; Innovations are independent of forms of organization. Value of Fisher’s exact probability \( p=0.6903 \). Null hypothesis is accepted on the ground of independence between innovations and forms of organization. It is observed that 15 entrepreneurs (75%) having proprietorship form, 12 entrepreneurs (85.7%) having partnership form and 10 entrepreneurs (71.42%) having private limited companies have introduced innovations in the business. Introducing innovations in the business does not depend on the forms of organization.

**Entrepreneurial Training and Innovation**

Null hypothesis: Innovations are independent of entrepreneurial training. Value of Fisher’s probability \( p=0.2581 \). Null hypothesis of independence is accepted. Eleven entrepreneurs out of 15 (73.33%) and 26 entrepreneurs out of 33 (78.78%), undergoing and not undergoing entrepreneurial training respectively are carrying out innovations. Entrepreneurial training in no way decides the innovations introduced in the business.

**Initial Investment and Innovations**

Null hypothesis: Innovations are independent of size of initial investment. Value of Fisher’s probability \( p=0.2454 \) leads to acceptance of null hypothesis. Eight entrepreneurs out of 10 (80%), investing less than Rs. 50,000 and 21 entrepreneurs out of 30 (70%) investing up to Rs. 30Lacs are practicing innovations. It shows that size of initial investment does not determine the innovations.
Present Investment and Innovations

Null hypothesis: Innovations are independent of present investment. Value of Fisher’s probability $p=0.078$ allows us to accept null hypothesis. Seven entrepreneurs out of 13 entrepreneurs (53.84%) making the investment in the range of 5Lacs-15Lacs and 16 entrepreneurs out of 18 entrepreneurs (88.88%) investing between 15Lacs-60Lacs have introduced innovations in the business.

Type of Market and Innovations

Null hypothesis: Innovations are independent of the type of markets in which entrepreneur sell their products. Value of Chi-square is 0.8. Null hypothesis is accepted. Every entrepreneur engaged in the production of Ayurvedic medicines sells his/her products in more than one market. Out of 31 entrepreneurs 24 entrepreneurs (77.41%) sell their medicines in local markets. The number of entrepreneurs selling in state-wide, national and international markets and practicing innovations are 25 (83.33%), 19 (90.47%) and 10 (90.90%) respectively. Entrepreneurs can sell their products in different markets and may or may not practice innovations. But when they sell their products in international markets, they have to be very much quality conscious. To improve the quality of the products and to withstand in global market, entrepreneurs have to practice innovations continuously. The present sample also shows the same mentality of the entrepreneurs, so out of 11 entrepreneurs selling medicines in international market 10 (90.90%) are practicing innovations.

Other Criteria of judging the performance of the entrepreneurs

The major criteria of determining the performance of any entrepreneur are profit and annual turnover. But today main attention is focused on turnover rather than profit. Along with these two criteria, growth of income since inception of the unit, growth of investment made by the entrepreneurs, growth of employment and exports are also given importance in the process of expansion and growth of the firm.

Growth of Income

Entrepreneurs engaged in the manufacturing of Ayurvedic medicines have experienced appreciable growth of their incomes. At the time of establishing the business, 31 entrepreneurs out of 48 (64.58%) were earning monthly income of less than Rs. 10,000. Some very old entrepreneurs (above 70 years) have said that they were earning monthly income of less than Rs. 1000. Nine entrepreneurs (18.75%) and eight entrepreneurs (16.66%) were earning between Rs. 10,000 and 20,000 and above Rs. 20,000 respectively. The current status of their income shows that only eight entrepreneurs (16.66%) are earning monthly
income below Rs.20,000. Thirteen (27.08%) and nine entrepreneurs (18.75%) are earning between Rs.20,000 and 40,000 and between Rs.40,000 and 60,000 per month respectively. Eighteen entrepreneurs (37.5%) are getting more than Rs. 60,000 per month. This growth performance of the entrepreneurs is quite noticeable.

**Growth of Investment**

Ayurvedic medicine manufacturers in the sample seem to have achieved appreciable growth in the size of investment and employment since the setting up of their units.

The following table shows the percentage increase in the size of investment made by the entrepreneurs since the inception of their units.

<table>
<thead>
<tr>
<th>Percentage increase in size of investment</th>
<th>No.of entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-500</td>
<td>19</td>
</tr>
<tr>
<td>500-1500</td>
<td>12</td>
</tr>
<tr>
<td>1500-2500</td>
<td>4</td>
</tr>
<tr>
<td>2500-5000</td>
<td>6</td>
</tr>
<tr>
<td>Above 5000</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
</tr>
</tbody>
</table>

The above table shows that maximum number of entrepreneurs (19) or 39.58% is experiencing 50-500 percent increase in the size of investment made by them. The percentage increase in investment is calculated by taking the percentage of difference between the present investment and initial investment made by the entrepreneurs. The above table shows very prominent feature of the growth of investment, i.e. seven entrepreneurs (14.58%) from the sample are experiencing more than 5000 percent increase in the size of their investment. These are the entrepreneurs having large or medium scale units. They have made huge investment in their business and are able to increase their annual turnover by selling in domestic as well as international markets.

Investment is the most significant factor affecting the performance of the entrepreneurs. Investment affects several crucial parameters of performance and also gets affected by some socio-economic factors like age of entrepreneur and age of his/her enterprise.

The relationship between investment and other factors is studied by using Correlation method.
Age of the Entrepreneur and Initial Investment

Investment made by the entrepreneur at the time of establishing the unit is negatively correlated with the age of the entrepreneur. The value of correlation coefficient $r=-0.037$. The value of correlation coefficient is too small so these two variables are very weekly correlated. Even though the magnitude of correlation is insignificant, the sign of correlation is significant. It shows that investment is inversely related to the age of the entrepreneur. Older entrepreneurs make less investment compared to younger entrepreneurs. The difference between their investments may not be very significant.

Age of the Entrepreneur and Present Investment

Present investment is also negatively correlated with the age of the entrepreneur. The value of correlation coefficient $r=-0.007$. The correlation between present investment and age of the entrepreneur is weaker than the correlation between initial investment and the age of the entrepreneurs. Present investment made by the younger entrepreneurs is more than the investment made by older entrepreneurs.

Growth of Employment

Employment level may or may not increase during the process of expansion of the firm because the entrepreneurs may opt for more sophisticated technology, automation of the plant and if required, outsourcing of the business partially for faster growth of their enterprises. Growth of employment is not much dependable criterion of performance of the entrepreneur because the level of employment in some business may not show much increase in spite of excellent performance of the business.

Pattern of employment in Ayurvedic medicine manufacturing units shows that these units employ proportionately more staff having skill and technical background to look after different stages of drug production. The workers have to wear hand gloves and apron. They have to maintain hygienic conditions in different sections of the plant as per the norms laid down by Good Manufacturing Practices (GMP).

Table no. 5.8 Growth of Employment since the inception of the unit

<table>
<thead>
<tr>
<th>Percentage increase in employment level</th>
<th>No. of entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 100</td>
<td>17</td>
</tr>
<tr>
<td>100-500</td>
<td>17</td>
</tr>
<tr>
<td>500-1000</td>
<td>7</td>
</tr>
<tr>
<td>1000-3000</td>
<td>4</td>
</tr>
<tr>
<td>Above 3000</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
</tr>
</tbody>
</table>

Since two entrepreneurs did not give the data regarding their past and present employment level, the above table shows the growth of employment in the units
owned by 46 entrepreneurs. Seventeen entrepreneurs (36.95%) have experienced less than 100 percent increase in their employment level and exactly the same numbers of entrepreneurs have experienced the growth between 100 and 500 percent. There is one entrepreneur (2.17%) in the sample who is experiencing more than 3000 percent growth in his employment level. He owns large scale unit in which he has made very high investment. General pattern of employment growth shows that majority of the manufacturers of Ayurvedic medicines have experienced high growth of their employment level.

**Growth of Exports**

Out of 48 entrepreneurs, only 11 entrepreneurs (22.91%) are exporting their Ayurvedic medicines to different countries of the world. Some companies like Vicco Laboratory have been experiencing the impact of globalization on the exports of their medicines, but they did not give the figures showing the exact increase in their exports. Three entrepreneurs have said that they could not observe any impact of globalization on their exports. Out of 11 units exporting their products, 1 (9.09%) was large scale unit, two (18.18%) were medium scale units and eight (72.72%) were small scale units. Since the majority of units, exporting their products are small scale units, they could not achieve any significant growth of their exports. These units are producing various tablets, capsules, syrups, tooth powders, tooth pastes, inhalers for colds, different asavas and arishtas, pain relief ointments, herbal products, herbal cosmetics and skin creams.

**GMP Certification**

Out of 48 units manufacturing Ayurvedic medicines 39 units (81.25%) follow the code of conduct laid down by GMP. Though most of the entrepreneurs are trying to get GMP certificate for their units only 23 units out of 48 (47.91%) have actually succeeded in receiving GMP certificate.

### 5.3 Performance of the Units in Post-reform period

Economic policy of 1991 initiated the process of liberalization, privatization and globalization. It encouraged entrepreneurship in small scale industries. Indian industries had to improve qualitatively due to the fear of continuous competition from different countries of the world and increasing threats from the country like China to capture our domestic market. Some industries benefited due to greater export opportunities made available to them by globalization and some found it difficult to withstand the global competition. Ayurvedic medicine manufacturing industries in particular, benefited by the wave of globalization due to the spread of Ayurvedic education all over the world and the greater awareness among the people at global level, about the benefits of Ayurvedic medicines. These
industries are getting the chances of receiving global recognition, but at the same
time they have to face the challenges put forward by Good Manufacturing
Practices (GMP), a prerequisite of global trading of Ayurvedic medicines. The
stricter norms laid down by GMP removed the major malpractices associated with
the production of Ayurvedic medicines.
The performance of units emerging in post reform period i.e. after the year 1991
can be analyzed correctly only by making comparison between the performance
of pre-reform units and post reform units. The usual three criteria of judging the
performance namely profit, annual turnover and innovations are taken into
consideration for the comparison.

1) Profit

Profit is the oldest criterion of judging the performance of the business. Even
though the significance of profit is declining very fast today and the significance
of sales turnover is catching up rapidly, profit remains one of the most important
indicators of growth of the business.
The following table shows the comparison made between the performance of pre
and post reform units on the basis of their profitability.

<table>
<thead>
<tr>
<th>Profit/loss (%)</th>
<th>No. of pre-reform units</th>
<th>No. of post-reform unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>5-10</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>11-16</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Above 16</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>28</td>
</tr>
</tbody>
</table>

Out of 48 units 28 units (58.33%) have emerged in post reform period and 20
units (41.66%) in pre reform period. Nounits, emerged in pre reform period has
incurred losses, but four units (14.28%) from post reform group have incurred
losses. Maximum number of entrepreneurs from both the groups (10 and 15) is
satisfied with the profit up to 10 percent. Four units (20%) from pre-reform
category and six units (21.42%) from post-reform category are able to earn more
than 16 percent profit. The distribution of post reform units is spread over a larger
range showing greater variations in the profitability. The distribution of pre
reform units is more uniform.

2) Annual Turnover
Annual turnover is the most recent criterion of evaluating the performance of the business. Most of the entrepreneurs fix reasonably low profit margin and set the targets for sales turnover. Today’s competitive world does not permit businessmen to fix the price at higher level. In the presence of large number of options available to the consumers, most of the manufacturers prefer to charge competitive prices to capture larger market share.

The following table shows the annual turnover made by two types of units.

**Table no.5.10 Annual turnover of pre and post reform units**

<table>
<thead>
<tr>
<th>Annual turnover(Rs.)</th>
<th>No. of pre-reform units</th>
<th>No. of post-reform units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 25Lacs</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>25Lacs-75Lacs</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>75Lacs-2Crores</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2Crores-4Crores</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Above 4Crores</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>28</td>
</tr>
</tbody>
</table>

All the categories of annual turnover show more number of post reform units except for the annual turnover above Rs4 Crore for which the number of units in two categories are equal. Post reform units have retained the general trend of majority of the units, making annual turnover below Rs.25Lacs. One medium scale unit (3.57%) could reach the level of annual turnover above Rs.400Crore.

**Innovations**

Out of 48 entrepreneurs engaged in manufacturing of Ayurvedic medicines 40 entrepreneurs (83.33%) are practicing innovations. Twenty three entrepreneurs (82.14%) from post reform units and 17 entrepreneurs (85%) from pre-reform units are carrying out innovations. Data suggest that the innovations are carried out even in very old units. This may be due to new generation continuing and growing the business of earlier generation by introducing innovative techniques in all the stages of production.

In addition to the above three criteria, the important criterion for judging the performance of Ayurvedic medicine industry is the GMP certification. It is mandatory on the part of manufacturers of Ayurvedic medicines to follow the code of conduct laid down by Good Manufacturing practices (GMP).

**GMP Certification for Pre and Post Reform Units.**

Out of 28 units emerged in post reform period 13 units(46.42%) got GMP certificate so far and out of 20 units established prior to reform period, 10(50%)
got GMP certificate. These units are following the code of conduct laid down by GMP.

5.4 Performance of Women Entrepreneurs in the Sample

Sample selected for the present study includes six women entrepreneurs. Out of them five women (83.33%) are Maharashtrian and remaining one (16.66%) is Non-Maharashtrian. Except one all other units run by women entrepreneurs have emerged in post reform period. Five out of six women entrepreneurs (83.33%) have set their units in their own premises. Two women entrepreneurs (33.33%) from the sample are manufacturing herbal cosmetics along with other Ayurvedic products. Others are engaged in the production of proprietary Ayurvedic medicines. The important indicators of their performance are growth of their income, investment, employment, profit, annual turnover, innovations carried out by them, GMP certificates received by them and the types of markets in which they sell their medicines.

Growth of income

The monthly income, presently earned by women entrepreneurs in the sample shows definite improvement in their economic conditions. Two of them (33.33%), who were earning less than Rs. 10,000 at the time of setting of their units, are now earning between Rs. 40,000 and Rs. 60,000 per month. One (16.66%) who was also earning Rs. 10,000 at the time of setting of her unit is now earning more than Rs. 60,000 per month. Another one who was in better position compared to others and was earning more than Rs. 20,000 per month is now earning more than Rs. 60,000 per month. One woman entrepreneur, continuing the business, set by her sister, from last six years was earning between Rs. 10,000 to Rs. 20,000 earlier is now able to earn less than Rs. 20,000 per month today. She is not able to reach even the break even point till the date. The last woman entrepreneur in the group, who was reluctant to disclose her true income, was earning between Rs. 10,000 and Rs. 20,000 earlier and now she has shown her present income as less than Rs. 20,000 per month. But at the time of visit to her manufacturing unit, it was found that the actual income that she is earning is much more than the income she has disclosed during the course of her interview. Actually her business is flourishing which is the outcome of her expertise, hard work and the co-operation from her husband in handling marketing and other routine business activities.

Growth of Investment
Growth of investment is shown by the difference between present investment and initial investment. The initial investment made by women entrepreneurs is ranging between Rs.1 lac and 16 lacs. Except one entrepreneur who is not able to reach even break even point, others have made current investment in the range of Rs. 5 Lacs to 1.5 Crore.

**Growth of Employment**

There is considerable expansion in the size of employment created by women entrepreneurs. The size of employment at the time of establishment is ranging between 1 to 9 workers, but the current range of their employment size is between 5 workers to 60 workers.

**Profit**

One entrepreneur (16.66%) is unable to reach even break even point, but four (66.66%) are earning profit in the range of 5 to 16 percent. One entrepreneur is earning more than 16percent of profit. Except one all others are reinvesting maximum amount of profit in their business and using remaining amount for repaying loans.

**Annual Turnover**

Annual turnover of these entrepreneurs is ranging from 5 Lacs to 2.5 Crore.

**Innovations**

All of them have been practicing innovations in the form of addition of new products, improvement in existing products, installation of new machinery, expansion of the unit and establishment of new unit.

**GMP Certification**

Five women entrepreneurs (83.3%) from the group are following the code of conduct laid down by Good Manufacturing Practices (GMP) Act. Out of six units managed by women entrepreneurs four units (66.66%) are GMP certified units which indicates the quality maintained by them at all stages of production.

**Type of Markets**

All the women entrepreneurs are selling their products in local, state-wide and national markets. Only one is exporting her product, but not directly.

**5.5 A Case of Women Entrepreneurship in Rural Area**
A self help group from Adivasi area of Jawhar Taluka of Thane district set an example of excellent performance of women entrepreneurship in remote and backward area. A group of 15 ladies is engaged in the production of Hibiscus oil for hair care and Nirgundi oil for arthritis. Since this self-help group is not registered with FDA, it falls beyond the purview of the present study which is confined to the units registered with FDA. These ladies were just farm workers. Before starting the present business, they were engaged in the business of trading of turmeric powder, red chilly powder and organic fertilizers. These ladies have undergone a systematic training, arranged by Institute like BAYF, related to the production of medicinal oil. Now they are sending their products to Mumbai and Nasik regions. Ayurvedic doctors in Nasik are prescribing their medicinal oil to patients suffering from arthritis. They took finance from self help group and banks. All these ladies were living below poverty line prior to their business. But now they have purchased cattle and started dairy business just with the money earned from the business of medicinal oil. They have brought standardization in their production process. This group was awarded for best entrepreneurship by Basic Development Research Foundation, New Delhi. These women entrepreneurs are aware of Government schemes, but they are not willing to take any benefit from these schemes due to tedious paper work.

5.6 Problems faced by Entrepreneurs engaged in the Production of Ayurvedic Medicines

Survey of Ayurvedic medicine manufacturers from Thane district brought forward different problems faced by this industry. These problems are related to raw material, initial finance, fixed and working capital, skilled labour, marketing of the products, payment recovery, legal formalities to be completed while starting the business, difficulties in following code of conduct laid down by GMP, lack of awareness about various schemes and incentives introduced by the government, problems related to exports and problems related to stress in the business.

1) Problems Related to Raw Material

The basic raw materials required for Ayurvedic drug industry can be of three types, plant based, dairy product based and metal based. Medicinal plants having large number of species act as the main ingredient of Ayurvedic drugs. Many species of the medicinal plants are depleting very fast due to its overuse. This fact has created the acute scarcity of these plants leading to illegal trading and adulteration. Impurities in this plant based material affects the quality of Ayurvedic medicines. Some Ayurvedic formulations require some rare species of medicinal plants. Lack of availability of such species is the greatest problem faced by manufacturers of Ayurvedic medicines. The heavy metal controversy related to Ayurvedic medicines gave set back to these industries. Few years back European countries banned all Ayurvedic medicines coming from India, due to heavy metal content like lead. They claimed that lead content in these medicines gives toxic effects which causes harm to the
intestines. Export of Ayurvedic drugs was trapped in this heavy metal controversy.

Only nine entrepreneurs out of 46 (19.56%) reported to have faced the raw material problems. Two entrepreneurs (4.16%) did not respond to the questions related to raw material. Most of them said that they buy raw material regularly from particular distributors, so they do not have to compromise with the quality of raw material.

2) Problems Related to Sources of Initial Finance

Entrepreneurs in the sample seem to depend more on informal sources rather than formal or institutional sources of finance. Informal finance includes personal finance and borrowing from family members, friends and relatives. All most all entrepreneurs did not prefer to depend exclusively on institutional finance due to lot of corruption, paper work and delay in getting loan sanctioned by the financial institutions. It is generally observed that banks do not support small scale industries. Entrepreneurs in the sample seem to have preferred the combination of informal and formal sources of finance. This mix fulfils their financial requirements without causing the problem of increasing burden of interest.

3) Problems Related to Fixed and Working Capital

Out of 46 entrepreneurs who responded to the questions of problems faced by entrepreneurs, 20 entrepreneurs (43.47%) faced the problems regarding fixed and working capital. When the questions about the innovations were asked to the entrepreneurs selected in the sample, many of them had expressed the desire to introduce new products, expand the existing plant and set the additional manufacturing unit for which they required huge amount of fixed and working capital.

4) Problems Related to Skilled Labour

Since the manufacturing of Ayurvedic medicines requires skilled and technical staff, the role and availability of such staff is very crucial from the point of view of manufacturing of these medicines. Response given by 45 entrepreneurs to the question about skilled labour, shows that only 18 entrepreneurs (40%) faced the problems regarding the availability and supply of skilled labour. In many manufacturing units the proportion of skilled and unskilled labour is 50:50.

5) Problems Related to the Marketing of the Products

Out of responses given by 39 entrepreneurs to the question about marketing problems, 16 entrepreneurs (41.02%) have reported to face such problems. Majority of the units from the sample, manufacturing Ayurvedic medicines are proprietorship firms in which one person has to look after all the activities related to production. The proprietor does not get sufficient time to develop clientele. Shops selling allopathic medicines keep only few Ayurvedic medicines manufactured by established companies in this field. Another problem related to Ayurvedic drugs is that there are very few shops in every city and town selling exclusively
Ayurvedic products. The share of Ayurvedic medicines in the total market for the medicines is very small so the number of distributors available to sell these medicines are also quite few.

6) Problems Related to Payment Recovery

Recovering the payments from the customers is the greatest problem of every businessman. This problem becomes quite acute during recession. If the entrepreneurs get payment in time then they find it easy to keep money rolling in the business. Out of 43 entrepreneurs responding to the question of recovery problem, 30 (69.76%) had reported to have faced this problem.

7) Legal Formalities to be Completed While Setting the Business

Entrepreneur has to complete various formalities like getting ‘No objection certificate’ from various government departments like Air pollution and Water pollution. Manufacturers of Ayurvedic drugs have to obtain licences from Food and Drugs Administration Departments (FDA) and renew the licences after a specific time period. They have to face bureaucracy, red tapism and corruption problems while completing the legal formalities. Out of 31 entrepreneurs responding to the question of legal formalities 12 entrepreneurs (38.70%) reported to have faced problems but other 19 entrepreneurs did not face any problem.

8) Difficulties Arising in following Code of Conduct laid down by GMP

Every manufacturer of Ayurvedic drug has to follow the strict norms prescribed by Good Manufacturing Practices (GMP). Some of the norms include the requirement of plot having 1200 square feet area, technically qualified assistants, one Ayurvedic doctor, hygienic conditions in various sections of the plant, pure and clean raw material already tested in laboratories, purified water for preparing various medicines in liquid or syrup form, compartmentalization of entire production process. Many entrepreneurs find it difficult to follow these norms. During the survey of Ayurvedic medicine manufacturers from Thane district, it was observed that 15 units were closed down during last few years. According to the information provided by Ayurvedic drug manufacturers from nearby areas most of these units could not fulfill the norms laid down by GMP and due to the fear of possibility of action taken by FDA, these units were closed down.

9) Lack of Awareness about Various Schemes and Incentives introduced by Government.

Most of the entrepreneurs from the sample are not aware about various schemes and incentives introduced by Government. Those who are aware about the schemes have not tried to get any benefit from the schemes. This fact throws some light on the limited effectiveness of government schemes.

10) Problems Related to Exports
Stringent conditions laid down by GMP had created problems while exporting Ayurvedic products to different countries of the world. Every country follows its own norms of GMP. Even the production registration norms are different for different regions and countries. Export of Ayurvedic medicines requires lot of paperwork. There is greater emphasis on rules and regulations. Since European countries look suspiciously at Ayurvedic medicines due to heavy metal content issue, better presentation and effective marketing is required to explain the importance and efficacy of Ayurvedic medicines.

11) Problems Related to Stress in the Business

Out of 37 entrepreneurs 26 entrepreneurs (70.27%) reported to have faced stress in the business. The usual reasons for stress are financial problems, payment recovery problems, problems related to maintenance of quality of raw material and finished products, bureaucracy and apathy towards industry. Many entrepreneurs are using spiritual methods, Yoga, meditation and optimistic attitude to cope up with the stress.

5.7 Prospects for Ayurvedic Medicine Industry

Recent upsurge in the use of herbal medicines due to toxicity and side effects of allopathic medicines, has led to sudden increase in the number of herbal drug manufacturers. Despite the introduction of antibiotics since 1940, 80 percent of the populations still rely on indigenous medicines. Global traditional medicine market is growing at 7 to 15 percent annually. India exports about Rs 550 Crore worth of herbal drugs. But with the rich and diverse botanical resources, this is not an impressive export performance. Indian manufacturers have to stress various standardization processes to establish their products in the global markets. Due to greater emphasis on quality control of drugs, more efforts are necessary to establish the products and its efficacy in the global market. There is an urgent need to set up high profile and modern Research and Development Quality control laboratories to achieve the global standards in the quality of Ayurvedic medicines. Globalization has created tremendous opportunities for exports of Ayurvedic products due to spread of knowledge about Ayurveda and Ayurvedic medicines. Government should help Ayurvedic drug industry in setting up of well established units so that they can survive in domestic and international markets. Indian manufacturers have to fulfill the GMP norms laid down by different countries of the world to achieve sizable increase in their exports. In order to withstand competition in the global market, it is necessary to create a brand image, especially in cosmetics and natural products. Craze among people about fair skin and slim body is growing tremendously so in future there is lot of scope to increase the production of skincare and weight loss products having natural ingredients. India has a huge stock of natural resources including medicinal plants and plants with essential oils. The demand for oil extracts is increasing at global level because oil extracts are used in different perfumes and flavors. To meet the
present and future demand, it is necessary to set up world standard Research and Development facilities in this sector. Western and developed countries prefer natural and herbal products for health and healthcare, so Ayurvedic products have great scope to capture larger share in the global market in 21st century. The business prospect for herbal healthcare products is $20 billion ready market which is growing at a faster rate. As per world Bank estimates the market for herbal healthcare will reach the level of $5 trillion in near future. There will be an enormous demand for Ayurvedic products and its consumption. The next century will be of Ayurveda provided we strive hard to flourish this sector and to meet global demand for Ayurvedic products. If we fail to grab this opportunity, the other developed countries will take away this chance. In India itself more than 70% of the populations use herbal drugs for their health. There is a vast experience-based evidence for many of these drugs.

5.8 Conclusions

Various facets of the performance of the entrepreneurs in the sample, studied in the context of different socio-economic variables throw light on the justification of poor or excellent performance of the entrepreneurs. Three factors like profit, annual turnover and innovations together determine the performance of the entrepreneurs.

Comparison between the entrepreneurs from pre and post reform units shows that there are greater variations in the profitability of entrepreneurs emerging in post reform units. The number of entrepreneurs making turnover up to Rs. 75 Lacs are more in post reform units compared to pre reform units. It is observed that quite large numbers of units established in pre reform period are practicing innovations successfully. The performance of women entrepreneurs from the sample is quite impressive. These entrepreneurs did not mention any women specific problems during the survey. It means that the question of gender bias does not arise in the case of educated women entrepreneurs from the field of Ayurvedic medicines.