CHAPTER - 1
INTRODUCTION

1. Introduction:

Micro Enterprises occupy a much more prominent place in the economy of Haryana. The State is counted among the fastest growing economies of the country due to the remarkable role of micro enterprises. It would be no exaggeration to say that the development of industries lying within the ambit of micro enterprises especially those based on agriculture can go a long way in ensuring the overall economic well being of the people and thereby raising the quality of their life substantially. Micro Enterprises will help in the development of Haryana economy by generating additional employment opportunities, reducing poverty and regional inequalities which are substantiated and vindicated by the figures quoted here. In 2011-12, investment level was at Rs. 840198 and employment was at the level of 709584 No. of persons and production was at the level of Rs. 3117095.

At a glance in India, MSMEs contribute nearly 8 percent of the gross domestic products (GDP), employing over 8 crore people in nearly four crore enterprises and account for 45 percent of manufactured output and 40 percent of exports from India. Thus, the focus of the government on MSMEs at this juncture of economic slump is justified because these units have a potential for providing growth and employment.

Micro Enterprises have only been recognized in last few years as an important subclass of the enterprise sector. But the evidence shows that one third of the population in developing countries derive their income from the micro enterprises sector, the very small, non-framing income generating units, including artisanal operations, family business, cottage industries and other
prizes in the informal sector. The micro businesses include a wide spectrum of activities from rural traditional crafts handed down through generating to first steps in entrepreneurship taken by the impoverished unemployed. Micro Enterprises embody an impressive array of initiative, skill and talents which, if effective forms of assistance can be developed, have the potential to make enormous contribution to economic growth.¹

1.1 Historical Perspective of Micro Enterprises in India:

The cottage and small scale industries constitute an important segment of industry and these industries thrived in the past in India and had a civilizing effect on others. When the rest of the world was still in a semi-civilized state, India had scaled glorious heights. “At a time when the west of the Europe, the birth place of modern industrial system, was inhabited by uncivilized tribes, India was famous for the wealth of its rulers and for high artistic skill of its craftsmen.”

Edward Thornton also makes a similar observation, “Ere yet the pyramids looked down upon the valley of the Nile, when Greece and Italy, those cradles of European civilization, nursed only the tenants of wilderness. India was the seat of wealth and grandeur. Egyption mummies dating from 2000 B.C. have been found wrapped in Indian muslim of first quality.”²

High grade artistic products were made for the affluent section of the society and also for export even in ancient times in India. Handicrafts such as fine textiles and other luxury articles produced by the Indian urban industry were famous for their artistic excellence as well as for utility. Many artistic products like calocoes and corals of Bengal were known globally.

Textile industry especially cotton industry ranked no one among the handicraft industries. Muslim of Dacca was famous world over at that time.
As much as 20% of the world trade share was appropriated by India till 1880. All routes led to one country. India produced best of steel, brass, dyes, cotton and silk. If India outshone other countries in almost every sphere, the credit for this amazing economic and industrial development went to the small sector. Micro enterprises was engaged in producing wonderful things like best quality slips and wrought iron pillars (standing near Qutab Minar, Delhi) However, the closing years of the 18th century witnessed the rapid decline of the rural industries and the decline was quite perceptible by the middle of the 19th century. This decline could be attributed to the disappearance of the native Indian court, establishment of the alien rule, policy of East India Company and competition with European manufactures.

Once, it was held that large scale production would lead to the elimination of micro enterprises, but it turned out to the wrong. Both have co-existed and have supplemented each other in certain respects. There is no basic cofficet between the two. The limitations of the large-scale industry are the opportunities for the micro enterprises, which have their district and profitable part to play in the vast and elaborate structure of modern economic organization.

There is no denying the fact that some old industries could not withstanding the competition and disappeared, but many others have survived and new ones have comes up thanks to the new developments. The cotton handloom industry is the largest cottage industry in India and it co-exists with the mill industry. In 1938, it contributed nearly one third of the cloth produced in India and about 10 million people are engaged in it.

1.2 **Historical Evolution of the Definition of Micro Enterprises**:

As per industries (Development and Regulation) Act 1951, a small scale industrial undertaking w.e.f. 21.12.1999, means an industrial
undertaking in which the investment in fixed assets in plant and machinery whether held on ownership terms or lease or on hire purchase does not exceed Rs. 10 million. (Subject to the condition that the unit is not owned, controlled or a subsidiary or any other industrial undertaking).

The earliest definition of small industries was made in 1950. At that time, in addition to a limit on investment in fixed assets, there was also an employment stipulation. The employment condition was deleted in 1960. The limit on investment in fixed assets was changed to a limit on investment in plant and machinery (original value) only in 1966. Table-1.1 indicates the historical evolution of definition of micro enterprises.

**TABLE 1.1**
**MICRO ENTERPRISES CEILING IN INDIA OVER THE YEARS**

<table>
<thead>
<tr>
<th>Year of Revision of MEs (Micro enterprises) Ceiling</th>
<th>Amount (Rupees in Lakh)</th>
<th>Criteria for definition MEs (Micro enterprises) investment in</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>Rs. 5.00</td>
<td>Fixed Assets and Employment less these 50/100 workers/with/ without power</td>
</tr>
<tr>
<td>1960</td>
<td>Rs. 5.00</td>
<td>Fixed Assests</td>
</tr>
<tr>
<td>1966</td>
<td>Rs. 7.50</td>
<td>Plant and Machinery</td>
</tr>
<tr>
<td>1975</td>
<td>Rs. 7.50</td>
<td>Plant and Machinery</td>
</tr>
<tr>
<td>1980</td>
<td>Rs. 20.00</td>
<td>Plant and Machinery</td>
</tr>
<tr>
<td>1985</td>
<td>Rs. 35.00</td>
<td>Plant and Machinery</td>
</tr>
<tr>
<td>1991</td>
<td>Rs. 60.00</td>
<td>Plant and Machinery</td>
</tr>
<tr>
<td>1997</td>
<td>Rs. 300.00</td>
<td>Plant and Machinery</td>
</tr>
<tr>
<td>1999</td>
<td>Rs. 100.00</td>
<td>Plant and Machinery</td>
</tr>
<tr>
<td>2006</td>
<td>Rs. 25 Lakh to 5 Crore</td>
<td>Plant and Machinery</td>
</tr>
</tbody>
</table>

Sources:-www.smallindustryIndia.com
The present definition of a maximum of Rs. 1 Crore of investment plant and machinery (and Rs. 25 Lakh for tiny or micro units), excluding equipment for environmental control and research and development, has had a tortuous history. In the immediate post reform (post-1991) period, the prevailing definition was an investment limit of Rs. 60 Lakh for micro enterprises and Rs. 75 Lakh for ancillaries, with no formal definition of tiny of micro units. The then Govt. tried to enhance the micro enterprises investment limit to Rs. 1 Crore or 3 Crore but ultimately lest the matter undisturbed, apparently to avoid antagonizing on section or another. The succeeding Government raised the limit sharply to Rs. 3 Crore from Rs. 60 Lakh/ Rs. 75 Lakh towards the end of its tenure, without a modicum of debate and later reduced the limit to Rs. 1 Crore in 1999. The different segments of MEs(SSI) have been broadly defined as under :-

i) **Small Scale Industrial Units** : An industrial unit in which the total investment in plant and machinery, irrespective of the fact whether owned or taken on lease/ hire purchase basis, does not exceed one crore in considered a small scale industrial undertaking.

ii) **Ancillary Industrial Undertaking** : An industrial undertaking which is engaged in the manufacturing or production of parts, components, sub-assemblies, tooling or intermediates or in rendering of services is termed as ancillary undertaking. The ancillary unit is required to supply or render, are purposed to supply not less than 50 percent of its production or services to one or more other industrial undertaking. The investment in plant and machinery, whether held on ownership basis or on lease or on hire purchase basis, should not exceed Rs. 1 crore in the case of ancillary industrial undertaking.
iii) **Tiny Enterprises**: A unit is treated as tiny enterprises where the investment in plant and machinery does not exceed Rs. 25 lakhs, irrespective of the location of the unit.

iv) **Women Entrepreneurs, Enterprise**: A women entrepreneurs, enterprise is termed as SSI unit/ industry related service or business enterprise, when it is managed by one or more women entrepreneurs in proprietary concerns, or in which she/they individually or jointly have a share in capital or not less than 51 percent as partners/share holders.

v) **Small Scale Service and Business (Industry related) Enterprises (SSSBEs)**: An industry-related service/ business enterprises with investment upto Rs. 5 lakhs in fixed assets excluding land and building is termed as SSSBE.

vi) **Export oriented unit**: A unit which is required to export at least 30% of its annual production by the end of the third year of the start of production, and investment in plant and machinery is restricted to Rs. 1 Crore as per the norms of the small scale industry is termed as export oriented SSI unit.

vii) **Micro, Small and Medium Enterprises Development (MSMED) Act, 2006.**: According to Micro, Small and Medium Enterprises Development (MSMED) Act 2006 – it provides the first ever legal framework for recognition of the concept of ‘enterprises’ (comprising both manufacturing and services) and integrating the three-tier of these enterprises, viz, micro, small and medium.

i) **Manufacturing Enterprises**: based on investment in plant machinery.

   a) **Micro Enterprises** – Investment upto Rs. 25 lakh.
b) **Small Enterprises** – Investment above rs. 25 Lakh and upto Rs. 5 Crore.

c) **Medium Enterprises** – Investment above Rs. 5 crore and upto Rs. 10 crore.

ii) **Service Enterprises** : based on investment in equipments

a) **Micro Enterprises** – Investment upto Rs. 10 lakh

b) **Small Enterprises** – Investment above rs. 10 lakh and upto Rs. 2 crore.

c) **Medium Enterprises** – Investment above Rs. 2 crore and upto Rs. 5 crore.

The ceilings on investment for the micro, small and medium enterprises both in manufacturing sector and service sector can be summarized in the following table -1.2

### TABLE 1.2
CLASSIFICATION OF MSMES BASED ON INVESTMENT SLABS

<table>
<thead>
<tr>
<th>Enterprises</th>
<th>Investment in Plant and Machinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>Upto Rs. 25 Lakhs</td>
</tr>
<tr>
<td>Small</td>
<td>More than Rs. 25 Lakhs and upto Rs. 5 Crores</td>
</tr>
<tr>
<td>Medium</td>
<td>More than Rs. 5 crores and upto Rs. 10 Crores</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enterprises</th>
<th>Investment in Equipments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>Upto Rs. 10 Lakhs</td>
</tr>
<tr>
<td>Small</td>
<td>More than Rs. 10 Lakhs and upto Rs. 2 crores</td>
</tr>
<tr>
<td>Medium</td>
<td>More than Rs. 2 crores and upto Rs. 5 crores.</td>
</tr>
</tbody>
</table>

As stated earlier, the definition of micro enterprises and investment criteria have undergone changes from time to time. Small industry Development Bank of India, in its report, made an attempt to analyse the quantitative changes in the investment ceiling in plant and machinery in real terms from 1966-67 till 1999-2000. This have been done by deflating the nominal asset values at 1970-71 prices to arrive at the effective increase in the upper limit of investment ceiling in plant and machinery, both for micro enterprises and ancillary units, over the periods as presented in the table -1.3.

The table shows that for the subsequent years from 1991 to 1996 it did not show any significant improvement in real terms till the increase in ceiling in 1997. With the reduction in investment ceiling in 1999, the limit in real terms has been close to the 1970-70 level. Further for the first part of the seventies and the early eighties, the upper threshold investment ceiling in plant and machinery in real terms for both SSI and ancillary units was below the 1970-71 level.

1.3 Scope of small Industry:

Micro Enterprises has come to play a very significant role in the industrial structure of developed and developing countries, emerging as a global phenomenon. Normal McRac (1979) predicts that the age of gigantic corporation is over and the future lies with small, dynamic, efficient production groups that could meet the customer’s needs quickly. In fact, the very expression. “Small Industry” has become outdated and has been abandoned in many countries. In Japan the expression used is ‘Small enterprises’, in the U.S.A. ‘Small business’ and
TABLE 1.3
INVESTMENT CEILING IN PLANT AND MACHINERY IN MICRO ENTERPRISES
(Rs. In Lakh)

<table>
<thead>
<tr>
<th>Year</th>
<th>SSI Units Nominal</th>
<th>SSI Units Real</th>
<th>Ancillary Units Nominal</th>
<th>Ancillary Units Real</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966-67</td>
<td>7.5</td>
<td>9.5</td>
<td>10</td>
<td>12.6</td>
</tr>
<tr>
<td>1975-76</td>
<td>10</td>
<td>5.8</td>
<td>15</td>
<td>8.7</td>
</tr>
<tr>
<td>1980-81</td>
<td>20</td>
<td>8.5</td>
<td>25</td>
<td>10.5</td>
</tr>
<tr>
<td>1985-86</td>
<td>35</td>
<td>10.6</td>
<td>45</td>
<td>13.4</td>
</tr>
<tr>
<td>1991-92</td>
<td>60</td>
<td>11.8</td>
<td>75</td>
<td>14.8</td>
</tr>
<tr>
<td>1997-98</td>
<td>300</td>
<td>31.7</td>
<td>300</td>
<td>31.7</td>
</tr>
<tr>
<td>1999-00</td>
<td>100</td>
<td>10.2</td>
<td>100</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Source: SIDBI report on Small Scale Industries Sector (2000)
Note: The nominal asset values have been deflated by the WPL for machinery and transport equipment at 1970-71 prices.

In the U.K. ‘Small firm’. In India small industry refers to manufacturing activity. Of late, servicing activities such as repair and maintenance shops and a few community services have also come under its domain, but unlike in Japan or the U.K., wholesale & retail trading is precluded from its purview.³

Table 1.4 indicates the concept of micro enterprises in some specific countries of the world and shows that the scope of small industry in India and Haryana is rather narrow as compared to other countries like Japan, UK and USA.
### TABLE 1.4

**SCOPE OF MICRO ENTERPRISES IN SELECTED COUNTRIES**

<table>
<thead>
<tr>
<th>Country</th>
<th>Terminology</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>Small Enterprises</td>
<td>Manufacturing, mining, services trading (Wholesale and Retail)</td>
</tr>
<tr>
<td>India</td>
<td>Small Scale Industry</td>
<td>Manufacturing, maintenance, repair and Services (limited)</td>
</tr>
<tr>
<td>Korea</td>
<td>Small Enterprises</td>
<td>Manufacturing, mining, Construction, Commerce</td>
</tr>
<tr>
<td>USA/ Canada</td>
<td>Small Industry</td>
<td>Manufacturing, Commerce (both retail and wholesale), construction, mining Transport</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Small Industry</td>
<td>Manufacturing Services</td>
</tr>
</tbody>
</table>


The definition of micro enterprises varies from one country to another. At the international level, the size of a unit in most of the countries is determined either by the numbers of workers employed and/or by a measure of assets (capitalization, sales etc.) The general practice among countries to define the size of the unit (both in the manufacturing and services sectors) is in terms of the number of employees. The prevailing definitions in some Asian and other countries are listed in table -1.5
<table>
<thead>
<tr>
<th>Country</th>
<th>Category of Industry</th>
<th>Criteria/ country’s Official Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Manufacturing</td>
<td>Independent firm having &lt;200 employees</td>
</tr>
<tr>
<td>China</td>
<td>Small Manufacturing</td>
<td>Depends on Product group usually Enterprise &lt;100 Investment ceiling 30 million Yuan (US$8 million)</td>
</tr>
<tr>
<td>Germany</td>
<td>Small Manufacturing Enterprises</td>
<td>&lt;500 employees</td>
</tr>
<tr>
<td>Italy</td>
<td>Small Enterprises</td>
<td>&lt;200 employees</td>
</tr>
<tr>
<td>Japan</td>
<td>Manufacturing</td>
<td>&lt;300 employees, or asset capitalization &lt;100 million yen.</td>
</tr>
<tr>
<td></td>
<td>Wholesale trading</td>
<td>&lt;50 employees of capitalization &lt;30 million yen.</td>
</tr>
<tr>
<td></td>
<td>Retail trade and Services</td>
<td>&lt;50 employees or capitalization &lt;30 million yen.</td>
</tr>
<tr>
<td>Korea</td>
<td>Manufacturing Services</td>
<td>&lt;300 employees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;20 employees</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Small Manufacturing Enterprises</td>
<td>No fixed definition</td>
</tr>
<tr>
<td>USA</td>
<td>Very Small Enterprises</td>
<td>&lt;20 employees</td>
</tr>
<tr>
<td></td>
<td>Small Enterprises</td>
<td>20 – 99 employees</td>
</tr>
<tr>
<td></td>
<td>Medium Enterprises</td>
<td>100-499 employees.</td>
</tr>
</tbody>
</table>

1.4 Economic Rationale for Micro Enterprises:

The role of micro enterprises in the economy has always been mired in controversy. Some support them passionately while some others oppose them vociferously. All these arguments have briefly been summarised in the Industrial Policy Resolution of 1956 which states.

“They provide immediate large scale employment, they offer a method of ensuring a more equitable distribution of national income and they facilitate an effective mobilization of resources of capital and skill which otherwise may remain unutilized. Some of the problems that unplanned urbanization tends to create will be avoided by the establishment of small centres industrial production all over the country”.

Emphasizing the employment argument Karve Committee (1955) stated, “The principle of self-employment is at least as important to a successful democracy as that of self-government. Prof. Mahalanobies states that household or cottage industries require very little capital. Ten or fifteen or even twenty times greater employment opportunities are likely to be created through small sector enterprises than large scale industry with any given investment. T.S. Papola argued that in the urban areas, employment potential seems to be quite palpable in the tiny sector segment of manufacturing. Further micro enterprises are not subject to rigorous labor laws, which affect the large sector severely. They are also under less pressure of unions to raise wages.

The Distribution of Income Argument:

Micro Enterprises lead to more equitable distribution of income. Since the small firms have a larger share of labor in the given output than large firms, it leads to more wide distribution of income, sustaining more work force.
Micro Enterprises save the consumers and meet the needs of other large and small businesses. Their production volume may be much less than that of the large firms, yet they can compete with them in regard to a variety of goods and services to customers. Micro enterprises help combat inflationary trend due to low capital output ratio and less gestation period. Moreover, smaller units with lower capital output ratio would generally have a larger share of value added accruing to the workers. So, one must realize that the micro enterprises have a high employment potential and resultantly they let a larger segment of the population share the fruits of economic development.

Decentralization:

The development of micro enterprises leads to the dispersion if industrial activities and regional imbalances are lessened. Consequently, the tapping of the local resources such as raw material, idle savings, local talents is facilitated. This helps improve the standard of living in backward regions. The problem of congestion, a common phenomenon of industrial towns is solved considerably, since decentralization enlarges the area of employment.

Development of micro enterprises helps remove regional disparity and promote balanced regional development. The development of rural industries tends to solve the problem of uneven distribution of industries in the country. So, micro enterprises help in achieving a decentralized pattern in our economic society.

Product Differentiation of Flexibility:

Small firms generally deal with low income groups. Their demands are for simple products with basic attributes. Such products can be made with the help of simple technologies which are invariably used by micro enterprises.
Small or micro enterprises are able to use such technologies successfully with low capital labor ratio. Larger capital intensive firms often produce luxury items which are used by the affluent segment of the society. Micro Enterprises also sometimes produce luxury items by making intensive use of skilled labor. Such luxury items are not often manufactured by large scale enterprises.

Micro Enterprises try to make customized items. They require relatively small markets, and low investment. They helps mobilize local resources effectively. Thus, this sector has locational flexibility, making wide dispersal of industrial possible.\textsuperscript{7}

Another remarkable feature of micro enterprises is that they are more adaptable to changes even when disruptive economic circumstances prevail. The paradigm of successful flexible adjustment comes from recent appearance in Italy, Germany and Japan of a ‘new’ type of small and flexible industrial units which meet the challenges of the last two decades in a better way than the large scale industries. Flexible and quick response to changing economic conditions is much more feasible through micro enterprises than large enterprises.

1.5 Need & Objective of the Studies:

To justify the need of the present study, we have to review the literature which is the subject matter of Chapter 2. Therein, we have observed that most of the studies focused on performance of micro enterprises (SSI) at the national level, while the issues related to the size, growth, structure and productivity have received inadequate attention at the state level. The process of opening up of Indian economy through liberalization and decontrols has put the micro enterprises at critical juncture of intricacies concerning their future. Therefore, for any change in policy related to micro enterprises there is
need for elaborate studies on the growth and performance of micro enterprises which justifies the present study.

The main objective of our study is to analyze the performance, problems and prospects of the micro enterprises in Haryana. The five objectives of the study are :-

i) To analyse the growth and functioning of the micro enterprises in Haryana.

ii) To examine the partial and total factor productivities of micro enterprises in Haryana.

iii) To discuss and analyse finance and sickness of micro enterprises.

iv) To find out the extent and pattern of employment and capital labor ratio in different type of micro enterprises.

v) To examine the problems of micro enterprises in the light of their potentiality for growth in Haryana.

1.6 **Research Methodology:**

The data have been collected both from primary and secondary sources as given below:-

**Primary Sources:**

The primary data have been collected from sample units on the basis of well structured pre-tested schedule. Considerable time and efforts have been devoted to survey the sampled of micro enterprises. The survey was personally administered by researcher with information to ensure that desired, reliable and authentic information could be obtained. The survey was conducted during the period from April to September, 2010. The samples of 15 micro enterprise units out of 300 units from each district of Haryana have
been taken. The details of the category wise sample units have been given in the ensuing section.

**Secondary Sources:** The secondary data have been collected from various reports, publications, magazines and periodicals relevant to the study from Annual Survey of industry in various districts of Haryana, Various statistical abstracts of Haryana, Haryana Financial Corporation Chandigarh and DC, MSME, New Delhi. To review the literature, researcher has visited various institutions and libraries such as ICSSR, Chandigarh and Delhi school of economics, New Delhi etc.

**Sampling Design:** Micro Enterprises have been divided into 8 categories, and the samples of 15 units out of 300 units in each district have been taken. The details of category-wise sampling are given below:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Category</th>
<th>No. of Sample</th>
<th>Category wise % of sampled units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Food Based</td>
<td>60</td>
<td>20 %</td>
</tr>
<tr>
<td>2.</td>
<td>Wood Based</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>3.</td>
<td>Textile, Hosiery &amp; Garments</td>
<td>40</td>
<td>13.3 %</td>
</tr>
<tr>
<td>4.</td>
<td>Metal Product &amp; Machinery Part</td>
<td>55</td>
<td>18.3 %</td>
</tr>
<tr>
<td>5.</td>
<td>Chemical &amp; Non-metal Product</td>
<td>35</td>
<td>11.6 %</td>
</tr>
<tr>
<td>6.</td>
<td>Electronic &amp; Transport Equipment Based and Unclassified Product</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>7.</td>
<td>Repair &amp; Services</td>
<td>25</td>
<td>8.3 %</td>
</tr>
<tr>
<td>8.</td>
<td>Leather Based &amp; Rubber Plastic and Paper Product Based</td>
<td>25</td>
<td>8.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>300</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>
In the first instance, the records of the District Industrial Centers concerned have been used for the random selection of the units from a particular district. However, the list provided by DICs was not exhaustive. At the time of the field survey many units were found even closed. Further, in some cases either entrepreneurs refused to give any information or the response was not adequate. Some units were not maintaining proper records and hence, the information needed for filling the schedule was not available. In some cases respondents hesitated in giving the proper information required due to the fear of the government. Therefore, the number of such units was deleted from the list. However, every possible effort was made to minimize the adverse effect of this limitation, to make the available data more authentic and useful.

Period of Analysis:

In order to achieve the objectives of the study, the time series data from 1966-67 to 2011-12 have been collected for relevant variables like Number of units, Number of persons employed, fixed investment and production in micro enterprises. In our study, we have also collected data on GSDP of Haryana for the period 1966-67 to 2011-12. Further, the data on loan sanctioned and disbursed by SFC to micro enterprises have been collected for analyzing financial position in these micro enterprises units yet it was only available for the period 1986-87 to 2006-07 in relation to the financial sickness of micro enterprises, while the data availability for working capital gap was for the period 1981-82 to 2006-07.

Analytical Techniques:

In order to analyse the data the study makes use of various statistical and econometric techniques including simple, multiple and log-liner regressions analysis, coefficient of variation and annual compound growth
rates. Further, some simple techniques like, averages, percentages, ratios have also been used frequently for explaining absolute and relative factor productivity, labor intensity and other similar concepts.

**Annual Compound Growth Rates**

The ACGRs have been calculated by using the semi-log model as explained below:

\[ Y_t = ab_1^t \]  

Taking log, we have

\[ \ln Y_t = \ln a + t \ln b_1 \]

\[ G = [\text{Anti-log} (\ln b_1) -1] \times 100 \]

\[ Y_t = t^{th} \text{ observation on the variable } Y \]

\[ t = \text{time variable taking } n \text{ values } 1,2,3\ldots n \]

\[ g = \text{Annual Compound Growth Rate in percentage} \]

\( (\text{ACGR}) \)

The t-test of significance is applied to find out whether the estimated growth rate is significant or not and for this purpose, we have used ‘t’ statistic.

**Partial and Total Factor Productivity**

In the present study, researcher has restricted himself to the micro enterprises of Haryana, and India as a whole. The measurement of various productivities of micro enterprises is based on the time-series data of 46 years (1966-67 to 2011-12) on the key variables of labor, capital and production in the economies of these units respectively. The absolute and relative productivities of labor, and capital have been computed for the purpose of comparison between themselves and with India as a whole. This will reveal
the relative position of these regional economies with respect to their productivities. For examining the growth behavior of these productivities, their annual compound growth rates (ACGR) have also been calculated. For a better approximation of the productivities of MEs in these regional economies, the computation of total factor productivity has also been made. The trends in total factor productivity (TFP) in this study are measured through two different methods.

(i) Direct Method (ii) Solow Method

Total factor productivity index (TFPI) can be directly obtained through geometric average of the partial factor productivity that has been obtained by dividing production of the respective factors of production. If we define partial factor productivity index of fixed investment by PFPI (K), labor by PFPI (L), and total factor productivity index by TFPI, then

\[ PFPI (K) = \frac{Y(t)}{K(t)} \]

and

\[ PFPI (L) = \frac{Y(t)}{L(t)} \]

Where

\( Y(t) \) = Index of Production of MEs for the year \(t\),

\( K(t) \) = Index of Fixed Investment for the year \(t\),

\( L(t) \) = Index of Labor Employed for the year \(t\).

The TFPI through the Direct Method will be calculated as

\[ TFPI = \sqrt[\{PFPI(k)\} \times \{PFPI(L)\}] \]

ii) In Solow Method, the computation of TFPI is based on the following procedure.
First, consider a C-D type production, i.e.

\[ Y = AL^\alpha K^\beta e^{rt} \]  

(1)

Taking log of both sides in (1), we have

\[ \ln Y = \ln A + rt + \alpha \ln L + \beta \ln K \]  

(2)

Differentiating (2) w.r.t time we get

\[ \frac{1}{Y} \frac{dY}{dt} = r + \alpha \frac{l}{L} \quad \frac{dL}{dt} = \beta \frac{I}{K} \quad \frac{dK}{dt} \]

or \( g = r + \alpha l + \beta k \)  

(3)

Where \( g, l \) and \( K \) are the annual growth rates in \( Y, L \) and \( K \) respectively.

\[ r = g - (\alpha l + \beta K) \]  

(4)

Here, \( r \) represents the growth rate of TFP.

To find the value of \( r \) in (4), the values of \( \alpha \) and \( \beta \) can be estimated from the relation (2) above. Finally, an index or \( r(Y_t) \) (i.e., TFP) for all the years can be prepared from relation (4) as all the parameters are now known. This kind of index on TFP will be called “Solow TFP Index” for micro enterprises in the above mentioned regional economies and India as a whole.

**Coefficient of Variation**

The coefficients of variation (C.V.) have been calculated to determine the degree of inter-district variations and dispersions over a period of time 1966-67 to 2011-12 in terms of number of micro enterprises in the state of Haryana. The C.V. is worked out by the formula:

\[ \text{Coefficient of variation} = \frac{\sigma}{\bar{x}} \times 100 \]

Where, \( \sigma \) represents standard deviation and \( \bar{x} \) represents mean value.
Production Function

With the purpose of examining the efficiency, input elasticities, returns to scale and factor shapes for different categories of micro enterprises in Haryana, in view of three variables Cobb-Douglas production function has been applied in the study in the following form:

\[ Y_i = A X_{1i}^{b_1} X_{2i}^{b_2} X_{3i}^{b_3} e_i^u \]  \hspace{1cm} (i)

In the log-linear form, (i) becomes as

\[ \ln Y_i = b_0 + b_1 \ln X_{1i} + b_2 \ln X_{2i} + b_3 \ln X_{3i} + u_i \] \hspace{1cm} (ii)

Where, \( \ln A = b_0 \) (constant term)

\( Y_i = \) Output of the \( i^{th} \) firm

\( X_{1i} = \) Fixed capital of the \( i^{th} \) firm

\( X_{2i} = \) Working Capital of \( i^{th} \) firm

\( X_{3i} = \) Physical labor of the \( i^{th} \) firm

\( u_i = \) Error term

The function (equation-ii) is directly estimated by ordinary least squares (OLS) method. The parameters \( b_1, b_2, b_3 \) are input elasticities w.r.t. \( X_1, X_2 \) and \( X_3 \) respectively and \( b_0 \) is the efficiency parameter.

1.7 Chapter Scheme:

To develop our study in a systematic manner, it has been divided into 6 chapters

Chapter I deals with introduction and accordingly, highlights the importance of micro enterprises and discusses historical perspective, definitions and economic rational of MEs. Need and objectives of the study, methodology and limitation of the study have also been discussed here.
Chapter II provides the review of literature related to study.

Chapter III discuss the growth performance of MEs in Haryana and it also explains partial and total factor productivity of MEs in Haryana.

Chapter IV discuss the finance and sickness of micro enterprises in Haryana.

Chapter V is empirical in nature as it is based of field survey results of samples MEs units. It also examined the various issues relating to performance and problems of micro enterprises in Haryana.

Chapter VI Conclusion and policy implications.

1.8 Limitations of Study

The basic objectives of the study suffered due to inadequacy of time-series and cross section data from related agencies. There has also been a problem of finding sufficiently homogenous data from different agencies.

While interviewing the respondent the investigator has to face problems on several occasions, as the respondent became suspicious thinking that the study in politically motivated and refused to divulge the true information. Then in order to obtain information, researcher made them aware about the objective of the study and they were convinced that the information provided by them will be kept secret and will be used only for research purpose.

Study could have been more comprehensive and effective one, if the entire industrial sector would have been taken into account. However, the time, money and space constraints have restricted the researcher to purpose only the micro enterprises in the present study.
REFERENCES


5. Papola, T.S. (1992), PP. 312-13
