1.1 INTRODUCTION

Industrial growth is a tantamount to economic growth of a country. Industries of any economy play a crucial role in the development of a country, as their development by and large represent a stage in economic transition from traditional to modern economy. The role of industrialization in economic development arises from the basis facts such as raising income, changing the structure of the economy, meeting high-income demands, overcoming deterioration in the terms of trade, absorbing surplus labour and generating employment, bringing technological progress and social transformation, attaining an accelerated rate of economic growth and strengthening the economy. Hence, it is rightly stated that industrial growth is indispensable to achieve rapid economic development of a country and a strong and growing industrial sector holds the key to resolving the basic problems of poverty and unemployment.

Industrial expansion brings with it the structural changes from extractive to fabricative and in turn to facilitative sectors, and thus paves the way for economic development. When low-paying agriculture pushes the labour force away from rural milieu, manufacturing pulls them towards a better standard of living. A further social mobility transfers the workforce to service sector. Historically, the level of per capita income has been found to be correlated with industrial expansion. Industrial growth has the potential to uplift the people above poverty line.

The pace of industrialization is influenced by a combination of factors such as sound infrastructure, uninterrupted supply of critical inputs such as power, credit and raw materials, proactive entrepreneurs and factors like well established financial intermediaries, favorable investment climate to attract domestic as well as Foreign Direct Investment (FDI), wider application of Information Technology and competitiveness of products in terms of quality and price in both domestic and international market.
In India, since independence, considerable emphasis has been laid on industrial development for achieving rapid economic growth not only of the nation but also for regions within the nation. But economic growth, by its very nature, is characterized by various types of imbalances. This phenomenon is more pronounced in the spatial dimensions of growth, which tends, to get concentrated in certain regions within the country. Therefore, along with industrial growth, regional dispersal of industries also aimed at in the strategies of industrial development in India. This is clearly revealed from the plan objectives and allocations, which aimed at promoting balanced regional development. Balanced regional development has always been one of the essential components of the Indian development strategy in order to ensure the unity and integrity of the nation. There is, however, a widespread perception that disparities among states, and regions within states, have been steadily increasing in the past few years. Despite the impressive industrial performance in recent years, it is acknowledged that growth has not been sufficiently uniform. Disparities or imbalance exist between and even within states. Such disparities in industrial growth between regions of the state are a case for concern and efforts have to be stepped up to remove the imbalance.

1.2 INDUSTRIAL PLANNING AND POLICIES

The industrial policies determine opportunities and threats for structural, sectoral and spatial development of industries. The strategy of industrialisation as envisaged by the planners was articulated in a series of Industrial policy resolutions or statements enunciated from time to time. The first of these being the Industrial Policy Resolution (IPR) of 1948 followed by one in 1956, 1977, 1980, 1991 and 2002. Apart from the minor changes in the policy such as in 1973 and 1977 there were not major departures from the IPR 1956 till the Industrial Policy Statement of 1980.

Until 1991, the scope of the private sector was limited due to prominence, hegemony, supreme role given to the public sector in the industrial policy resolutions. Dominant role for public sector and supplementary role for the private sector was assigned in the protected, restrictive
regime. Entry and growth restrictions on the private sector were imposed by license and quota. Large firms had to obtain clearance under Monopolistic Restrictive Trade Practices (MRTP) Act. Operations of foreign companies were regulated under Foreign Exchange Regulations Act (FERA) 1973.

Industrial policy resolution of 1956 was synchronised with the policy of Socialist Pattern of Society. Industries were classified into three sets, one set exclusively reserved for the participative role of government due to strategic importance, another set of industries in which the private sector was allowed but within the overall frame work of the social and economic policy of the state and the third category left exclusively for the private sector.

The industrial policy statement 1977 wanted to promote cottage and small-scale sector by setting District Industries Centre(DIC). The industrial policy 1980 allowed the private sector to develop in consonance with objectives of national plans. The industrial policy 1991 heralded economic reforms for liberalization, expansion the scope of the private sector, opening up most of the industries to it, are dismantling the entry and growth restrictions. MRTP restrictions pertaining to concentration of economic wealth was scrapped.

Unlike FERA 1973 that restrained the demand for foreign exchange, Foreign Exchange Management Act 1999 promotes the orderly development and maintenance of foreign exchange market inviting and facilitating foreign direct investment. MRTP Act 1969 was repealed as it restricted competition rather than monopoly. Competition Act 2002 regulated and competitive agreement and abuse of dominant position by any enterprise.

It is noted that the policy environment underwent drastic changes in the eighties. This gained momentum in the early nineties partly due to the sheer force of circumstances and the offshoot of
the economic crisis. A further impetus for the new policy was provided in the economic reforms. On the whole, changes in policies were pronounced in the following five areas (a) industrial licensing (b) foreign investment (c) foreign technology agreements (d) public sector policy and (e) MRTP act. There was total departure from the earlier regulatory policies with respect to (a), (b), (c) and (e) and with respect to public sector the major policy changes was regarding disinvestment of shares and withdrawal of budgetary support to financial requirements. Provisions for mergers, amalgamations and take-overs were also eased along with an upward revision of the threshold limits of assets of MRTP companies. These changes hoped to bring a higher industrial growth performance in India.

1.3  GROWTH DIMENSIONS OF INDUSTRIAL SECTOR IN INDIA

The net effect of the industrial planning and policies is getting reflected in the trends in industrial production, investment, employment and exports. The long-term average annual growth of industries comprising mining, manufacturing and electricity, during the post-reform period between 1991-92 and 2011-12, averaged 6.7 per cent. However, the share of industry, including construction in GDP remained almost stable at around 28 per cent in the post-reform period. (GOI: Economic Survey 2011-12).

The index of industrial production constructed with the base of 1993-94 and the growth rates between the periods 1993-2001 and 2001-2009 are given in Table 1.1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Index of Industrial Production</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mining Sector</td>
<td>Manufacturing Sector</td>
</tr>
<tr>
<td>1993-94</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2000-01</td>
<td>130.3 (3.85)</td>
<td>167.9 (7.68)</td>
</tr>
<tr>
<td>2001-09</td>
<td>176.0 (3.81)</td>
<td>295.1 (7.30)</td>
</tr>
</tbody>
</table>

Note: Figures in brackets are compound growth rates
It is indicated from Table 1.1 that there has been a steady growth in industrial production in all its sectors such as mining, manufacturing and electricity. In fact, the manufacturing sector has shown the highest level of production compared to other sectors. The growth rate estimates indicated that the industrial production in India has marginally slowed down during the period 2001-09 in all its industrial sectors and this trend is attributed largely to the global economic meltdown (GOI: Economic Survey:2011-12).

Industrial investment arises from both domestic and international sources. The domestic investments are either from government or private or from both. The government outlays during plan periods are presented in Table 1.2.

Table 1.2
Industrial Development during Plan Period in India

<table>
<thead>
<tr>
<th>Plan Period</th>
<th>Outlay (Rs. Crore)</th>
<th>Percentage of Total Outlay</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large</td>
<td>Small</td>
<td></td>
</tr>
<tr>
<td>1st Plan (1951-56)</td>
<td>55</td>
<td>42</td>
<td>4.95</td>
</tr>
<tr>
<td>2nd Plan (1956-61)</td>
<td>938</td>
<td>187</td>
<td>24.0</td>
</tr>
<tr>
<td>3rd Plan (1961-66)</td>
<td>1726</td>
<td>241</td>
<td>23.0</td>
</tr>
<tr>
<td>4th Plan (1969-74)</td>
<td>2864</td>
<td>243</td>
<td>19.7</td>
</tr>
<tr>
<td>5th Plan (1974-79)</td>
<td>8989</td>
<td>592</td>
<td>24.3</td>
</tr>
<tr>
<td>6th Plan (1980-81)</td>
<td>20407</td>
<td>1780</td>
<td>22.8</td>
</tr>
</tbody>
</table>
It is seen from Table 1.2 that the government outlays on large and small industries have steadily increased in successive plan periods. Moreover, the focus of investment has been significantly shifted from basic and capital goods industries to consumer goods industries and further to infrastructure and technology supports paving way for private sector initiatives in industrial development. This is in line with the policy changes over time and that is in fact getting reflected in the share of plan outlay too. The share of government outlay in industrial sector recorded a declining trend from the seventh Five Year Plan onwards and it was only 4.2 per cent in the 11th Plan. In contrast, the private investment in industrial sector has recorded significant upward trend in India. It is estimated that the annual average of rate of private investment in industrial sector in India has increased from 29.8 per cent during 1980-92 to 48.55 per cent during 1993-2005 (Mallick:2009).

In response to the industrial policies and planning, FDI in India has also shown steady increase. The share of India in World FDI is presented in Table 1.3. It is observed that the share of India’s FDI to the World FDI was only 0.3 per cent during 1990-95 and it has increased to 1.3 per cent in 2007.

Table 1.3
Trends in Share of India in World Foreign Direct Investment (FDI)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New Technologies</td>
<td>7th Plan (1985-90)</td>
<td>25971</td>
<td>3249</td>
<td>13.4</td>
<td>Consumer Goods Industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8th Plan (1992-97)</td>
<td>40588</td>
<td>6334</td>
<td>10.8</td>
<td>Capital Goods Industries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9th Plan (1997-2000)</td>
<td>33587</td>
<td>8384</td>
<td>8.2</td>
<td>Private Sector, Development of Backward Area and Industrial Efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10th Plan (2002-07)</td>
<td>52856</td>
<td>6083</td>
<td>3.9</td>
<td>Infrastructure Development, R &amp; D, Technical Development and Modernisation, EOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11th Plan (2007-2012)</td>
<td>142100</td>
<td>11500</td>
<td>4.2</td>
<td>Pharmaceuticals, Auto Components, Textiles, Technological Improvement, Role for Private Sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

http://www.slideshare.net/luxminy/industrial-development-in-India
India’s share in world FDI

<table>
<thead>
<tr>
<th>World FDI</th>
<th>225.3</th>
<th>386.1</th>
<th>478.1</th>
<th>694.5</th>
<th>1088</th>
<th>1492</th>
<th>735</th>
<th>716.1</th>
<th>632.6</th>
<th>648.1</th>
<th>958.7</th>
<th>1411</th>
<th>1833.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>India’s share in world FDI</td>
<td>0.3</td>
<td>0.7</td>
<td>0.8</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
<td>0.5</td>
<td>0.5</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>1.4</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Source: compiled from the various issues of WIR, UNCTAD, World Bank and Sapna Hoonda (2011).

As per the official estimates, employment in the industrial sector increased from 64.6 million persons in 1999-2000 to 100.7 million persons in 2009-10. The share of industry in total employment increased from 16.2 per cent in 1999-2000 to 21.9 per cent in 2009-10. The increase was largely on account of expansion of employment opportunities in the construction sector, from 17.5 million in 1999-2000 to 44.2 million in 2009-10 (GOI, Economic Survey: 2011-12). The growth rates of employment, export and import between 1980-81 and 2004-05 are presented in Table 1.4.

<table>
<thead>
<tr>
<th>Period</th>
<th>Average Annual Growth Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employment</td>
</tr>
<tr>
<td>1980-81 to 1989-90</td>
<td>-0.39</td>
</tr>
<tr>
<td>1990-91 to 1996-97</td>
<td>3.44</td>
</tr>
<tr>
<td>1997-98 to 2004-05</td>
<td>-0.63</td>
</tr>
</tbody>
</table>

Source: Annual Survey of Industries, Various Issues, Commodity Trade (COMTRADE) United Nations Conference on Trade and Development (UNCTAD)

Note: Number of Employees includes both workers and employees other than workers.

The growth rate of employment in the manufacturing sector was -0.39 percent per annum during 1980-81 to 1989-90. During 1990-91 to 1996-97, there was an increase in the growth rates of employment by 3.44 per cent per annum. However, the period from 1997-98 to 2004-05, the employment growth decreased to -0.63 per cent per annum. The growth rates of exports was very high (18.72 per cent) during the pre-reform period, but declined to 13.03 per cent during the early reform period and thereafter increased to 15.78 per cent during 1997-98 to 2004-05. In contrast to this, the growth rate of import was relatively low at 8.71 per cent has increased to its peak at 17.30 per cent in the early reform period and declined marginally thereafter. Thus, the indicators of India’s manufacturing employment export and import showed mixed and divergent pattern of change over time.
As far as industrial development is concerned, the planning process has also had to deal with the ‘regional’ problem - the problem of different regions growing at uneven rates. In the absence of State intervention, the play of market forces normally tends to increase inequalities between regions. Balanced regional development has been one of the principal objectives of planned development in India which has to be achieved by reducing regional disparities and increasing the rate of regional industrial growth. The need to correct regional imbalance in the levels of industrial development was explicitly recognised in the "Industrial Policy Resolution" of 1956. In this context, understanding the process of regional growth and spatial disparity becomes significant and relevant.

1.4 PROCESS OF REGIONAL GROWTH

Some regions offer more advantages than others and regions which gain a lead tend to become more and more prosperous, and therefore, regional disparities are almost inevitable in the course of development. Industrial planning and policies in India have been directed towards spatial spread of industries as one of the important means of promoting balanced regional development. Apart from the intervention by the central government and all-India institutions, State governments have also evolved various schemes to promote industries in their States. Moreover, in the Indian context, industrialisation has to be achieved through focusing efforts towards reducing regional disparities and increasing the rate of regional industrial growth.

Historically, the level of per capita income has been found to be correlated with the degree of industrialisation. The most common characteristic of low per capita income countries is a low degree of industrialisation. A close relationship between industrialisation and the growth of national income has been observed by Kuznets (1967) and Chenery and Taylor (1968). Kuznets\textsuperscript{vi} comparison of fifty countries has shown marked increase of manufacturing output with rising per capita income. Chenery and Taylor\textsuperscript{vii} also found that a statistically significant relationship exists between per capita income and the degree of industrialisation.
From locational point of view, industries tend to concentrate on certain regions. As such, in the spatial dimension of growth, there are laggard or backward regions to be uplifted by dispersal of industries leading to balanced regional development. Alfred Weber\textsuperscript{viii} was the first economist to explain concentration of industries in terms of transport cost, the inter-regional factor and labour cost, the intra-regional and agglomerative factor. Hoover (1970)\textsuperscript{ix} presented a similar theory that transportation cost and extraction cost were the determinants of industrial localisation. Myrdal\textsuperscript{x} observed that “backwash effect” emanating from the process of ‘cumulative causation’, increased the inequalities between regions.

Policy makers also realise that not all regions share the fruits of economic growth equitably owing to the unequal access to social-political and economic opportunities. This feeling is reinforced with the acceptance of ‘growth with social justice’ as a major goal by most of the countries follows ‘egalitarian policies’. As a result, there is a thrust on balanced regional development\textsuperscript{xi}.

1.5 STATEMENT OF THE PROBLEM

Traditional industrial development pattern is a sequel of agro-based processing industries; consumer goods manufacturing enterprises and capital goods industries. The expectation is balanced development, inter-dependence between extractive agriculture and fabricating industry in terms of input-output relation and mutual market facilitation. In reality the disincentive towards agriculture, the declining importance of land and drift of labour force away from rural areas and land-use conflict have led to industrial development at the cost of agriculture.

The uniqueness of Indian national economy is bypassing of secondary industrial sector and leapfrogging from primary sector to tertiary sector. Unlike the national economy, Tamil Nadu, a state economy has the relative role of three sectors. The growth of primary sector’s share in gross domestic product proceeds that of secondary sector’s share, and in turn, the secondary
sector’s share growth proceeds that of tertiary sector. Along with such structural change industrial sector has internal structural change with changes in productivity.

The structural change is a representation of move towards structural balance or inter-dependence or complimentarily among sectors. Total factor productivity is the combined contribution of all factors, the overall efficiency, and output divided by inputs or the factorial balance. The spatial spread or the concentration of industries is the regional balance due to nearness to resource base, proximity to market and infrastructural connectivities. The impacting of factorial, sectoral and regional balances on the economy would determine the degree of industrial development.

The present study is both a follow up work and improvement over the previous studies on industrial development. In particular, an attempt is made to explain the issues related to growth and structural change, productivity performance and regional disparity in industrial development at the regional level in the industrial economy of India with special reference to Tamil Nadu.

The focus on Tamil Nadu State for in-depth investigation arises due to certain peculiar characteristics of the state compared with other regions and all-India. Firstly, the historical experience of Tamil Nadu in industrial development is very much divergent compared to other regions. Secondly, the regional characteristics such as topography, climate, resource endowments and infrastructural supports stand distinguished. Thirdly, the growth pattern of the state and the sectoral composition of State Domestic Product (SDP) have undergone significant change during the post-independence period. The shift in the focus of development from agriculture to industry and then to service sector makes the state’s case interesting to examine. Fourthly, Tamil Nadu had the rich experience of positioning its stand as one among the leading industrialized states in India. In addition, some of the regions of Tamil Nadu such as Coimbatore, Chennai, Chengalpattu, Kancheepuram, Thiruppur, Tirunelveli are known industrialized centres at the all-India level, makes the regional analysis appropriate. Finally, though there are few studies carried out earlier with reference to Tamil Nadu, the present study differs in terms of historical
approach, coverage, period of study and analytical approach. Therefore, the choice of the region Tamil Nadu becomes relevant and gains importance.

1.6 SIGNIFICANCE OF THE STUDY

The present study analyses the dynamics of industrial development in Tamil Nadu and highlights the regional disparities of industrial growth across districts. The findings would unfold several dimensions for policy implications and for balanced industrial development. This facilitates the policy makers and planners concerned.

The study is an addition to the existing literature on this subject and serves as a base for similar studies at regional level. Further the findings of this study would facilitate comparisons with other region specific studies.

1.7 OBJECTIVES

The main objective of the study is to examine the spatial and temporal spread of industries in Tamil Nadu. The specific objectives are:

1. To trace the historical perspective of the industrial development in Tamil Nadu.
2. To study the structural change and comprehend the relative importance of the industrial sector
3. To analyse the growth pattern of manufacturing sector in Tamil Nadu at a dis-aggregated level.
4. To analyse the trends in productivity of the manufacturing sector.
5. To examine the spatial disparity in the growth of manufacturing sector across the districts of Tamil Nadu.

1.8 SCOPE OF THE STUDY

The study covers historical development of industries in Tamil Nadu during the pre-independence period, structural changes in the sectoral contributions and the relative importance of industrial sector, growth pattern of registered manufacturing sector, trends in productivity of
the manufacturing sector and spatial disparity of industrial development across districts in Tamil Nadu. The major aspects that are covered in examining the manufacturing sector include number of industries, fixed capital investment, employment and value added. The study covers both pre-independence and post-independence period, the thrust of the analysis rested for the period between 1973-75 and 2007-08 covering pre-reform and post reform periods. The period of analysis is chosen in such a way that it captures growth trends of the manufacturing industry covering the earlier policy of regulations and the policy framework of liberalization and globalization introduced since 1991 for comparative purpose. Besides, the period is long enough to indicate the secular trend to provide a perspective for assessing potential growth.

1.9 LIMITATIONS OF THE STUDY

The present study entirely relies on secondary data. The major source of data is Annual Survey of Industries (ASI). As ASI provides information related to registered manufacturing industries, the entire discussion is limited to manufacturing sector only. Though the ASI provides comparable estimates for the period 1973-74 to 2007-08 at a macro level, there are changes in classifications of industry groups at a disaggregated level. This created difficulties in analyzing the long-term growth pattern of industrial development at 2-digit level. However, this problem was handled carefully by regrouping the industries so as to obtain comparable data for the period of study. There are certain undefined industry categories that could not be combined with other major industry groups; they are treated as ‘others’ in the two-digit analysis. As this category is not strictly comparable with the other industry groups, they are ignored in the analysis and utmost care was taken while drawing inferences.

The districts of Tamil Nadu are bifurcated and trifurcated at various time periods and there are 32 districts as on 2012. This created difficulties in regional disparity analysis and comparing the data across districts as such. To tackle the problem, the districts are regrouped in to 15 composite groups as in the early years before divisions are done. The regional analysis is restricted to the period from 1975-76 to 2005-06, due to data constraints.
1.10 PLAN OF THE STUDY

The present of the thesis is organised into nine chapters. The first chapter being “Introduction” deals with role of industrialisation, industrial planning and policies, process of regional growth, statement of the problem, objectives of the study, significance, scope, limitations and plan of the study.

Chapter two entitled “Review of Literature” provides a brief review of the major studies relating to growth and structural change, productivity trends and regional disparity of industries.

Chapter three captioned “Methodology and Data Source” presents the research methodology employed, variables used for the analysis, statistical tools adopted, sources of data and period of study.

Chapter four “Profile of Tamil Nadu” narrates the historic, geographic, demographic, socio-economic, service and infrastructure profile of the Tamil Nadu economy.

In Chapter five “Industrial Development in Tamil Nadu: A Historical Perspective”, a historical perspective of industrial growth in Tamil Nadu since 1960 is provided. This analysis is intended to capture the broad trends in the evolution of the structure in the pre 1970 period, and the possible influences of this process in the changes that followed. In addition, Chapter five also presents the growth of industries, and changes in its structure between 1962 and 1971 using the Annual Survey of Industries Data.

The sixth, seventh and eighth Chapters are the core analytical chapters. In Chapter six “Growth and Structural Change in the Manufacturing Sector in Tamil Nadu” the sectoral composition of State Domestic Product with emphasis on the trends in manufacturing sector is discussed. While analyzing the performance of the industrial sector, certain principal variables like growth in number of factories, fixed capital, employment and value added are chosen as indicators. The period of analysis is from 1973-74 to 2007-08. A break is given at the period 1990-91 to distinguish between pre and post reform period.
Chapter seven “Trends in Productivity in the Manufacturing Sector in Tamil Nadu” analyses the trends in productivity performance in the organized manufacturing sector of Tamil Nadu with a view to understand the productivity phenomenon over time and across industries. In particular, it discusses about the trends in partial productivities, determinants of partial productivity growth, trends in the total factor productivity growth and the contribution of factors to the growth in value added by the manufacturing sector.

The study then turns to the spatial dimensions of growth in Chapter eight “Regional Disparities in Industrial Growth in Tamil Nadu”. It examines the dynamics of spatial change in the manufacturing sector and regional industrial inequalities across districts in Tamil Nadu.

Chapter nine “Findings, Conclusions and Suggestions” concludes with a summary of findings and provides policy suggestions and recommendations.