CHAPTER-I

SMALL INDUSTRY AND DEVELOPMENT
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Development of small industry has been accorded much priority for generating more employment opportunities and thereby to increase the income generation for bringing in a transition in the development of the economy. The small industry development has been pursued for promoting the entrepreneurial talents and skills and to utilize the resources and factor endowments to accelerate the process of industrialization in a developing economy. The development of the small industry has also been pursued for increasing the efficiency in the use of capital and labour for augmenting the volume of output to meet the requirements of the people and to achieve the dispersal of industries for reducing the regional imbalances and for sustaining the development.

Development of Small Industry- Policies and Strategies

The growth of small scale industries has been regarded as one of the most significant features of planned economic development in India. Keeping in view of the importance of small scale industries, promotional and protective instruments have been considered in formulating the policies required for fostering the growth of small scale industries. The Industrial Policy Resolution of 1948 has stressed that the small scale industries have a very important role in the national economy as these industries have facilitated the utilization of local resources and foster the production of commodities. It has emphasized the development of small scale industries and indicated the need for providing the organizational support required for the development of small scale industries.

The growth and development of small scale industries has been accorded importance in the formulation of five year plans. In the First Five Year Plan a Common Production Programme has been adopted for the small
scale industries envisaging the provisions for: (i) Reservation of items for production in the small scale industries, (ii) Adoption of ban on the capacity expansion by large scale industrial units in the sectors reserved for small scale industries, (iii) The extension of access on large scale industrial units to be used for the development of small scale industries, (iv) Providing access and special arrangements for the supply of raw materials to the small scale industries, and (v) The coordination of the agencies involved in developing the small scale industrial units. Provisions for adequate availability of finances for small scale industries have also been made in the plan, while liberalizing the rules and regulations for granting the loans for the small scale industries. The development of small scale industries has been given a special thrust based on the recommendations of an International Planning Team which was sponsored by the Ford Foundation. The Ford Foundation team has emphasized on the establishment of the necessary institutional and organizational structures, required to address the functional weaknesses of the decentralized sector. The areas of functional and operational weaknesses identified by the Team were market research and design, raw material availability, technical assistance, promotion of finance and professional management. As per the recommendations of Ford Foundation Team, two promotional organizations have been established namely, (1) Central Small Industries Organisation (renamed as Small Industries Development Organisation, 1954) and (2) National Small Industries Corporation (1955) to strengthen the development of small scale industries.

The Planning Commission has set up a Committee on Village and Small Industries (Karve Committee, 1955) for preparing specific proposals, industry-wise, state-wise, for the utilization of the resources to be allocated for the development of these industries during Second Five Year Plan. The Karve Committee has stressed the importance of the small scale industries, considering them as the prominent means for achieving
decentralization and employment generation. The Committee has recommended that any development plan for small industry should be decentralized, aiming at gradual improvement in techniques without cutting jobs, and assuring marketing through cooperatives, while providing the promotional support. The committee has also outlined the need for the adoption of specific measures for the protection of the small scale industries and they are: (1) Reservation of certain items exclusively for the small scale industries, (2) Restriction of capacity expansion of large industry, (3) Management of supply of raw material and (4) Provision of concessions to benefit the small scale industries.

Small scale industries have been considered as the major source for increasing the consumer goods output, to meet the growing demand due to the increase of investments in public sectors projects in the Second Five-Year Plan. The Industrial Policy Resolution of 1956 advocated the policy of protection (as recommended by Karve Committee) for improving the economic viability and competitive strength of the small scale industries. It has explicitly stated that, the state has been following a policy for supporting small scale industries by restricting the volume of production in the large scale sector, while providing subsidies to the small scale industries and these measures will continued in order to ensure that the decentralized sector acquires sufficient vitality to be self supporting, therefore the state has been pursuing the policy of adopting measures designed to improve the competitive strength of the small scale industries.

Technological appropriateness in small scale industries has been considered as a vital element and the Asoka Mehta committee (1966) has stressed the importance of evolving appropriate technology for the small scale industries in rural areas, and recommended the constitution of a small and compact research group for conducting research and disseminating of results.
In this regard, the government has formulated the common production policy programme for the balanced development of large and small scale industries. In order to foster the growth of the small scale industries, the policy of product reservation has been adopted (1967) and the list of reserved items has increased over the years. The reservation policy provides protection by preventing the creation of fresh capacities in large scale sector in product lines which are techno-economically highly suitable for being taken up in the small scale industries. The basic objective of the reservation policy was to make products of the small scale industries more competitive with those of the large scale sector by offsetting the disadvantages of mass scale production, economies of scale, wider marketing network, better credit availability and publicity through mass media and advertisements.

The development of small scale industries has been accorded much priority in adopting significant changes in the Industrial Policy Statement (1977) for the development of the small scale industries, and efforts have been made for the effective promotion of the small scale industries in rural areas and whatever can be produced by small industries has to be produced by them only. District Industries Centres (DICs) have been set up to promote the small scale industries and tiny sector has been created (as recommended by Bhatt Committee, 1971) in the gamut of small scale industries while increasing the product reservation for the small scale industries.

The Industrial Policy Statement of 1980, sought to harmonize the growth of small scale industries with the large industries. The emphasis has been on the strengthening of mutually complementary relations between the large and small scale industries, for ensuring the integrated growth of the industrial sector while carrying out the production with lower costs and higher efficiency. The Industrial Policy Statement of 1990 emphasized on the need for modernization and technology up gradation in the small scale industries,
so as to meet the twin objectives of employment generation and dispersal of small scale industries in the rural areas, and to increase the exports of the small scale industries.

The Structural Adjustment Programme has designed for transforming the financial, fiscal, industrial and trade policies for meeting global challenges, has led to the announcement of a separate policy statement for the small scale industries in 1991 by the government of India for sustaining the viability and the growth of the small scale industries.

The New Small Enterprises Policy (1991) emphasized the importance of competition to achieve greater degree of efficiency and growth momentum and stressed the adoption of the following measures for sustaining the growth of the small scale industries. Support to tiny sector on continuing basis and for non-tiny sector on one time basis, enlargement in the scope of small scale industries with inclusion of Small Scale Industry Related Service and Business Enterprises (SSSBEs), equity participation up to 24 per cent by other enterprises, introduction of new legal form of organization of business, (restricted or limited partnership), recognition of the involvement of non-government and industry associations in implementation of the government policies, shift from the protection and regulation, to the pursuit of promotion of quality, technology and efficiency and substantial deregulation and simplification of rules and procedures that are required for promoting the development of the small scale industries. The policy also stressed the need to ensure adequate flow of credit on timely and normative basis to sustain the development of small scale industries.

To ensure adequate and timely flow of institutional credit to the small scale industries, the Nayak Committee (1991) has been appointed and based on its recommendations guidelines have been issued by Reserve Bank of
India to banks, inter alia, advising them to: (i) Give preference to village industries and the smaller tiny units while meeting the credit needs of small scale sector, (ii) Grant working capital limits to small units, (computed on the basis of minimum 20 per cent of their estimated annual turnover whose credit limits in individual cases is up to Rs. 2 crore), (iii) Extend Single Window Scheme of Small Industries Development Bank of India (SIDBI) to all districts of the country, and (iv) Prepare annual credit budget on the bottom up basis to ensure that the legitimate requirements of the small scale industries are met in full.

To address the need for reforms in the existing policies and for designing new policies which would facilitate the growth of viable and efficient small scale industries so as to make them globally competitive, an Expert Committee on Small Enterprises (Abid Hussain Committee, 1997) has been appointed. The Expert Committee has favoured a shift from the pursuit of protective measures to that of the pursuit of promotional measures for achieving the desired results from State policy towards the small scale industries. It has recommended the scrapping of the policy of product reservation, enhancing the investment limit of the small scale industries and restructuring of the supportive, specialized and financial institutions. It has also emphasized the adoption of the cluster approach in formulating the strategy for development of the small scale industries.

The Kapur Committee (1998) has made the following recommendations for improving the credit delivery system for the small scale industries. (1) Giving special treatment to smaller among the small scale industries, (2) Enhancement in the quantum of composite loans, (3) Removal of procedural difficulties in granting of advances to the small scale industries, (4) Sorting out of issues relating to mortgages of land including removal of stamp duty and permitting equitable mortgages, (5) No collaterals for loans up
to Rs. 2 lakhs, (6) Setting up of Small Industries Infrastructure Fund for developing industrial areas in / around metropolitan and urban areas, (7) Change in the definition of sick small scale units, (8) Setting up of a separate guarantee organization and opening of additional specialized branches (1000), and (9) Enhancement of Small Industries Development Bank of India’s role and status on par with the National Bank for Agriculture and Rural Development.

The Ninth Five-Year Plan (1997-2002)\(^9\) indicates the strategy for the development of small scale industries to meet the requirements of liberalization process and stressed the need for (1) Reviewing of list of reserved items, (2) Motivating the financial institutions to offer factoring services to the small scale industries, (3) Adopting the technology upgradation and modernization programmes to promote production and productivity of the small scale industries, and (4) The provision of credit to the small scale industries. The Study Group on Development of Small Enterprises\(^10\) (under the chairmanship of S.P. Gupta, 1999) has suggested a three-tier definition (1) (i) Tiny sector (investment in plant and machinery up to Rs. 10 lakhs), (ii) Small scale unit (investment in plant and machinery above Rs. 10 lakhs to Rs. 1 crore ) and (iii) Medium scale unit (investment in plant and machinery above Rs. 1 crore to Rs. 10 crores), and (2) It has also recommended the enactment of a separate Small Enterprises Development Act for governing the promotion and development of the small scale industries. It has recommended that policy of product reservation has to continue and dereservation could also be considered on a selective basis. It has also stressed the need for technology upgradation and the adoption of cluster development programme along with the provision of various financial and fiscal incentives for sustaining the development of the small scale industries.
The strategy for the small scale industries in the **Tenth Five Year Plan (2002-2007)** has been formulated by the planning commission considering the recommendations of the Study group. The Tenth Plan has set an ambitious growth target (12 per cent) for the small scale industries and it has estimated that the small scale industries would generate 4.4 million jobs in the plan period. In the scenario of economic liberalization and the WTO regime, the Tenth Plan has favoured the continuation of product reservation policy and dereservation has to be adopted only in a phased manner so that the small scale industries engaged in the production of the reserved items are not affected. Under the Technology Upgradation and Management Programme (UPTECH), a major cluster development programme along with Integrated Infrastructural Development Centres (IIDCs) has been envisaged in the tenth plan period so as to augment the infrastructural facilities in rural and backward areas to promote the small scale industries development.

The small scale industries have to face increased competition as the process of **globalization** has to facilitated the flow of technology and **Foreign Direct Investment** flows and the expansion of markets and reduction of tariff barriers and removal of restrictions as a sequence of economic liberalization. The development strategies formulated for promoting the small scale industries have to increase the efficiency of the small scale industries while enhancing the volume of output to meet the growing demand because of increased markets (domestic and foreign), adopting the advancements in technologies for producing products that are cost-effective while maintaining quality, so as to increase the competitiveness for sustaining the development of small industry under an era of globalization.

**Small Industries Development Bank of India (SIDBI)** has been established (1990) as the principal financial institution for the promotion, financing and development of the small scale industries and for coordinating
the functions of the institutions engaged in similar activities, in developing the small scale industries. The business domain of SIDBI consists of small scale industrial units, which contribute significantly to the national economy in terms of increasing the production, employment and exports. SIDBI's basic objectives are Financing, Promotion, and Development of the small scale industries, for sustaining the growth of the small scale industries. SIDBI has been functioning as a single window for meeting the financial and developmental needs of the Small Scale Industries so as to make them strong, vibrant and globally competitive, and to empower the Small Scale Industries so that it can contribute to the process of economic growth, employment generation and balanced regional development.

Small Industries Development Bank of India has been under taking financing of the small scale industries through the direct financing mechanism or through the indirect assistance mechanism over the years. SIDBI has been maintaining a good balance between financing and providing other support services for the development of the small scale industries, by making use of the network of the banks and state level financial institutions. SIDBI supplements the efforts of existing financial institutions through its direct assistance schemes to provide financial assistance for the small scale industries. Refinancing, bills rediscounting, lines of extending credit, resource support mechanisms have been evolved over time in providing SIDBI's assistance to the small scale industries through the network of other institutions operating in the financial system. Improved levels of co-ordination for development of the small scale industries has been also achieved, through a system of dialogue and obtaining feedback from the representatives of institutions financing the small scale industries, who have been functioning as the members of the SIDBI's National Advisory Committee and Regional Advisory Committees.
Small Industries Development Bank of India has been also entered into Memoranda of Understandings (MOUs) with many Banks, governmental agencies (Small Industries Development Organisation, Government of India for channelising TREAD assistance, and Small Enterprise Assistance Funds (SEAF)), International agencies (United Nations Industrial Development Organisation, Asia and Pacific Centre for Transfer of Technology, and Swiss Agency for Development and Co-operation), Research and Development institutions (Council for Scientific and Industrial Research and National Research Development Organisation) and Industry associations (Auto Components Manufactures Association, Confederation of Indian Industry), evolving a co-ordinated approach in dealing with the issues, for the development of the small scale industries.

State Industrial Development Corporations / State Industrial Investment Corporations (SIDCs / SIICs) have been established (1956), as wholly owned undertakings of the State governments for promoting the growth of small scale industries. SIDCs / SIICs (28) have been providing the infrastructure facilities like roads, water supply and electricity, etc. to the small scale industries. SIDCs / SIICs have been also providing assistance to the small scale industries, by way of term loans, subscription to equity and extending promotional services.

State Financial Corporations (SFCs) have been established (as per the SFCs, Act 1951) to serve as the regional institutions for promoting balanced regional growth through the development of small scale industries by granting term loans, debentures, extending refinance and promoting their equity. SFCs main objectives is to provide financial assistance for the small scale industries, so as to promote the investment, and thereby generate employment opportunities.
The Commercial Banks have been extending the need based financial assistance for meeting the requirements of the small scale industries, by providing credit to the small scale industries i.e giving term loans that are granted for the purpose of setting up of new small scale industrial units / expansion of existing small scale industrial units. The Commercial Banks have been also extending financial assistance for Technological Upgradation of the small scale industries, by providing the required finances (in the form of term loans) and to meet the working capital requirements. The Commercial Banks in their pursuit of promotional and development measures have been extending credit to the small scale industries as priority sector advances / lending to develop the small scale industries. They have also been extending financial generating and letters of credit (credit guarantee), etc. facility to promote the development of small scale industries. Providing working capital loans to the small scale industries for the maintenance of plant and machinery, for maintaining payments to labour, incurring the expenditure towards, the commercial banks also provide raw materials required for the small scale industries for meeting the expenditure on tax payments and etc.

Small Industries Development Organisation (SIDO) has been established (1954) as an apex institution, for assisting the Government, in formulating and implementing the policies and programmes / projects / schemes of the small scale industries. The SIDO as a nodal organization, has been functioning under the Ministry of Small Scale Industries, (Government of India) and it is headed by the Additional Secretary and Development Commissioner (SSI), and it has been playing a constructive role in strengthening the small scale industries. SIDO has been providing comprehensive services and consultancy in the areas of (i) Techno-economic and managerial aspects, (ii) Extension of training, (iii) Provision of common facility services, (iv) Testing and tooling facilities, and (v) Extension of marketing assistance, etc. through an institutional net work of Small
Industries Service Institutes (30, SISIs), and its Branches. In addition, several specialized institutions have also been set-up to meet the diverse needs of the small scale industries in the process control, technology upgradation, and designs such as (i) Regional Testing Centres (RTCs, 4) at Kolkata, New Delhi, Mumbai, and Chennai, (ii) Tool Rooms (10) at Kolkata, Ludhiana, Jallandhar, Hyderabad, Nagapur, Bhubaneswar, Indore, Jamshedpur, Ahmedabad and Aurangabad, (iii) Process-cum-Product Development Centres (PPDCs, 6) at Meerut, Agra, Ramnagar, Mumbai, Kannauj and Firozabad, (iv) Field Testing Stations (FTSs, 7), and (v) Central Footwear Training Institutes (2) at Agra and Chennai and Small Entrepreneur promotion and Training Institutes (SEPTI's, 2).

The National Small Industries Corporation (NSIC) has been established as a Public Sector Company, for promoting, and to foster the growth of the small scale industries in the country, focusing on the commercial aspects of their operations. NSIC implements several schemes to assist the small scale industries in the areas of raw material procurement, product marketing, credit rating, acquisition of technologies, adoption of improved management practices, etc so as to promote the growth of the small scale industries through its network of Zonal (7), Branch (26), Sub Offices (15), National Technical Services Centres (5), Software Technology Parks (2) and Technical Services Extension Centres (3), spread all over the country.

The District Industries Centres (DICs) programme has been initiated (1978) with the objective of promoting the small scale industries and to generate employment opportunities among rural and backward areas. DICs have been operating with state budgetary provisions, extending the services such as: (i) Economic investigation of local resources; (ii) Supply of machinery and equipments, (iii) Provision of raw materials, (iv) Arrangements for credit facilities, (v) Marketing, and (vi) Provision of consultancy and extension services.
State Small Industries Development Corporations (SSIDCs) have been established as State government undertakings under Companies Act of 1956, to cater to the needs of the small scale industries in the respective State / Union Territories. The SSIDCs have been undertaking the activities relating to the (i) Supply of machinery on hire-purchase basis, (ii) Raw material procurement and distributions, (iii) Marketing assistance, (iv) Management assistance, (v) Seed capital assistance, and (vi) Construction of industrial estates.

For promoting the development of the small scale industries the Ministry of Small Scale Industries and Ministry of Agro And Rural Industries have been established (2001). The Ministry of Small Scale Industries has been envisaged to play a dynamic role, in assist in the States in their efforts to promote the growth and development of the Small Scale Industries, while enhancing their competitiveness, in an increasingly market-led economy, for generating additional employment opportunities. The Ministry monitors to address issues of the small scale industries relating to the specific schemes / programmes undertaken by the organizations to facilitate the provision of adequate credit from financial institutions / banks, funds for technology upgradation and modernization, integrated infrastructural facilities, modern testing facilities and quality certification laboratories, access to modern management practices, entrepreneurship development and skill upgradation through appropriate training facilities, assistance for better access to domestic and export markets, and cluster-wide measures to promote capacity-building and empowerment of the industries etc to sustain the development of the small scale industries.

The ministry of small scale industries functions, monitoring these activities through its network of attached offices / organizations, Development Commissioner for Small Scale Industries [DC (SSI)], National Small
Industries Corporation (NSIC), and with the cooperation of the other Central / State Government departments, and promotional agencies, autonomous institutions, non-governmental organizations, that provides facilities to the small scale industries to promote the development of small industry.

To protect the small scale industries against the competition from large industrial enterprises, the product reservation policy (1967) has been pursued as a protective measure. The basic tenet of product reservation policy is not only to safeguard the small scale industries from the cut throat competition form medium and large industries, but the policy makers intend to use the policy of reservation of items for being exclusively manufactured in the small scale industries so as to ensure a growth-oriented conducive environment to promote the small scale industries. Product reservation policy aims at (i) Ensuring the bulk of increased production of consumer goods in the small scale industries, (ii) Increasing the employment opportunities by promoting the entrepreneurship in small scale industries, and (iii) The prevention of the concentration of economic power to the common detriment. The items that has been covered in production of small scale industries under product reservation policy has increased substantially over the years (47 items in 1967 to 822 items in 1997 and the coverage has been for 675 items in 2003).

Ancillarisation programme has been pursued to develop the small scale industries by providing linkages with the public enterprises that have been set up in all the core sectors. The guidelines for partnership linkages between small scale industries and large industries through ancillarisation has been formulated by the Bureau of Public Enterprises in consultation with Small Industries Development Organisation, and as per these guidelines the Public enterprises have to concentrate on the core activities of Research and Development (R&D) and Design and manufacturing of the critical items, and
sub-contract facilitating ancillarisation, the standard items (for which the technology was available with the small scale industries) or the items that could be produced in the small scale industries. The corporate industrial sector has been also pursuing this ancillarisation programme for sustaining the development of small scale industries.

The Technology Upgradation and Modernisation Programme has been launched so as to increase the efficiency and productivity of the small scale industries and the setting up of Small Industries Service Institutes and Tool Rooms have been pursued under Technology Upgradation and Modernisation for product development and design, selection of proper raw materials and inputs, testing and quality control. Credit Linked Capital Subsidy Scheme (CLCSS) for Technology Upgradation for the Small Scale Industries has been also pursued to facilitate the technology upgradation in the small scale industrial units while providing the capital subsidy (12 per cent) for the induction of proven technologies in the specified products that are produced by the small scale industries. An Integrated Technology Upgradation and Modernisation Programme (1998) has also been pursued to facilitate the modernization to meet the technological needs of the clusters of the small scale industries.

To facilitate the development of small scale industries the Industrial Estates Programme has been launched for providing the infrastructural facilities required for the development of the small scale industries. The industrial estates programme has been pursued to promote the small scale industries by providing the infrastructural facilities, and to decentralize the industries that are concentrated in the metropolitan / urban areas and highly industrialized centers, to other places, and to promote the industrialization in the industrially backward regions / areas. The industrial estate programme has been implemented for providing the facilities to the small scale industries.
located in the industrial estates, such as common facilities and services, sheds on hire purchase or rental basis, water and electricity at concessional rates and general facilities like loans on liberal terms, machinery on hire purchase, price preference in respect of government purchases, etc., by the government at the state level. To facilitate the growth of clusters of the small scale industries an Integrated Infrastructure Development (IID) scheme has been launched (1994) and the upgradation of existing industrial estates has also been pursued under this scheme. It aims at providing the basic infrastructural facilities like power and distribution network, water, roads, telecommunications, drainage and pollution control facilities, banks, storage and marketing outlets, common service facilities and technological back up services etc., for sustaining the growth of the small scale industries, and thereby creating employment opportunities and for increasing the production and that of the exports of the small scale industries.

For training the entrepreneurs to facilitate the development of small industry National Institute for Small Industry Extension and Training (NISIET) has been set up (1984) for providing consultancy, training, research, and education for promoting the entrepreneurial development. NISIET's programmes have been designed for successfully training the entrepreneurs to face the challenges and competition in the era of globalization. National Institute for Entrepreneurship and Small Business Development (NIESBUD) has been set up (1983), to foster the entrepreneurship development so as to promote, support and sustain entrepreneurship through the provision of training, education, research and consultancy services to augment small industry development. The major activities of NIESBUD are related to the evolving of curricula for training various target groups, providing of effective training strategies by formulating methodology, and manuals and tools, while facilitating and supporting the Central / State Governments and other agencies in executing the programmes of entrepreneurship related to small industry development, so as to maximize
the benefits and accelerate the process of entrepreneurship development by conducting various programmes for motivators, trainers and entrepreneurs. **The Indian Institute of Entrepreneurship (IIE)** has been set up (1993) for undertaking the programmes related to entrepreneurial development. It has organized several training programmes / workshops / seminars for sustaining the entrepreneurship development, and has undertaken the provision of research and consultancy services to promote entrepreneurship for developing the small scale industries.

For developing the small scale industries, rigorous efforts have been made by increasing the reservation of products, produced by the small scale industries, raising the investment limits in plant and machinery, of the tiny and that of the small scale industrial units, allowing the equity participation in the small industry by other industrial units, providing the fiscal and financial concessions including subsidies, promoting the entrepreneurial talents and skills through the entrepreneurial development programmes, facilitating technological upgradation and modernization for producing the products of quality for promoting the competitiveness in the domestic and that of the external markets to increase the exports, channelizing the credit flows to augment the efficiency levels in the functioning of the small scale industries in the various plans. Considering the recommendations of the various committees such as the Karve Committee, H.S.Bhat Committee, Nayak Committee, Abid Hussain Committee, Kapur Committee, and others on the development of small industry, the government and other agencies has made rigorous effects for the effective implementation of the policies and that of the promotional measures and adopting the appropriate strategies thereof, in accordance with the requirements for accelerating the pace of development of small industry for sustaining the development of the economy. Hence, the promotion of small industry and the sustenance of development are closely related.
Design and Methodology

Statement of the Problem

Development of Small industry has been given much priority in adopting modern technology and utilizing the entrepreneurial talents for absorbing the labour force in gainful employment so as to raise the productivity and income levels. The development of small industry facilitates the dispersal of industries, utilization of local resources and factor endowments available in the area / region. In view of the labour intensity and favourable capital-output ratio, the development of small industry also facilitates the over all process of development. Inadequate supply of entrepreneurs, lack of access to modern technology and extension of credit, non-availability of raw materials, deficiency of demand, smallness of the size of the market and inadequate infrastructural facilities are the constraints in the promotion of the development of small industry. Despite this, the development of small industry has been accorded priority in the plans to accelerate the process of development. In this study an attempt is made to examine the development of small industry in Andhra Pradesh, particularly with reference to Rayalaseema Region.

REVIEW OF LITERATURE

Several studies on the development of small industry covering the various aspects of the small scale industrial units have been made by the researchers at different points of time.

Dhar P. N and H.F. Lydall\textsuperscript{12} have emphasized that the development of small industry has a dynamic role in accelerating the process of development in the economy. Hashim, S.R.\textsuperscript{13} analysing, the nature of small scale industry and its development role has indicated that the modern technology based small scale industries has a significant role to play in sustaining the process of development.
Dennis Anderson\textsuperscript{14} analysing the policies adopted for promoting the development of the small scale industries in the developing countries has indicated the need for increasing the efficiency of these units in order to increase the employment and income and that of the entrepreneurial skills. Nuruddin Chowdhury, A.H.M.\textsuperscript{15} analysing the growth of the small scale industries in the developing countries in Asia has observed that the pursuit of the promotional policies for the development of the small scale industries facilitates the increase of more output and employment.

Sandesara, J.C.\textsuperscript{16} analysing the process of the small scale industrialization has indicated that the modern small scale industry located in medium sized towns significantly increased the employment opportunities and thereby raises the income levels. He has also suggested that the strengthening of the institutional frame work is necessary for the promotion of the small scale industries in the country.

Lewis, W.A.\textsuperscript{17} has recommended the pursuit of the employment oriented growth models particularly in the developing economies. Myrdal, G.\textsuperscript{18} has suggested the adoption of the strategies that mostly utilise the labour intensive techniques for creating the capital and that of the production in the developing economies.

Johnson\textsuperscript{19}, Rajkrishna\textsuperscript{20}, Sen\textsuperscript{21} and Gautham Mathur\textsuperscript{22} have recommended the adoption of an employment oriented strategy of industrialization for absorbing effectively the labour force so as to increase the employment per unit of scarce capital and for maximizing the surplus. Tayeh, W.C.\textsuperscript{23} has also recommended the promotion of the small scale industries in the economies having large scale unemployment, for increasing the employment potential.
The World Bank Studies\textsuperscript{24} and the Other Studies\textsuperscript{22} have indicated that the development of the small industry generates more employment and income for any given amount of investment in developing countries.

UNIDO's study\textsuperscript{26} indicated that the small industrial enterprises with low level of investment per worker tend to achieve a higher productivity of capital. The United Nations Centre for Regional Development\textsuperscript{27} in its report has stressed the role of the small scale industries in promoting the industrial dispersal and consequently the regional development.

The committee on the village and small scale industries\textsuperscript{28} (Karve Committee) has emphasized that the setting up of small scale industries provides greater employment opportunities to the people. The Bhat Committee\textsuperscript{29} has recommended the infrastructure development, and the increase of raw materials supplies, extension of tax concessions and subsidies and the rigorous implementation of the small enterprises promotional measures at the state level, for facilitating the development of the small entrepreneurs so as to sustain the development of small industry.

The Nayak Committee\textsuperscript{30} has recommended that in meeting the credit requirements of the small scale industries preference has to be given to the smaller tiny units, while ensuring the adequate and timely flow of institutional credit, for sustaining the development of the small scale industries.

The Abid Hussain Committee\textsuperscript{31} has recommended the pursuit of promotional measures, in formulating the policies for achieving the development of small scale industries, while suggesting the enhancement of investment limits of small scale industries, and restructuring of the financial institutions and the development agencies for sustaining the growth of small scale industries, while promoting competition and efficiency under an era of globalisation.
The Kapur Committee\textsuperscript{32} has recommended the enhancement of the quantum of credit while giving priority for small/tiny units, among the small scale industries, and the removal of procedural difficulties in granting advances to the small scale industries, and the adoption of measures required for improving the credit delivery system for sustaining the development of the small scale industries.

Joanne Salop\textsuperscript{33} and Michael Watson have stressed the implementation of production oriented small scale industrial projects, for alleviating poverty and to ensure sustainable growth in the developing economies.

Bhat, V.V.\textsuperscript{34} has emphasized that the development of the small industry depends on the promotion of the entrepreneurial talents and skills and suggested the strengthening of the entrepreneurial development programmes, for promoting the entrepreneurial quality. Gadewar A.U.\textsuperscript{35} has observed that entrepreneurship is an important factor in the development of Small Scale Industries and has suggested that the proper evaluations of the projects are required, for promoting the development of the small scale industries.

Katar Singh\textsuperscript{36} has stressed the development of small scale industrial units for increasing the employment and output, and to foster the development of backward areas/regions. Ramaswamy\textsuperscript{37} has advocated that the industrial estates has promoted the development of small scale industries, contributing to the generation of employment opportunities, and the impact of the small scale industries on the area development is significant.

Sindu Hina\textsuperscript{38} has indicated that the employment generation in Small Scale Industrial sector in Gujarat, has been commensurate over a period of time. Umesh C.Pathiak\textsuperscript{39} analysed that the Small Scale Industrial sector
recorded steady growth in terms of number of units, production, exports, employment generation and investment during the last two decades.

Shah Dhevan et al\(^4\) has analysed that the Small Scale Industries Development, facilitates inter firm linkages. He has suggested that four clusters of factors contributes for the successful management of sub-contracting, namely understanding of the push factors, re-examination of the development policies of the Small Scale Industries, incentives for technological upgradation, and the establishment of credible institutions.

Ojha, P.D.\(^4\) analysing the aspects of financing of the small scale industries has suggested that the provision of finances for the small scale industrial units has to be increased and the extension of support services has to be provided, for augmenting the development of the small scale industries. Pareek, H.S.\(^4\) analysing the financing of the small scale industrial units in the state of Rajasthan has indicated that, the institutional finance has to be increased for promoting the development of the tiny units of the small industry.

Rajendran, N.\(^4\) analysing the various kinds of assistance given by the institutions, has stressed that the institutional assistance has to be provided adequately for the development of small scale industries. Balasubramanya\(^4\) has stressed that the financial requirements for modernizing small scale industries has been increasing rapidly, for increasing the output of the small scale industries to meet the growing demand, and thereby contribute to the increase of employment significantly.

Rangarajan, C.\(^4\) indicating the growing importance of the contributions of Small Scale Industries in the Indian Economy, has emphasised the need for strengthening Small Scale Industries by augmenting the capital base, accelerating the flow of credit, and adopting the upgradation of technology, and increasing marketing opportunities.
Lied Holm – Carl, Mead – Donald\textsuperscript{46} analysed the small scale industries in developing countries, considering the composition of labour and capital input, and structure and growth of the small scale industries and advocated that the policies and programmes relating to the small scale industries have to be strengthened for enhancing the role of the small scale industries in developing countries. Kamble, H.Y.\textsuperscript{47} has stressed that the appropriate measures have to be taken for promoting the growth of Small Scale Industries.

Nirmal Ganguly\textsuperscript{48} analysing the problems and prospects of the small scale industries, indicated that the development of the small scale industrial units has been constrained by the inadequate supplies of raw material, finance and marketing facilities, and emphasized that these facilities have to be improved for promoting the development of small industry. Prasad, C.S.\textsuperscript{49} analysing the problems faced by the small scale industries, has suggested that the increase of the provision of raw materials and the supplies of other inputs facilitates the growth of the small scale industries.

Biswajit Nag\textsuperscript{50} has suggested that the exploitation of marketing opportunities has to be pursued through the brand development, while adopting better technologies for achieving fuller utilization of resources, so as to sustain the development of Small Scale Industries under the scenario of WTO regime. Upadhyay, A.K.\textsuperscript{51} analyzing the role of Small Scale Industries in the Indian Economy under the arena of liberalization, has stressed the prominence of management function, for the successful running of the small scale industries while adopting technological upgradation.

Though these studies have covered the several aspects of the development of the small scale industries, there are no specific studies on the development of small industry in Andhra Pradesh and particularly with reference to Rayalaseema Region (the study area). Hence, an attempt is made in this study to examine the development of small industry in Andhra Pradesh, particularly with reference to Rayalaseema Region.
Objectives and Hypotheses

The specific objectives of this study are

1. To study the need for promoting the small industry and its role in development;
2. To know the progress of small industry in Andhra Pradesh.
3. To analyse the employment and income generation in small industry in Rayalaseema Region (the study area) and
4. To examine the problems of small industry in the study area.

In consistency with the objectives, the hypotheses of the study are the following.

1. There is no progress of small industry in Andhra Pradesh.
2. There is no significant increase in the fixed, working and productive capital in the small scale industrial units in Rayalaseema Region (the study area).
3. There is no significant increase in the employment in the small scale industrial units in Rayalaseema Region (the study area).
4. There is no significant effect of the productive capital on the employment of the small scale industrial units in Rayalaseema Region (the study area).
5. The employment is not different in the various categories of the small scale industrial units in Rayalaseema Region (the study area).
6. There is no significant increase in income generation in the small scale industrial units in Rayalaseema Region (the study area).
7. There is no significant effect of the productive capital on the income generation of the small scale industrial units in Rayalaseema Region (the study area).
Data Collection

Primary and Secondary data have been used in this Study for carrying out the analysis in conformity with the objectives of the study to draw the inferences. Secondary data has been collected from various publications of Government of India, Government of Andhra Pradesh, Ministry of Industry, Ministry of Finance, Planning Commission, Ministry of Small Scale Industries, Development Commissioner for Small Scale Industries, Reserve Bank of India, Nationalised Banks, Small Industry Development Bank of India, Small Industries Development Organisation, National Institute for Entrepreneurship and Small Business Development, Central Statistical Organisation, Bureau of Economics and Statistics, Commissionerate of Industries (Hyderabad), Centre for Economic and Social Studies and Library of Osmania University (Hyderabad), District Industries Centres (Chittoor and Kadapa), and from the research works of the World Bank and others on development of small industry. Primary data has been collected for making an in depth study by canvassing through a well designed questionnaire / schedule from the entrepreneurs of the selected sample of the Small Scale Industrial Units in Rayalaseema Region (the study area i.e Chittoor and Kadapa districts).

Sample Design:

The technical aspects of the sample design used in this study are presented in the following. The Rayalaseema Region comprises the four districts and they are Ananthapur, Chittoor, Kadapa and Kurnool. Out of these four districts two districts Chittoor and Kadapa have been selected at random for the study. Of the total sample small scale industrial units engaged in manufacturing (2306) in Rayalaseema Region (the study area), a sample of 461 small scale industrial units (accounting for 20 per cent of the total) has been chosen considering the various categories (8) using the stratified random
sampling. These sample small scale industrial units are located in six revenue divisions of Rayalaseema Region in Chittoor and Kadapa districts. The sample units are functioning presently and have been established prior to 1997. Data and requisite information has been collected using a well designed questionnaire / schedule from the entrepreneurs of these small scale industrial units in Rayalaseema Region (the study area). Data collection has been done by conducting a direct face to face interview with the entrepreneurs of these small scale industrial units in Rayalaseema Region (the study area). The data has been processed and tables are prepared to suit the inference.

DETAILS OF SAMPLE DESIGN

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Category</th>
<th>Chittoor</th>
<th>Kadapa</th>
<th>Rayalaseema Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agro</td>
<td>370 (74)</td>
<td>307 (61)</td>
<td>677 (135)</td>
</tr>
<tr>
<td>2</td>
<td>Forest</td>
<td>127 (25)</td>
<td>69 (14)</td>
<td>196 (39)</td>
</tr>
<tr>
<td>3</td>
<td>Textile</td>
<td>30 (6)</td>
<td>58 (12)</td>
<td>88 (18)</td>
</tr>
<tr>
<td>4</td>
<td>Mineral</td>
<td>142 (28)</td>
<td>155 (31)</td>
<td>297 (59)</td>
</tr>
<tr>
<td>5</td>
<td>Engineering</td>
<td>239 (48)</td>
<td>152 (30)</td>
<td>391 (78)</td>
</tr>
<tr>
<td>6</td>
<td>Animal Husbandry</td>
<td>46 (9)</td>
<td>39 (8)</td>
<td>85 (17)</td>
</tr>
<tr>
<td>7</td>
<td>Chemical</td>
<td>85 (17)</td>
<td>38 (8)</td>
<td>123 (25)</td>
</tr>
<tr>
<td>8</td>
<td>Other</td>
<td>258 (52)</td>
<td>191 (38)</td>
<td>449 (90)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1297 (259)</strong></td>
<td><strong>1009 (202)</strong></td>
<td><strong>2306 (461)</strong></td>
</tr>
</tbody>
</table>

**Note:** Figures in brackets are sample units.
TOOLS OF ANALYSIS

The data has been processed in conformity with the objectives and hypothesis of the study. Simple averages and percentages have been used in this study for carrying out the analysis of the data.

Compound Growth Rate:

Compound growth rate has been used in this study to know the growth in the fixed capital (the value of land and buildings and the value of plant and machinery), working capital and productive capital, employment, value of production, cost of production and income generation in the small scale industrial units in the present study by using the following procedure:

For a time series data, suppose Y be a dependent variable and 't' be a time variable. Consider the following non-linear relationship between Y and t as

\[ Y = ab^t \]

Where 'a' and 'b' are unknown parameters of the relationship and 't' is a classical error variable. By taking logarithms on both sides, it can be written as follows:

\[ \log Y = \log a + t \log b + \varepsilon \] (or)

\[ Y = A + Bt + \varepsilon \]

Here, \( A = \log a \) and \( B = \log b \). The estimates of A and B can be obtained as follows:
Hence, the estimates of ‘a’ and ‘b’ are given by

\[
\hat{a} = \text{Anti log } (\hat{A}) \text{ and } \hat{b} = \text{Anti log } (\hat{B})
\]

The compound Growth Rate is defined as

\[
\text{Compound Growth Rate} = (\hat{b} - 1)100.
\]

To test the significance of compound growth rate, the following student's t-test statistics is computed

\[
\hat{B} = \left[ \frac{\sum Yt - (\frac{\sum Y}{n})(\frac{\sum t}{n})}{\frac{\sum t^2 - (\frac{\sum t}{n})^2}{n}} \right]
\]

and \( \hat{A} = \hat{Y} - \hat{B}t \) where \( \hat{Y}n\sum Y \) and \( \hat{t} = \sum t \)

Hence, the estimates of ‘a’ and ‘b’ are given by

\[
\hat{a} = \text{Anti log } (\hat{A}) \text{ and } \hat{b} = \text{Anti log } (\hat{B})
\]

The compound Growth Rate is defined as

\[
\text{Compound Growth Rate} = (\hat{b} - 1)100.
\]

To test the significance of compound growth rate, the following student's t-test statistics is computed

\[
\hat{B} = \sqrt{\frac{\sum t^2 - (\frac{\sum t}{n})^2}{n}}
\]

\[
\text{cal} = \frac{\sqrt{\sum Y^2 - (\frac{\sum Y}{n})^2 - \hat{B}\left(\frac{\sum Yt - (\frac{\sum Y}{n})(\frac{\sum t}{n})}{n}\right)}}{\sqrt{(n - 2)}}
\]

where \( \hat{T} = \frac{\sqrt{\sum Y^2 - (\frac{\sum Y}{n})^2 - \hat{B}\left(\frac{\sum Yt - (\frac{\sum Y}{n})(\frac{\sum t}{n})}{n}\right)}}{\sqrt{(n - 2)}} \)

By comparing the t calculated value with its critical value for (n-2) degrees of freedom at 5 and 1 per cent level of significance, the inferences are drawn.
Analysis of Variance for One-way classified Data:

Analysis of variance for one way classified data is used in this study to examine whether there is any significant difference among the categories with respect to the variables of productive capital, employment, value of production and income generation of the small scale industrial units in the study area.

Analysis of Variance (ANOVA) Technique for One way Classified Data with Equal number of Observations in each sub-class (Category).

**DATA**

<table>
<thead>
<tr>
<th>Sub-Class (Categories)</th>
<th>1</th>
<th>2</th>
<th>\ldots</th>
<th>k</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$Y_{11}$</td>
<td>$Y_{21}$</td>
<td>\ldots</td>
<td>$Y_{k1}$</td>
</tr>
<tr>
<td></td>
<td>$Y_{12}$</td>
<td>$Y_{22}$</td>
<td>\ldots</td>
<td>$Y_{k2}$</td>
</tr>
<tr>
<td></td>
<td>\ldots</td>
<td>\ldots</td>
<td>\ldots</td>
<td>\ldots</td>
</tr>
<tr>
<td></td>
<td>\ldots</td>
<td>\ldots</td>
<td>\ldots</td>
<td>\ldots</td>
</tr>
<tr>
<td>$Y_{1r}$</td>
<td>$Y_{2r}$</td>
<td>\ldots</td>
<td>$Y_{kr}$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$T_1$</td>
<td>$T_2$</td>
<td>\ldots</td>
<td>$T_k=G$</td>
</tr>
</tbody>
</table>

Where

$Y_{ij}$'s are observations;

$K$ is the number of sub-classes;
R is the number of observations in each sub-class;

\( T_1, T_2, \ldots, T_k \) are the sub-class totals;

G is the grand total of all observations in the data,

State the null hypotheses as

\[ H_0: \text{There is no significant difference among the means of sub-classes.} \]

To test the \( H_0 \), compute the following sums of squares:

1. Correction factor (c.f) \( = \frac{G^2}{rk} \)

2. Between sub-classes sums of squares (B.S.S.) \( = \left[ \sum \frac{T_i^2}{r} - c.f \right] \)

3. Total sums of squares (T.S.S) \( = \sum \sum Y_{ij}^2 = c.f \)

Where \( Y_{ij}^2 \) = sums of squares of all \( (rk) \) individual observations.

4. Within sub-classes sums of squares or Error sums of squares (E.S.S) \( = (T.S.S) - (B.S.S) \)

The ANOVA table for the one-way classified data is given by:

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Degrees of freedom</th>
<th>Sum of squares</th>
<th>Mean of sum squares</th>
<th>F-test statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B.S.S</td>
<td>( \text{B.S.S.} = M )</td>
<td>( F_{calc} = \frac{M}{E} )</td>
</tr>
<tr>
<td>Between sub-classes</td>
<td>( k-1 )</td>
<td>B.S.S</td>
<td>( \frac{\text{B.S.S.}}{k = 1} = M )</td>
<td>( F_{(k-1) k(r-1)} )</td>
</tr>
<tr>
<td>(Categories)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With in Sub-classes</td>
<td>( k(r-1) )</td>
<td>E.S.S.</td>
<td>( \frac{\text{E.S.S.}}{k(r-1)} = E )</td>
<td>--</td>
</tr>
<tr>
<td>(error)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>( rk-1 )</td>
<td>T.S.S.</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

By comparing the calculated value of \( F \) - statistic with its critical value, the inferences are drawn.
Log Linear Regression Model:

Log linear regression model has been used in the present study by considering the total employment, skilled employment, unskilled employment, value of production and income generation as the dependent variables and the productive capital as the independent variable for the small scale industrial units, in the study area to know the input (productive capital) elasticity of these dependent variables.

Suppose \( Y \) be a dependent variable and \( X \) be an independent variable. Consider a non-linear regression model as

\[
Y = ax^b e^E
\]

Where 'a' and 'b' are known parameters and 'E' is a classical error variable. By taking logarithms on both sides, the model can be written as

\[
\log Y = \log a + b \log x + E
\]

Or \( Y = A + bx \)

Where \( Y = \log Y, A = \log a \) and \( x = \log x \)

The estimates of \( A \) and \( b \) are given by

\[
\hat{b} = \frac{\sum yx - \frac{(\sum y)(\sum x)}{n}}{\sum x^2 - \frac{(\sum x)^2}{n}}
\]

and \( \hat{A} = \hat{Y} - \hat{b} \bar{X} \) (or) \( \hat{a} = \text{Antilog} (\hat{A}) \)

Here \( \hat{Y} = \frac{\sum Y}{n} \) and \( \bar{X} = \frac{\sum x}{n} \)
The Estimated log linear regression model is now given by \( \hat{y} = \hat{a} \times x^6 \). In the above log linear regression model, if \( Y \) denotes output and \( x \) denotes input, then the elasticity of \( Y \) with respect to input \( x \) is given by

\[
\eta_{YX} = \frac{d \log Y}{d \log x} = b
\]

To test the significance of input elasticity, the following student’s t-test is used

\[
t_{\text{cal}} = \frac{|b| \sqrt{\frac{\sum X^2 - (\sum x)^2}{n}}}{\hat{T}}
\]

where \( \hat{T} = \sqrt{\frac{\left[ \sum Y^2 - (\sum Y)^2 \right]}{n} - \hat{T} \left[ (\sum X) - \left( \frac{\sum Y \sum X}{n} \right) \right]} \_and \ (n-2) \]

By comparing the calculated value \( t_{\text{cal}} \) with its critical value for \( (n-2) \) degrees of freedom, at 5 and 1 per cent level of significance, the inferences are drawn.

**Limitations of the Study**

The study is based on the secondary and primary data. As the primary data is collected from the selected sample of small scale industrial units in Rayalaseema Region (the study area), the study is a micro level study. As such the conclusions arrived in this study may not be exactly similar with respect to the small scale industrial units in other areas due to the variations in the socio-economic conditions and other factors. The data base of the study pertains to the period 1997-2007. The study mainly focuses on the employment and income generation of the small scale industrial units in Rayalascema Region (the study area).
Chapter Scheme

This study comprises five Chapters.

Chapter one deals with Small industry and development. In this, the development of small industry, policies and strategies and the design and methodology of the study are presented.

Chapter two deals with the Progress of small industry in Andhra Pradesh. In this, the growth of small scale industrial units in Andhra Pradesh and in India are presented.

Chapter three deals with Employment and income generation in small industry in Rayalaseema Region (the study area). In this, the entrepreneurial background, the capital structure, employment, value of production, cost of production, and income generation in the small scale industrial units in Rayalaseema Region (the study area) are presented.

Chapter four deals with Problems of small industry in the study area. In this, the problems faced by the entrepreneurs of the small scale industrial units in Rayalaseema Region (the study area) are presented.

In chapter five the Summary and conclusions of the study are presented.
CONCLUSIONS

The small industry development has been given priority for generating more employment opportunities and thereby increase the income generation for bringing a transition in the development of the economy. It has also been pursued for promoting the entrepreneurial talents and skills, and to utilize the resources and factor endowments to accelerate the process of industrialization in a development economy so as to increase the volume of output to meet the requirements of the people for improving the quality of life. The pursuit of economic liberalization and that of the industrial policy reforms, envisages the development of small industry further by increasing the technological capabilities and competitiveness. Institutional agencies have been set up for providing technical, infrastructure, financial and other services, and promotional measures while providing the fiscal and financial concessions subsidies and reservation of the products and priority in credit allocation, raising of investment limits and equity participation and that of technological upgradation have been adopted for the development of small industry. The promotion of the small industry and the sustenance of development are closely related.
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