

**ROLE OF MICRO SMALL AND MEDIUM ENTERPRISES
(MSMES) IN ECONOMIC DEVELOPMENT OF TRIPURA**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
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**Role of Micro Small and Medium Enterprises (MSMEs) in Economic
Development of Tripura**

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**In partial fulfillment of the requirement of the Degree of Doctor of Philosophy
in Management of Mizoram University, Aizawl**



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CERTIFICATE

This is to certify that the thesis titled “**Role of Micro Small and Medium Enterprises (MSMEs) in Economic Development of Tripura**” written by Mr. Bikram Das has been undertaken under my supervision.

He has fulfilled all the required norms laid down under the Ph.D. Regulations of Mizoram University. The thesis is the result of his hard work and investigation. The thesis is verified for plagiarism and a certificate of it has been appended at the end of the thesis. Neither the thesis as a whole nor any part was ever submitted to any University for any degree or award.

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I **BIKRAM DAS**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the **Degree of Doctor of Philosophy in Management**.

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Abbreviations

Sl.no.	Particulars	Full form
1.	ABA	Atmanirbhar Bharat Abhiyan
2.	AHP	Analysis Hierarchy Process
3.	AI	Artificial Intelligence
4.	ANOVA	Analysis of Variance
5.	ARI	Agro & Rural Industry (ARI)
6.	ASPIRE	A Scheme for Promotion and Innovation, Rural Industries and Entrepreneurship
7.	ATI	Assistance Training Institution
8.	BPL	Below Poverty Line
9.	CAGR	Compound Annual Growth Rate
10.	CB & TA	Capacity Building and Technical Assistance
11.	CCII	The Central Comprehensive Insurance Incentive
12.	CCIIAC	Central Capital Investment Incentive for Access to Credit
13.	CFCs	Common facility Centers
14.	CGFSMSE	Credit Guarantee Fund Scheme for Micro and Small Enterprises
15.	CGST	Central Goods and Services Tax
16.	CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises

17.	CII	Central Interest Incentive
18.	CLCSS	Credit Linked Capital Subsidy Scheme
19.	CPSE	Central Public Sector Enterprises
20.	DA	Daily Allowance
21.	DIC	District Industries Centre
22.	EoD	Ease of Doing
23.	EDP	Entrepreneurship Development Program
24.	EPF	Employees Provident Fund
25.	ESDP	Entrepreneurship and Skill Development Program
26.	FDI	Foreign Direct Investment
27.	GDP	Gross Domestic Product
28.	GI	Geographical Indications
29.	GOI	Government of India
30.	GR	Growth Rate
31.	GSDP	Gross State Domestic Product
32.	GST	Goods and Services Tax
33.	GVA	Gross Value Added
34.	HIIs	Host Institutions
35.	IC	International cooperation

36.	ICT	Information and Communication Technology
37.	IDA	International Development Association
38.	IFC	International Finance Corporation
39.	IGST	Integrated Goods and Services Tax
40.	IPR	Intellectual Property Rights
41.	INR	Indian Rupee
42.	KVIBs	Khadi and Village Industries Boards
43.	KVIC	Khadi and Village Industries Commission
44.	LBIs	Livelihood Business Incubators
45.	LMCS	Lean Manufacturing Competitiveness Scheme
46.	MFI	Micro Financial Institution
47.	MGIRI	Mahatma Gandhi Institute for Rural Industrialization
48.	MIGA	Multilateral Investment Guarantee Agency
49.	MLIs	Member Lending Institutions
50.	MNCs	Multi-National Corporations
51.	MoMSMEs	Ministry of Micro, Small and Medium Enterprises
52.	MSMED	Micro, Small and Medium Enterprise Development
53.	MSE-CDP	Micro and Small Enterprises Clusters Development Program
54.	MSE	Micro and Small Enterprises

55.	MSEFCs	Micro and Small Enterprise Facilitation Councils
56.	MSME	Micro Small and Medium Enterprise
57.	MTC	Mini Technology Centers
58.	NBMSME	National Board for Micro Small and Medium Enterprises
59.	NEIDS	North East Industrial Development Scheme
60.	NEDFL	North East Development Finance Corporation Ltd.
61.	NEED	North East Entrepreneurs Development
62.	NEHH	North-East Handloom Handicrafts
63.	NEIDP	North-Eastern Industrial Development Policy
64.	NER	North Eastern Region
65.	NERL	North East Rural Livelihoods Project
66.	NLVDP	National Level Vendor Development Program
67.	NMCP	National Manufacturing Competitiveness Program
68.	NPC	National Planning Committee
69.	NSIC	National Small Industries Corporation
70.	NSS	National Sample Survey
71.	NoSSE	NEDFi Opportunity Scheme for Small Enterprises
72.	OLS	Ordinary Least Square
73.	PLR	Prime Lending Rate

74.	PMEGP	Prime Minister's Employment Generation Program
75.	PMES	Performance Monitoring and Evaluation System
76.	PMS	Procurement and Marketing Support
77.	PMRY	Pradhan Mantri Rojgar Yojana
78.	PSA	Principal Component Analysis
79.	PSU	Public Sector Undertaking
80.	PTR	Profit and Turnover Ratio
81.	RAMP	Raising and Accelerating MSME Performance
82.	RBI	Reserve Bank of India
83.	RFD	Results Framework Document
84.	R&D	Research and Development
85.	REGP	Rural Employment Generation Programme
86.	RTL	Rupee Term Loan
87.	SC	Scheduled Caste
88.	SIP	Strategic Investment Plan
89.	SDP	Skill Development Programs
90.	SEO	Search Engine Optimization
91.	SFURTI	Scheme of Fund for Regeneration of Traditional Industries
92.	SDC	State Data Centre

93.	SFC	Standing Finance Committee
94.	SICD	State Industries and Commerce Department
95.	SIDBI	Small Industries Development Bank of India
96.	SIDO	Small Industries Development Organization
97.	SLIC	State Level Implementation Committee
98.	SLVDP	State Level Vendor Development Program
99.	SME	Small and Medium Enterprise
100.	SMILE	SIDBI Make in India Loan for Enterprises
101.	SPSS	Statistical Package for Social Sciences
102.	SSI	Small Scale Industries
103.	SSIB	Small Scale Industries Board
104.	ST	Scheduled Tribe
105.	TBIs	Technology Business Incubators
106.	TDIC	The Directorate of Industries and Commerce
107.	TIDC	Tripura Industrial Development Corporation
108.	TIIPP	Tripura Industrial Investment Promotion Policy
109.	TIIPIS	Tripura Industrial Investment Promotion Incentive Scheme
110.	TRTC	The Tool Room cum Training Centre
111.	USD	United States Dollars

112.	UAM	Udyog Aadhaar Memorandum
113.	WCTL	Working Capital Term Loan
114.	WTO	World Trade Organization

CHAPTER 1:
INTRODUCTION

1.1 Introduction to Micro Small and Medium Enterprises (MSMEs) in India:

The Micro Small and Medium Enterprises (MSMEs) have emerged as an exceptionally vibrant and dynamic component of the Indian economy (Prakash et al., 2023). MSMEs, regarded as 'Engines of Economic Growth' are crucial for the economies of developing countries like India due to their potential to generate significant employment (Virk and Negi, 2019). This sector has attracted the attention of policymakers as its employment generation capacity, and it holds the potential to address issues of regional disparities, promote economic self-sufficiency in rural areas, and contribute to sustainable development (Bhat & Singh, 2020). The MSMEs in India is widely recognized as essential to the nation's economic growth in the 21st century (Kumari & Kumari, 2024). In India's current push for the MSMEs, rebranded as 'Make in India,' there is a concerted effort to foster research in business systems and continuous development in industries striving to achieve optimal quality, appropriate product offerings, and effective services at competitive prices for both domestic and international markets (Chauhan & Sarvaiya, 2024). A significant number of domestic and international investors are increasingly inclined to invest in the 'Make in India' initiative, thereby contributing to the growth of the Indian economy (Babu & Vinitha, 2019). This 'Make in India' policy, in conjunction with the 'Digital India' initiative, has created numerous opportunities for the expansion of MSMEs, particularly in the communication network sector (Chandrachud & Suganya, 2020). Additionally, the growth of the MSME sector has led to an increase in Foreign Direct Investment (FDI) in India (Singha & Kumar, 2020).

The MSMEs has played a vital role in fostering economic development through continuous business innovation. MSMEs are increasingly expanding their presence across various sectors of the economy, offering a wide array of products and services that cater to both domestic and international markets (Annual Report of MSME 2020-21, Govt. of India). There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSMEs in India (Annual Report of MSME 2019-20, Govt. of India). According to the Annual Report of MSME 2024-25, Govt. of India indicated that MSMEs has made substantial

contributions to the Indian economy, accounting for 30.1 percent of the Gross Domestic Product (GDP), 36 percent of manufacturing output, and 45 percent of total exports. Additionally, the sector has shown remarkable growth in number of MSMEs, with 5.77 crore registered in the Udyam and Udyam Assist Portals. It has also emerged as a major source of livelihood, generating employment opportunities for approximately 24.4 crore individuals. Notably, the MSME sector ranks second in employment generation, after the agriculture sector in India (Annual Report of MSME 2024-25, Govt. of India).

The MSMEs are considered as the catalyst of economic and social development of India as well as Tripura. The MSME in Tripura plays a significant role in promoting industrialization, employment generation, and balanced regional development (Economic Review of Tripura 2022-23, Government of Tripura). Thus, the study analyzes the role of MSMEs in economic development of Tripura. The study evaluates the MSMEs role across five dimensions, including the progress and pattern of MSMEs, production of goods and services, MSMEs contribution to Gross State Domestic Product (GSDP), employment generation, and capital investment of MSMEs in Tripura.

1.2 Status of MSMEs in India:

Table 1.1 presents the current scenario of MSMEs in India for the financial years 2020-21 to 2023-24. All states in India have made more investments in micro units due to their lower capital requirements. Conversely, the investment shares in small and medium units remain relatively low, primarily due to the higher capital demands and associated risks (Bhajantri & Kareem, 2023). The data indicated that in terms of numbers of registered MSMEs, Maharashtra, Uttar Pradesh, and West Bengal have contributed significantly more than other states in India (Udyog Aadhaar Memorandum, 2023-24, Government of Tripura). The registered MSMEs across various states and Union Territories are outlined as follows:

Table 1.1:
State/UTs Registered MSMEs during 2020-21 to 2023-24 (in numbers)

State/UT	2020-21	2021-22	2022-23	2023-24	Total
Andaman and Nicobar Island	1816	2950	3888	3737	12391
Andhra Pradesh	65174	147374	245795	678886	1137229
Arunachal Pradesh	727	2257	6954	5648	15586
Assam	17167	72167	133471	231190	453995
Bihar	90146	221199	323785	1097102	1732232
Chandigarh	5749	9525	10112	13682	39068
Chhattisgarh	33009	68717	108640	293073	503439
Delhi	89472	134679	178939	226746	629836
Goa	6041	8615	15537	18522	48715
Gujarat	247109	398693	524052	772286	1942140
Haryana	102915	179530	237031	317955	837431
Himachal Pradesh	12810	26865	47255	45835	132765
Jammu and Kashmir	26464	74470	104070	166706	371710
Jharkhand	43004	83063	142422	365378	633867
Karnataka	152269	314801	423442	676696	1567208
Kerala	71903	117907	180785	357445	728040
Ladakh	731	2304	3211	3491	9737
Lakshadweep	38	207	334	153	732
Madhya Pradesh	111717	245971	844541	899311	2101540
Maharashtra	647654	974274	1218639	1663652	4504219
Manipur	10407	13729	21283	31928	77347
Meghalaya	695	2228	6676	10158	19757
Mizoram	1120	3547	7866	13207	25740
Nagaland	712	3320	7314	20478	31824
Odisha	49442	105956	172068	444894	772360
Puducherry	3867	8226	11572	24110	47775
Punjab	100867	182781	269958	361488	915094
Rajasthan	235706	393131	519696	673268	1821801
Sikkim	347	1772	3151	4799	10069
Tamil Nadu	312149	541307	731753	1119887	2705096
Telangana	97857	161836	232221	681749	1173663
The Dadra and Nagar Haveli	3082	4199	5131	6155	18567
Tripura	1688	6719	16626	141602	166635
Uttar Pradesh	217569	413657	1471297	1400717	3503240
Uttarakhand	22612	49656	73252	118255	263775
West Bengal	63509	170361	279412	2137676	2650958

Source: MSME report of Udyog Aadhaar Memorandum (UAM), 2023-24.

1.3 Industrial policies of MSMEs in India:

In India, industrial policies have played a pivotal role in shaping the growth and development of various sectors, including the MSME sector (Chauhan & Sarvaiya, 2024). The foundation of India's industrial development was laid through planning initiatives which have continuously shaped MSME sector policies (Veena, 2020). The primary objective of promoting industrial policies is to economic development in the country. As per the Article 43 of the Indian Constitution mandates that the state shall endeavour to secure the promotion of cottage industries for the rural population. The Directive Principles of State Policy enshrine certain economic and social values that can be effectively nurtured through the advancement of industries (Saxena, 2024).

As per the Indian Industrial Policy, cottage and small-scale industries have significantly contributed to the development of the Indian economy since independence (Shetty & G.S., 2022). Over the years, industrial policies in India have undergone substantial changes to create a more favourable environment for MSMEs, emphasizing technological advancements, economic liberalization, and global competitiveness. The Government of India continues to introduce new policies and initiatives aimed at fostering the growth of MSMEs, recognizing their critical role in job creation and overall economic development. Consequently, various states have implemented appropriate measures to support the development of MSMEs in India (Thomas, 2023). Through these efforts, the Indian government has introduced several industrial policies designed to enhance the MSME sector.

1.3.1 Before Liberalization (Pre-1991):

Before liberalization, India's industrial sector was predominantly characterized by protectionist policies, centralized control, and a substantial presence of public sector enterprises. During this period, MSMEs were largely shielded from competition with large firms through government policies that restricted market access for larger enterprises. These MSMEs were often find limited sources from the global market by stringent regulations and licensing requirements. As a result,

MSMEs primarily focused on meeting the demands of the domestic market, given the restrictions on imports and their limited exposure to international markets.

In this era, MSMEs were largely engaged in traditional, labour-intensive manufacturing processes, with minimal technological advancements. Many MSMEs operated various sectors such as handicrafts, textiles, and agro-based industries, which emphasized localized production to cater to regional demands.

1.3.2 Industrial Policy of 1948:

The Industrial Policy was first formulated in 1948 by the Government of India to promote the industrial development of the nation. The primary objective of this policy was to establish a framework for industrialization, with particular emphasis on prioritizing Small Scale Industries (SSI) and implementing specific measures for their promotion. The Industrial Policy of 1948 recognized significant for SSIs to generating employment and fostering equitable regional development (Shashankand Mayya, 2021). The policy focused on decentralizing industrial activities, and aiming to prevent the concentration of industrial units in specific regions.

The policy was designed to provide comprehensive support to SSIs, ensuring their development and sustainability (Galistcheva, 2020). This support included facilitating credit access through institutional mechanisms, alongside offering financial, infrastructural, and technical aid (Mpirwa et al., 2018). The creation of industrial estates was proposed to provide SSIs with essential infrastructure, such as electricity, water, and transport facilities (Priya, 2018). Additionally, the policy emphasized on the need to facilitate market access for SSIs, including assistance in finding both domestic and international markets for their products.

Overall, the Industrial Policy of 1948 laid the framework for the future development of SSIs in India. This policy proposed a range of supportive measures to SSI for their significant contribution to the economy, and also aimed to integrate SSI's into the broader national industrial strategy (Bhattacharjea, 2022)

1.3.3 Industrial Policy of 1956:

The second Industrial Policy was formulated in 1956 with the aim of shaping the industrial landscape of India. The policy emphasized on the significant role of Small Scale Industries (SSI) and outlined specific measures to promote their development (Kaur, 2015). Key aspects of the 1956 Industrial Policy concerning SSIs include its focus on promoting balanced industrial growth by ensuring SSIs safeguarding from competition with large-scale industries (Kapparashetty, 2018). The policy also introduced a reservation framework to promote indigenous production and reduce reliance on imports by facilitating the establishment of small-scale production units.

Overall, the Industrial Policy of 1956 laid a strong foundation for the growth of SSIs in India. By providing support in areas such as economic, technical, infrastructural, and marketing development. The policy sought to create an environment for the success of SSIs. In doing so, the policy contributed to the broader economic objectives of the country (Bhattacharjea, 2022).

1.3.4 Industrial Policy of 1977:

The Industrial Policy of 1977 played a pivotal role in shaping the framework for the development of MSMEs in India. This policy sought to promote the growth of MSMEs while mitigating the dominance of large industries (Chauhan & Sarvaiya, 2024). It aimed to ensure the equitable distribution of economic resources, fostering balanced growth and development (Rudresh, 2022). The key aspects of the Industrial Policy of 1977 concerning MSMEs are outlined as follows:

The policy emphasized the decentralization of industrial activities to promote balanced regional development (Kumar & Vese, 2024). It also encouraged the establishment of MSMEs in rural and backward areas to reduce regional disparities (Kusuma Wardani & Nasikh, 2023). A central objective of the policy was to protect MSMEs from competition with large industries, thereby ensuring their sustainability. Furthermore, the policy provided support to MSMEs through various financial incentives, including concessional loans, tax benefits, subsidies, and other incentives.

This policy also support enhances access credit to entrepreneurs through institutions such as the Small Industries Development Bank of India (SIDBI) (Shama et al., 2024).

Overall, the Industrial Policy of 1977 facilitated the development of MSMEs in India by establishing a supportive framework and addressing the unique challenges faced by small entrepreneurs. The policy focused on credit support, decentralization, technical assistance, and protection from the competitive pressures exerted by large industries (Bhattacharjea, 2022).

1.3.5 Industrial Policy of 1980:

The Industrial Policy of 1980 in India marked a significant shift in the country's approach to industrial development, with particular emphasis on technological upgrading and modernization (Saraff & Downs, 2022). The policy outlined several key initiatives to facilitate the development of the MSME sector. One of the primary objectives of the policy was to simplify the process of doing business for MSMEs, focusing on the streamlining of procedures such as registration and licensing (Rais et al., 2024). Additionally, the policy recognized the importance of a skilled workforce for the growth of MSMEs. In this regard, it advocated for the establishment of training institutes and schemes designed to encourage entrepreneurs to enhance their skills (Agarwal, 2024). Overall, the policy placed significant focus on the development of cottage industries, the simplification of registration processes, cluster improvement, and entrepreneurial development (Bhattacharjea, 2022).

1.3.6 After Liberalization (Post-1991):

The economic liberalization of 1991 marked a significant transition from a protectionist, socialist-oriented economy to a more market-driven and globally integrated economic framework, which had a profound impact on the MSME sector. Liberalization exposed Indian industries, including MSMEs, to heightened international competition, particularly with the removal of trade barriers, reduction of tariffs, and the opening of channels for Foreign Direct Investment (FDI).

In the post-liberalization era, MSMEs began to expand their export activities, particularly in sectors such as textiles, handicrafts, engineering goods, and processed food. The reduction in trade barriers and the devaluation of the rupee provided Indian MSMEs with a competitive advantage in export markets. As a result, these enterprises started producing goods that met global standards, which fostered increased innovation and the adoption of advanced technologies. Moreover, MSMEs began embracing modern production technologies and processes in order to compete more effectively with large enterprises. The liberalization policies created an environment for MSME growth, leading to significant advancements in employment generation and production capacity within the sector.

1.3.7 Industrial Policy of 1991:

In 1991, the Indian government launched a separate industrial policy for the small and tiny sectors. The policy expanded the investment limits for these sectors, removed vocational restrictions, and recognized business-related services. On 6th August 1991, the Indian Parliament presented new policy measures aimed at encouraging and developing MSME businesses (Majumdar, 2022). The central objective of the strategy was to place greater emphasis on employment generation and export growth (Ahmed & Haseen, 2017). The key highlights of the new policy include:

- 1) Reduction of bureaucracy and improvement of rules, guidelines, and procedures.
- 2) Increase in the investment limit for machinery and plant, and the inclusion of business enterprises and industry-related services as small-scale industries, irrespective of geographic location.
- 3) Establishment of a dedicated monitoring cell to assess the credit demands of the small sector, ensuring a satisfactory and normative flow of credit and the quality of its delivery, thereby supporting the sustainability of the small-scale industry sector.
- 4) Adoption of appropriate legislation to ensure the prompt payment of debts owed to small businesses.

- 5) Formulation of a technology development cell within the Small Industries Development Organization (SIDO) to execute the Integrated Infrastructure Program, which includes technical and infrastructural support for industries.
- 6) Promotion of MSME products in the market through cooperative and public-sector entities.

1.3.8 Industrial Policy of 2023:

India's Industrial Policy 2023 aims to establish a sustainable and globally competitive industrial ecosystem by embracing innovation, technology, and sustainability (Majumdar, 2022). The policy focuses on addressing both long-term and immediate challenges faced by India's industrial sector, with particular emphasis on aligning with global economic trends while fostering the growth of MSMEs.

MSMEs and start-ups are identified as key focus areas, with special policies designed to support their development through improved access to technology, funding, and capacity building (Aithal, & Sharma, 2023). The policy seeks to create an organized ecosystem for innovation-driven start-ups, particularly in high-growth sectors such as biotechnology, clean energy, and advanced manufacturing. In addition, skill development programs have been launched to align the workforce with the evolving demands of modern industries. These initiatives include specialized training in areas such as Artificial Intelligence (AI), automation, and digital technologies (Mehta et al 2024). The policy emphasizes collaboration between industry and educational institutions to cultivate a skilled workforce in high-tech sectors (Pandey & Vishwakarma, 2024).

A core objective of the policy is to simplify the regulatory environment for industries, reducing bureaucratic barriers and fostering a more business-friendly atmosphere (Chauhan & Sarvaiya, 2024). Measures such as single-window clearance, fast-track approval process, and clearly defined guidelines are intended to streamline procedures for both new and existing MSMEs (Garg & Sam, 2020). Furthermore, the government aims to nurture an ecosystem of innovation by supporting research and development (R&D) initiatives within industries.

1.4 MSMEs in Global Perspective:

MSMEs play a crucial role in most economies, particularly in developing countries. These enterprises represent the majority of businesses and are pivotal contributors to employment generation and economic development globally (Yahaya et al., 2016). According to the World Bank 2019, MSMEs account for approximately 90 per cent of enterprises and over 50 per cent of total employment worldwide. In emerging economies, formal MSMEs contribute up to 40 per cent of Gross Domestic Product (GDP), with even larger figures when informal MSMEs are included. To accommodate the growing global labour force, an estimated 600 million jobs will be needed by 2030, making the expansion of MSMEs a critical priority for governments worldwide. In developing economies, MSMEs are responsible for generating 7 out of every 10 formal jobs (World Bank, 2019).

However, access to capital remains a major barrier to MSME growth in emerging economies (World Bank, 2019). Due to their constant need for financial resources, MSMEs often rely on internal funds or loans from family and friends to establish and sustain their operations. The International Finance Corporation (IFC) estimates that approximately 65 million MSMEs in developing countries, which constitute about 40 per cent of all such businesses, require USD 5.2 trillion as a financial support. This figure represents 1.4 times the total current borrowed capital of MSMEs worldwide. The largest financial gap is observed in the East Asia and Pacific region, which accounts for 46 per cent of the global finance gap. This is followed by Latin America and the Caribbean at 23 per cent, and Europe and Central Asia at 15 per cent. Nearly half of all formal MSMEs lack access to formal financial services, and when micro and informal enterprises are considered, the financial gap becomes even more pronounced globally (World Bank, 2019).

The contributions of MSMEs to the economic growth of countries have been highly significant. MSMEs play a vital role in enhancing a nation's Gross Domestic Product (GDP), generating employment, boosting industrial output, alleviating poverty, promoting exports, and fostering self-reliance (Ministry of MSME, Government of India 2021). In Nigeria, MSMEs contribute approximately 41 Percent

to the country's GDP (SMEDAN & NBS, 2021). Globally, the MSME impact is evident across various economies. In Japan, MSMEs account for 80 Percent of the total industrial workforce, while in Germany and the United States, they comprised 50 Percent and 46 Percent respectively (Yahaya et al., 2016). These figures highlight the MSMEs pivotal role as a powerful engine for development, particularly in employment generation, industrial productivity, and export promotion across different nations (Yahaya et al., 2016).

1.5 History of MSMEs in India:

The history of MSMEs in India has evolved significantly from the pre-independence era. Prior to independence, MSME had known as Small Scale Industries (SSIs). This was broadly categorized as a composite group of village and small industries. These included activities such as beekeeping, textile production, leather goods, food processing, forest-based industries, dairy farming, toy making, perfumery, and other traditional crafts. The first formal effort to examine the issues and challenges of these industries at the national level was undertaken by the National Planning Committee (NPC) in 1938. This committee was established by the Indian National Congress under the chairmanship of Pandit Jawaharlal Nehru. As directed by the NPC, a provisional report was submitted and published, outlining various definitions of cottage, village, and small-scale industries, along with their contributions to economic growth, associated challenges, and advantages. Historically, cottage and small-scale industries flourished in India. These products were renowned for their quality and artistic design, serving as key indicators of wealth and providing significant employment. However, after independence, the Government of India convened an Industrial Conference in 1947 to address the role and classification of village and small industries in the national economy. In the context of industrial development, small enterprises have been classified into three types based on their nature of operations, such as: auxiliary enterprise, service enterprise and manufacturing enterprise. Additionally, MSMEs and their evolution can be divided into two distinct phases: before and after independence.

1.5.1 Before Independence:

Before India's independence in 1947, the MSME was considered as a crucial part of the economy. It provided employment to a significant portion of the non-agricultural workforce and contributing substantially to industrial output (Ministry of MSME, Government of India 2020). These traditional industries, sustained through generations, and played a crucial role in promoting local self-sufficiency. The Swadeshi Movement of 1905 further strengthened their position by encouraging the use of indigenous goods and advocating the boycott of British products. During the Swadeshi Movement, small enterprises played a vital role in the rural economy. They promoted self-sufficiency, reduced dependence on imported goods, and generated local employment. These enterprises became the backbone of rural livelihoods and economic activity in pre-independence India. The Swadeshi Movement had a profound impact on indigenous industries by promoting the use of Indian-made goods. It significantly boosted the demand for local products such as khadi, handloom and handicraft stimulates the growth of traditional enterprises. This cottage and handicrafts industries movement laid an early foundation for the development of the MSMEs. These industries thrived on traditional skills and craftsmanship, supporting local economies. They included weaving, pottery, woodwork, and metal crafts, sustaining livelihoods and promoting self-reliance in rural and semi-urban communities. These enterprises were largely unorganized and traditional, operating on a small scale with reliance on manual labour and indigenous technologies. The sector faced persistent challenges such as limited access to formal finance, outdated production techniques, and inadequate infrastructure (Singh and Roy, 2019). Despite these obstacles, MSMEs were central to rural livelihoods and the preservation of artisanal crafts, textiles, and cottage industries (Nath, 2024). The colonial period lacked formal institutional support and effective policy frameworks, which hindered the MSMEs growth and modernization. Additionally, colonial economic policies prioritized large-scale industries, rendering MSMEs fragmented and vulnerable to market competition. This historical backdrop underscores the importance of post-independence initiatives to support and develop the MSME sector in India.

1.5.2 After Independence:

After gaining independence in 1947, India recognized the pivotal role of MSMEs in fostering economic development, employment generation, and equitable income distribution. The Industrial Policy Resolution of 1948 laid the foundation for promoting small-scale industries, emphasizing their importance in the nation's industrial strategy. Subsequently, the Industries (Development and Regulation) Act of 1951 provided a regulatory framework to support and oversee industrial growth, including that of small enterprises. In 1955, the Government of India established the Small Scale Industries Board (SSIB) to formulate policies and coordinate activities related to small-scale industries. This was followed by the creation of the Khadi and Village Industries Commission (KVIC) in 1957, aimed at promoting rural industries and self-employment opportunities. The 1970s and 1980s witnessed further institutional support for MSMEs, with the introduction of various schemes to enhance credit availability, technology up gradation, and market access. The policy focus during this period was on promoting ancillary industries and encouraging entrepreneurship in rural and semi-urban areas. The economic liberalization of the 1990's brought both challenges and opportunities for MSMEs. To address the evolving needs of the sector, the Government enacted the Micro, Small and Medium Enterprises Development (MSMED) Act in 2006, which provided a comprehensive legal framework for the promotion and development of MSMEs. In August 2008, for the betterment of MSME a new credit-linked subsidy program called the Prime Minister's Employment Generation Programme (PMEGP) approved by the Government of India. This scheme was launched by merging of two existing programs, Prime Minister's Rojgar Yojana (PMRY, introduced in 1993) and the Rural Employment Generation Programme (REGP, introduced in 1995), which were operational until 31st March 2008. In recent years, initiatives such as the Udyog Aadhaar registration (introduced in 2015) and its successor, the Udyam Registration (introduced in 2020), have streamlined the process for MSMEs to obtain official recognition and access various government benefits. Additionally, the establishment of the Micro Units Development and Refinance Agency (MUDRA) Bank in 2015 has facilitated easier access to credit for micro-enterprises. These concerted efforts

have significantly contributed to the growth and resilience of the MSME sector in India, making it a cornerstone of the country's economic landscape.

1.6 Organizational Setup of MSMEs after Independence:

According to the Ministry of Micro, Small, and Medium Enterprises (MMSME), highlighted that MSME has organized into two key departments. These are the Agro & Rural Industry (ARI) established in October 1999 and the Small & Medium Enterprises (SME) Division established in 2006 (Annual Report of MSME 2020-21, Govt. of India). The ARI department oversees two administrative statutory bodies: the Coir Board (1953) and the newly established Mahatma Gandhi Institute for Rural Industrialization (MGIRI) established in 2008. This department also look after the Khadi and Village Industries Commission (KVIC) established in 1956. Additionally, it provides guidance for the implementation of the Prime Minister's Employment Generation Program (PMEGP) introduced in 2015. In contrast, the SME Division is responsible for allocating work, monitoring vigilance, and providing administrative supervision for the National Small Industries Corporation (NSIC) Ltd., established in 1955 a public sector enterprise. It also manages three autonomous national entrepreneurship training organizations. Furthermore, the SME division plays a crucial role in executing policies related to performance and credit ratings and offers support to training institutes, among other responsibilities. The division is also tasked with preparing and overseeing the Results Framework Document (RFD), introduced in 2009 by the Cabinet Secretariat under the Performance Monitoring and Evaluation System (PMES).

In accordance with the Micro, Small, and Medium Enterprises Development (MSMED) Act of 2006 and the Government of India established the National Board for Micro, Small, and Medium Enterprises (NBMSME) introduced in 2006. The NBMSME monitors the factors affecting the growth and promotion of MSMEs, evaluates existing policies and programs, and provides recommendations to the government for new policies and initiatives. Under the leadership of the Additional Secretary & Development Commissioner of MSME, the Micro, Small, and Medium Enterprises Development Organization (MSME-DO) operated. The MSME-DO is

dedicated to assisting the Ministry in the development, organization, implementation, and oversight of various policies and programs related to MSMEs. However, the Factories Act, 1948, it is a key piece of legislation aimed at regulating working conditions and ensuring the welfare of workers in the industrial sector.

1.6.1 The Factories Act, 1948:

The Factories Act was enacted in 1948 by the Parliament of India. This act also referred to as the Factories Amendment Act, 1951. It has been amended several times to address changes in industrial practices and labour needs. The Act is classified under Labour Laws in India. Some of the measures of this act are as follows:

- 1) The Factories Act, 1948 limits working hours in factories to 48 hours per week and overtime must not exceed nine hours in a day. According to the Factory Schedule Rules, the working day should not exceed ten consecutive hours. However, this limit may be relaxed during public holidays or in emergencies involving substantial loss.
- 2) The Act also sets safety standards for workers employed in manufacturing units. It applies to industries such as weaving, knitting of hosiery, clothing and footwear production, textile dyeing, and finishing activities.
- 3) The Act provides the formation of a Child Labour Committee in every factory. This committee should include representatives of employers, workers, local authorities, and a medical officer. It is responsible for regulating and controlling the employment of individuals aged 14 to 18 years in factories employing more than 20 workers.
- 4) An industrial dispute between the employer and workers can be resolved through a Conciliation Officer appointed by the government. The role of the officer is to conciliate between the parties, not to mediate or impose a settlement.

- 5) The government appoints Labour Officers to safeguard the interests of factory workers. These officers are government officials responsible for ensuring that factories within their jurisdiction comply with all provisions of the Factories Act, 1948.
- 6) State governments or local authorities have established welfare funds in factories. These funds may be created for general or specific purposes, based on the initiatives of entrepreneurs or local authorities.

1.6.2 Coir Board, 1953:

As per the Act no. 45 the Coir Board is a statutory body set up by the Government of India under the Coir Industry Act, 1953. The Act was enacted by Parliament to promote and develop the coir industry in India. It also aims to support the export of coir and coir products. Section 4 of the Act empowers the Central Government to constitute the Coir Board. Sub-rule 4 of the Coir Industry Rules, 1954, defines the number of members to be appointed to the Board. The Board shall consist of a Chairman and other members, not exceeding forty, as deemed appropriate by the Central Government. These members are to be appointed through notification in the Official Gazette. Appointees should be capable of representing (a) coconut growers and producers of husks and coir yarn, and (b) persons involved in the production of husks, coir, coir yarn, and coir products.

1.6.3 National Small Industries Corporation (NSIC) Ltd., 1955:

The National Small Industries Corporation (NSIC) Ltd. established in 1955. The main function is to promote the growth of micro and small enterprises in India. It also provided support in areas such as raw material procurement, marketing, credit rating, technology acquisition, and modern management practices. Operations are carried out through 142 offices across the country. NSIC operates through a wide network of offices and technical centres across the country. It also runs Training-cum-Incubation Centres, which are managed by trained professionals to support skill development and entrepreneurship.

The National Small Industries Corporation (NSIC) is a Government of India, enterprise under the Ministry of MSMEs. It is ISO 9001:2015 certified, indicating its adherence to quality management standards. Since its establishment, NSIC has played an important role in promoting and supporting the development of MSMEs in India. The mission of NSIC is to promote and support the MSME sector by offering integrated services related to marketing, technology, finance, and other areas. Its vision is to become a leading institution that fosters the growth of MSMEs. In addition, NSIC was created to fulfil the objectives mentioned in its Memorandum and Articles of Association. Its main functions are to provide comprehensive support to MSMEs in areas such as market access, technology upgradation, and financial services, with the aim of enhancing their competitiveness and long-term viability.

1.6.4 Khadi and Village Industries Commission (KVIC), 1956:

The Khadi and Village Industries Commission (KVIC) is a statutory body established by Act No. 61 of 1956, enacted by the Parliament of India. This Act was later amended by Act No. 12 of 1987 and Act No. 10 of 2006. In April 1957, KVIC assumed the responsibilities previously carried out by the former All India Khadi and Village Industries Board.

The Khadi and Village Industries Commission (KVIC) is responsible for planning, promoting, organizing, and implementing programs for the development of Khadi and other village industries in rural areas. This carried out in coordination with other rural development agencies, wherever necessary. KVIC's functions include building a reserve of raw materials and tools for supply to producers, establishing common service facilities for processing raw materials into semi-finished goods. It provides support for the marketing of Khadi and Village Industries (KVI) products. It also organizes training programs for artisans and encourages cooperative efforts among them.

To support the sale and marketing of Khadi, village industry, and handicraft products, KVIC may collaborate with established marketing agencies when feasible. Additionally, the Commission promotes research in production techniques and

equipment used in the Khadi and Village Industries sector. It provides facilities for studying related issues, including the application of non-conventional energy and electricity, to enhance productivity and reduce manual labor. KVIC improves the competitiveness of these industries and also responsible for disseminating the key outcomes of such research.

Moreover, the Commission provides financial assistance to institutions and individuals engaged in the development and operation of Khadi and village industries. It also offers technical support in the form of designs, prototypes, and other relevant information. To maintain product authenticity and quality, KVIC implements measures to ensure that goods produced under its programs are genuine and confirm to prescribed standards.

1.6.5 National Board for Micro Small and Medium Enterprises (NBMSME), 2006:

As per the Chapter II, Sections 3 to 6 of the MSMED Act, 2006, provide for the establishment of the National Board for Micro, Small & Medium Enterprises (NBMSME) and outline its functions. To implement the formation of the NBMSME, rules were notified on 26th September 2006. These rules specify the procedure for establishing the Board. The National Board for Micro, Small & Medium Enterprises (NBMSME) was first established and notified on 15th May 2007. It consists of 47 members, including the Chairman, Vice Chairman, and Member Secretary. The Minister in charge of the Ministry of MSME serves as the ex-officio Chairman of the National Board. Moreover, an apex advisory body established the advice to government on all matters related to the MSME sector.

1.6.6 Ministry of Micro Small and Medium Enterprises (MoMSME), 2007:

The Ministry of Micro Small and Medium Enterprises (MSME), Government of India, was established in 2007. It follows the enactment of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006. It plays a pivotal role in promoting entrepreneurship and facilitating the development of the MSMEs. It can play a vital role to employment generation, innovation, and economic inclusivity.

The Ministry formulates policies, implements schemes, and provides infrastructure support, financial assistance, and skill development programs aimed at enhancing the competitiveness and productivity of MSMEs (Saleh & Ahmad, 2023). Key functions include the development of industrial clusters, promotion of technology up gradation, facilitation of market access, and provision of credit and credit guarantees. Major initiatives such as the Prime Minister's Employment Generation Programme (PMEGP) introduced in 2008, MSE-Cluster Development Programme (MSE-CDP) initiated in 2003, and Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) established in 2000 are implemented under its ambit. The Ministry's core objective is to build a strong MSME ecosystem for inclusive economic growth (Bhajantri, 2025).

1.7 Definition of MSMEs:

There is no universally accepted definition of MSMEs as various countries use distinct criteria, most commonly based on the size of the enterprise and the number of individuals employed. The MSME Development Act of 2006 defines the legal framework, regulations, and obligations of MSMEs in India. It introduces the concept of 'enterprises' as opposed to the earlier term 'industry'. According to the Act, MSMEs are categorized into two sectors: the service industry that is based on investments in furniture and installations. However, the manufacturing sector, it is based on investments in plant and machinery, as well as machinery used in service-oriented enterprises.

Historically, MSMEs also known as Small and Medium Enterprises (SMEs) were referred to as Small Scale Industries (SSIs). These enterprises were traditionally defined based on their investments in plant and equipment for manufacturing activities, as well as in equipment for service-oriented businesses. In 2006, the Government of India enacted the Micro, Small, and Medium Enterprises Development (MSMED) Act, which redefined the classification of MSMEs for both the manufacturing and service sectors. According to the Act, the manufacturing sector, a micro-enterprise is defined as the investment in plant and machinery does not exceed Rs.25 lakh. A small enterprise is one the investment exceeds Rs.25 lakh

but does not exceed Rs. 5 crore, and a medium enterprise is one where the investment exceeds Rs. 5 crore but does not exceed Rs. 10 crore. In the service sector, a micro-enterprise is one where the investment in equipment does not exceed Rs. 10 lakh, a small enterprise is one where the investment exceeds Rs. 10 lakh but does not exceed Rs. 2 crore. In addition, a medium enterprise is one where the investment in equipment ranges from Rs. 2 crore to Rs. 5 crore.

Table 1.2:

Financial Criteria for MSMEs

Manufacturing sector	
Micro Enterprises	Up to 25 lakh rupees.
Small Enterprises	From 25 lakh to 5 crore rupees.
Medium Enterprises	From 5 crore to 10 crore rupees.
Service Sector	
Micro Enterprises	Up to 10 lakh rupees.
Small Enterprises	From 10 lakh to 2 crore rupees.
Medium Enterprises	From 2 crore to 5 crore rupees.

Source: Micro Small and Medium Enterprises Development (MSMED) Act, 2006.

The new classification of MSMEs came into effect on 1st July 2020. Prior to this, the classification under the MSMED Act, 2006 was based on investments in plant and machinery or equipment, which varied for manufacturing and service units. The previous thresholds were relatively low in terms of monetary limits. However, given the significant changes in the economy, an update to the MSME classification rules was announced as part of the MSME Amendment Act 2020 by the government of India. This revision was introduced to align with contemporary economic conditions, create a more rational and targeted classification framework, and facilitate the 'Ease of Doing Business' for enterprises. The updated investment limits for MSMEs in both the manufacturing and service sectors are summarized in the table below:

Table 1.3:

The Classification of a New Concept of MSMEs

Revised MSME Classification			
Composite Criteria: Investment And Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing and Services	Investment: greater than Rs. 1 crore and Turnover: greater than Rs. 5 crores.	Investment: greater than Rs. 10 crores and Turnover: greater than Rs. 50 crores.	Investment: greater than Rs. 20 crores and Turnover: greater than Rs. 100 crores.

Source: MSME Amendment Act2020, Government of India.

The concept of MSMEs has been defined differently by various authorities and has evolved over time in response to the changing needs of this sector. Consequently, several definitions of MSMEs have emerged. According to the Multilateral Investment Guarantee Agency (MIGA) and the International Finance Corporation (IFC), the definition largely depends on country-specific criteria, which can vary significantly across empirical differences in practices, characteristics, or limitations of firms. However, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) adopt a more standardized approach to defining MSMEs. According to their classification, an enterprise qualifies as an MSME if it meets three key criteria: assets, number of employees, and annual sales.

Table 1.4:

Definition of MSMEs by World Bank

Enterprises sizes	Employee	Asset	Annual Sales
Micro	Less than ten	Less than USD 10,000 (Less than Rs. 5,00,000)	Less than USD 10,000 (Less than Rs. 5,00,000)
Small	Less than fifty	Less than USD 3 million (Less than Rs. 150 million)	Less than USD 3 million (Less than Rs. 150 million)
Medium	Less than three hundred	Less than USD 15 million (Less than Rs. 750 million)	Less than USD 15 million (Less than Rs. 750 million)

Source: World Bank 2019.

1.8 Micro Small and Medium Enterprises Development (MSMED) Act, 2006:

The Act established in 2006 as a statutory consultative mechanism at the national level, ensuring balanced representation of all stakeholder groups, especially the MSMEs with a broad range of advisory functions. It also provides for specific funds to promote, develop, and enhance the competitiveness of these enterprises. MSMEs in India contribute significantly to employment generation, support national economic growth, and enhance export potential, thereby impacting the livelihoods across most remote and marginalized populations. The needs, challenges, and opportunities of these enterprises vary not only based on the nature of their operations (such as weaving, sewing, woodcutting, etc.) but also in terms of their size, geographic location, and organizational structure.

1.8.1 Features of MSMED Act, 2006:

Prior to the enactment of the MSME Development Act, 2006 small business in India encompassed a variety of traditional, cottage, and village-based enterprises. The Government of India had categorized these enterprises across different Ministries and Departments to implement development programs and provide

concessions. Sectors such as Khadi, coir, handicrafts, power looms, and handlooms faced greater neglect compared to other manufacturing and service-oriented industries. In response to these inequities, the MSME Development Act was enacted on June 16, 2006. It was enacted to promote, support, and enhance the competitiveness of MSMEs in India. It provides clear definitions for micro, small, and medium enterprises based on investment and turnover criteria. The Act ensures timely payments to MSMEs by buyers, thereby reducing payment delays. It also facilitates access to credit, technology, infrastructure, and markets. Additionally, the Act empowers the central and state governments to implement supportive schemes and policies. By recognizing the importance of MSMEs in economic development and employment generation, the Act plays a crucial role in strengthening the MSMEs sector.

1.8.2 Characteristics of MSME Act, 2006:

- 1) This Act introduced the concept of ‘enterprises’ in place of ‘industrial undertakings’ and provided a clear definition for MSMEs.
- 2) The Act establishes a structured procedure for the registration of enterprises, facilitating the formal recognition of MSMEs.
- 3) The primary objective of this legislation is to promote the development and growth of MSMEs by fostering a competitive environment that enhances their sustainability and market presence.
- 4) The Act includes provisions for the recovery of delayed payments, ensuring that MSMEs receive timely financial compensation for their goods and services.
- 5) An illustrative list of activities related to manufacturing and service provision that can be registered under the Act is provided through various official guidelines and circulars.
- 6) The Act also outlines an exit strategy for registered enterprises, offering a formal process for dissolution or closure if necessary.

1.9 MSMEs in Tripura: An Introduction

Tripura is located in the north-eastern part of India, and is the third smallest hilly state by area. It shares an 856 km international border with Bangladesh and also shares borders with Assam and Mizoram. In 2012, the government of Tripura restructured its administrative framework, creating four new districts, six new subdivisions, and five new blocks, with the goal of decentralizing administration and improving the implementation of government policies. Currently, Tripura has twelve industrial estates, with some ongoing development across eight districts. These industrial estates were originally managed by the State Industries and Commerce Department (SICD) but are now overseen by the Tripura Industrial Development Corporation (TIDC).

Moreover, Tripura holds significant potential for industrial development and business growth. Under the ‘Look East Policy’, the Government of India has emphasized that the Trans-Asian Highway, which passes through Tripura, connects the region to Southeast Asian countries. It makes the entire north-eastern region a potential business hub. Consequently, Tripura could become the gateway for economic activities in the north-eastern states (Economic Review of Tripura 2022-23, Government of Tripura). This provides a substantial opportunity for the state to enhance its industrial capacity and increase exports to Southeast Asia.

The MSMEs continues to be a focal point in the state's economic policies. The government is committed to providing an efficient and cost-effective infrastructure, a stable environment, and good governance, which are essential for establishing a business climate for the sustainable industrial growth of MSMEs. According to the Udyog Aadhaar Memorandum (UAM) 2022-23, Government of Tripura, indicated that there is total 16,604 (growth rate 97.74 per cent) MSMEs exist in Tripura. In those MSMEs total 178,917 (growth rate 80.69 per cent) employees employed. However, the investment amount invested by those MSMEs was Rs. 46,475.73 lakh (growth rate 47.26 per cent) in Tripura. In addition, as per the Directorate of Economic and Statistics, Government of Tripura 2022-23 showed the

MSMEs contribution in total GSDP was Rs. 38,848.74 crore (growth rate 53.48 percent) in Tripura.

1.10 Status of MSMEs in Tripura:

The Micro, Small, and Medium Enterprises Development (MSMED) Act, 2006, was implemented in Tripura to promote and support the growth of the MSME sector in the state. Section 9 of the MSMED Act empowers the Central Government to implement policy for the promotion and development of MSMEs, including measures to enhance their competitiveness. The Act aims to facilitate the growth and enhancement of these enterprises, while simultaneously improving their competitiveness. It provides the first-ever legal framework for recognizing the concept of ‘enterprise’, encompassing both manufacturing and service entities. The state of Tripura has made concerted efforts to develop its MSMEs, recognizing its potential in fostering economic growth, generating employment, and promoting regional development (Economic Review of Tripura 2022-23).

According to the study, Tripura’s industrial profile continues to be dominated by micro 342 (94.48 percent) and small 20 (5.52) enterprises (Table 5.1). As per the data selected proportionately, out of all districts west Tripura district 100 enterprises (27.62 percent) contributed highest percentage in numbers of MSMEs exist for the study. Followed by north Tripura 62 enterprises (17.13 percent) and 46 enterprises (12.71 percent) in number of MSMEs (Table 5.2). Key sectors include forest based 121 enterprises (33.43 percent), followed by agro based 76 enterprises (20.99 percent) and textile based 59 enterprises (16.3 percent) contributed in MSMEs in Tripura (Table 5.3). As per the forms of ownership, sole proprietorship 166 (45.86 percent) contributed highest contribution followed by partnership 99 (27.35 percent) and private limited 72 enterprises (19.89 percent) (Table 5.4). Among all proprietors male 117 (70.48 percent) contributed highest percentage than female 49 numbers (29.52 percent) (Table 5.5) in MSMEs in Tripura.

To support this growth, the Government of Tripura launched the Tripura Industrial Investment Promotion Incentive Scheme (TIIPIS), 2022, effective from

April 1, 2022, and valid for five years. This scheme aims to attract private investment, facilitate new industrial units, and extend fiscal and infrastructural incentives (Tripura Industries Department 2022, Government of Tripura). Additionally, Tripura has implemented the Raising and Accelerating MSME Performance (RAMP), extended in 2023 for three years. This policy aims to support capacity-building among 3,200 model entrepreneurs and enhance MSMEs productivity through financial assistance and technical guidance. Tripura is also a beneficiary of the Scheme of Fund for Regeneration of Traditional Industries (SFURTI), launched nationally in 2005, but expanded in Tripura during 2021-2023, helping to set up clusters and improve infrastructure for traditional and rural MSMEs. These combined efforts underscore the state's strategic intent to make MSMEs a core pillar of sustainable economic growth, innovation, and inclusive growth in Tripura (Tripura Industries Department 2022, Government of Tripura).

1.11 Significance of the Study:

As per the 'Udyog Aadhaar Memorandum (UAM) 2019-20' published by Ministry of MSME, Government of Tripura, revealed that there are 6,581 registered MSMEs available in different districts of Tripura. The study considered the whole state of Tripura covering the eight districts. Among all these districts, micro enterprises contribute more than small enterprises in Tripura. In the North- Eastern region, Tripura has second highest contributors after Assam in terms of register MSMEs. Therefore, this sector contributes a vital role for the economic development of the state. This study examined the contribution of the MSME sector in Gross State Domestic Product (GSDP), production of goods & services, employment generation, capital and Investment by MSME sector of Tripura. The findings of this study can be beneficial for local entrepreneurs, aiding them in formulating strategies to capitalize on the opportunities within the MSME. Furthermore, the study will serve as a valuable resource for both state and central governments in shaping policies that foster the growth and development of the MSME.

1.12 Scope of the Study:

The MSMEs represents 95 percent of business firms worldwide and is responsible for generating 60 percent of global employment and it contributes up to 40 per cent to GDP across the worldwide(Kumar, 2020). According to the Annual Report of MSME 2024-25, Govt. of India indicated that the MSMEs has made contributions to the Indian economy, accounting for 30.1 percent to GDP, 36 percent of manufacturing output, and 45 percent of total exports. Additionally, the MSME has recorded remarkable growth in number of MSMEs, with 5.77 crore. The MSMEs have created employment opportunities for approximately 24.4 crore individuals in India. Notably, the MSME sector ranks second in employment generation, after the agriculture sector in India (Annual Report of MSME 2024-25, Govt. of India).The scope of the study evaluates the MSMEs impact across various dimensions, including the progress and pattern of MSMEs, production of goods and services, MSMEs contribution to Gross State Domestic Product (GSDP), employment generation, and capital investment within the MSME sector in Tripura. According to the Udyog Aadhaar Memorandum 2019-20, published by the Government of Tripura, there are 6,581 registered MSMEs across eight districts in the state. Thus, the study is confined to the MSME sector in Tripura, covering all districts from the fiscal years 2010-11 to 2023-24.

1.13 Statement of the Problem:

According to data from the National Sample Survey (NSS) 73rd round, conducted by the Ministry of Statistics and Program Implementation, there were 633.88 lakh enterprises in India, out of that 230.35 lakh in the trade sector, 196.65 lakh in the manufacturing sector, 0.03 lakh in non-captive electricity generation and transmission, and 206.85 lakh in other services (Annual Report of MSME 2022-23, Govt. of India). Despite its significant contribution to the Indian economy, the MSME sector faces several challenges, including lack of awareness about available schemes, insufficient technical and skilled labour, and a shortage of motivational factors. These issues highlight the need for a comprehensive study that explores the role of the MSME sector in economic development.

The available literature suggests that micro enterprises dominate the MSME sector in Tripura, followed by small and medium enterprises. But the data relating to employment, capital generation and growth rates of MSME sector in Tripura's sufficient data are not available. Also, the role of new policy for the development of industrial estates in Tripura is not known. Therefore, this study aims to gather information regarding the generation of employment, contribution to Gross State Domestic Product (GSDP), production of goods and services, and capital investment by the MSMEs in Tripura.

1.14 Objectives of the Study:

The study aims to explore the 'Role of Micro Small and Medium Enterprises (MSMEs) in the Economic Development of Tripura'. The Central and State governments of India have launched various policies and schemes to support the development of MSMEs. Tripura has particularly relied on the MSMEs for the employment generation, it has contributed to the growth of GSDP, increase the number of enterprises, and promote the production of MSME products, as well as capital investment in the sector. The present study concentrated on the various aspects of MSME sector of Tripura. Therefore, following objectives were outlined below:

- 1) To analyze progress and pattern of MSMEs in Tripura.
- 2) To study the capital and investment pattern of MSMEs in Tripura and its growth rate.
- 3) To examine the role of the MSMEs in generation of employment and its growth rate.
- 4) To study the annual growth rate of production of goods and services by the MSMEs in Tripura.
- 5) To explore the total production of goods and services by MSMEs and its contribution to GSDP of Tripura.

1.15 Hypotheses:

H1- There is a significant relationship between overall growth of MSMEs and GSDP.

H2- There is a significant relationship between growth of MSMEs and employment generation.

1.16 Research Methodology:

Initially, a pilot study was conducted to select a random sample of MSMEs, and based on the information gathered from the pilot study, the questionnaire was subsequently modified. This study follows a descriptive research approach, utilizing both primary and secondary data sources for data collection. To examine the MSME sector in Tripura, a structured questionnaire was developed to gather primary data from a randomly selected sample of MSME owners, managers, and government officials associated with the MSMEs. The questionnaire focused on key areas such as employment generation, contribution to the growth of Gross State Domestic Product (GSDP), growth in the number of enterprises, production of MSME products, and capital investment within the MSME sector in Tripura.

1.16.1 Tools for Analysis:

To facilitate a comprehensive analysis and interpretation of the data, and to assess the role of MSMEs in the economic development of Tripura, several statistical methods have been used. These include the One-Way ANOVA test, t-test, correlation analysis, Linear Regression analysis, Pearson Correlation Coefficient, trend line analysis, and percentage methods.

1.16.2 Population:

The target population under the purview of this study considered MSME owners, managers and authorized representatives of MSMEs. According to the Udyog Aadhaar Memorandum (UAM) 2019-20, a total of 6,581 registered MSMEs exist in Tripura.

1.16.3 Sources of Data:

For this study, both primary and secondary data have been utilized. Primary data was collected through field surveys and interviews. Meetings were conducted with owners, managers, and authorized representatives of MSMEs, as well as government officials associated with the MSME sector in Tripura. The responses from these interviews were recorded using questionnaires. Secondary data was sourced from various publications, including the Annual Report of MSME, Economic Review Reports, Economic Survey Reports, and other documents published by the state and central governments related to the MSME sector in Tripura. Additionally, journals, books, articles, magazines, newspapers, and published theses were also referenced to support the study.

1.16.4 Sample Design:

The study employed a multi-stage sampling technique to ensure a representative and structured selection of respondents from the target population. An attempt was made to identify the eight administrative districts of Tripura: Dhalai, Gomati, Khowai, North Tripura, Sipahijala, South Tripura, Unokoti, and West Tripura (Table 5.2). This stratified random selection of the district was based on administrative significance and the distribution of micro and small enterprises within the state. Following the district-level identification, stratified random sampling was implemented. Each district served as a stratum, and samples were drawn in proportion to the population size of the respective districts. This stratification ensured that the sample adequately represented the demographic and economic characteristics of each district. Within each stratum, simple random sampling was employed to select the individual MSME, thereby minimizing selection bias and enhancing the representativeness of the sample. Furthermore, enterprises were classified into two categories- micro and small units based on enterprise size (Table 5.1). This combined use of stratified, and simple random sampling techniques ensured a comprehensive, reliable, and unbiased data collection process, thereby strengthening the validity and generalizability of the study.

The sample size for this study was determined using the standard sample proportion formula, which is widely employed for finite populations. The formula used is:

$$n = \frac{N \times Z^2 \times p (1-p)}{(N-1) \times e^2 + Z^2 \times p (1-p)}$$

Where:

n = sample size,

N = population size (6,581),

Z = Z-score for a 95 Percent confidence level (1.96),

p = estimated population proportion (0.5),

e = margin of error (0.05).

Substituting the values into the formula:

$$n = \frac{6581 \times (1.96)^2 \times 0.5 (1-0.5)}{(6581-1) \times (0.05)^2 + (1.96)^2 \times 0.5 (1-0.5)}$$

$$n = \frac{6322.1324}{17.4104}$$

$$n = 362$$

Thus, the required sample size for the study was determined to be 362 respondents.

A multi-stage sampling technique was adopted to ensure representativeness and structure in respondent selection. Initially, simple random sampling identified the eight administrative districts of Tripura based on administrative importance and enterprise distribution. Subsequently, stratified random sampling was applied, treating each district as a stratum and drawing samples proportionately to population size. Within each stratum, simple random sampling selected individual micro and small enterprises. Enterprises were categorized into micro and small units for detailed analysis. According to fulfil of desired sample size requirements, a total of 375 respondents were initially targeted. Following a data quality check and cleaning process, 362 valid responses were retained as per the sample size requirements for final analysis.

1.16.5 Period of Study:

For this research study, the time duration selected for primary data collection is from 2010-11 to 2019-20, while for secondary data, the time frame extends from 2010-11 to 2023-24.

1.16.6 Limitations of the Study:

The research study is based on both primary and secondary data sources. The primary data covers the period from 2010-11 to 2019-20, while the secondary data extends from 2010-11 to 2023-24. One of the key limitations encountered was the difficulty in interacting directly with the owners and managers of MSMEs, which served as a limiting factor for data collection. Maximum numbers of MSMEs owners and managers in all districts in Tripura were hesitating to provide their enterprises financial information as well as information related to employment and production. Consequently, the study's examine of the role of MSMEs in the economic development of Tripura is based on a limited set of dimensions. Furthermore, the scope of fieldwork was geographically constrained, potentially leading to sample bias. Additionally, secondary data is primarily sourced from the Annual Reports of MSME, the Economic Review of Tripura, and various reports published by both the central and state governments. Therefore, the accuracy of the findings depends on the data published by government schemes only.

1.17 Chapters Outline:

The present study consists of seven chapters.

The first chapter provided an introduction to the MSME sector from global, Indian, and Tripura perspectives. It covers topics such as industrial policies, history of MSMEs, definition under the MSME Act of 2006, and an overview of the study. This chapter also includes the significance, scope, problems, objectives, hypothesis, and research methodology of the study.

The second chapter is dedicated to the review of literature and identification of research gaps. It is divided into four sections: the global perspective, the Indian perspective, the North-East perspective, and the Tripura perspective on MSMEs.

The third chapter focused on MSMEs and their role in economic development. It provides an overview of the geographical location of Tripura and outlines various schemes, introduced by central and state government that support to MSMEs in the state. This chapter also includes the contributions of MSMEs in economic development of India as well as Tripura.

The fourth chapter has designed flow charts of industrial department of Tripura and the industrial policies introduced central and state government, which are implemented in North-Eastern Region, especially in Tripura. In addition, numbers of incentives and subsidies also have been includes by central and state government to support the development of the MSMEs in the north-east region as well as Tripura.

The fifth chapter presented the data analysis and interpretation of selected MSMEs in Tripura. Initially, the introduction profile provided a detailed analysis and interpretation of the number of selected MSMEs, district-wise distribution of selected MSMEs, and a breakdown by product/service categories for sample study. This chapter also focused on the demographic profile of the entrepreneurs. In addition, it included the contributions of MSMEs to the economic development of Tripura, examining five key dimensions: progress and pattern, capital and investment, employment generation, production of goods and services, and the contribution of MSMEs to the Gross State Domestic Product (GSDP) of Tripura. At last, this chapter designed hypothesis analysis of the study.

The sixth chapter presented the major findings of the study. It highlights the results from demographic profile and each of the study's objectives. The first objective discusses the progress and pattern of the MSME sector in Tripura, while the second objective focuses on the capital and investment patterns within the sector and its growth rate. The third objective examines the role of the MSME sector in

employment generation, and the fourth objective looks at the annual growth rate of production of goods and services by the MSME sector. The fifth objective evaluates the contribution of MSMEs to the Gross State Domestic Product (GSDP) of Tripura.

The seventh chapter concluded the study by providing key suggestions for both MSME entrepreneurs and the government. It highlights recommendations to support MSME growth and development. Additionally, this chapter discussed the future scope of the study, outlining potential areas for further research within the MSME sector.

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CHAPTER 2:
REVIEW OF LITERATURE

2.1 Introduction:

The Review of literature chapter sets the foundation for developing the methodology component of the research. To write a review of literature is to depth and critical evaluation of past research that is solely based on secondary sources. It evaluates the work done in a present area to get a better understanding of the research. In addition, the primary goal of writing this chapter is: It examines the literature available in the selected research fields and summarises the literature facts based on review. However, it also analyses objectively the facts and information collected by finding gaps in prior understanding, disclosing shortcoming in hypotheses. In addition this component of the study serves as a foothold for further research in this area. Finally, this review of literature is presented in a structured way.

2.1.1 Methods of Review of Literature:

For this study, review of literature approach was followed systematically to better understand. The study related to economic development of the MSME sector. For this research a total of 90 studies were identified. Among these, 76 were selected for the review and quality assessment. After that, 9 studies were eliminated due to quality issues. In addition, this present study is based on 67 relevant studies to the topic.

Table 2.1:

Classification of Review of Literature

Identification	Studies related to topic from various sources	90 Literatures
Criteria of Inclusion	Studies related to Economic Development	76 Literatures
Elimination of Iterations	Studies are deleted due to quality issues	9 Literatures
Total Review of Literatures	Review based on National, international journal, articles and published theses	67 Literatures

Source: Author's compilation.

However, the review of literature has been divided into four categories such as; Global perspective, Indian perspective, North-East perspective and Tripura perspective. In addition, from the perspective of the North-East and Tripura region there are fewer studies related to the topic. The following literature has been reviewed to justify the need for the current study:

Table 2.2:

Overview of Literature Studied

Sl.no	Literatures	National/ International	Years covered	Sources	Reference Formatting
1	Literatures Review on Global perspective	11	2016- 2024	Shodhganga, Google Scholar, International and Indian Journal and Research Gate	Formatting APA style- Author, Year, Title, Journal, Volume, Issue, Page number
2	Literatures Review on National perspective	47	2001-2022		
3	Literatures Review on North-East perspective	05	2013-2022		
4	Literatures Review on Tripura perspective	04	2022-2025		

Source: Author's compilation.

2.2 Global Studies on MSMEs:

Yahaya et al., (2016) the study interpreted the role of Micro, Small, and Medium Enterprises (MSMEs) in Nigeria's economic development, focusing on Damaturu, Yobe State. Using qualitative methods through interviews with eight MSME managers, a SMEDAN official, and a microfinance officer. The study highlights MSMEs contributions to employment and economic growth. The findings

highlights the challenges such as insecurity (Boko Haram insurgency), high-interest rates, and limited access to finance, poor electricity, low policy awareness, and military-related disruptions hinder growth. These barriers significantly outweigh government efforts and restrict the MSMEs expansion and economic impact in the region.

Ajuwon et al., (2017) their study "MSMEs and Employment Generation in Nigeria" investigated the link between firm size and job creation. For the study data collected from 473 enterprises, it consists of 110 micro, 218 small, 116 medium and 29 large enterprises. The data sourced from the 2014 World Bank Enterprise Survey. The study used LOWESS method, to analyzed employment trends. The results align with Birch's theory that small businesses drive employment. The study recommends targeted policies and support for MSME development to effectively reduce unemployment in Nigeria.

Bello et al., (2018) their article indicated "Impact of Small and Medium Scale Enterprises on Economic Growth: Evidence from Nigeria". It examined the effect of SMEs on Nigeria's economy using time series data from 1986 to 2016, sourced from the Central Bank of Nigeria. The study used Augmented Dickey-Fuller and Phillips-Perron unit root tests alongside OLS regression. The study found that both SME output and bank credit to SMEs positively and significantly influence to real GDP growth. A unit increase in SME output raises GDP by 12.67 percent, while a unit increase in bank credit contributes 3.68 units. The model accounts for 88 percent of GDP variation highlighted SMEs' vital role in Nigeria's economic development.

Abdullahi et al., (2018) their study investigated the impact of small and medium scale enterprises (SMEs) on Nigeria's economic growth using time series data from 1986 to 2016. The data sourced from the Central Bank of Nigeria and for the data analyzed selected regression analysis. The study found a positive and significant relationship between SMEs and output growth, affirming SMEs contribution to Nigeria's economic development. It recommends that the government implement policies to limit imports of goods producible by local SMEs and improve

infrastructure to support SME operations. Thereby fostering industrial growth and protecting domestic producers from foreign competition.

Aditi and pentana (2018) the study highlighted the impact of MSME development on creative economic growth in Medan city, Indonesia employing path analysis as the primary method. The research reveals that both MSME development and competitive advantage have direct, positive, and significant effects on the creative economy. Furthermore, MSME development significantly enhances competitive advantage, which in turn positively influences creative economic outcomes. The findings suggested a mediating role of competitive advantage in the relationship between MSME growth and creative economic development. The study concluded that fostering MSMEs contributes directly and indirectly to strengthening the creative economy through improved competitiveness.

Miranda and Miranda (2018) the study examined the role of small and medium enterprises (SMEs) in empowering rural communities on Samar Island, Philippines. It assessed the organizational variables of SMEs such as membership/ownership structure, leadership, policies, systems, resource mobilization, networking, and communication systems and their relationship with the empowerment of rural communities. A survey conducted from 18 SMEs across 12 municipalities involved 256 respondents (94.81 percent response rate). The Findings showed that these organizational variables were positively correlated with empowerment, reflected in material, perceptual, and relational changes in rural communities. The study concluded that SMEs play a significant role in transforming rural lives by fostering empowerment.

Tahir and Inuwa (2019) their study investigated socio-economic factors affecting Micro, Small and Medium Enterprises (MSMEs) performance in Maiduguri, Borno State, Nigeria. The survey data collected from 84 MSME operators and was analyzed using SPSS (version 23). For the data analysis selected exploratory factor analysis, correlation, and multiple regression. The Findings revealed that insecurity and inadequate infrastructure are the most significant challenges hindering MSMEs performance. Despite MSMEs comprising 95 percent

of Nigeria's manufacturing sector and contributing to employment and economic growth, they underperform due to environmental constraints. The study recommended improving security and infrastructure to enhance MSME operations, especially in conflict-affected regions like Borno, to stimulate industrialization, employment, and sustainable development.

Suhaili and Sugiharsono (2019) their study interpreted the role of MSMEs in labor absorption and GDP contribution in Indonesia. The study used secondary data from the Central Statistics Agency and the Ministry of Cooperatives and selected MSMEs. Through descriptive statistical analysis, the findings reveal that MSMEs employed an average of 112.7 million people, accounting for 97.03 percent of the national workforce. Micro-enterprises absorbed 92 percent of labor, small enterprises 5 percent, and medium enterprises 3 percent. From 2012 to 2017, MSMEs contributed an average of 59.74 percent to GDP, out of that micro-enterprises contributing 61.05 percent, small enterprises 16.20 percent, and medium enterprises 22.75 percent of the MSMEs to total GDP.

Prasetyo (2020) the study analyzed the impact of government expenditure and investment on MSME growth in Indonesia, especially amid the post-COVID-19. The data collected quarterly data from 2009 to Q3 2019 and selected the OLS regression model. The results showed government spending significantly supports small- and medium-sized enterprises, though it has limited impact on micro-businesses. Investment positively affects all MSME categories. The research highlighted the need for targeted government policies to support micro-enterprises, which are vital for socio-economic protection, job creation, and poverty alleviation. It advocates shifting policy focus from large businesses to MSMEs to foster inclusive, resilient, and sustainable economic growth.

Lantowa and Machmud (2020) the study explored the development of MSMEs in Gorontalo Regency, Indonesia, and proposed strategies based on the Creative Economy (Ekraf) and Gig Economy models. The study used a qualitative approach and SWOT analysis, and it examined MSMEs in food, clothing, and handicrafts enterprises. The Findings revealed that MSMEs face challenges such as

limited capital, outdated equipment, poor marketing, and lack of skilled labor. The study recommends a diversification strategy and the integration of part-time gig workers to enhance competitiveness. Emphasizing creative industry potential, the research underscores MSMEs vital role in employment, poverty reduction, and economic growth in line with Indonesia's post-reform economic decentralization.

Agustina and Fitriyanto (2024) their study found the impact of the number of MSME units and labor on economic growth in East Java Province from 2020 to 2022. The study used a quantitative, associative approach and multiple regression analysis. The study analyzes secondary data from the East Java Central Statistics Agency. The results revealed that the number of MSME units has a significant partial effect on economic growth, while MSME labor does not. However, when combined, both variables have a significant simultaneous effect, indicating that MSME presence collectively contributed to economic growth in the region.

2.3 Studies Conducted in India about MSMEs:

Cheena and Bala (2001) their study considered the relatively specialized proficiency of a limited scope area in India by applying numerical programming methods on the time arrangement information for the time frame 1973-74 to 1996-97. The observational outcomes proposed that the Indian limited scope area has been productive. Additionally the investigation brought into light that both micro and small sector scope have changed in new advancements.

Raju (2002) the paper emphasized in India, the Small and Medium Enterprises definition focuses solely on small-scale industries, with no specific definition for the medium-scale business segment. The author advocated for small and medium-sized businesses, claiming that simple administrative connections and significant economic assistance are essential. The study also observed for the speedy passage of a comprehensive legal strategy for the context of small and medium businesses in order to meet global efficiency.

Singh (2003) the paper highlighted on Small Scale Industries (SSIs), and credit is one of the most difficult things for most small businesses to obtain. The study also observed commercial banks must change their rules and services to accommodate small businesses. According to the author, the Indian government has created a central price for commercial banks in order to encourage SMEs and also provide financial aid to them.

Reddy and Himachalam (2006) highlighted the persistent issue of inadequate financial support from banks to Small Scale Industries, particularly the shortage of working capital. The study emphasized the need for financial institutions to reduce the time between loan application, approval, and disbursement to ensure timely access to credit. Additionally, the authors called for prompt resolution of delayed payments to MSMEs, stressing that such measures are essential for the sector's growth and financial sustainability, ultimately contributing to the overall prosperity of the MSME sector.

Chockalingam and Raj (2007) emphasized the importance of providing clear and comprehensive guidance to small business owners both before and during the loan application process in nationalised banks. Their study found that delays in loan approvals often stem from incomplete or staggered submission of required documents. To enhance efficiency, the researchers recommended that MSMEs ensure all necessary information and documentation are submitted simultaneously. Thereby minimizing procedural delays and facilitating smoother access to financial support from banking institutions.

Nambiar (2007) analyzed the perceptions of bank executives regarding the financing of small and medium-sized enterprises (SMEs), which play a foundational role in India's economic development. The study highlighted that the Indian government's industrial policy clearly mandates financial institutions to prioritize support for MSMEs. However, in recent times, the growing influence of multinational corporations (MNCs) has contributed to the neglect of MSMEs by banking officials. To address this issue, the Government of India enacted the MSME

Development Act 2006, requiring banks to actively provide financial assistance to MSMEs and strengthen their role in the Indian economy.

Singh (2008) the study highlighted the quality of services provided by Public Sector Banks (PSBs) to Small-Scale Industries (SSIs). The study examined that customer service quality is a critical determinant of success in the banking sector, where services are delivered directly at branch locations, shaping customer perceptions and expectations. Unlike one-time transactions in other industries, banking relationships are long-term and must be nurtured through consistent service excellence. The study also evaluated customer satisfaction based on factors such as branch location, service variety, operational procedures, decentralization, technological adoption, grievance redressed mechanism, and staff competence. The findings underscore the importance of strategic service improvements in sustaining banking relationships with SSIs.

Rani and Rao (2008) their study interpreted that finance plays a critical role in the growth of all industries, particularly Small-Scale Enterprises (SSEs), which rely heavily on timely and adequate funding. As part of priority sector lending, SSE financing draws significant attention from banks and financial institutions. This paper reviewed existing literature on the financial challenges faced by SSIs, especially after liberalization, where preferential support has diminished. The studies also suggested that small firms encounter greater difficulties than large firms, and the pecking order theory is often applicable in their financing decisions.

Chitra and Poovendhiran (2009) their study emphasized on Small-scale industries significantly contribute to national income and employment generation. However, their study highlighted various internal and external environmental factors. Internal factors include human resources, marketing, finance, and production, while external factors encompass suppliers, creditors, consumers, and government policies. This study focused on analyzing the relative impact of these factors on the performance of small-scale industrial units in Erode city. It aims to determine internal or external environmental variables play a more decisive role in influencing

the business outcomes of MSMEs, thereby offering insights into improving their sustainability and growth prospects.

Ganeshan (2009) the study argued that adequate and timely credit at reasonable interest rates without collateral is essential for the success of India's MSME sector. The study emphasized that the role of nationalized banks extends beyond providing financial assistance; they must also evaluate the profitability of business proposals and guide MSMEs in choosing suitable business models. This comprehensive support is crucial for ensuring the long-term viability and growth of MSMEs in a competitive economic environment.

Popli and Rao (2009) their study revealed that the Small and Medium Enterprises (SMEs) are globally recognized as an economic development and employment generation. In India, SMEs play a significant socio-economic role, particularly in emerging sectors like electronics. The paper examined the challenges and growth strategies for Indian electronic SMEs in the post WTO regime, including investment strategies, technological up gradation, quality enhancement, government policies, and MNC equity participation. Based on surveys data, the study found insights from policymakers and bankers for the development of SMEs. The study also recognized issues such as low quality awareness, limited government support, and financial constraints.

Alamelu and Baskaran (2011) the study examined the definition, structure, and challenges of the MSMEs in India. While MSMEs significantly contributed to GDP and employment across economies. The MSMEs in India remains largely unorganized and diverse, encompassing traditional crafts to advanced manufacturing. The study identified critical constraints such as limited access to credit, market linkages, quality inputs, and infrastructure. Additionally, the lack of dedicated lending sub-targets exacerbates competition for financial resources. The study also emphasized the need for targeted policies to strengthen MSMEs, particularly in light of globalization and technological transitions.

Manohar and Ravindra (2011) their study evaluated perceptions of 96 MSMEs regarding the quality and brand reputation of financial institutions to supporting their business development. The study revealed that MSMEs are notably aware of nationalized banks brands, largely due to relationships between bank staff and MSME representatives. The findings indicated that strong relational ties significantly enhance positive perceptions of these financial institutions, underscoring the importance of brand recognition in financial support. The research highlighted effective branding as crucial for sustaining financial assistance to MSMEs effectively.

Garg and Walia (2012) the paper explored the critical role of Micro, Small and Medium Enterprises (MSMEs) in India's economic development, especially addressed in unemployment and poverty. It also highlighted the MSMEs contributions to GDP, industrial output, and employment. The study, based on secondary data from 2001-02 to 2010-11, and analyzed MSMEs performance using the Compound Annual Growth Rate (CAGR) and OLS method. Despite limited capital needs, MSMEs offer high employment potential and support inclusive growth. The findings underscored the need to support and strengthen MSMEs through strategic planning and effective implementation, positioning the sector as a key driver of sustainable economic development.

Kumar and Gugloth (2012) the study evaluated the performance of MSMEs in India before and after economic liberalization, focusing on average annual growth rates between 1999 and 2010. The paper examined the impact of globalization and liberalization on MSME productivity, exports, employment, and emerging opportunities. While MSMEs have become a dynamic force in the Indian industrial landscape, the study found that government programs remain fragmented and ineffective. It emphasized the need for strategic thinking among enterprises and provides policy recommendations aimed at ensuring sustained and competitive growth in response to a rapidly changing business environment.

Rao and Rao (2012) the paper highlighted MSMEs recognized worldwide, particularly in South Asia as critical drivers of economic growth, employment, and

integration within large business supply chains. Despite their substantial contribution to GDP, MSMEs faced financial challenges, including shortages in start-ups and investment capital. Their heavy reliance on financial institutions often limits growth due to inadequate access to timely and sufficient funding. The paper analyzed the performance of MSMEs over the past decade and identified key financial barriers, and offers policy recommendations aimed at improving government support and regulatory frameworks to strengthen the MSMEs sustainability.

Saluja (2012) the study examined the evolving definition and growing significant role of MSMEs in India's economic development. The study highlighted MSMEs contribution to manufacturing output, employment, and exports. The paper underscored the MSMEs pivotal role in promoting inclusive growth. The research also explored structural and financial disparities within MSMEs, and noted that funding primarily favours large enterprise, and well-connected units. The study suggested targeted policy support to enhance the inclusivity and sustainability of the sector.

Rajaiah and Sivasankar (2013) their study examined "Role of Micro, Small and Medium Enterprises in Economic Development of Chittoor District." It utilized both primary and secondary data sources and selected a stratified sampling method. The data was collected from 141 entrepreneurs representing 10 percent of the total population using a structured questionnaire. The findings revealed that the MSME sector significantly contributed to economic development through employment generation, investment, manufacturing, and exports. The study also emphasized the role of government support, both financial and non-financial, in facilitating the establishment and growth of MSMEs in study area.

Singh (2013) presented a comprehensive study on the theoretical foundations, functions, and evolution of Small Scale Industries (SSIs) in India, providing both historical and future perspectives. The study examined the institutional framework, industrial policy, diversification, and growth patterns of SSIs, offering particular insights into their development in Varanasi, Uttar Pradesh. It highlighted the MSMEs multifaceted contributions to the economy, including large-scale employment

generation, promotion of industrial entrepreneurship, decentralization of ownership and location, enhancement of skill development, and more equitable distribution of national income. The findings affirm SSIs as a vital component of India's socio-economic development.

Shihabudheen (2013) the study has intended the MSME sector has evolved into a vital and dynamic component of the Indian economy over the past five decades. It plays a significant role in generating employment at a lower capital cost, promoting industrialization in rural and backward areas, and reducing regional disparities. MSMEs also complement large industries as ancillary units and contribute substantially to India's socio-economic development. The study also revealed that approximately 50 percent share in manufactured exports and 45 percent in industrial employment generation, the small-scale sector holds a prominent position in enhancing the country's GDP and supporting inclusive economic growth.

Srinivas (2013) the study explored the impact of the Goods and Services Tax (GST), introduced in MSMEs in India on July 2017. The study collected data from MSME owners through qualitative interviews and follow-up surveys. The research provided a comprehensive analysis of the discrepancies between expected and actual outcomes of the GST regime. It also highlighted inter-jurisdictional challenges and tax compliance issues faced by MSMEs. The findings offer valuable insights into improving GST implementation and can inform the development of sector-specific guidelines to support MSMEs in navigating the evolving tax landscape effectively across various industries.

Sharma and Varshney (2013) their study highlighted on the role of MSMEs in India: A Study with Special Reference to the Rohilkhand Region. The study utilized both primary and secondary data sources. Primary data was gathered from MSME entrepreneurs through structured questionnaires and administered to, employing a combination of stratified, random, and purposive sampling techniques. The study revealed a notable increase in the number of MSMEs, employment opportunities, and investment levels in the region over specific years. These findings

underscore the growing significance of MSMEs in regional economic development and their role in enhancing socio-economic indicators.

Katyal and Xaviour (2015) the study highlighted the critical role of MSMEs in India's industrial and socio-economic development, particularly through employment generation and rural entrepreneurship. Despite contributing significantly to manufacturing and exports, MSMEs face challenges in HR operations, credit access, technology, and infrastructure. The research also emphasized adopting structured HR practices including talent acquisition, development, and retention even within MSMEs. Government interventions like the MSME Development Act, 2006 and Credit Linked Capital Subsidy Scheme (CLCSS) are acknowledged. The study concludes that MSMEs must leverage globalization and improve internal systems to sustain growth and preserve India's industrial and cultural legacy.

Meganathan et al. (2015) their study highlighted MSME sector plays a vital role in India's economic development by generating substantial employment and addressing poverty, particularly in rural and urban areas. The study recognized for its dynamism and the sector significantly contributes to national production and exports. This study evaluated trends in MSMEs from 2001-02 to 2012-13, focusing on working enterprises, employment generation, and fixed investment, using secondary data. The findings highlighted a consistent rise in MSME activity, especially following the implementation of the MSME Act 2006, which has supported the establishment of new enterprises and created both direct and indirect employment opportunities across the country.

Parvathamma (2015) the paper focused on Karnataka is emerging as a leading industrial hub in India, with a robust presence in traditional industries as well as knowledge-based sectors like IT and biotechnology. The state's MSMEs significantly contribute to employment, investment, and industrial diversification. Based on MSME Act 2006 definitions, the sector has witnessed notable growth in recent years, prompting the state government to introduce policies such as the New Industrial Policy and SEZ Policy to support MSMEs. This study found these policy

initiatives and concludes with suggestions to further empower the MSME sector and strengthen Karnataka's industrial landscape.

Syal (2015) the study intended MSMEs sector is widely recognized as a key driver of economic growth and equitable development. It contributed over 90 percent of total enterprises and also created significant role for employment generation, industrial output, and exports. However, their high labour intensity compared to large enterprises makes them crucial for inclusive development. This paper found the growth trajectory of MSMEs in India and explores the various opportunities available to them in the evolving economic landscape. It also emphasized the MSMEs resilience, innovation, and adaptability, particularly during recent economic downturns, reinforcing its potential for future expansion.

Sharma (2015) the paper indicated MSMEs played vital role to India's economic growth, particularly in Punjab, due to their strong industrial linkages and significant contributions to employment, output, and exports. The study based on census data and collected primary responses from entrepreneurs. It examined the MSMEs strengths and challenges in achieving sustainable development. The study also selected factor analysis on 19 strength variables and 23 constraint variables. The findings highlighted that MSMEs thrive on core competencies but face obstacles such as high taxes, limited bank finance, regulatory burdens, and poor infrastructure. The study also suggested the need for government support to foster a more enabling and sustainable business environment.

Bhuyan (2016) the study highlighted the critical role of the MSME sector as a key driver of economic growth in India. In 2012–13, MSMEs contributed 37.54 percent to GDP and provided employment to over 805 lakh individuals, while accounting for 44.7 percent of exports in 2014-15. The paper emphasized that inclusive growth is essential to address deep-rooted poverty and inequality. It argued that economic progress must reach the lower strata of society to ensure equitable development and that MSMEs played a vital role in enabling such inclusive and sustainable growth in India.

Gupta and Garg (2016) the study indicated the managerial practices of scientific goods manufacturers in Ambala, classified under the MSME category. The findings revealed that most MSMEs operate under sole proprietorships with a focus on customer satisfaction. Micro units typically employ fewer than 15 workers, while small and medium firms employ up to 30, with few exceeding this number. Medium enterprises show greater reliance on professional expertise and cater to both domestic and international markets. The study concluded the need for professionalization, technological upgrades, innovation, and reduced intermediary dependence to enhance competitiveness in a globalized economy.

Shaik et al., (2017) their study highlighted the role of entrepreneurship in managing MSMEs and examines the sector's growing significance in India over the past five decades. It noted a steady rise in MSMEs generated employment over the last seven years, although the service sector's contribution to GDP has declined in recent years. The study discussed the National Manufacturing Competitiveness Program (NMCP), which promoted sustainable growth through initiatives such as technology up gradation, skill development, marketing support, and credit accessibility. The study suggested strengthening these areas is essential to enhance productivity and ensure the MSMEs continued contribution to India's economic development.

Raghuvanshi and Garg (2018) the study aims to identified and rank the key factors that enhance innovation capability (IC) in Indian MSMEs. The study used a fuzzy analytic hierarchical process (AHP), a multi-criteria decision-making methods, the research prioritizes factors contributing to IC and validates the results through sensitivity analysis. The findings revealed that knowledge management is the top enabler, followed by creativity and organizational culture. The study provided practical insights for entrepreneurs to strategically implement these drivers, thereby improving innovation, meeting consumer demands, increasing profitability, and enhancing competitiveness in the evolving business landscape of the MSME sector.

Gade (2018) the study explored the contribution of India's MSMEs to national development. Recognized for generating employment at low capital cost and promoting industrialization in underdeveloped regions, MSMEs play a key role in reducing regional disparities and ensuring equitable income distribution. The study used a descriptive approach and highlighted the MSMEs superior growth performance and emphasizes the need to strengthen its core features. The findings suggested that nurturing MSMEs is essential for sustainable economic growth and inclusive development in India.

Pratibha (2018) the study examined the growth and performance of Small Scale Industries (SSIs) in India and it highlighted their crucial role in GDP, exports, and employment generation. The research characterized by low investment needs, operational flexibility, and rural dispersal. SSIs contributed to reducing regional disparities and enhancing inclusive development. Based on recent trends, the paper analyzed increases in working units, employment, and investments. The study also identified challenges faced by SSIs and reviews government policy measures aimed at supporting and strengthening to MSMEs sector.

Zanjurne (2018) the study underscored the critical role of MSMEs in achieving key socio-economic objectives, including economic growth, employment generation, entrepreneurship promotion, and export development. It highlighted the MSMEs considered as the backbone of India's industrial landscape. The paper examined the performance, growth, and opportunities of MSMEs, with government initiatives such as 'Make in India' and 'National Manufacturing policy'. The study also emphasized MSMEs strategic importance in raising manufacturing GDP share up to 25 percent by 2022. The study concluded that the sector significantly contributed to employment, exports, and manufacturing output, reinforcing its role in inclusive national growth.

Boateng et al., (2019) the study evaluated the performance and economic contribution of MSMEs in India. The study also highlighted MSMEs as a key driver for equitable development. The study revealed that MSMEs contributed significantly to exports (40 percent), GDP (30 percent), GVA (32 percent), and employment (40

percent). States like Uttar Pradesh, West Bengal, and Tamil Nadu host the highest MSME concentrations. Additionally, 51 percent of MSMEs operated in rural areas. Employment distribution showed a male dominance (76 percent) and higher urban engagement (55 percent). The study affirms MSMEs indispensable role in India's sustained economic growth.

Khatri (2019) the exploratory study investigated the pivotal role of MSMEs in India's economic development and critically analyzing the persistent challenges. The study selected secondary data and examined issues related to finance, marketing, technology, human resources, operations, and export potential. The study suggested some key barriers include inadequate working capital access, poor ICT literacy, regulatory complexities, high employee turnover, and lack of foreign certifications. Despite various government initiatives, these constraints continue to limit sector growth. The paper concludes with policy-oriented recommendations aimed at enhancing operational efficiency, competitiveness, and the long term sustainability of MSMEs in India's evolving economic landscape.

Sekhar and Radha (2019) the study explored the impact of globalization and WTO agreements on India's MSMEs. The study highlighted their growing role in employment generation, rural industrialization, and equitable income distribution. It emphasized the MSMEs vulnerability to global competition and the lack of awareness among small-scale units regarding international trade obligations. The paper underscored the policy initiatives by the Government of India aimed at enhancing MSMEs global competitiveness. It concluded that despite challenges, MSMEs continue to contribute significantly to economic growth, and sustain their development in the evolving global market environment.

Virk and Negi (2019) the study interpreted the status, trends, and challenges of the MSME sector in India, and emphasized its role in employment generation, regional balance, and sustainable development. The study collected secondary data from government reports, newspapers, and research studies. The paper analyzed the MSMEs performance and the policy initiatives taken to support its growth in Uttarakhand. The study also focused MSME landscape and the issue of rural to urban

migration driven by unemployment. The findings stressed the need for inclusive and region-specific industrial development and recommend targeted measures to enhance the viability and expansion of MSMEs.

Chavan and Pimple (2019) the study investigated the influence of economic and socio-cultural factors on entrepreneurship development among Small and Medium Enterprises (SMEs) in Pune and Pimpri- Chinchwad, Maharashtra, India. The study applied empirical research approach, and analyzes entrepreneurs perceptions on various environmental factors, which affects their business operations. The findings indicated that economic factors significantly motivate entrepreneurial activity. Additionally, factors influential such as education, religion, prior experience, family structure, and legal status now play a crucial role in entrepreneurial behaviour and business performance. The study recommended targeted government support to nurture entrepreneurial leadership and stimulate national economic growth.

Bhat and Singh (2020) their study explored the pivotal role of MSMEs in fostering economic and social development in India. The study recognized MSMEs played a role as a driver of generate employment and entrepreneurship. The MSMEs utilized local resources efficiently and decentralizes industrial activity. The research employs a descriptive methodology to examine data on rural and urban MSME units. The study also found that the sector supports over 110 million jobs and promotes inclusive growth, particularly benefiting marginalized communities. The study concluded that MSMEs are instrumental in sustaining employment and entrepreneurship across India's rural and urban economies.

Shelly et al., (2020) their study explored the significance of the Indian MSMEs in fostering economic growth, employment, exports, and rural development. It examined the MSMEs contribution to GDP and its role in promoting inclusive growth, green jobs, and achieving SDGs 2030. The study used secondary data from 2006-07 to 2016-17. The paper highlighted both the potential and challenges of MSMEs in India. The study found MSMEs contributed positively to rural and sustainable development in the country.

Srivastava (2020) MSME sector is a vital component of the Indian economy, significantly contributing to entrepreneurship development and employment generation. The study recorded that over 63 million enterprises, MSMEs account for more than 40 percent of exports, over 28 percent of GDP, and employ approximately 111 million people. Given the global economic slowdown, strengthening the MSMEs is essential for expanding job opportunities, especially for youth. Gujarat, known for its entrepreneurial spirit, plays a crucial role in this sector, and employing 3.85 million people. The study found MSMEs contributed in Gujarat and India's industrial and economic growth.

Verma et al (2020) their study emphasized the pivotal role of the MSME sector in addressing these issues, persistent challenges of rural poverty and underdevelopment in India, despite the country's rapid economic growth and government initiatives. It examined the current state of the rural economy and explored the transformative potential of MSMEs in poverty alleviation and sustainable rural development. The study concluded that MSMEs, by utilizing local resources and creating employment, can act as catalysts for inclusive growth, and also ensured that the benefits of national development reach marginalized rural populations.

Das (2021) the study highlighted the indispensable role of MSMEs in India's economic and social development. MSMEs contributed approximately 30 percent to the GDP, 45 percent to manufacturing output, and 40 percent to exports, MSMEs are aptly termed the backbone of the Indian economy. The study emphasized the MSMEs multifaceted contributions, including employment generation and rural development. It concluded that MSMEs are instrumental in driving inclusive growth, fostering entrepreneurship, and bridging the development gap between urban and rural areas, reinforcing their centrality to India's socio-economic transformation.

Selvam (2021) the study explored the critical role of MSMEs in fostering entrepreneurship and business innovation in India. MSMEs have expanded across diverse sectors, producing a wide array of goods and services for both domestic and international markets. The paper also highlighted the MSMEs ability to generate

substantial employment at lower capital investment compared to large industries, and its contribution to the industrialization of rural and backward regions. By promoting equitable income distribution and regional balance, MSMEs have become integral part of India's inclusive growth strategy. The study also found MSMEs dynamic performance across various economic sectors.

Surjan and Srivastava (2021) their paper examined evaluative Study of MSMEs in Madhya Pradesh. For the study, data collected from primary and secondary data sources using qualitative research methods. The data was collected from 51 districts, with responses from 621 out of 745 contacted entrepreneurs, including 608 MSME respondents. The study used Mean, Standard Deviation, Regression Analysis, and percentage methods for data analysis. The findings indicated that a consistent increase in the number of MSMEs in Madhya Pradesh during the period from FY 2005-06 to 2015-16, highlighted sector growth and the expanding presence of MSMEs in the state.

Rinaldi (2022) their study explored the role of MSMEs in addressing economic and social challenges, such as poverty and unemployment, despite the nation's vast economic potential. The study utilized a qualitative descriptive-explanatory research approach. The paper revealed that MSMEs significantly contributed to India's GDP and serve as effective instruments for social empowerment. The research concluded that MSMEs are crucial not only for economic development but also for enhancing national stability.

2.4 Studies Conducted in North East India about MSMEs:

Nagaraja (2013) the study explored that MSMEs provided employment, especially to women in the North Eastern Region (NER). The study showed a total of 86,302 women were employed by MSMEs across the North Eastern states of India. Among these, Assam, Mizoram, Tripura, and Manipur accounted for the highest number of female employees. Women's employment in MSMEs constituted 27.4 percent of the total workforce in the region, with state-wise proportions ranging from maximum of 34.3 percent in Sikkim to a minimum of 19.8 percent in Manipur. This

study also indicated a significant role of MSMEs in promoted women's participation in the NER states of India. The study also suggested further efforts are required to enhance employment density for women in states like Manipur, Mizoram, Nagaland, and Meghalaya, where representation remains comparatively low.

Daizova and Sharma (2014) their study examined the overview of MSMEs role in Mizoram. As per the Industrial Survey, 2012 report, there were 1198 registered and 454 unregistered units in Mizoram, out of which 1234 units were located in urban areas, 413 units were located in rural areas where only 9 units were in semi urban areas. It can be observed that the majority of the units 896 (54.11) percent were engaged in manufacturing, the rest that is 760 (45.89) percent were from the service sector. Out of the total units, 98 percent of the units were managed by sole proprietor, 1.45 percent was in partnership firm, whereas only 0.55 percent were on joint venture that is Public Private Partnership (PPP). The study also revealed that Aizawl district has the maximum concentration of small scale units and majority of the small scale industries. The study concluded that MSMEs contributed an important role for the economic development of Mizoram.

Rajpal (2014) the study explored MSMEs play a crucial role in the economic development by fostering entrepreneurship, generating employment, promoting industrialization, and contributing to GSDP growth in North Eastern Region of India. The NER is endowed with abundant natural resources; however, it remains largely dependent on mainland India for fulfilling its needs. This study aims to analyze the current status and challenges faced by MSMEs across the North Eastern states, emphasizing their importance for regional economic advancement. This reliance suggested that the NER resources are either underutilized or inefficiently used. Given these circumstances, the development and expansion of MSMEs are essential for the sustainable growth of the NER.

Balkrishna et al. (2022) the study examined the contribution of MSMEs to entrepreneurship, employment, and sustainable societal development in Kamrup (rural), Assam. The study highlighted MSMEs as vital drivers of economic inclusion, particularly for tribal communities, by promoting decentralized industrial activity

and utilizing local resources. Based on secondary data, the study reviewed capital investment, employment and marketing. Assam is at the top in terms of MSME growth (28.2 percent), fixed investment growth (36.3 percent), employment growth (43.7 percent), and output increase (79.7 percent). Kamrup district demonstrates remarkable growth in MSME units, investments, and output. The study concluded that MSMEs are crucial for inclusive development and recommends strategic support to enhance their effectiveness in marginalized regions.

Kumar and Shobana (2022) the study explored MSMEs role in North Eastern Region of India, where it accounts for 62 percent of industrial output despite representing only 1.5 percent of India's total MSMEs. Secondary data revealed a consistent growth in enterprise numbers, employment, and asset value. The study also highlighted MSMEs capacity for inclusive development, job creation, and rural-urban balance. The MSMEs supports innovation, low-cost indigenous solutions, and sustainable development, but the North East's participation in regional trade remains limited, indicating untapped economic potential.

2.5 Studies Conducted in Tripura about MSMEs:

Das and Das (2022) the paper examined the role of the Micro, Small, and Medium Enterprises (MSMEs) sector in the economic development of Tripura. According to, Directorate of Industries and Commerce, Tripura 2019-20 showed a total of 7,193 registered units available in Tripura, out of which, 6,308 micro units (87.69 per cent), 849 small units (11.81 per cent) and medium 36 units (0.5 per cent) available in different districts of Tripura. However, in overall 59,532 numbers of employees were recorded in this MSME sector of Tripura. The study also highlighted that the overall numbers of MSMEs growth rate of Tripura is 19 percent and overall employment generation growth rate is 11 percent calculated by Compound Annual Growth Rate (CAGR) method from FY 2007-08 to 2019-20. The study concluded fluctuating patterns in all key indicators across the study period.

Debnath and Datta (2023) their study indicated that the MSMEs has widely regarded as an essential driver of inclusive growth. This study investigated how the

MSME sector contributes to the sustainable development of women in Tripura, with particular reference to the Gandachara Sub-division in Dhalai district. The research explored key dimensions including the trends and growth rates of MSME units, employment generation, and government investment in the sector. Both quantitative and qualitative methods were employed: primary data were collected through field surveys, while secondary data were sourced from libraries and online academic resources. To evaluate growth, the study utilized Compound Annual Growth Rate (CAGR) and percentage-based methods. The findings demonstrated that MSMEs significantly promote gender-inclusive economic development by providing income opportunities and empowering women in underdeveloped rural areas.

Chatterjee et al., (2023) their study highlighted the vital role of MSMEs in Tripura's economic growth through employment generation, entrepreneurship, and poverty reduction, contributing over 29 percent to the national GDP. The study also highlighted the increase government supports, both rural and urban women are engaging in micro-enterprise development. The study examines trends in women's participation in financial schemes and their perceptions of entrepreneurship. Findings revealed persistent gender-stereotyped attitudes in the allocation of economic resources, which hinder women's empowerment and limit broader social inclusion despite government initiatives.

Das et al., (2025) their study investigated the role of MSMEs in the economic development of Tripura, focusing on employment generation, number of operational units, investment levels, and contribution to the Gross State Domestic Product (GSDP). As per the 'Udyog Aadhaar Memorandum (UAM) 2022-23' explained that a total numbers of 33,274 registered MSME units exist in Tripura. In this MSMEs 341,620 numbers of employees working and Rs. 201,230.2 lakhs investment invested by these MSME units, and data collected from the fiscal year 2011-12 to 2022-23. The data found high positive correlations between the number of MSME units, employment, and investment indicate strong interrelationships. As MSME units increase, both employment and investment increase proportionately, demonstrated the MSMEs integral role in economic development. The data also revealed that the

Year wise and percentage growth rate of MSME's contribution in GSDP of Tripura. It showed that total GSDP of Tripura has increased over the year.

2.6 Research Gap:

From the available literature reviewed, it was found that various studies have been conducted with relation to the MSME sector but not much on the theme of contribution of MSME in the economic development of Tripura. The MSME sector has recorded 95 per cent enterprises and thus it's generating 60 per cent of employees across the world (Kumar, 2020). In addition, this sector is also considered as an 'Engine of economic growth' in India and thus this sector generated the 'second highest employment' after the agriculture sector in India (Annual Report of MSME 2022-23, Government of India). There are many reports published by different government authorities, which reflect that the MSME sector has contributed to GDP, increased per capita income, enhanced productivity, created more employment and increased exports in India. But being such a dominant sector in the economy, these types of studies are absent in Tripura. So, the study was an attempt to examine the role of MSME in the economic development of Tripura in various aspects, such as contribution of MSMEs to GSDP, employment generation, production of goods and services and capital and investment by MSMEs etc.

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CHAPTER 3:
MSME AND ECONOMIC DEVELOPMENT

3.1 Introduction:

MSMEs are being acknowledged as the economic growth for supporting inclusive development around the world (Virk and Negi 2019). MSMEs play a major role in the country's capital formation, export support and economic development. MSMEs must be competitive internationally to keep their niche in the international and global market. They must keep updating themselves in light of the challenges posed by demand patterns, advancements in technology and the creation of new markets (Kartika, 2023). The MSMEs contribute around 30 percent to India's GDP and play a vital role in driving economic growth, accounting for nearly 45 percent of the country's total exports (Annual Report of MSME 2022-23, Government of India). The sector has demonstrated great advancement and flexibility in surviving mainly to its adaptability and vitality (Gade, 2018). MSMEs, on the other hand, have faced major challenges in the age of globalisation, privatisation and liberalisation (Economic Review of Tripura, 2022-23). India offers tremendous domestic and global investment prospects due to its steady expansion and amply qualified manpower (Mukherjee, 2018). To help Indian MSMEs realise their full potential, the Ministry of Micro, Small and Medium Enterprises (MoMSMEs) and its affiliates offer assistance through a variety of initiatives and programmes. The growth and development of MSMEs are supported by a strong system of institutions in both the state and national levels (Annual Report of MSME 2022-23, Government of India). A wide network is in place to provide various support services, including technology, infrastructure, economic help, promotions, and skills development.

This chapter included overview of Tripura, and the policies set by both central and state governments cover different aspects of MSME operations. At the national level, the National Board for MSMEs has been established in 15th May 2007, to manage the implementation of strategies and the execution of related programs for the development of MSMEs. This chapter also includes the role of MSMEs in economic development of India as well as Tripura. According to the data of MSME report of Udyog Aadhaar Memorandum (UAM), 2023-24 highlighted the data registered MSMEs in India from 2020-21 to 2023-24, it indicates a consistent

upward trend in the registration of MSMEs. This substantial increase reflects growing formalization of MSMEs and enhanced awareness among entrepreneurs regarding registration benefits. In addition, as per the Annual Report of MSME 2024-25, Govt. of India, highlighted the share of MSMEs in India's GDP was recorded at 27.3 percent in 2023-24. However, the contribution of MSMEs to India's total exports growth rate reached to 45.73 percent in the year 2023-24. This indicates a substantial increase in export activities within the MSMEs during that period. In addition, the year 2023-24, recorded the Budget Estimate for the MSME was Rs. 22,137.95 crore, which was slightly revised to Rs. 22,138.01 crore. The Actual Expenditure recorded was Rs. 22,094.17 crore, indicating consistent and efficient budget utilization in the MSMEs in India. In addition, this chapter also includes the role of MSMEs in driving the economic development of Tripura, collected from 2010-11 to 2022-23. The growth of the MSME is reflected in the progress and patterns of MSMEs, as evidenced by the increasing number of registered MSMEs, employment generation, and investment. Furthermore, the data shows the MSMEs contribution to Gross State Domestic Product (GSDP), underscoring their importance in promoting economic stability and inclusive growth in Tripura.

3.2 Tripura: An Overview

Tripura is located in the north-eastern part of India. Despite being a densely populated state, it ranks as the seventh least populous state in the country. Tripura consists of 8 districts, 1 autonomous district council, and 23 sub-divisions. The state shares borders with Bangladesh to the north, south, and west, while Assam and Mizoram lie to its east. The capital city, Agartala, is situated near the neighbour country Bangladesh in the northwest. In terms of geographical area, Tripura is considered the third smallest state, covering an area of 10,491 km² (4,051 sq mi) (Economic Review of Tripura, 2022-23).

Figure 3.1:
Geographical Map of Tripura



Source: Economic Review of Tripura 2022-23, Government of Tripura.

3.2.1 Population:

The population of Tripura is marked by significant diversity. According to the 2011 Census, the total population of Tripura was estimated at 36.73 lakh, with 18.74 lakh males and 17.99 lakh females. The Census also revealed that the Scheduled Caste (SC) population in the state was 6.54 lakh, constituting 17.8 percent of the total population. Among the SC population, 3.34 lakh were male (51.05 percent) and 3.20 lakh were female (48.95 percent) (Economic Review of Tripura, 2022-23).

The Scheduled Tribe (ST) communities make up approximately one-third of the state's total population. The ST population stood at 11.66 lakh, or 31.8 percent of the total population. Among this group, 5.88 lakh were male and 5.78 lakh were female. Other notable tribal groups include the Lusai, Garo (Mizo), Reang, Halam, Chakma (a subgroup of the Kuki), and Marma (Mogh), many of whom originally migrated from neighbouring hill regions.

In terms of language, Bengali (Bangla), an Indo-Aryan language, is spoken by over half of the population. Kokborok (Tripuri), a Tibeto-Burman language, serves as one of the official languages of the state. Manipuri, another Tibeto-Burman language, is also widely spoken (Economic Review of Tripura, 2022-23). Regarding religion, Hinduism is the dominant faith in Tripura, with Muslims constituting the largest minority, comprising less than ten percent of the population. A small percentage of the population practices Christianity, while most Chakma and Mogh communities follow Buddhism.

3.2.2 Climate:

In Tripura, the warmest months are April and May, with maximum temperatures in the lowlands averaging around 33°C (low 90s °F) and minimum temperatures averaging around 23°C (mid 70s °F). The January is the coolest month, with daily temperatures typically ranging from about 10°C (low 50s °F) to 25°C (upper 70s °F). Throughout the year, temperatures in the hill regions are generally cooler compared to the lowlands. Tripura receives approximately 2,000 mm (80

inches) of rainfall annually, with the majority occurring during the monsoon season from June to September. The north-central part of the state typically experiences the highest rainfall, while the south-western region usually receives the least.

3.2.3 Land:

Northern and Central Tripura is characterized by a hilly landscape intersected by four major valleys running from east to west: Dharmanagar, Kailashahar, Kamalpur, and Khowai. These valleys are formed by northward-flowing rivers—Manu, Juri, Dhalai, Deo, and Khowai, respectively. This valley system divides the north-south mountain ranges of the region. The Dharmanagar valley is located within the Jampai Tlang range, with an elevation ranging from 600 to 900 meters (2,000 to 3,000 feet). In contrast, the lower valleys in the west and south are generally open and marshy, while the southern terrain is rugged and densely forested.

3.2.4 Literacy:

According to the 2011 Census, Tripura ranks as the third most literate state in India, following Kerala and Mizoram, with an overall literacy rate of 87.22 percent. Among the literate population, 91.5 percent are male, while 82.7 percent are female. The literacy rates for Scheduled Castes (SC) and Scheduled Tribes (ST) are 89.45 percent and 79.05 percent, respectively (Economic Review of Tripura, 2022-23).

3.2.5 Agriculture:

The agriculture sector plays a crucial role in the economic growth of Tripura. It provides employment to approximately two-thirds of the state's workforce and contributes nearly half of the State's Gross Domestic Product (SGDP) (Economic Review of Tripura 2022-23, Government of Tripura). Rice is the primary crop cultivated extensively across the state. In addition, cash crops such as jute (used for sacking, burlap, and twine), cotton, tea, sugarcane, and various fruits-including jackfruit, pineapples, oranges, and mangoes-are grown. Notably, the "Queen Pineapple" is produced in Tripura and is exported to both domestic and international markets. The state also produces significant quantities of coconuts and potatoes.

Although livestock farming plays a minor role in the state's agricultural sector, forestry-based industries contribute by producing timber, firewood, rubber, and charcoal. In terms of rubber production, Tripura ranks second in India, following Kerala (Datta et al., 2019).

3.2.6 Manufacturing:

Small-scale industries and cottage enterprises are the backbone of Tripura's manufacturing sector. Key cottage industries in the state include weaving, basketry, carpentry, and pottery. Small-scale industries are primarily engaged in the production of processed foods, particularly fruits, tea, and spices, as well as bricks and rubber products. On the other hand, large-scale manufacturing industries in Tripura encompass the production of yarn, jute, steel milling, and the processing of wood and chemicals.

3.2.7 Resources and Power:

In the early 21st century, Tripura's natural gas resources remained largely untapped. The majority of the state's energy is derived from several gas and diesel-powered thermal plants. Additionally, there is a hydroelectric station situated on the Gomati River.

3.2.8 Transportation:

Tripura is predominantly located in hilly terrain, yet it is well-connected in terms of transportation and communication within the state (Ministry of Development of North Eastern Region 2022-23, Government of Tripura). Due to its shared borders with Bangladesh on three sides, Tripura is linked to the rest of India through railways and airways. A national highway runs through the state, connecting the capital city, Agartala, in the west with Assam and Mizoram in the northeast, as well as Bangladesh in the southeast. Major roads also connect larger towns within Tripura. The North-East Frontier Railway, part of India's national rail network, connects several cities in the state. While most rivers are utilized for local boat

transport, Agartala is well-connected by both air and rail to several major cities across India.

3.3 Schemes by the Government of India to Promote MSMEs:

MSMEs benefit from a wide range of government services, including entrepreneurship development, equipment support, business assessment, expansion assistance, technical consulting, export support and brand development. Given the significance of MSMEs, the government offers premium services for their growth and has implemented various measures to help them compete with large-scale companies. The government supports micro and small businesses in the following ways (Ministry of Micro, Small, and Medium Enterprises, 2019-20, Government of India).

3.3.1 Schemes Offered by Ministry of Micro Small and Medium Enterprises:

The Ministry of Micro, Small, and Medium Enterprises (MSMEs) in India was established in 2006 (Annual report of MSME 2022-23, Government of India). It is a key government body dedicated to supporting and promoting the growth and development of MSMEs across the country. These enterprises play a crucial role in the Indian economy by contributing to employment generation, export promotion, and industrial output (*Annual report of MSME 2022-23*, Government of India). The Ministry is also responsible for monitoring the overall progress of the MSME sector and works closely with various state governments, financial institutions, and industry bodies to ensure that the needs of MSMEs are effectively addressed (Annual report of MSME 2022-23, Government of India). Following schemes are provided by the Ministry of MSME for the development of business in India and abroad:

3.3.1.a International Cooperation (IC):

The International Cooperation (IC) scheme launched in 1996 and it aims to build the capacity of MSMEs to enter export markets by facilitating their participation in international exhibitions, fairs, conferences, seminars, and buyer-seller meets abroad (Singh, 2024). It also provides MSMEs with actionable market

intelligence and reimburses various costs involved in the export of goods and services (Mukherjee, 2018). Through these initiatives, the scheme offers MSMEs opportunities to continuously update themselves to address challenges arising from technological advancements, changing market demands, and the emergence of new markets (Singh, 2024). Participation in International Exhibitions, Trade Fairs, and Buyer-Seller Meets (Physical Mode):

- 1) Space rent (stall charges): Up to Rs. 3 lakh per MSME.
- 2) Airfare: Up to Rs. 1.50 lakh per MSME.
- 3) Duty allowance: Rs. 12,000 per day for office bearers.
- 4) Freight charges: Up to Rs. 50,000 per MSME unit; Rs. 75,000 for Latin American countries.
- 5) Advertisement and publicity charges: Up to Rs. 5 lakh.
- 6) Registration fee: Up to Rs. 5,000.

Participation in Virtual International Events (Physical Mode):

- 1) Space/stall charges including catalogue/digital material: Up to Rs. 1.5 lakh.
- 2) Advertisement and publicity charges: Up to Rs. 5 lakh.

Organizing International Conferences, Summits, Workshops, Seminars in India (Physical Mode):

- 1) Charges for venue rent, catering, advertisement, publicity, security, etc.: Up to Rs. 10 lakh.
- 2) Virtual space/platform/license fee/rent for organizing virtual events: Up to Rs. 2 lakh.
- 3) Economy class airfare for foreign speakers/experts/resource persons: Up to Rs. 5 lakh.

The scheme offers economic support to enterprises, covering approximately 95 percent of travel and workspace rent costs. The assistance is provided based on the size and type of business. Additionally, the plan supports delegations with shared expenses, such as administrative support, local rent allowances, shipping costs, and the printing of common brochures, among other expenses (Annual Report of MSME 2025-26, Government of India).

3.3.1.b Assistance to Training Institution (ATI):

The Assistance to Training Institution (ATI) scheme is provided assurance to national-level training institutions under the Ministry of MSME, including NI-MSME, KVIC, Coir Board, Tool Rooms, NSIC, and MGIRI. This support is offered in the form of capital grants aimed at creating and strengthening infrastructure, as well as facilitating entrepreneurship and skill development training programs (Solkhe and Dipika 2021). Additionally, existing State-level Entrepreneurship Development Institutions (EDIs), which are owned and controlled by State Governments or Union Territories (UT's) (Hannaa and Rajkumar, 2024). It receives assistance for the creation, strengthening, or expansion of their training infrastructure. The amount of assistance granted will not exceed the actual cost required for these infrastructure enhancements. For State-level EDIs, the maximum financial assistance is capped at Rs. 3 crore per case. Furthermore, assistance for skill development programs is provided according to prescribed rates (Annual Report of MSME 2025-26, Government of India).

For the training need of the MSMEs owner financial assistance will be provided to training establishments in the form of a capital grant for support to implementing entrepreneurship and capacity-building training courses (Solkhe and Dipika 2021). On a matching basis, the maximum aid for infrastructure creation or strengthening will be Rs. 150 lakh, not exceeding 50 percent of the total project cost. However, for the Lakshadweep, Andaman & Nicobar Islands, and the North-Eastern Region the maximum aid on a matching basis will be Rs. 270 lakh or 90 percent of the project cost. Additionally, financial support of Rs. 50 per hour per employee has been allocated for entrepreneurship growth and soft skill development. For the

North-Eastern Region, Andaman & Nicobar, and Lakshadweep, the financial support is increased to Rs. 60 per hour per employee (Annual Report of MSME 2025-26, Government of India).

3.3.2 Credit and Financial Assistance to MSMEs:

MSMEs play a vital role in the economy by fostering innovation, creating job opportunities, and contributing to the overall development of both local and national economies (Begum, 2024). To support these enterprises, various types of credit and financial assistance programs are introduced. These programs are specifically designed to promote entrepreneurship, facilitate access to financial resources, and stimulate growth within the sector (Annual Report of MSME 2025-26, Government of India). Below is an overview of the key programs and initiatives available:

3.3.2.a Second Loan for Up-gradation of the Existing PMEGP/REGP/ MUDRA Units:

The scheme is designed to support existing industrial units in their efforts toward expansion and technological up-gradation (*Annual report of MSME 2022-23*, Government of India). It provides financial assistance to successful and well-performing enterprises to facilitate their growth and enhance their competitiveness in the market (Chatterjee, 2024). Additionally, the scheme addresses the necessity for adopting new technologies and automation, thereby enabling entrepreneurs to modernize their existing units and improve overall operational efficiency.

- 1) The scheme offers financial assistance for expansion or up-gradation of existing PMEGP/REGP/MUDRA units engaged in manufacturing, service, or trading activities from the year 2018-19.
- 2) The maximum project cost for up-gradation under the manufacturing sector is Rs. 1 crore, and Rs. 25 lakhs for the service/trading sector.
- 3) The maximum subsidy is 15 percent of the project cost and 20 percent for North Eastern Region and Hill States.

- 4) The remaining amount of the total project cost will be provided by banks as a term loan.
- 5) Eligibility is limited to existing units financed under PMEGP/MUDRA whose margin money claim has been adjusted and whose first loan has been repaid within the stipulated timeframe.
- 6) Units must have been profit-making for the last three years.
- 7) Beneficiaries may apply for the second loan from the same bank that sanctioned their first loan or from any other bank willing to extend credit.
- 8) The implementing agency for the second loan may be different from the one selected for the first loan.
- 9) The second loan must result in additional employment generation.
- 10) Applications for the second loan must be submitted through the PMEGP e-Portal using the designated application form (Annual Report of MSME 2025-26, Government of India).

3.3.2.b The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE):

The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme introduced in the year 2000 by the Ministry of MSMEs, Government of India. The main objective of the scheme is to support and guidance first-generation entrepreneurs to explore self-employment opportunities by providing credit guarantee support for collateral-free and third-party guarantee-free loans to Micro and Small Enterprises (MSEs) (Press Information Bureau 2022, Government of India). Under this initiative, credit guarantees are extended for loans up to Rs. 5 crore, eliminating the need for collateral or third-party guarantees. The guarantee coverage offered ranges between 75 percent and 90 percent thereby enhancing credit accessibility and reducing financial barriers for aspiring entrepreneurs (Annual Report of MSME 2025-26, Government of India).

Any collateral/ third-party guarantee free credit support extended by eligible Member Lending Institutions (MLIs) to new as well as existing MSEs (Trivedi et al. 2024). It also includes Trading (Retail/Wholesale Trade), Service Enterprises and Educational/Training Institutions, with a maximum guarantee ceiling of Rs. 5 crore is eligible for guarantee under the Scheme.

Hybrid Security model also eligible wherein the MLIs are allowed to obtain collateral security for a part of the credit facility (Trivedi et al. 2024). Whereas, the remaining unsecured part of the credit facility, up to a maximum of Rs. 5 crore, can be covered under the Scheme.

The capital of this scheme is provided by the Government of India and SIDBI. The main aim of this trust is to provide financial assistance to small and medium-sized enterprises without requiring collateral or third-party guarantees (Annual Report of MSME 2025-26, Government of India).

3.3.2. c Credit Linked Capital Subsidy Scheme (CLCSS) for Technology Up-gradation:

The objective of this programme is to assist micro and small enterprises in upgrading their technology (Setiadi et al. 2024). The programme initially launched in October 2000 and later updated on September 29, 2005. The revised programme offers a 15 per cent capital subsidy on institutional financing used to introduce well-established and modernized technology in eligible sub-sectors/products, compared to the previous 12 per cent subsidy (before September 29, 2005). The maximum loan amount considered for the subsidy calculation is Rs. 100 lakh, with a maximum subsidy of Rs. 15 lakh. Under the updated programme, the financial subsidy is calculated based on the purchase cost of plant and machinery, rather than the term loan amount (Annual Report of MSME 2022-23, Government of India).

3.3.3 Infrastructure Assistance to MSMEs:

Infrastructure assistance plays a crucial role in the growth and development of MSMEs (Das, 2025). It helps reduce operational costs, enhances productivity, and

improves competitiveness. To support MSMEs in infrastructure development, the government and other organizations have introduced six policies. These policies are mentioned below in details:

3.3.3.a Micro and Small Enterprises Clusters Development Programmes (MSE-CDP):

The Micro and Small Enterprises Clusters Development Programmes (MSE-CDP) scheme was introduced first time in October, 2007 by the Ministry of MSMEs in India (Annual Report of MSME 2022-23, Government of India). It aims to support the sustainability and growth of Micro and Small Enterprises (MSEs) by addressing key challenges such as technological advancement, skill enhancement, quality improvement, and market access. It seeks to create or upgrade infrastructural facilities within new or existing industrial areas and clusters of MSEs. Additionally, the scheme promotes the establishment of Common Facility Centers, which provide essential services such as testing, training, raw material depots, effluent treatment, and support for production processes (Das, 2025). A significant focus is also placed on encouraging green and sustainable manufacturing technologies within these clusters to promote environmentally responsible industrial development (Annual Report of MSME 2025-26, Government of India).

Common Facility Centres involve the creation of tangible assets such as common production or processing centres, design centres, and testing facilities, including plug-and-play facilities (Micro and Small Enterprises- Cluster Development Programme, 2022). The Government of India provides assistance covering up to 80 percent of the maximum project cost, which is capped at Rs. 30 crore. Infrastructure development focuses on enhancing essential amenities like land development, roads, drainage, and power distribution within new or existing industrial areas, estates, or flatted factory complexes. For such projects, government of India assistance is available up to 70 percent of the maximum project cost, with a ceiling of Rs. 15 crore (Annual Report of MSME 2025-26, Government of India).

3.3.3.b Entrepreneurship and Skill Development Program (ESDP):

The Entrepreneurship and Skill Development Program (ESDP) scheme guideline was introduced in March 25, 2022. It aims to promote the establishment of new enterprises, enhance the capacity of existing MSMEs, and foster an entrepreneurial culture across the country (Sharma and Verma 2023). It seeks to broaden the entrepreneurial base by developing skills, encouraging achievement, and motivating diverse sections of society to engage in entrepreneurial activities.

One-day training program aimed at creating awareness and motivating various categories of society-including SC/ST, women, differently-able individuals, ex-servicemen, and BPL persons to consider entrepreneurship and self-employment as viable career options (Annual Report of MSME 2022-23, Government of India).

A six-week training program providing entrepreneurship and skill training in sectors such as agro-based products, food and fruit processing, carpet weaving, mechanical engineering workshops, heat treatment, electroplating, welding metal work, carpentry, glass, and ceramics (Annual Report of MSME 2022-23, Government of India).

One-week advanced entrepreneurship and skill development programs conducted through premier institutions such as IIMs, IITs, ICAR, CSIR, BARC, IISc, NITs, and agricultural universities at the central and state levels (Annual Report of MSME 2022-23, Government of India).

A one-week training program focused on building management capacity of existing entrepreneurs and supervisory staff. The main theme includes industrial management, human resource management, marketing, materials management, digital marketing, export management and documentation, financial/working capital management, IT, quality management (QMS/ISO 9000/EMS), WTO, IPR, supply chain, retail, and logistics management (Annual Report of MSME 2022-23, Government of India).

A one-week advanced management training conducted through State Administrative Training Institutes (ATIs) or reputed institutions affiliated with central or state governments, regional engineering colleges, NITs, agricultural colleges, or autonomous bodies, aimed at MSME promoters and executives (Annual Report of MSME 2025-26, Government of India).

3.3.4 Marketing and Procurement Support to MSMEs:

Marketing and Procurement support are crucial for MSMEs, enabling them to secure contracts, access new markets, and grow sustainably. Given their limited resources, MSMEs often face significant challenges in procurement and marketing their products. To address these challenges, the government and various organizations provide a range of support schemes (Annual Report of MSME 2022-23, Government of India). Below is an overview of the key programs and resources available to assist MSMEs in procurement and marketing:

3.3.4.a Procurement and Marketing Support (PMS) Policy:

The Procurement and Marketing Support (PMS) policy aims to promote new market access initiatives by supporting the organization and participation of MSMEs in National and International trade fairs, exhibitions, and MSMEs expo held across the country (Annual Report of MSME 2025-26, Government of India). It seeks to create awareness and educate MSMEs about the significance, methods, and processes of packaging in marketing, alongside the latest packaging technologies. Additionally, the scheme provides guidance on import-export policies and procedures. The national workshops and seminars are organized for knowledge dissemination. Infrastructure development for retail outlets is supported, particularly to promote products with Geographical Indications (GI), thereby strengthening the market presence of unique regional products. The Government e-Marketplace (GeM) portal, facilitates to MSME conclaves, and recent developments in both international and national trade. These efforts collectively aim to enhance market access and competitiveness for MSMEs.

The Public Procurement Policy for Micro and Small Enterprises (MSEs) mandates that every Central Directorate and Public Sector Undertaking (PSU) set an annual target to procure at least 20 per cent of their total annual procurement from MSE products or services. Recently, the government revised this directive, increasing the target to 25 per cent of total procurement from MSMEs. Within this target, 3 per cent of the total annual procurement must be reserved for MSEs owned by women. Additionally, a sub-target of 4 per cent of annual procurement is allocated for MSEs owned by SC/ST entrepreneurs. To further facilitate the integration of MSEs, especially those owned by SC/ST and women entrepreneurs, the SAMBANDH portal has been introduced to improve access for these businesses (Annual Report of MSME 2025-26, Government of India).

3.3.5 Other Schemes Implemented by Ministry of MSMEs:

3.3.5.a National SC/ST hub Scheme:

The scheme aims to provide professional support to Scheduled Caste (SC) and Scheduled Tribe (ST) entrepreneurs. It assists them in fulfilling the requirements of the Central Government Public Procurement Policy for Micro and Small Enterprises Order, 2012 (Annual Report of MSME 2025-26, Government of India). Additionally, it helps these entrepreneurs adopt relevant business practices and leverage opportunities under the Stand-Up India initiative.

- 1) It provides subsidy 25 percent on the purchase of plant and machinery/equipment, up to a maximum of Rs. 25 lakh.
- 2) Marketing and mentoring support through participation in exhibitions and vendor development programs.
- 3) The reimbursement of fees for bank loan processing, testing services, membership of Export Promotion Councils, membership in government-promoted e-Commerce portals, and Single Point Registration Scheme of NSIC.

- 4) The Collection, collation, and dissemination of information about SC/ST enterprises and entrepreneurs to Central Public Sector Enterprises (CPSEs).

Free skill training and distribution of trade-specific toolkits to trained candidates.

- 1) 25 percent subsidy on purchase of plant and machinery/equipment under the Special Credit Linked Capital Subsidy Scheme.
- 2) 100 percent subsidy on airfare and twice the Daily Allowance (DA) as prescribed by the Ministry of External Affairs under the Special Marketing Assistance Scheme.
- 3) 100 percent subsidy for obtaining NSIC registration under the Single Point Registration Scheme, with a nominal fee of Rs. 100.
- 4) Reimbursement of 80 percent or Rs. 1 lakh (whichever is less) on bank loan processing fees.
- 5) Reimbursement of 80 percent or Rs. 1 lakh (whichever is less) on performance bank guarantee fees.
- 6) Reimbursement of 80 percent or Rs. 1 lakh (whichever is less) on testing fees.
- 7) Reimbursement of 80 percent or Rs. 20,000 (whichever is less) on membership or subscription fees for Export Promotion Council memberships.
- 8) Reimbursement of 80 percent or Rs. 25,000 (whichever is less) on membership fees for government-promoted e-commerce portals.

9) Reimbursement of 90 percent of course fees or Rs. 1 lakh (whichever is less) for short-term training programs at the top 50 NIRF-rated management institutions (Annual Report of MSME 2025-26, Government of India).

3.3.5.b The SIDBI Make in India Loan for Enterprises (SMILE):

The SIDBI Make in India Loan for Enterprises (SMILE) scheme was launched in February 12, 2022. It aims to enable MSMEs to participate in the central

government's 'Make in India' initiative (Annual Report of MSME 2022-23, Government of India). It provides soft loans, which function similarly to quasi-equity, along with term loans on favorable terms to help MSMEs meet the required debt-equity ratio for their operations (Kamalaveni, 2019). The program also offers loans to existing MSMEs to support their pursuit of growth opportunities. The scheme covers both new businesses in the manufacturing and service sectors, as well as existing businesses that are expanding to capitalize on emerging opportunities (Mishra and Shukla, 2022). It also includes businesses that are modernizing, enhancing their technology, or undertaking other initiatives aimed at growing their operations. The primary focus of this program is to provide financing for small businesses within the MSME sector. For machinery and finance, the minimum loan size is Rs. 10 lakh, while other businesses must secure loans of at least Rs. 25 lakh. The repayment period is up to ten years, with a 36-month moratorium included (Annual Report of MSME 2025-26, Government of India).

3.3.5.c A Scheme for Promotion and Innovation, Rural Industries and Entrepreneurship (ASPIRE):

The ASPIRE scheme was launched in 2015 by the Ministry of MSMEs, Government of India. To further enhance the competitiveness of the MSME sector, a network of technology centres and incubation centres established to promote entrepreneurship and foster innovation (Lahmo and Parihar 2022). In addition, Livelihood Business Incubators (LBIs) and Technology Business Incubators (TBIs) set up to prepare young individuals for business ownership and to incubate new ideas (Gandhi et al., 2021). New TBIs are eligible for a maximum of Rs. 1 crore for plant and machinery procurement, while existing TBIs can receive up to Rs. 30 lakh. Government organizations can allocate up to Rs. 1 crore for plant and machinery procurement, whereas private agencies are permitted to spend up to Rs. 50 lakh. LBIs are designed to skill and train young people in various career paths, particularly within the rural-agro sector, enabling them to either start their own businesses or secure wage employment in related industries (Swetha et al. 2025). TBIs aim to inspire young individuals to incubate innovative ideas in the agro-rural sector by

providing essential incubation facilities (Annual Report of MSME 2025-26, Government of India).

3.3.5.d Samadhaan Portal:

On 30th October 2017, the Ministry of Micro, Small and Medium Enterprises (MSME) launched the MSME Samadhaan portal to address the issue of delayed payments to micro and small enterprises. This digital platform enables registered MSMEs to file complaints directly with the Micro and Small Enterprise Facilitation Council (MSEFC) regarding outstanding dues from buyers (Annual Report of MSME 2025-26, Government of India).

The portal facilitates transparency by making the status of complaints accessible to concerned authorities, including Central Ministries, government departments, and State Governments (Press Information Bureau 2023, Government of India). This visibility encourages timely interventions and enhances accountability. However, the portal serves as a monitoring tool, allowing authorities to track cases of delayed payments effectively. By publishing case details in the public domain, the platform applies moral and reputational pressure on defaulting buyers to settle dues promptly. MSMEs can also use the portal to track the progress of their complaints in real time, thereby improving access to redressed mechanisms and strengthening the enforcement of payment obligations (Annual Report of MSME 2022-23, Government of India).

The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, provides a legal framework to address the issue of delayed payments to MSMEs (Press Information Bureau 2023, Government of India). According to the Act, if a buyer fails to make payment within 45 days of accepting goods or services, they are liable to pay interest on the delayed amount. The interest is compounded monthly at a rate three times the Reserve Bank of India's notified bank rate, as prescribed under Section 16.

To facilitate resolution of such disputes, Sections 20 and 21 of the Act mandate the establishment of Micro and Small Enterprise Facilitation Councils

(MSEFCs) by State Governments. These councils are responsible for addressing and resolving payment-related grievances. MSMEs with valid Udyog Aadhaar Memorandum (UAM) or Udyam Registration are eligible to approach the MSEFC for assistance. As per the provisions of the Act, the MSEFC is required to resolve disputes within 90 days from the date of reference (Annual Report of MSME 2022-23, Government of India).

Each Council is chaired by the Director of Industries of the respective State or Union Territory. Furthermore, if the appellant in a legal challenge is not the supplier, they must deposit 75 percent of the awarded amount before the court entertains the appeal, thereby safeguarding the interests of the MSME claimant (Annual Report of MSME 2025-26, Government of India).

3.3.5.e Udyog Aadhaar Memorandum (UAM):

The Udyog Aadhaar Memorandum (UAM) was launched on September 2015 by the Ministry of Micro, Small, and Medium Enterprises (MSME). The UAM is a registration form used by MSMEs to certify their existence (Press Information Bureau 2023, Government of India). It requires essential details such as the owner's Aadhaar number, bank account information, and other basic business data. Once the form is submitted, an acknowledgment is sent to the applicant's registered email address. This acknowledgment includes a unique Udyog Aadhaar Number (UAN). As the process is based on self-declaration, no supporting documents are required at the time of submission (Annual Report of MSME 2022-23, Government of India).

Since the discontinuation of the Udyog Aadhaar Memorandum (UAM), all MSMEs are now required to register under the Udyam Registration process. This updated process does not require the submission of any physical documents. For Udyam Registration, only the Aadhaar number and PAN details of the applicant are necessary. The registration is entirely paperless and based on self-declaration. Applicants are not required to upload any supporting documents during the process. This simplification aims to make MSME registration more accessible and efficient (Press Information Bureau 2023, Government of India).

Upon registering their enterprise under the Udyam Registration process, MSME applicants become eligible for a range of government benefits. These include access to various financial schemes such as collateral-free loans, loans at subsidized interest rates, and simplified loan processing procedures. Registered MSMEs may also receive financial assistance to participate in international trade fairs and exhibitions, enabling them to showcase their products in global markets (Press Information Bureau 2023, Government of India).

Additionally, registration provides eligibility for various government subsidies and incentives aimed at promoting small-scale industries. It also facilitates the hassle-free opening of current bank accounts in the name of the business, streamlining formal financial operations. Furthermore, registered MSMEs can apply for government-supported micro business loans and related development schemes designed to strengthen and expand small enterprises (Annual Report of MSME 2025-26, Government of India).

3.3.5.f MSMEs Champions Scheme:

To provide a more unified and holistic support system, the Ministry of MSME launched the MSME Champions Scheme on 9th May 2020, approved by the Standing Finance Committee (SFC). This consolidated scheme is being implemented over five years (2021-22 to 2025-26) with the aim of synergizing efforts to modernize MSME clusters, minimize waste, improve competitiveness, and help them achieve both national and global excellence (Annual Report of MSME 2025-26, Government of India).

The primary objective of this scheme achieved through various initiatives such as reducing wastage via Lean Manufacturing, supporting design improvements, raising awareness on Intellectual Property Rights, implementing the Zero Defect Zero Effect scheme, digitally empowering MSMEs through Digital MSME, and promoting creativity and adoption of advanced technologies through Incubation programs (Annual Report of MSME 2025-26, Government of India).

3.3.5.g MSME - Innovative (Incubation, IPR and Design):

The scheme launched in the year 2022 and aims to foster innovation across the entire value chain, from idea generation to the development of innovative applications, by offering support through incubation and design interventions in MSMEs (Madhusoodanan et al. 2022). It provides essential infrastructure and resources to facilitate the transformation of concepts into market-ready products. It also enhances design competitiveness, protect and commercialize intellectual property within the MSME sector. By encouraging collaboration among industry leaders, academic institutions, government bodies, and research laboratories, the scheme nurtures a culture of innovation and creative problem-solving (Tereshchenko et al. 2024). It also acts as a bridge between innovators and industrial or academic mentors, promoting new product development and providing necessary hand-holding. It emphasis is placed on creating affordable, scalable, and sustainable innovations that can positively impact a broad section of society while maintaining commercial viability (Abbas et al. 2020).

The scheme offers comprehensive support to promote innovation among MSMEs through three key components: Incubation, Design, and Intellectual Property Rights (IPR). Under the Incubation component, financial assistance of up to Rs. 15 lakh per idea is provided to Host Institutions (HIs) for nurturing and developing innovative ideas (Annual Report of MSME 2025-26, Government of India).

Additionally, support up to Rs. 1 crore is available for the procurement and installation of relevant plant and machinery. It also includes hardware and software, to establish Business Incubators (BIs) equipped for R&D and providing shared facilities to incubates (Annual Report of MSME 2022-23, Government of India).

The Design component supports both MSMEs and students, with the Government contributing 75 percent of the total cost for Micro enterprises and 60 percent for Small and Medium enterprises, up to Rs. 40 lakh, for approved design projects.

Student projects are supported with a 75 Percent contribution, capped at Rs. 2.5 lakh. Under the IPR component, a grant of up to Rs. 1 crore is offered to Intellectual Property Facilitation Centers (IPFCs) in phased installments.

Additionally, reimbursement is provided for the registration of patents, trademarks, Geographical Indications (G.I), and designs, aiming to protect and commercialize intellectual creations in the MSME sector (Annual Report of MSME 2025-26, Government of India).

3.3.5.h The Lean Manufacturing Competitiveness Scheme (LMCS):

The Lean Manufacturing Competitiveness Scheme (LMCS) introduced in the year 2009 (Bhattacharya, 2021). It is an initiative designed to enhance the competitiveness of the manufacturing sector by promoting a culture of continuous improvement and implementing effective management systems to boost overall productivity. The scheme focuses on improving the manufacturing competitiveness of SMEs by applying various Lean techniques to reduce waste, increase efficiency, and foster a culture of ongoing enhancement (Saini and Singh, 2020). Under this scheme, financial assistance is provided to SMEs, offering up to Rs. 36 lakhs (maximum) per mini-cluster of 10 units for a period of 18 months or until completion. The financial support is shared between the Government of India (GOI) and the beneficiaries at a ratio of 80:20, with Rs. 28.8 lakhs provided by the government and Rs. 7.2 lakhs by the beneficiaries (Press Information Bureau 2023, Government of India).

The objective of the scheme is to enhance the domestic and global competitiveness of MSMEs by implementing various Lean Techniques (Quiroz-Flores et al. 2023). These techniques focus on reducing rejection rates, minimizing product and raw material movements, and lowering product costs. However, the scheme aims to optimize space utilization and the use of resources such as water, energy, and natural materials. Through these measures, it seeks to improve the quality of products and processes, while also boosting production and export

capabilities, thereby strengthening MSMEs overall efficiency and market presence (Press Information Bureau 2023, Government of India).

The implementation cost of the scheme varies based on the level of intervention: the Basic Level is provided free of cost, the Intermediate Level costs Rs. 1,20,000 plus taxes, and the Advanced Level costs Rs. 2,40,000 plus taxes. The primary objective of the scheme is to enhance the domestic and global competitiveness of MSMEs by adopting various Lean Techniques (Annual Report of MSME 2022-23, Government of India).

These techniques aim to reduce rejection rates, minimize product and raw material movements, and lower product costs. Furthermore, the scheme focuses on optimizing space utilization and the efficient use of resources such as water, energy, and natural materials. By improving product and process quality along with production and export capabilities, the scheme strengthens the overall efficiency and market presence of MSMEs (Annual Report of MSME 2025-26, Government of India).

3.4 Role of MSME in Economic Development of India:

The data and trend line shows the MSMEs critical role in driving to economic development of India from 2020-21 to 2023-24. The MSMEs growth is reflected in the increasing number of registered MSMEs (Table 3.1), indicating the sector's expanding across India. MSMEs contribute significantly to the Gross Domestic Product (GDP) (Table 3.2), underscoring their importance in sustaining economic stability and inclusive growth. Furthermore, MSMEs share in the country's export performance (Table 3.3) highlights their role in enhancing India's global trade competitiveness. The central government has implemented budgetary allocations (Table 3.4) it facilitates access to finance in MSME across India. Collectively, the data indicates the contributions of MSMEs in India's economic development framework.

3.4.1 Growth in Numbers of Registered MSMEs in India:

The table 3.1 shows the data of Percentages Growth Rate in Numbers of Registered MSMEs in India from 2020-21 to 2023-24. The data interpreted the consistent growth, the numbers of registered MSMEs are 2,847,544 in 2020-21 and it increased to 15,027,865 in 2023-24. The MSMEs growth rate percentages showed positive trajectory by year on year. In the year 2021-22 interpreted 81 percent growth rate from the previous year. However, the financial year 2022-23 and 2023-24 presented growth rate 67 percent and 75 percent respectively. From the data it can suggested that the numbers of MSMEs in India has been increased by year on year.

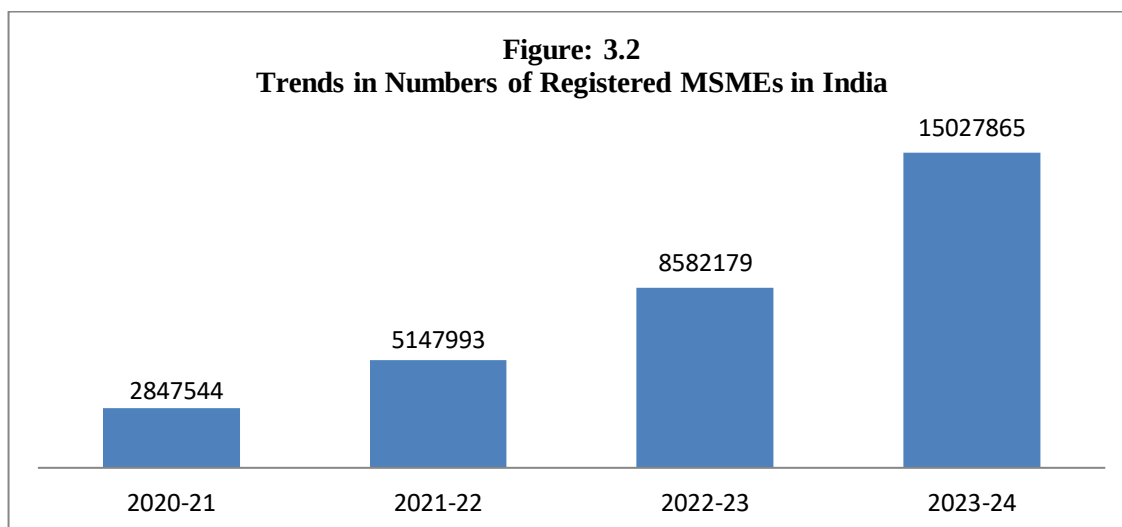
Table: 3.1
Growth in Numbers of Registered MSMEs (in numbers)

Years	Numbers of Registered MSMEs	Percentage (%) of Growth Rate
2020-21	2847544	-
2021-22	5147993	81
2022-23	8582179	67
2023-24	15027865	75
Total	31605581	-

Source: MSME report of Udyog Aadhaar Memorandum (UAM), 2023-24.

3.4.2 Trends in Numbers of Registered MSMEs in India:

The figure 3.2 interprets the trend line in total numbers of registered MSMEs in India from 2020-21 to 2023-24. The overall trend line interpreted the upward trajectory. The numbers of registered MSMEs are 2847544 in 2020-21 and it increased to 15027865 in 2023-24. From the overall trend line it can suggested that the numbers of registered MSMEs has been increased by year on year and also contributed for the economic development in India.



Source: Trend analysis using secondary data.

3.4.3 Contribution of MSMEs to Total GDP in India:

The table 3.2 interprets the percentage data in contribution of MSMEs to total Gross Domestic Product (GDP) in India from 2019-20 to 2023-24. The data of MSMEs has demonstrated fluctuating over the years and the highest growth rate found in 2019-20 was 30.5 percent. Followed by in 2020-21, the growth rate moved decline to 27.3 percent and then growth rate increased to 29.6 percent and 30.1 percent in 2021-22 and 2022-23 respectively. The data also shows the contribution of MSMEs to GDP in India has declined to 27.3 percent in 2023-24. These data highlighted the fluctuating growth rates within the MSMEs over the years.

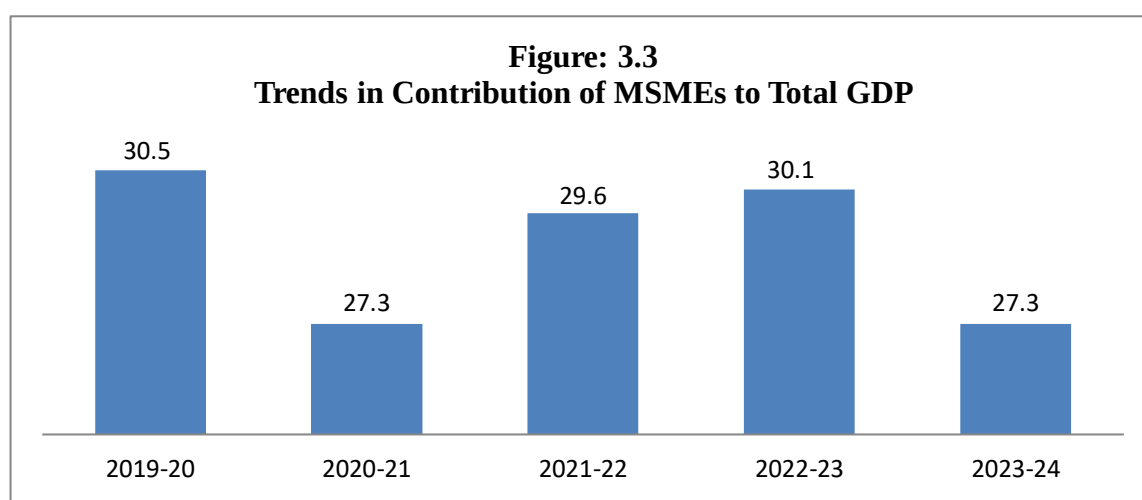
Table: 3.2
Contribution of MSMEs in Total GDP

Years	Percentage (%) shares of MSMEs in Total GDP
2019-20	30.5
2020-21	27.3
2021-22	29.6
2022-23	30.1
2023-24	27.3

Source: Annual Report of MSME 2024-25, Govt. of India.

3.4.4 Trends in Contribution of MSMEs to Total GDP in India:

The figure 3.3 shows the trend line in Contribution of MSMEs in total GDP in India. The overall trend line interpreted fluctuated over the years. The highest growth rate illustrated in 2019-20 was 30.5 percent and the lowest trend line recorded 27.3 percent in 2020-21 and 2023-24. However, the trend line recorded increased trajectory to 29.6 percent and 30.1 percent in 2021-22 and 2022-23 respectively. The overall trend line data highlighted the fluctuating growth rates in the contribution of MSMEs to GDP in India.



Source: Trend analysis using secondary data.

3.4.5 Contribution of MSMEs to Total Exports in India:

The table 3.3 shows the data in contribution of MSMEs to total exports in India from 2019-20 to 2023-24. The data of percentage growth rate of MSMEs has decline over the years. The highest growth rate recorded in 2019-20 was 49.75 percent and the lowest growth rate observed in 2022-23 was 43.59 percent. The overall contribution of MSMEs to total export in India has declined over the years.

Table: 3.3

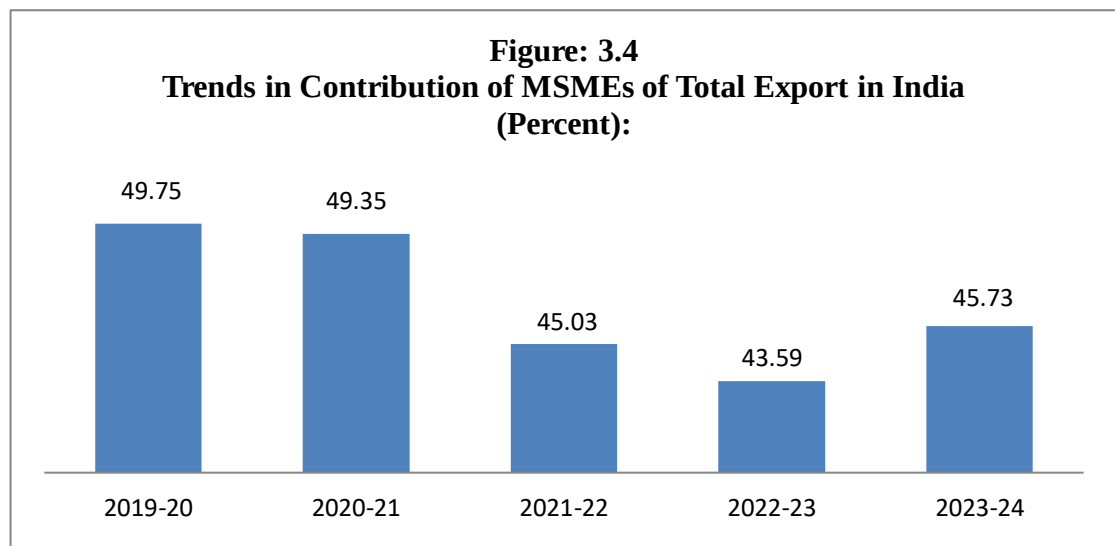
Contribution of MSMEs in Total Exports

Years	Percentage (%) of MSMEs share in total Exports
2019-20	49.75
2020-21	49.35
2021-22	45.03
2022-23	43.59
2023-24	45.73

Source: Annual Report of MSME 2024-25, Govt. of India.

3.4.6 Trends in Contribution of MSMEs in Total Export (Percent) in India:

The figure 3.4 shows the trend line in contribution of MSMEs to total exports in India from 2019-20 to 2023-24. The highest trend line data recorded in 2019-20 was 49.75 percent and the lowest trend line observed in 2022-23 was 43.59 percent. From the overall contribution of MSMEs to total export in India has declined over the years.



Source: Trend analysis using secondary data.

3.4.7 Allocation of Funds by Government of India from Annual Budget for MSMEs:

The table 3.4 presents data on the Budget Estimates (BE), Revised Estimates (RE), and Actual Expenditure by the Ministry of MSMEs in India from the financial years 2020-21 to 2023-24. In the year 2020-21, the Budget Estimate for MSMEs was Rs. 7,572.20 crore. However, both the Revised Estimate and Actual Expenditure were significantly lower, amounting to Rs. 5,664.22 crore and Rs. 5,647.50 crore, respectively. This reflects a downward revision and underutilization of the allocated budget. The following year, 2021-22, witnessed a substantial increase in allocation, with both the Budget Estimate and the Revised Estimate standing at Rs. 15,699.65 crore. The Actual Expenditure reached Rs. 15,160.47 crore, indicating better alignment between the planned and actual spending. In 2022-23, the Budget Estimate further increased to Rs. 21,422 crore, while the Revised Estimate rose to Rs. 23,628.01 crore. The Actual Expenditure closely followed at Rs. 23,583.90 crore. This year reflects an enhanced allocation and near-complete utilization of the funds. For the year 2023-24, the Budget Estimate was Rs. 22,137.95 crore. It was slightly revised to Rs. 22,138.01 crore, and the Actual Expenditure recorded was Rs. 22,094.17 crore. From the overall data demonstrated that a consistency and efficient budget utilization in MSMEs in India.

Table: 3.4

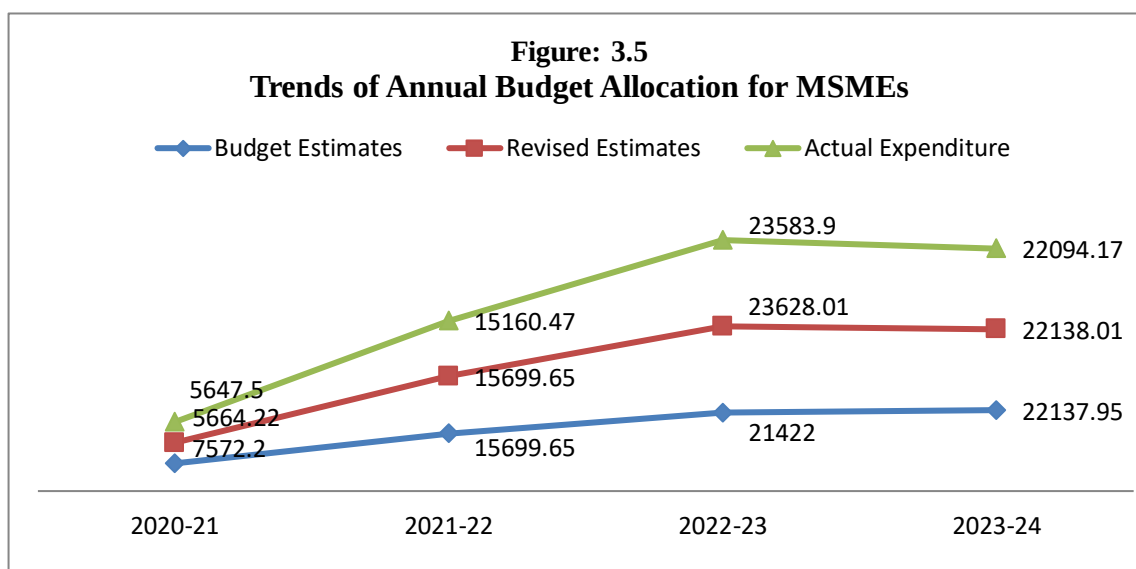
Allocation of Funds from Annual Budget for MSMEs (Rs. in Crore)

Years	Budget Estimates	Revised Estimates	Actual Expenditure
2020-21	7572.20	5664.22	5647.50
2021-22	15699.65	15699.65	15160.47
2022-23	21422	23628.01	23583.90
2023-24	22137.95	22138.01	22094.17

Source: Annual Report of MSME 2024-25, Govt. of India.

3.4.8 Trends in Allocation of Funds by Government of India from Annual Budget for MSMEs:

The figure 3.5 below shows the budgetary allocation and expenditure for the Ministry of MSMEs from 2020-21 to 2023-24 show a clear upward trend, both in terms of estimates and actual disbursement. The trend line indicates a policy focus on strengthening the MSMEs over the years. From the trend line it can be suggested that the study period show a significant rise, with improved alignment between budgeted and actual spending, indicating enhanced policy focus, financial planning, and effective implementation in supporting the MSMEs growth.



Source: Trend analysis using secondary data.

3.5 Role of MSMEs in Economic Development of Tripura:

The data from 2010-11 to 2022-23 highlights the role of MSMEs in driving the economic development of Tripura. The growth of the MSME is reflected in the progress and patterns of MSMEs (Table 3.5), as evidenced by the increasing number of registered MSMEs, employment generation, and investment. Furthermore, MSMEs contribute significantly to the Gross State Domestic Product (GSDP) (Table 3.6), underscoring their importance in promoting economic stability and inclusive growth in Tripura.

3.5.1 Progress and Pattern of MSMEs sector in Tripura:

The table 3.5 below interprets the progress and pattern of the MSMEs in Tripura from 2010-11 to 2022-23 reveal a remarkable growth trajectory across all key indicators- number of MSMEs, employment generation, and investment. The number of registered MSME units increased significantly from 218 in 2010-11 to 16,604 in 2022-23, marking a cumulative total of 33,274 units over the period. Correspondingly, employment generation rose from 4,315 in 2010-11 to 178,917 in 2022-23, culminating in a total of 341,620 jobs created. In addition, Investment data also reflect steady growth, climbing from Rs. 3,393.25 lakh in 2010-11 to Rs. 46,475.73 lakh in 2022-23, aggregating to a total investment of Rs. 201,230.2 lakh. The overall pattern demonstrates that the MSMEs in Tripura have shown robust expansion, playing a pivotal role in economic development in the state.

Table 3.5:

Progress and Pattern of MSMEs in Tripura

Years	No. of MSME Units	Percentages of MSME units	Employment (in numbers)	Percentages of Employment	Investment (Rs. in lakh)	Percentages of Investment
2010-11	218	-	4315	-	3393.25	-
2011-12	205	-5.96	2744	-36.41	5556	63.74
2012-13	150	-26.83	1952	-28.86	6422	15.59
2013-14	173	15.33	2053	5.17	2798.31	-56.43
2014-15	172	-0.58	2234	8.82	5015.36	79.23
2015-16	608	253.49	4623	106.94	9034.1	80.13
2016-17	1311	115.63	8680	87.76	19036	110.71
2017-18	701	-46.53	5675	-34.62	12016	-36.88
2018-19	1552	121.40	7577	33.52	13663	13.71
2019-20	1491	-3.93	8893	17.37	22720	66.29
2020-21	1692	13.48	14936	67.95	23541	3.61
2021-22	8397	396.28	99021	562.97	31559.41	34.06
2022-23	16604	97.74	178917	80.69	46475.73	47.26
Total	33274	-	341620	-	201230.2	-

Source: Udyog Aadhaar Memorandum (UAM) 2022-23, Government of Tripura.

3.5.2 Contribution of MSMEs to GSDP of Tripura:

The table 3.6 below shows the contribution of MSMEs to the Gross State Domestic Product (GSDP) of Tripura from 2011-12 to 2022-23 highlights its significant role in the state's economy. During this period, the contribution of MSME recorded from Rs. 12,502.29 crore in 2011-12, the contribution steadily increased to Rs. 38,848.74 crore by 2022-23. Although the percentage share saw a gradual decline from 66.17 percent in 2012-13 to around 53.48 percent in 2022-23, the absolute contribution rose significantly in line with the expanding state economy. This consistent and substantial contribution underscores the significant role of the MSMEs in driving economic development in Tripura.

Table 3.6:

Contribution of MSME to GSDP of Tripura(Amount in Crore)

Year	Total GSDP	MSMEs contributions in GSDP	Percentages of MSMEs contributions in GSDP
2011-12	19208.41	12502.29	65.09
2012-13	21663.2	14334.38	66.17
2013-14	25592.83	16703.27	65.27
2014-15	29533.46	16965.69	57.45
2015-16	35937.73	19730.50	54.90
2016-17	39479.4	21487.75	54.43
2017-18	43715.8	25346.65	57.98
2018-19	49823.32	28063.45	56.33
2019-20	54151.12	29441.28	54.37
2020-21	53504.12	27486.52	51.37
2021-22	62550.43	33438.56	53.46
2022-23	72635.62	38848.74	53.48

Source: Directorate of Economic and Statistics 2023-24, Government of Tripura.

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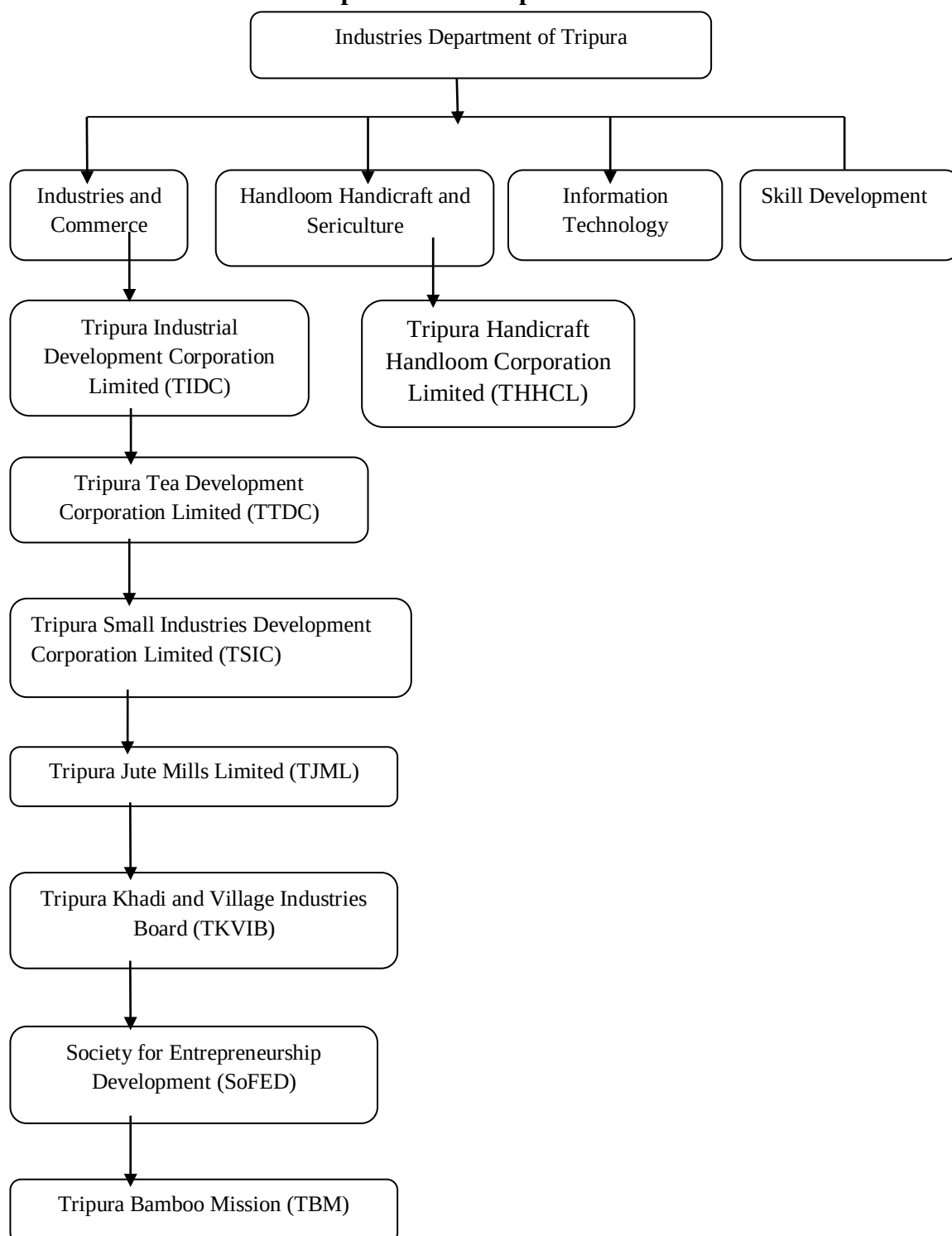
CHAPTER 4:
THE NORTH-EASTERN INDUSTRIAL DEVELOPMENT POLICIES
WITH SPECIAL REFERENCE TO MSMES IN TRIPURA

4.1 Introduction:

The North-eastern region of India is rich in natural resources and plays a significant role in job creation within the MSMEs (Chakrabartty, 2019). This region, known as the "Seven Sisters" including Tripura, Arunachal Pradesh, Mizoram, Meghalaya, Assam, Manipur, Nagaland, and Sikkim has the potential to leverage its resources to foster economic development and create employment opportunities. In response, the government has introduced various industrial policies and schemes through the Ministry of MSME and its associated agencies to actively promote the growth of MSMEs in the North-eastern Region (Sahoo and Swain, 2020). Moreover, the MSMEs are crucial for the expanding economy of the Northeast, as it contributes to job creation, strengthens domestic manufacturing/service, and supports other key economic activities.

In North East Region (NER), Tripura has prioritized the growth of MSMEs in its industrial policy. The Tripura Industrial Investment Promotion Policy (TIIPP), 2022, has specified schemes for development of MSMEs. These include capital investment subsidies, interest subsidies, and reimbursement of power charges. The policies also offer support for skill development, quality certification, and market linkage. Tripura's geographical location and access industrial base make MSMEs critical for localized growth. The government promotes cluster-based development to improve productivity and competitiveness (Kumar and Shobana, 2022). There is a focus on agro-based, bamboo, and handloom sectors, which align with local resources. However, the success of these policies depends on effective implementation and coordination among stakeholders. Strengthening institutional capacity and improving logistics are essential for sustainable MSMEs development. This chapter has designed flow charts of industrial department of Tripura and the central and state government industrial policies, which are implemented in North-Eastern Region, especially in Tripura. In addition, numbers of incentives and subsidies also have been includes by central and state government to support the development of the MSMEs in the north-east region as well as Tripura.

4.1 Flow Chart of Industrial Department of Tripura:



Source: Department of Industries and Commerce, Government of Tripura 2023-24.

4.2 Industrial Policies of Tripura:

The Tripura Industrial Investment Promotion Policy (TIIPP) 2007, (later intervention in 2017 and 2022). The new updated industrial policy introduced by the state government of Tripura, i.e. The Tripura Industrial Investment Policy (TIIP), 2024. The government introduced these industrial policies to promote industrial development by outlining various incentives, improving infrastructure facilities and ensuring the supply of quality power (Chen and Xie, 2019). To address existing obstacles and create an investment climate, several proactive measures have been proposed to enhance investor confidence. The Tripura Industrial Investment Promotion Policies are mentioned below:

4.2.1 The Tripura Industrial Investment Promotion Policy (TIIPP), 2007:

The Tripura Industrial Investment Promotion Policy, 2007, introduced on April 1, 2007, by the government of Tripura and it was effective for a period of five years, ending on 31st March 2012. The objective of this policy is to create a comprehensive and investor-friendly environment to promote rapid and sustainable industrial development in Tripura. The policy sought to increase employment opportunities, enhance the State Domestic Product, and expand the overall resource base of Tripura. The state government introduced this industrial policy to promote industrial growth by outlining various incentives, ensuring the supply of quality power, and improving infrastructure facilities (Chen and Xie, 2019). To address existing barriers and create an investment climate, several proactive measures have been proposed to enhance investor confidence by the policy.

4.2.2 The Tripura Industrial Investment Promotion Incentive Scheme (TIIPIS), 2017:

The Tripura Industrial Investment Promotion Incentive Scheme (TIIPIS), 2017, came into effect on April 1, 2017, by government of Tripura (Department of Industries and Commerce 2017, Government of Tripura). It covers enterprises in the private sector, co-operative sector, self-help groups, joint sector, and state-owned or managed companies (Fazalbhoy and Gochhait, 2022). The Directorate of Industries

and Commerce (TDIC), the Tripura Industrial Development Corporation (TIDC), or any agent specifically authorized by the State Government shall be responsible for implementing and operating the Scheme 2017.

- 1) Under the Scheme is granted to an enterprise for a period of five years from a specified date, the benefit will remain available until the end of that five-year period for that enterprise. This will apply even if the period extends beyond March 31, 2022.
- 2) If a newly established enterprise is sold or transferred to a new owner within the five-year incentive period, the new owner will be eligible to receive the incentive only for the remaining part of that period.
- 3) The scheme also apply, in case an industrial enterprise, whether set up by the government or otherwise, is leased to a third party to operate on a self-sustaining basis or under a Public-Private Partnership model, However, in such cases, only subsidies other than the capital investment subsidy will be provided for the unexpired portion of the five-year period to the lessee (Department of Industries and Commerce 2017, Government of Tripura).

4.2.3 The Tripura Industrial Investment Promotion Incentive Scheme (TIIPIS), 2022:

The Tripura Industrial Investment Promotion Incentive Scheme (TIIPIS), 2022 is applicable to industrial enterprises established in the state. The scheme came into effect on 1st April 2022 and will remain valid for a period of five years, ending on 31st March 2027 (Department of Industries and Commerce 2022, Government of Tripura).

This scheme aims to attract investment and promote industrial development in the state of Tripura. It offers a range of incentives to encourage entrepreneurs to establish industries. These incentives are intended to lower operational costs, address infrastructure requirements, and enhance the competitiveness of industrial enterprises in the state (Directorate of Economics and Statistics 2022, Government of Tripura). If an incentive is granted to an enterprise for a specified period, calculated from the

date of commencement of commercial production or any other prescribed date, the benefit will continue until the end of that period. This will apply even if the period extends beyond 31st March 2027.

4.2.4 The Tripura Industrial Investment Policy (TIIP), 2024:

The Tripura Industrial Investment Policy (TIIP), 2024, came into force on 8th October 2024 and remains effective for a period of five years. The TIIP, 2024 aims to address the challenges faced by industries and position Tripura as a preferred destination for investment (Directorate of Economics and Statistics 2024, Government of Tripura). The policy highlights five pillars as measures taken by the state to promote industrial development and attract investors. The five pillars of the policy are:

- 1) Infrastructural development focuses on creating new facilities to support the manufacturing, services, and logistics sectors. It aims to strengthen industrial infrastructure, improve connectivity across the state, and facilitate smooth transportation and trade, including foreign trade.
- 2) Fiscal policy includes incentives that offer fiscal or monetary benefits to entrepreneurs, encouraging higher investment in the state economy. These measures provide significant support to the MSME sector through financial relief. They also promote the growth of large-scale industries by creating a more favourable investment environment.
- 3) Investment promotion aims to attract investment in a structured, focused, and comprehensive manner. To support this, the Investment Facilitation Bureau assists investors throughout their investment process. This guidance is expected to encourage the establishment of new industries in the state.
- 4) Ease of Doing Business aims to establish a supportive ecosystem for both prospective and existing businesses in the state. It promotes an investor-friendly environment and seeks to reduce the cost of doing business. The initiative focuses on simplifying regulations for domestic small and medium-sized enterprises throughout their operational life cycle, contributing to the state's broader vision of inclusive prosperity.

- 5) Gender-responsive and socially inclusive growth emphasizes the promotion of employment and entrepreneurship opportunities for all, including women and marginalized groups. All infrastructure developed under the policy will be accessible and inclusive, with specific attention to women's safety, sanitation, transport, and last-mile connectivity. The policy also includes incentives and support mechanisms for women-led enterprises and non-farm collectives.

4.3 Central Government Schemes for MSMEs being implemented in Tripura:

The Ministry of MSME runs various schemes across India, including in Tripura, to promote small businesses and boost local industries. These schemes aim to encourage entrepreneurship, create jobs, and support traditional and modern industries (Department of Industries and Commerce 2022, Government of Tripura). The schemes offered financial assistance, training, infrastructure support, and market access. Some programs focus on technology upgrades and easier access to credit. By implementing incentive, subsidy and reimbursement initiatives, the central and state government seeks to strengthen the MSME sector and contribute to balanced regional development (Department of Industries and Commerce 2022, Government of Tripura). Some of these significant policies being implemented in Tripura are outlined below:

4.3.1 Prime Minister's Employment Generation Programme (PMEGP):

In August 2008, the Government of India approved a new credit-linked subsidy program called the Prime Minister's Employment Generation Programme (PMEGP). This scheme was launched by merging of two existing programs, Prime Minister's Rojgar Yojana (PMRY, approved in 1993) and the Rural Employment Generation Programme (REGP, approved in 1995), which were operational until 31st March 2008. As per the '15th Finance Commission cycle', the scheme has been approved for the five-year period from 2021-22 to 2025-26.

The PMEGP scheme is designed to provide financial assistance for the establishment of self-employment ventures, thereby fostering sustainable

employment opportunities in both rural and urban areas (Bansal et al., 2019). Its primary objective is to generate consistent and long-term employment for rural and unemployed youth, as well as for traditional artisans seeking viable livelihoods (Department of Industries and Commerce 2022, Government of Tripura). The PMEGP policy supports the following components:

- 1) The scheme is a credit-linked subsidy program aimed at promoting the establishment of new micro-enterprises in the non-farm sector. It provides margin money subsidies ranging from 15 percent to 35 percent of the total project cost. This support is applicable for projects up to Rs. 50 lakh in the manufacturing sector and up to Rs. 20 lakh in the service sector. For beneficiaries belonging to special categories, such as Scheduled Castes (SC), Scheduled Tribes (ST), women, minorities, ex-servicemen, transgenders, individuals from aspirational districts, and those residing in the North Eastern Region (NER). The margin money subsidy is set at 35 percent in rural areas and 25 percent in urban areas. This differential support structure aims to enhance inclusivity and ensure equitable access to self-employment opportunities across diverse demographic groups.
- 2) General category beneficiaries are required to contribute 10 percent of the total project cost. For the special category beneficiaries, are required to contribute only 5 percent of the total project cost.
- 3) If the loan application is approved, banks sanction and disburse 90 to 95 percent of the total project cost, facilitating the establishment of the proposed units.
- 4) To ensure the sustainability of projects or units set up under the scheme, support services are provided to backward and forward linkages, entrepreneurship development program (EDP), training, workshops, and participation in exhibitions.

- 5) The Government of India has introduced a fully online system for application submission and disbursement of margin money directly to the financing bank branches.
- 6) It is mandatory for individuals to submit applications through the designated e-portal (PMEGP MIS portal), which is mobile-friendly.
- 7) SMS and email alerts are automatically generated and send to applicants by the system or by the concerned officials at each stage of the application process.
- 8) In an effort to increase MSME registrations, the government has introduced initiatives encouraging PMEGP units to register under the Udyam portal (Annual Report of MSME 2024-25, Government of India).

4.3.2 Scheme of Fund for Regeneration of Traditional Industries (SFURTI):

The ‘Scheme for the Regeneration of Traditional Industries (SFURTI)’ introduced in the year 2005. The Primary objective of the Scheme is to organize traditional industries and artisans enhance production and value addition, thereby making their products more competitive in the market (Department of Industries and Commerce 2022, Government of Tripura). This initiative aims to promote traditional sectors and improve the income of artisans by providing sustainable employment opportunities. The policy includes the following components, which are outlined below:

- 1) The Government of India provides financial support to artisans up to Rs. 2.5 crore for 500 artisans, and Rs. 5 crore for exceeding 500 artisans.
- 2) A production facility equipped with the latest machinery is established to enhance productivity. Additionally, soft interventions of up to Rs. 25 lakhs are provided, covering skill development, exposure visits, buyer-seller meets, marketing connections, e-commerce initiatives, and design support.

- 3) Existing artisans from traditional industries such as handicrafts and textiles are organized into Special Purpose Vehicles (SPVs) by implementing agencies, including state and central government bodies or NGOs. Which are responsible for providing land and contributing 10 percent of the hard intervention costs (5 percent in the North East Region, Jammu and Kashmir, and hill areas).
- 4) The Government of India offers financial assistance covering up to 90 percent of the hard intervention costs (95 percent for the specified regions), along with full funding for soft interventions, technical agency fees, and implementing agency fees.
- 5) The Tool Room cum Training Centre (TRTC) has been established at R.K. Nagar, Agartala, with a total project cost of Rs. 19.25 crores. In this amount, Rs. 10 crore was provided by the Ministry of MSME specifically for the procurement of equipment (Annual Report of MSME 2024-25, Government of India).

4.3.3 Raising and Accelerating MSME Performance (RAMP):

The Raising and Accelerating MSME Performance (RAMP) scheme was introduced in June 30 2022, by the Ministry of MSME. It aims to improve the performance of MSMEs by enhancing their access to markets and credit, strengthening Centre-State coordination, addressing issues of delayed payments, and promoting environmentally sustainable practices (Department of Industries and Commerce 2022, Government of Tripura). Under this scheme, the State Government is responsible for preparing a Strategic Investment Plan (SIP) to support the growth and competitiveness of MSMEs through focused interventions and efficient resource allocation.

RAMP (Revitalising MSME Performance) is a Central government Scheme supported by the World Bank. This scheme has designed to improve MSMEs access to markets, finance, and technology up gradation by expanding the reach of existing Ministry of Micro, Small and Medium Enterprises (MoMSME). It also aims to

improve the effectiveness of the Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE) by promoting guarantees for creating initiatives to women-owned micro and small enterprises. Additionally, RAMP seeks to reduce the incidence of delayed payments to micro and small enterprises, thus improving their financial health and sustainability. It targets benefiting over 5.5 lakh MSMEs during its implementation period from FY 2022-23 to 2026-27. The programme will be executed through various State agencies to ensure effective reach and impact (Annual Report of MSME 2024-25, Government of India).

4.3.4 MSME Sustainable (ZED) Certification:

The MSME Sustainable (ZED) Certification was first time launched on April 28, 2022. The Government of India launched the Zero Defect Zero Effect (ZED) initiative to improve the competitiveness and sustainability of MSMEs, with the goal of positioning them as national and international leaders (Trivedi et al., 2024). The ZED Certification campaign promotes awareness of quality and eco-friendly practices, while also offering motivation and incentives for certification. Under the Tripura Incentive Scheme (TIIPIS), 2022, additional subsidies are provided to ZED-certified units. It reflects the state's commitment to fostering high-quality and sustainable industrial development.

The ZED Certification scheme aims to promote the adoption of world-class manufacturing practices among MSMEs, emphasizing quality and environmental responsibility (Dasgupta et al., 2024). It encourages MSMEs to manufacture high-quality products using the latest technology and tools while continuously upgrading their processes to achieve high productivity with minimal environmental impact. The scheme seeks to create a robust ecosystem for ZED manufacturing, enhancing the competitiveness of MSMEs and supporting their potential for exports. By recognizing and incentivizing successful MSMEs, the scheme motivates enterprises to progress through higher levels of ZED Certification. Additionally, it aims to raise public awareness about the importance of Zero Defect and Zero Effect products, and to identify improvement areas within the MSME sector to support informed policy-making and targeted investment decisions (Trivedi et al., 2024).

The ZED Certification Scheme aims to promote quality manufacturing with minimal environmental impact among MSMEs. The scheme offers three levels of certification- Bronze, Silver, and Gold at respective costs of Rs. 8,000, Rs. 32,000, and Rs. 72,000.

Subsidies on certification costs are available at 80 percent for micro, 60 percent for small, and 50 percent for medium enterprises. Women-owned MSMEs while SC/ST-owned MSMEs and those located in the NER are eligible for 100 percent subsidy (Department of Industries and Commerce 2022, Government of Tripura).

4.3.5 Pradhan Mantri Vishwakarma Scheme:

Pradhan Mantri Vishwakarma is a Central government Scheme launched on September 17, 2023. It provides comprehensive support to artisans and craftspeople who work manually with their hands and tools. The scheme covers eighteen traditional trades. These comprise, Carpenter (Suthar/Badhai), Boat Maker, Armourer, Blacksmith (Lohar), Hammer and Tool Kit Maker, Locksmith, Goldsmith (Sonar), and Potter (Kumhaar). Other trades include Sculptor (Moortikar, stone carver), Stone Breaker, Cobbler (Charmkar)/Shoesmith/Footwear Artisan, and Mason (Rajmistri). Basket/Mat/Broom Maker/Coir Weaver, Doll and Toy Maker (Traditional), Barber (Naai), Garland Maker (Malakaar), Washerman (Dhobi), Tailor (Darzi), and Fishing Net Maker are also included. The scheme empowers these artisans through skill development, financial support, and better market access.

The scheme aims to recognize artisans and craftspeople as Vishwakarmas, thereby making them eligible to access a wide range of benefits under the initiative (Shah and Shrivastav, 2025). It focuses on skill up gradation by offering relevant and suitable training opportunities to enhance their craftsmanship. The scheme also provides support for acquiring better and modern tools to improve their productivity, capability, and the quality of their products and services. Additionally, it facilitates easy access to collateral-free credit and aims to reduce the cost of borrowing through interest subvention. To promote digital inclusion, incentives are offered for

conducting digital transactions. Furthermore, the scheme supports brand promotion and market linkages, enabling Vishwakarmas to access broader growth opportunities and strengthen their market presence (Department of Industries and Commerce 2022, Government of Tripura).

4.3.6 Start-up Tripura:

Start-up Tripura is an initiative launched by the Government of Tripura from 1st April 2019 to 31st March 2024. The primary objective of the scheme is to promote sustainable economic development and facilitate the creation of large-scale employment opportunities within the state presence (Department of Industries and Commerce 2022, Government of Tripura). Key Support Measures under Start-up Tripura:

- 1) To all the information technology or service-based sectors are eligible to apply under the Start-up Tripura scheme. However, to qualify for incentives, the applicant start-up must not have been incorporated for more than four years from the date of application.
- 2) Upon approval of the business plan and product evaluation by the Start-up Council, the state government will offer a subsidy of up to 80 Percent of the total project cost, not exceeding Rs. 10 lakh.
- 3) Start-ups demonstrating a minimum annual growth rate of 15 Percent, as evidenced by audited financial statements. These are entitled to receive a grant of 5 percent of turnover, up to Rs. 10 lakh for a period of three years from the date of incubation.
- 4) To incentivize employment generation, the scheme offers one-time assistance of Rs. 10,000 per employee for the first year of operation.
- 5) Eligible start-ups can claim reimbursement of State Goods and Services Tax (SGST) annually. This benefit is applicable to SGST payers with a maximum turnover of Rs. 1 crore for the first three years of operation.
- 6) The scheme provides reimbursement of travel and participation costs for start-ups attending state and national-level IT fairs and exhibitions held outside Tripura.

- 7) Entrepreneurs with revenue-generating innovative products or services that require guidance and funding for scaling operations may apply for marketing development assistance under the scheme.
- 8) Start-ups availing incubation support from government-run facilities will enjoy rent-free usage for the first three years. Subsequently, the facility can be used for one additional year on a payment basis, subject to approval by the State Level Implementation Committee (SLIC).
- 9) The Government of Tripura plans to establish device testing laboratories offering enterprise software at subsidized rates. In addition, cloud infrastructure will be allocated in the State Data Centre (SDC), interconnected with all government-run incubation facilities. Start-ups can avail these services at nominal charges.
- 10) The government seeks to promote financial inclusion by encouraging banks, financial institutions, and angel investors to establish dedicated start-up desks. It also supports partnerships between seed funding agencies, industry bodies, and start-up associations to facilitate access to capital for business expansion and commercialization presence (Department of Industries and Commerce 2022, Government of Tripura).

4.3.7 Atmanirbhar Bharat Abhiyaan, 2020:

The MSMEs featured prominently in the announcements made under the Atmanirbhar Bharat Abhiyaan, introduced on 12th May 2020 by the Government of India. Additionally, the definition of MSMEs was revised to broaden the eligibility criteria and maximize the enterprises access. The revised MSMEs definition has been formalized, making it more inclusive and enabling a wider spectrum of enterprises to harness growth opportunities. The economic package not only allocated substantial financial support to the MSMEs but also prioritized its revival strategy (Dubey and Sahu, 2020). Several significant measures were introduced to provide immediate relief to MSMEs. It includes the provision of collateral-free automatic loans worth Rs. 3 lakh crore to help meet operational liabilities, procure raw materials, and restart business activities.

To further support domestic enterprises, the government disallowed global tenders in procurements up to Rs. 200 crore, thereby it creates greater opportunities for Indian MSMEs (Department of Industries and Commerce 2022, Government of Tripura). In addition, to ensure timely release of payments to MSMEs, specific instructions have been issued at the highest administrative levels, including the Cabinet Secretary, the Secretary of Expenditure, and the Secretary of MSME. Moreover, to alleviate financial stress, the Reserve Bank of India (RBI) has extended the moratorium on loan repayments by an additional three months, offering further relief to MSMEs during this challenging period (Department of Industries and Commerce 2022, Government of Tripura).

4.4 Central Government Subsidies for MSMEs being implemented in Tripura:

The State Government of Tripura launched the ‘Tripura Industrial Investment Promotion Incentives Scheme (TIIPIS), 2022’, effective from April 1, 2022, for duration of five years. This scheme aims to attract investment and promote industrial development in the state (Department of Industries and Commerce 2022, Government of Tripura). Under this policy, several incentives are provided to encourage entrepreneurs to set up industries in Tripura. These incentives are designed to reduce operational costs, support infrastructure needs, and boost competitiveness of industries in the state.

4.4.1 Capital Investment Subsidy:

The Capital Investment Subsidy was introduced as part of the ‘Tripura Industrial Investment Promotion Incentives Scheme’ in 2022. The Subsidy scheme aims to promote industrial development by providing financial support for fixed capital investment (Pandya, 2017). For MSMEs in the non-thrust sector, a subsidy of 30 percent is available, subject to a ceiling of Rs. 100 lakhs per enterprise. In contrast, thrust sector MSMEs are eligible for a higher subsidy of 40 percent, with a maximum limit of Rs. 125 lakhs per enterprise. An additional subsidy of 5 percent is offered to enterprises owned by Scheduled Tribes (ST), Scheduled Castes (SC), Persons with Disabilities (PH), and women. However, the capital subsidy is

applicable ceilings of Rs. 100 lakhs and Rs. 125 lakhs for non-thrust and thrust sectors, respectively. Large units are entitled to a subsidy of 30 percent or 40 percent of their investment in land and buildings, capped at Rs. 200 lakhs. Private infrastructure developers involved in the creation of industrial infrastructure can avail a 30 percent subsidy, up to a ceiling of Rs. 500 lakhs (Department of Industries and Commerce 2022, Government of Tripura).

4.4.2 Procurement Preference Subsidy:

The Procurement Preference Subsidy was introduced as part of the ‘Tripura Industrial Investment Promotion Incentives Scheme’ in 2022. A procurement preference of 15 percent shall be extended to local manufacturers on all purchases made through tenders by State Government agencies. It provided that the products are manufactured within the State of Tripura and involve a minimum of 20 percent value addition within the State (Department of Industries and Commerce 2022, Government of Tripura). Local enterprises with the capacity to partially fulfil the tendered quantity or value shall be allowed to participate in the tender process for at least 40 percent of the total quantity. This is subject to a minimum of 20 percent value addition within the State. The provision aims to boost local industrial participation and strengthen regional manufacturing (Department of Industries and Commerce 2022, Government of Tripura).

4.4.3 Industrial Promotion Subsidy:

The Industrial Promotion Subsidy provides 100 percent reimbursement of the net Goods and Services Tax (GST) actually paid by an enterprise (net of input tax credit), subject to specific ceilings. For non-thrust sector enterprises, the maximum annual reimbursement is Rs. 80 lakhs per enterprise. However, for the thrust MSMEs, the ceiling is Rs. 125 lakhs per enterprise, per annum. Furthermore, the cumulative subsidy entitlement for any enterprise over a period of five years shall not exceed 150 percent of the total investment made in plant and machinery (Nanda and Kumar, 2023). This scheme aims to promote industrial growth by reducing the

effective tax burden on eligible MSMEs (Department of Industries and Commerce 2022, Government of Tripura).

4.4.4 Power Charges Subsidy:

Support for power charges is extended to industrial units based on their connected load capacity. Units with a connected load exceeding 20 HP are eligible to receive power at a subsidized rate of Rs. 5 per unit, with no upper ceiling on the total subsidy amount (Annual Report of MSME 2024-25, Government of India). For industrial units with a connected load of up to 20 HP, reimbursement is provided at the rate of 25 percent of the actual power charges paid. However, this reimbursement is subject to an annual ceiling of Rs. 15 lakhs for non-thrust sector enterprises and Rs. 25 lakhs for thrust sector enterprises. This provision is designed to reduce operational costs and encourage energy-intensive industries to establish and expand within the State (Department of Industries and Commerce 2022, Government of Tripura).

4.4.5 Partial Reimbursement of Interest on Term Loans:

To support the financial viability of industrial enterprises, partial reimbursement of interest on term loans is provided. For non-thrust sector enterprises, a reimbursement of 4 percent of the interest paid on term loans is offered, subject to a maximum limit of Rs. 5 lakhs per enterprise per annum. In the case of thrust sector enterprises, the reimbursement rate is 5 percent, with an upper ceiling of Rs. 12 lakhs per enterprise per annum. This incentive is aimed at reducing the cost of capital and encouraging investment in priority and non-priority sectors alike (Department of Industries and Commerce 2022, Government of Tripura).

4.4.6 Reimbursement of Charges/Fees for Obtaining Standard Certification and Technology:

MSMEs are eligible for full reimbursement of fees and charges incurred in obtaining standard certifications and their subsequent renewal across twelve selected areas (Annual Report of MSME 2024-25, Government of India). These certifications

are issued by recognized national or international bodies. Additionally, one-time full reimbursement is granted for fees paid to acquire technical transfer from any accredited national or international organization. This provision aims to encourage quality enhancement and technological advancement within MSMEs, by reducing financial barriers associated with certification and technology acquisition (Department of Industries and Commerce 2022, Government of Tripura).

4.4.7 Exemption from Payment of Earnest Money and Bid Security Deposits:

Local manufacturers are granted a 100 percent exemption from paying earnest money and bid security deposits on tenders issued by State Government agencies for the procurement of goods. Additionally, local service sector entrepreneurs, excluding those involved in works contracts and IT/ITes, who are eligible for the State Capital Investment Subsidy under TIIPIS, 2022, are also entitled to this exemption. This measure is designed to facilitate greater participation of local enterprises in government procurement processes by reducing upfront financial barriers (Department of Industries and Commerce 2022, Government of Tripura).

4.4.8 Employment Cost Subsidy (for Thrust Sector only):

MSMEs in the thrust sector are eligible for a 100 percent reimbursement of expenditures related to contributions made toward the Employees Provident Fund (EPF) and Employees State Insurance Scheme (ESIS). This subsidy applies when the enterprise employs 20 or more individuals who are domiciled within the State. The initiative aims to incentivize local employment and reduce the cost burden associated with statutory employee benefits (Department of Industries and Commerce 2022, Government of Tripura).

4.4.9 Subsidy on Fees Paid for Credit Guarantee Trust Fund for Micro and Small Enterprises (CGTMSE):

MSEs are eligible for 100 percent reimbursement of the one-time guarantee fees and annual service fees paid for CGTMSE coverage on loans granted by banks

or Non-Banking Financial Companies (NBFCs). This subsidy aims to reduce the financial burden on small enterprises seeking credit security and facilitate easier access to institutional financing (Department of Industries and Commerce 2022, Government of Tripura).

4.4.10 Export Promotion Subsidy:

A reimbursement of 10 percent of the value of goods exported to Bangladesh through the Land Custom Stations. The State is provided, with an upper limit of Rs. 50 lakhs per annum. This subsidy applies exclusively to items manufactured within the State, and the exporting enterprise must achieve a minimum of 20 percent value addition within the State. The scheme aims to encourage local manufacturing and boost cross-border trade (Department of Industries and Commerce 2022, Government of Tripura).

4.4.11 Subsidy for Participation in Fairs and Exhibitions:

Enterprises are eligible for a 50 percent reimbursement of expenses incurred for the travel of one person and the transportation of goods when participating in State and National level fairs. This reimbursement is subject to a maximum ceiling of Rs. 1 lakh per participation, with a limit of two participations per year. For participation in international fairs, prior approval from the appropriate authority must be obtained. This subsidy aims to encourage enterprises to promote their products and expand market reach through exposure at various trade events (Department of Industries and Commerce 2022, Government of Tripura).

4.4.12 State Transport Subsidy:

The reimbursement is provided up to 50 percent for the transportation costs of secondary raw materials used by local resource-based industries, as well as raw materials required for manufacturing packaging materials within the State. The subsidy covers transportation expenses from the nearest railway station of the seller to the nearest railway station of the buyer, calculated as per to the Railway Standard Parcel Rate. This measure is intended to reduce logistical costs and support the

competitiveness of local industries (Department of Industries and Commerce 2022, Government of Tripura).

4.4.13 Operational Subsidy to Industrial Units:

The New eligible industrial units that have received fixed capital investment subsidies. Under any State or Central Government scheme will be entitled to receive all operational subsidies. Under this new scheme offered applicable rates, within the prescribed upper ceilings. This is contingent upon the units obtaining an Eligibility Certificate under TIIPIS, 2022 from the concerned District Industries Centre (DIC). The provision aims to ensure streamlined access to multiple subsidies, thereby promoting industrial growth and sustainability (Department of Industries and Commerce 2022, Government of Tripura).

4.4.14 One-Time Additional Subsidy/Incentive:

MSMEs registered under the Udyam portal and possessing ZED Certification from the Ministry of MSME are eligible for a one-time additional subsidy based on their investment in plant and machinery. Enterprises with investments up to Rs. 1 crore may receive a maximum subsidy of Rs. 2 lakhs. Those investments between Rs. 1 crore and Rs. 10 crore are eligible subsidy for up to Rs. 5 lakhs. In addition, enterprises investing above Rs. 10 crore can receive a maximum subsidy of Rs. 10 lakhs. This incentive aims to encourage quality enhancement and modernization among MSMEs (Department of Industries and Commerce 2022, Government of Tripura).

4.4.15 Special Incentives for Industrial Enterprises Operating Beyond Five Years:

Industrial enterprises that continue operations for a period exceeding five years are eligible for additional incentives for a further five years. Initially, an Industrial Promotion Subsidy of 25 percent of the net Goods and Services Tax (GST) actually paid (excluding input tax credit) will be eligible for the scheme. However,

the total subsidy granted since the commissioning of the project must not exceed 150 percent of the investment made in plant and machinery.

In addition, power charges will continue to be subsidized. Units with connected loads above 20 HP will pay Rs. 5 per unit without any upper limit. Units with connected loads up to 20 HP will receive a 25 percent reimbursement of actual power charges. This is subject to an annual ceiling of Rs. 15 lakhs, which increases to Rs. 25 lakhs for thrust sector industries.

Finally, an employment cost subsidy will be provided to MSMEs employing 20 or more persons. It includes a reimbursement of 50 percent of the employer's contribution towards Employees Provident Fund (EPF) and Employees State Insurance (ESI) after five years of operation. These incentives aim to promote long-term industrial growth and job creation (Department of Industries and Commerce 2022, Government of Tripura).

4.5 Ministry of Development of North Eastern Region Schemes:

The Ministry of Development of the North Eastern Region (NER) has launched several schemes designed to support the growth and development of the MSMEs in the north-eastern states of India. These initiatives focus on enhancing the business environment, offering financial assistance, and promoting entrepreneurship within the NER (Naveen, 2025).

The scheme is designed to provide financial support primarily for infrastructure development aimed at enhancing the productivity, sustainability, competitiveness, and growth of MSMEs (Hazarika & Barua, 2024). It addresses common challenges such as technological improvement, skill enhancement, quality assurance, and market access. The initiative includes the creation of common facilities to support manufacturing, testing, packaging, research and development, as well as product and process innovations. It also focuses on training related to natural resources like fruits, spices, agriculture, forestry, sericulture, and bamboo available in the NER. Additionally, the scheme promotes the development of the tourism sector in NER by establishing common services including kitchens, bakeries, laundry

and dry-cleaning facilities, refrigeration and cold storage. It also includes IT infrastructure, potable water supply, display centres for local products, and centres for cultural activities.

The Government of India provides financial assistance covering 90 percent of the project cost for the setting up of new and modernization of existing Mini Technology Centres (MTC).

The maximum project cost considered for this assistance is Rs. 15 crore, with the government's support towards building costs for infrastructure up-gradation capped at Rs. 1 crore within the total permissible assistance. However, financial aid does not cover the cost of land.

Similarly, for the development of new and existing Industrial Estates, the government offers 90 percent financial assistance, with a maximum project cost of Rs. 15 crore for new estates and Rs. 10 crore for existing estates.

In the tourism sector, the government also provides 90 percent financial support for projects with a maximum project cost of Rs. 5 crore, while any remaining project costs must be borne by the respective State Government (Ministry of Development of North Eastern Region, 2023-24).

4.5.1 North East Industrial Development Scheme (NEIDS), 2017:

On 21st March 2018, the Government of India approved the North East Industrial Development Scheme (NEIDS), 2017, with a financial outlay of Rs. 3,000 crore for implementation up to March 2020. Primarily, the scheme targets to the MSMEs with the objective of promoting industrialization and generating employment in the North Eastern States. In addition to broad-based industrial incentives, NEIDS includes specific provisions aimed at enhancing job creation. Notably, industrial units already availing benefits under different Government schemes are also eligible to receive additional incentives under NEIDS. Thereby, that scheme ensures comprehensive and complementary support for eligible enterprises (Ministry of Development of North Eastern Region, 2023-24). Under the Scheme,

following incentives shall be provided to new industrial units set up in the North Eastern States:

4.5.2 Central Capital Investment Incentive for Access to Credit (CCIIAC):

The Central Capital Investment Incentive for Access to Credit (CCIIAC) is a key component of the North East Industrial Development scheme (NEIDS), 2017. It introduced by the Government of India to promote industrialization and economic development in the North Eastern States (Ministry of Development of North Eastern Region, 2023-24). Under this incentive scheme, new industrial units are entitled to receive a capital investment subsidy amounting to 30 percent of the investment in plant and machinery, subject to a maximum limit of Rs. 5 crore per unit. The objective of CCIIAC is to facilitate access to capital and reduce the financial burden on MSMEs, which establishes operations in economically underdeveloped regions. This initiative specifically targets the MSMEs, recognizing its potential to generate employment and stimulate regional economic growth. By offsetting a portion of the initial capital expenditure, the scheme seeks to encourage entrepreneurship, attract private investment, and create a more balanced industrial landscape in the North Eastern Region (Ministry of Development of North Eastern Region, 2023-24).

4.5.3 Central Interest Incentive (CII):

The Central Interest Incentive (CII) is one of the key financial interventions under the North East Industrial Development Scheme (NEIDS), 2017. It designed to enhance the financial viability of new industrial units in the North Eastern States. This incentive provides three percent interest subsidy on working capital credit extended by eligible banks and financial institutions for a period of five years. It commence from the date of the unit's commercial production. The primary objective of the CII is to reduce the cost of borrowing for enterprises, particularly MSMEs, thereby improving their liquidity and operational sustainability. By lowering the interest burden during the crucial initial years of operation, the scheme aims to encourage entrepreneurship and industrial expansion in the region. The CII thus plays a strategic role in fostering a supportive financial environment conducive to

long-term industrial growth in the North Eastern Region (Ministry of Development of North Eastern Region, 2023-24).

4.5.4 The Central Comprehensive Insurance Incentive (CCII):

The scheme is an important component of the North East Industrial Development Scheme (NEIDS), 2017, aimed at mitigating business risks for new industrial units established in the North Eastern States. Under this provision, eligible units are entitled to 100 percent reimbursement of the insurance premium paid for insuring their buildings and plant and machinery for a period of five years from the commencement of commercial production. This incentive is designed to promote risk mitigation practices among MSMEs, which often operate with limited financial stock. By absorbing the cost of industrial insurance, the scheme not only encourages greater adoption of formal risk management measures but also enhances the resilience and sustainability of industrial ventures in the NER (Ministry of Development of North Eastern Region, 2023-24).

4.5.5 The Goods and Services Tax (GST) Reimbursement:

The scheme Goods and Services Tax (GST) Reimbursement component under the North East Industrial Development Scheme (NEIDS), 2017. It is formulated to alleviate the indirect tax burden on new industrial units operating in the North Eastern States. This provision offers reimbursement of the Central Government's share of the Central Goods and Services Tax (CGST). It helps to Integrated Goods and Services Tax (IGST) for duration of five years from the date of commencement of commercial production. The objective of this incentive is to enhance the price competitiveness of products manufactured in the region and to stimulate industrial output by reducing tax-related costs. Particularly beneficial to MSMEs, the GST reimbursement encourages formalization, improves compliance, and supports enterprises in achieving financial sustainability during their formative years (Ministry of Development of North Eastern Region, 2023-24).

4.5.6 Income Tax Reimbursement:

The Income Tax Reimbursement is one of the important components of North East Industrial Development Scheme (NEIDS), 2017. It is aimed at enhancing the post-tax profitability of new industrial units in the NER. Under this incentive, the Central Government reimburses its share of the income tax paid by eligible industrial units for the first five years, including the year in which commercial production begins. This measure is designed to encourage investments by reducing the tax burden during the initial operational phase, thereby improving net earnings and supporting reinvestment into business expansion. The reimbursement scheme particularly benefits MSMEs, which often face significant financial constraints in their early stages. By offering tax relief, this component incentivizes formal operations and compliance, while also promoting industrial growth in the region (Ministry of Development of North Eastern Region, 2023-24).

4.5.7 Transport Incentive:

The Transport Incentive under NEIDS, 2017, addresses the logistical challenges faced by industrial units in the North Eastern States. Which are often characterized by difficult terrain, limited connectivity, and high transportation costs. This incentive covers 20 percent of the transportation costs for finished goods moved by railways, including subsidies already provided by the Indian Railways or its PSUs. It also extends to cover 20 percent of transportation costs for goods moved via Inland Waterways Authority of India. However, it moves up to 33 percent of air freight costs for perishable goods (as classified by IATA) transported from the nearest airport to any destination within India. This component aims to enhance market access, reduce input-output costs, and ensure the competitiveness of goods produced in the region. It is especially valuable for MSMEs that operate on narrow margins and depend on reliable and cost-effective logistics to reach wider markets (Ministry of Development of North Eastern Region, 2023-24).

4.5.8 Employment Incentives:

The Employment Incentive under NEIDS, 2017, is designed to promote job creation and reduce the financial burden of hiring for industrial units in the North Eastern States. Under this provision, the Central Government pays 3.67 percent of the employer's contribution towards the Employees Provident Fund (EPF). However, it provides the 8.33 percent contribution to the Employees Pension Scheme (EPS) as part of the Pradhan Mantri Rojgar Protsahan Yojana (PMRPY). This incentive applies to new employees engaged by eligible units and is valid for a defined period after the commencement of commercial operations. By subsidizing social security contributions, the scheme encourages formal employment generation and helps MSMEs expand their workforce without incurring high recurring costs. It also strengthens the social protection framework for workers, aligning industrial growth with inclusive and equitable development objectives in the region (Ministry of Development of North Eastern Region, 2023-24).

4.5.9 Capacity Building and Technical Assistance (CB and TA) Scheme:

The Ministry of Development of the North Eastern Region primarily aims to enhance the skills of the region's workforce, with a particular focus on the younger generation, to improve their professionalism and productivity. In order to foster effective governance, it is essential to strengthen the administrative skills and knowledge base of state government officials, which should be imparted to the youth of the Northeast.

To meet diverse needs, training programs are organized into different durations. Short-term courses last up to six months, medium-term programs range from six months to one year, and long-term courses extend beyond one year. Financial assistance is available to all eligible candidates, with payment schedules tailored to the duration of the training. For short-term courses, an initial payment of 75 percent is made upon acceptance and execution of the bond, with the remaining 25 percent released after submission of the expenditure statement. For medium and long-term programs, payments are structured as follows: 50 percent as the first

instalment, 40 percent as the second, and the final 10 percent as the third instalment payment (Ministry of Development of North Eastern Region, 2023-24).

4.5.10 Advertising and Publicity by the Ministry of Development of NER:

The project aims to highlight the intrinsic economic, cultural, and social significance of the NER, while also facilitating its integration into the nation's broader development. As part of this initiative, a divisional head within the Ministry may invite eligible universities and institutes to participate in scheme. Internal recommendations should be submitted to the Joint Secretary responsible for the Publicity and Advertising Department, along with considerations, for review by the Publicity and Advertising Committee. The Suo-motu proposals submitted by organizations or research institutions are considered external submissions. The division will assess and structure the proposal before forwarding it to the Advertising and Publicity Commission (Ministry of Development of North Eastern Region, 2023-24).

4.5.11 North East Development Finance Corporation Ltd. (NEDFL) Policy:

This policy allocates funding to address imbalances in working capital, routine capital expenditures, and repayment of high-cost debt, and other corporate sustainability initiatives, such as supporting business operations or brand promotion. The minimum funding amount is Rs. 50 lakh, with the maximum exposure determined by specific exposure guidelines. For NEDFL assisted sections, the institution must demonstrate a minimum of three years of profitable market operation (Ministry of Development of North Eastern Region, 2023-24).

4.5.12 Equipment Finance Policy:

This program is designed to provide financial support to profitable businesses with a strong credit history to facilitate the purchase of specified machinery or equipment. The program is available to MSMEs located in NER, with the maximum support covering up to 70 per cent of the machinery cost, including applicable duties, taxes, transport infrastructure, and installation costs. The minimum aid amount is Rs.

25 lakh, and at least 30 per cent of the cost of the machinery accessories must be accounted for by the purchase of a new machine. To be eligible, the proposed unit must be located in one of the eight North-Eastern states, and the enterprise must have been in operation for at least five years, with a record of profitability in the last three years. Additionally, a solid credit history is required, and the loan proceeds must be used to create fixed assets that will generate revenue for the business. Companies with a robust financial position are also eligible (Ministry of Development of North Eastern Region, 2023-24).

4.5.13 Micro Finance Scheme:

Micro Finance Scheme is a very important policy under NEDFI 2017, scheme and it facilitates finance to micro enterprises in NER. NEDFI offers loans at the Prime Lending Rate (PLR) with an administrative charge of 0.5 percent. Additionally, a processing fee of up to 1 percent of the borrowed amount will be charged. The Micro Financial Institutions (MFI) involved must comply with RBI regulations, and decide the maximum repayment period is five years. To be eligible, an MFI must have been operational for at least three years. Moreover, it also possess a proven track record of reliability, have established systems and procedures in place, and demonstrate strong financial management and a sound accounting system (Ministry of Development of North Eastern Region, 2023-24).

4.5.14 Equity Fund Policy:

The programs are designed to invest in initiatives led by entrepreneurs in the NER, who possess innovative business ideas with significant growth potential and above-average returns on investment. The cost of a single project may range from Rs. 50 lakh to Rs. 300 lakh. Financial assistance will be provided for project financing, including terms typically covering project costs, start-up working capital, and core assets during the commercial operation of the business. Entrepreneurs, whether individuals or groups, must present a robust business model that ensures good returns on investment and demonstrates consistent profitability (Ministry of Development of North Eastern Region, 2023-24).

4.5.15 NEDFi Opportunity Scheme for Small Enterprises (NoSSE):

The North Eastern Development Finance Corporation Ltd. (NEDFi) and NEDFi Opportunity Initiative for Small Enterprises (NoSSE) was launched by the Ministry of Development of the North Eastern Region to support entrepreneurs in the region. The primary objective of NoSSE is to alleviate the financial barriers faced by small businesses in the NER. Under this initiative, the North Eastern Development Finance Corporation Ltd (NEDFi) provides financial assistance in the form of low-interest loans to eligible businesses. The NoSSE initiative is designed to offer long-term financial support for the establishment of new industrial ventures and development projects. Additionally, existing industrial enterprises will benefit from the assistance, which covers activities such as expansion, modernization, and scaling up. However, the real estate sector is excluded from eligibility for support under this scheme (Ministry of Development of North Eastern Region, 2023-24).

4.5.16 North East Entrepreneurs Development (NEED):

The program was designed to support first-generation entrepreneurs who face financial constraints. It targets new Micro and Small Enterprises (MSEs) as well as the expansion and development of existing units. Promoters are required to have technical education in the relevant field. In exceptional cases, a term loan of up to 75 percent of the project cost may be provided, in place of a single cycle of working capital. The promoter is expected to invest a minimum of 25 percent of the project's total cost (Ministry of Development of North Eastern Region, 2023-24).

4.5.17 Working Capital Term Loan (WCTL):

The scheme aims to provide eligible units with a one-time primary working capital loan, offering up to 75 percent of the company's working capital requirement for one operational cycle. The promoter must contribute at least 25 percent of the expected working capital requirement for that cycle. The proposed unit for which funding is requested must be located in one of the eight North-Eastern states. To be eligible, the infusion of new capital should create significant opportunities to increase the utilization rate, and there must be a viable market for the product or

service. Additionally, the unit must be managed by qualified individuals with a proven track record of success (Ministry of Development of North Eastern Region, 2023-24).

4.5.18 North-East Handloom Handicrafts (NEHH):

In the North-Eastern Region of India, handicrafts and handlooms play a vital role in the lives of the indigenous people. These crafted items and intricate weaves serve as a significant source of income for many artisans across the region. To ensure the survival and growth of these invaluable ancient skills, it is essential to preserve and promote them. Supporting handloom and handicraft enterprises will help create a foundation for long-term wealth generation by empowering local artisans.

Under the initiative, the maximum project funding will be Rs. 25 lakh, with a term loan covering up to 75 percent of the project or investment cost. Promoters are required to contribute a minimum of 25 percent of the total project cost. The interest rate on the loan will be 8 percent, with a repayment period ranging from 3 to 7 years, including principal repayment within a duration specified by the authority (Ministry of Development of North Eastern Region, 2023-24).

4.5.19 Rupee Term Loan (RTL) Policy:

The Rupee Term Loan (RTL) policy is overseen by the North Eastern Development Finance Corporation Ltd. (NEDFi). The primary objective of that policy is to provide financial support to service and manufacturing units in the North-Eastern Region (NER) of India. The scheme is designed to offer medium to long-term financing from NEDFi to stimulate and support production growth in the MSME sectors in NER. NEDFi, a public limited company established under Section 4-A of the Companies Act, 1956, facilitates various financial initiatives for the MSME sector through Microfinance Institutions (MFIs) or Non-Governmental Organizations (NGOs). Furthermore, the RTL initiative is part of Project Finance, aimed at providing financial assistance to industries in the North-Eastern states. Moreover, it also provides support to the establishment of SMEs, improve financial

performance, foster technological advancements, and enhance infrastructure (Ministry of Development of North Eastern Region, 2023-24).

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CHAPTER 5:
DATA ANALYSIS AND INTERPRETATION

5.1 Introduction:

This chapter presents the analysis of primary data collected through field work with reference to the role of MSMEs in the economic development of Tripura. This chapter also includes the analysis of secondary data, collected from the Udyog Aadhaar Memorandum (UAM) and Directorate of Economic and Statistics report 2022-23. To analyze the contribution of MSMEs in economic development in Tripura, objective wise five key dimensions have been identified: progress and pattern of MSMEs (Objective 1), capital investment pattern of MSMEs (objective 2), growth rate of employment generation (objective 3), production of goods/services (objective 4) and MSMEs contribution to Gross State Domestic Product (GSDP) in Tripura (objective 5). In order to analyze these dimensions, various statistical methods have been utilized, including correlation tests, one-way ANOVA, t-tests, percentage analysis, trend line analysis and hypothesis testing. This chapter also highlights an examination of the demographic profile of entrepreneurs. The analysis begins with the categorization of MSMEs selected for the study to provide a clear understanding of the MSME structure in Tripura.

5.1.1 Analysis of Selected MSMEs for Study:

The table 5.1 below indicates the selected MSMEs in Tripura for the sample study. According to the revised MSME definition in India, MSMEs are categorized based on investment and turnover criteria. The collected data of MSMEs in Tripura are divided into two categories: micro and small enterprises. Consequently, the sample size for this study was drawn from a total of 362 MSMEs, consisting of 342 micro enterprises (94.48 percent) and 20 small enterprises (5.52 percent).

Table 5.1:**Categorization of Selected MSMEs for study**

Units	Micro	Small	Total
Total	342	20	362
Percentage	94.48	5.52	100

Source: Analysis of primary data.

5.1.2 District wise Selected MSMEs for Study:

Table 5.2 below provides a summary of the district-wise categorization of MSMEs in Tripura for the sample study. The sample size for this study was selected proportionately based on the number of MSMEs present in each district. Among all the districts, West Tripura has the highest concentration of MSMEs, therefore data collected from west Tripura district is 100 enterprises, accounting for (27.62 percent) of the total sample. North Tripura ranks second, with 62 enterprises, (17.13 percent) of the sample. South Tripura follows in third place with 46 enterprises, representing (12.71 percent) of the sample. In contrast, the districts of Unokoti and Dhalai have less numbers of MSMEs, with 28 enterprises (7.73 percent) and 24 enterprises (6.63 percent) respectively.

Table 5.2:**District wise selected MSMEs for Study**

District name	Dhalai	Gomati	Khowai	North Tripura	Sipahijala	South Tripura	Unokoti	West Tripura	Total
Total	24	38	31	62	33	46	28	100	362
Percentage	6.63	10.50	8.56	17.13	9.12	12.71	7.73	27.62	100

Source: Analysis of primary data.

5.1.3 Product/Service Produced by Selected MSMEs for Study:

The table 5.3 below reveals the distribution of Product/Service produced by selected MSMEs in Tripura and it has distributed into five main categories: Agro, Forest, Textile, Engineering, Animal Husbandry and other services. Among these, forest-based products contributed the highest percentage, comprise 121 enterprises, accounting for (33.43 percent) of the total sample. The second-largest contributor is the agro-based product, comprise 76 enterprises (20.99 percent). Textile-based products follow in third place, comprising 59 enterprises (16.3 percent). In contrast, the Engineering and Animal Husbandry sectors contribute relatively less, with 45 enterprises (12.43 percent) and 27 enterprises (7.46 percent) respectively. In addition, service based includes 34 service enterprises (9.39 percent) MSMEs in the sample.

Table 5.3:

Product/Service produced by Selected MSMEs for Study

Product/ Service	Agro Based	Forest Based	Textile Based	Engineeri ng Based	Animal Husbandry	Servic e Based	Total
Total	76	121	59	45	27	34	362
Percenta ge	20.99	33.43	16.30	12.43	7.46	9.39	100

Source: Analysis of primary data.

5.2 Analysis of Demographic Profile of the Entrepreneurs:

The demographic profile of the study indicated that selected MSMEs entrepreneurs in Tripura. It shows predominantly characterized by sole proprietors, with a growing interest in partnerships and a minor contribution from private limited companies. In contrast, cooperative societies, public enterprises, and other ownership forms remain relatively insignificant.

5.2.1 Forms of Ownership of the Selected Enterprises:

The table 5.4 below reveals the distribution of ownership forms among selected enterprises. The data shows that a significant proportion of MSMEs are owned by sole proprietors, accounting for 166 entrepreneurs (45.86 percent). The next largest group comprises businesses run under partnerships, with 99 entrepreneurs (27.35 percent) and 72 entrepreneurs (19.89 percent) own by the private limited company, while a smaller proportion, 25 entrepreneurs (6.91 percent), operate under cooperative societies.

Table 5.4:
Forms of Ownership of the Selected Enterprises

Forms of Ownership	Sole Proprietorship	Partnership	Cooperative Society	Private Ltd.	Public Ltd.	Others	Total
Total	166	99	25	72	0	0	362
Percentage	45.86	27.35	6.91	19.89	-	-	100

Source: Analysis of primary data.

5.2.2 Gender wise Analysis of Selected Sole Proprietors:

The table 5.5 data represents the gender distribution of selected MSMEs owned by the sole proprietors. Among 166 individuals, 117 (70.48 percent) are male, while 49 (29.52 percent) are female. It indicates a significant male predominance in the sample. The female representation is considerably lower.

Table 5.5:
Gender wise of Selected Sole Proprietors

Gender	Male	Female	Total
Total	117	49	166
Percentage	70.48	29.52	100

Source: Analysis of primary data.

5.2.3 Marital status of Selected Sole Proprietors:

The table 5.6 below summarizes the marital status of selected sole proprietors in various MSMEs in Tripura. The data shows that out of 166 sole proprietors, 91 male (54.82 percent) are married, while 26 male (15.86 percent) are unmarried. In contrast, of the 49 female entrepreneurs, 38 female (22.89 percent) are married, and 11 female (6.62 percent) are unmarried.

Table 5.6:

Marital status of Selected Sole Proprietors

Male		Female		Total
Married	Unmarried	Married	Unmarried	
91	26	38	11	166
54.82	15.67	22.89	6.62	100

Source: Analysis of primary data.

5.2.4 Age Group of Selected Sole Proprietors:

The table 5.7 below shows the distribution of selected sole proprietors across different age groups. The data reveals that the majority of entrepreneurs fall into the age group above 45 years, with 105 members (63.25 percent), making it the largest group among all age categories. The second-largest contribution comes from the 36-45 age group, with 40 members (24.09 percent), followed by the 26-35 age group, which includes 15 members (9.03 percent). Furthermore, the below-25 age group has the negligible representation, with only 6 members (3.61 percent) in this age group category.

Table: 5.7

Age Group of Selected Sole Proprietors:

Age group	Below 25 years	26-35	36-45	Above 45 years	Total
Total	6	15	40	105	166
Percentage	3.61	9.03	24.09	63.25	100

Source: Analysis of primary data.

5.2.5 Social Status of Selected Sole Proprietors:

The table 5.8 below presents the social status of selected sole proprietors. The data reveals that, among all social categories, the general category contributes the highest share, with 88 members (53.01 percent). The second-largest group is the OBC category, which includes 38 members (22.89 percent). The SC category follows with 25 entrepreneurs (15.06 percent), while the ST category represents the smallest group, with 15 entrepreneurs (9.03 percent) in this social status category.

Table 5.8:

Social Status of Selected Sole Proprietors

Social Status	General	SC	ST	OBC	Total
Total	88	25	15	38	166
Percentage	53.01	15.06	9.03	22.89	100

Source: Analysis of primary data.

5.2.6 Educational Qualification of Selected Sole Proprietors:

The table 5.9 below presents the educational qualifications of selected sole proprietors. The data shows that the majority of sole proprietors have completed a post-graduate degree, with 75 individuals (45.18 percent). A significant portion has completed a graduate degree, accounting for 52 members (31.32 percent), while 38 entrepreneurs (22.89 percent) have completed a diploma. Furthermore, only one individual has completed the 12th grade (0.6 percent), and there is no sole proprietor

in the 10th-grade category, indicating that most entrepreneurs have attained higher or technical qualifications.

Table: 5.9

Educational Qualification of Selected Sole Proprietors:

Education Qualification	10th Pass	12th Pass	Diploma	Graduation	Post Graduation	Total
Total	0	1	38	52	75	166
Percentage	0	0.6	22.89	31.32	45.18	100

Source: Analysis of primary data.

5.3 Analysis for Objective 1 “To Analyze Progress and Pattern of MSMEs in Tripura”:

The table 5.10 data reveals the analysis of progress and patterns in the number of MSMEs, employment, and investment category over the period of 2010-11 to 2022-23. According to the Udyog Aadhaar Memorandum (UAM) 2022-23, there are currently 33,274 registered MSMEs operating in Tripura. These units employed a total of 341,620 individuals and have attracted an investment of Rs. 201,230.2 lakh.

The data on MSMEs in Tripura reveals significant growth in study period, despite some years of decline across three key dimensions: the number of MSMEs, employment, and investment. The number of MSMEs shows a clear upward trend over the years, increasing from 218 enterprises in 2010-11 to 16,604 enterprises in 2022-23. Notably, the most substantial growth occurred between 2015-16 and 2016-17, where the number of units increased by over 253.49 percent, signalling a period of expansion likely fuelled by favourable policies or market opportunities. However, there was a negative decline in 2012-13 (-26.83 percent) and 2017-18 (-46.53 percent) respectively, which could be attributed to economic challenges or regulatory changes that temporarily hindered growth.

However, the Employment figures in MSMEs also demonstrated a steady increase, rising from 4,315 employees in 2010-11 to 178,917 employees in 2022-23. With the most significant rise observed between 2021-22 and 2022-23, marking a 562.97 percent increase. It highlights the MSMEs can play an important role in creating jobs and contributing to economic development. Although some periods records decline, such as in 2017-18 (-34.62 percent), suggests that employment growth was sometimes impacted by external factors.

In Investment figures, displays significant volatility, with sharp increases in years such as 2015-16 (80.13 percent) and 2016-17 (110.71 percent) followed by declines in 2013-14 and 2017-18 (-56.43 percent) and (-36.88 percent) respectively.

Overall, the data reveals a significant upward trend in the number of MSMEs, employment, and investment over the years. While the number of MSMEs generally followed a growth trajectory, there were some years of decline, which reflect both the growth and occasional challenges within the MSMEs. Employment figures, although exhibiting considerable variation, demonstrated an overall upward trend throughout the years, despite some years of decline. However, in investment figures indicates the most increasing trend despite some years of decline which displayed significant year-on-year change.

Table 5.10:

Progress and Pattern of MSMEs in Tripura

Years	No. of MSMEs	Percentages of MSMEs	Employment (in numbers)	Percentages of Employment	Investment (Rs. in lakh)	Percentages of Investment
2010-11	218	-	4315	-	3393.25	-
2011-12	205	-5.96	2744	-36.41	5556	63.74
2012-13	150	-26.83	1952	-28.86	6422	15.59
2013-14	173	15.33	2053	5.17	2798.31	-56.43
2014-15	172	-0.58	2234	8.82	5015.36	79.23
2015-16	608	253.49	4623	106.94	9034.1	80.13
2016-17	1311	115.63	8680	87.76	19036	110.71
2017-18	701	-46.53	5675	-34.62	12016	-36.88
2018-19	1552	121.40	7577	33.52	13663	13.71

2019-20	1491	-3.93	8893	17.37	22720	66.29
2020-21	1692	13.48	14936	67.95	23541	3.61
2021-22	8397	396.28	99021	562.97	31559.41	34.06
2022-23	16604	97.74	178917	80.69	46475.73	47.26
Total	33274	-	341620	-	201230.2	-

Source: Udyog Aadhaar Memorandum (UAM) 2022-23, Government of Tripura.

The table 5.11 data below shows the use of correlation methods across three dimensions: the number of MSMEs, employment, and investment, spanning the financial years from 2010-11 to 2022-23. The high positive correlation of 0.99674 indicates a strong association between the increase in the number of MSMEs and the proportional rise in employment. Additionally, a high positive correlation of 0.89478 between the number of MSMEs and investment suggests a significant relationship, whereby an increase in the number of MSMEs is strongly linked to an increase in MSME investment. This correlation highlights that a higher number of MSMEs correlates with greater investment. Furthermore, a positive correlation of 0.874 between employment and investment in MSMEs indicates that as investment in MSMEs rises, employment also increases proportionally.

Table 5.11:

Correlation Test

Parameters	No. of MSMEs	Employment	Investment (in lakh)
No. of MSMEs	1		
Employment	0.99674	1	
Investment (in lakh)	0.89478	0.874	1

Source: Calculated of Correlation using Udyog Aadhaar Memorandum (UAM) data 2022-23, Government of Tripura.

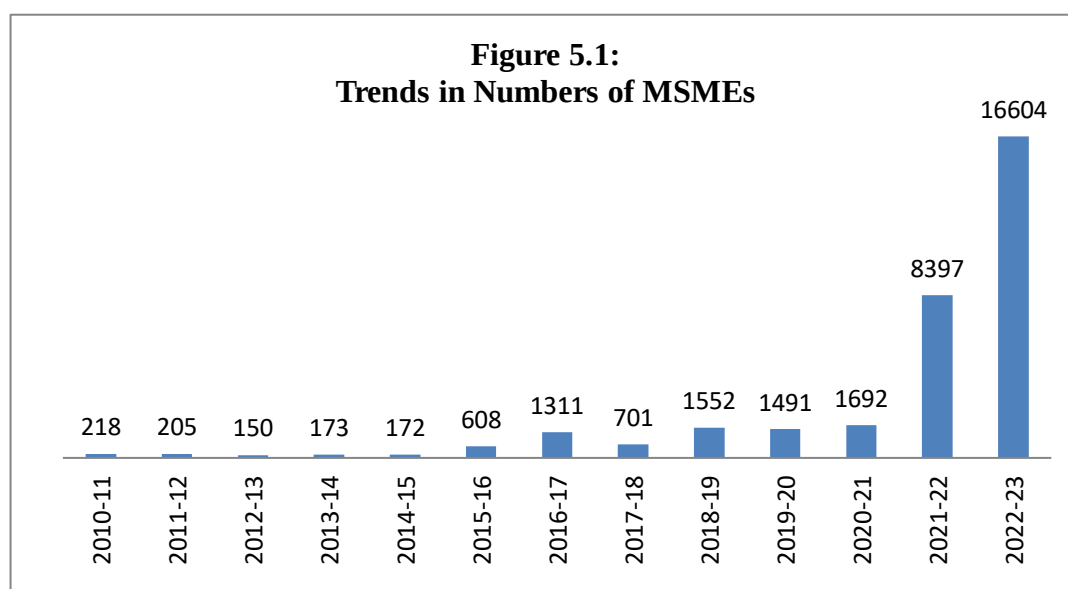
5.3.1 Trends of Progress and Pattern of MSMEs:

The trend line figure reveals the trends of progress and patterns in the number of MSMEs, employment, and investment in Tripura. It demonstrates the significant growth in the number of units, employment, and investment during the study period.

Nevertheless, the data also highlights some periods of decline which may indicate challenges encountered by the MSMEs during those years. Despite these, the overall long-term trend shows a robust upward trajectory for MSMEs in Tripura.

5.3.2 Trends of Numbers of MSMEs:

The figure 5.1 below shows the trends in MSMEs from 2010-11 to 2022-23, with the base year set as FY 2010-11, during which 218 MSMEs were registered. The data reveals a substantial increase in the number of MSMEs over the years, despite some periods of decline. Notably, in the years 2021-22 and 2022-23, the number of registered MSMEs rose significantly. However, the overall trend line shows a robust upward trajectory for MSMEs in Tripura.

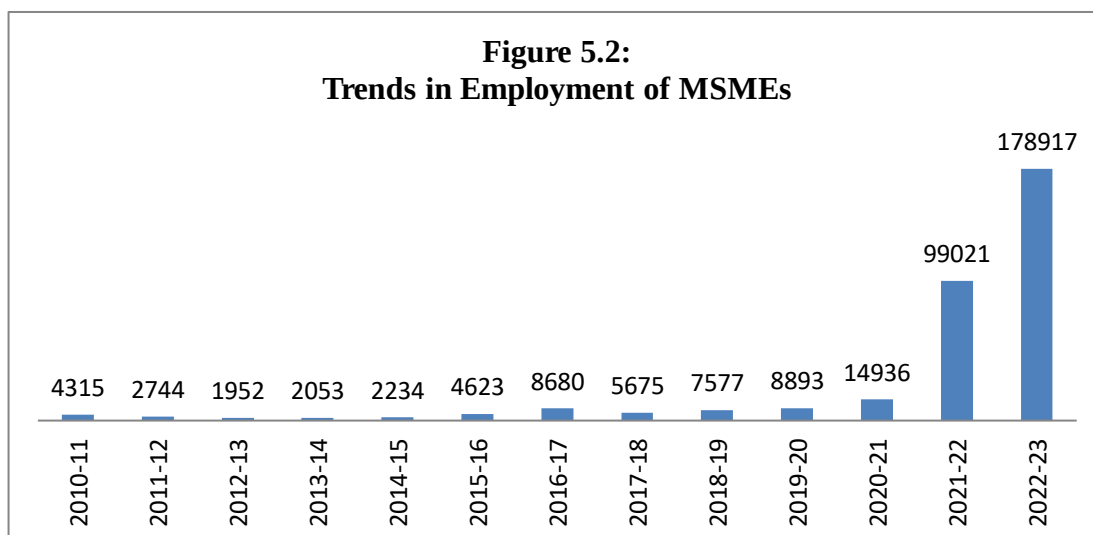


Source: Trend analysis using secondary data.

5.3.3: Trends in Employment of MSMEs:

The figure 5.2 below reveals the employment trend from FY 2010-11 to FY 2022-23. The base year is selected FY 2010-11, during which 4,315 jobs were generated. The data indicates overall upward trends in employment generation across the years. Notably, in FY 2021-22 and FY 2022-23, there was a significant increase in employment, with 99,021 and 178,917 jobs created respectively. In overall, trend

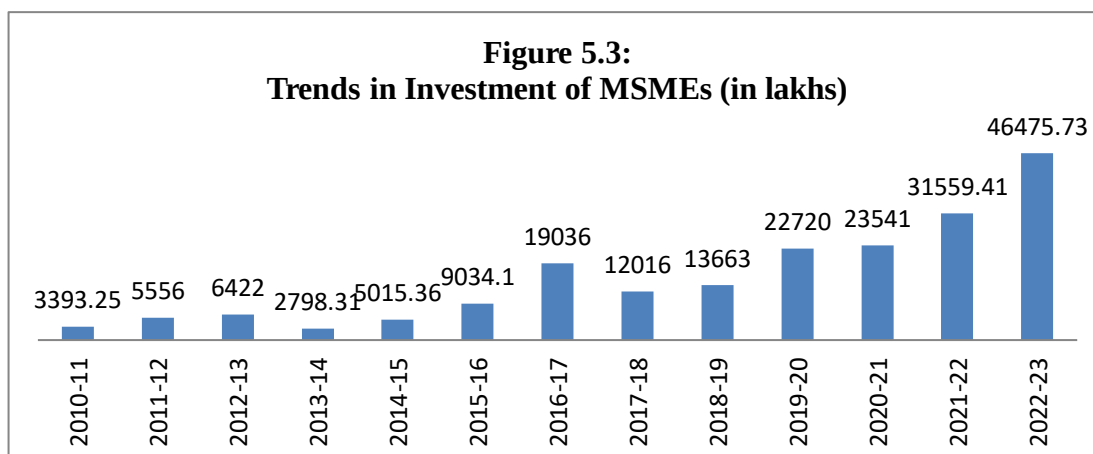
line of employment shows upward trajectory, despite some years of decline by the employment in Tripura.



Source: Trend analysis using secondary data.

5.3.4 Trends in Investment of MSMEs:

The figure 5.3 below indicates the investment trend from FY 2010-11 to FY 2022-23. The base year is selected FY 2010-11, during which the investment amount was Rs. 3,393.25 lakh. The trend line demonstrates overall upward trends despite some years of decline in investment over the years. Notably, from FY 2020-21 onward, there has been a consistent upward trajectory of investment in MSMEs.



Source: Trend analysis using secondary data.

5.4 Analysis for Objective 2 “To Study the Capital and Investment Pattern of MSMEs in Tripura and its Growth Rate”:

The analysis of capital and investment plays a crucial role in the growth and development of MSMEs. However, the analysis of capital and investment divides into two major categories, such as owned capital and borrowed capital. In addition, borrowed capital divides two more important aspect i.e. institutional and non-institutional categories. Furthermore, this institutional and non-institutional includes total liability. The aim is to analyze the capital and investment of MSMEs, to find out the growth rate of sources of MSMEs capital structure in Tripura.

5.4.1 Capital Sources of MSMEs over a period of 10 years:

Table 5.12 below data denotes the capital sources for MSMEs in terms of owned capital, borrowed capital and total liability, spanning from 2010-11 to 2019-20. Owned capital consistently increased from Rs. 730 lakh in 2010-11 to Rs. 5720 lakh in 2019-20, reflecting significant growth in the financial position of MSMEs. The percentage of owned capital relative to total assets peaked at 53.3 percent in 2012-13 but gradually decreased to 8.91 percent by 2019-20. However, total liability includes the contribution of institutional and non-institutional performance. The total liability shows an upward trend, rising from Rs. 466 lakh to Rs. 3520 lakh over the study period. The percentage of total liability varied, with a high of 66.95 percent in 2011-12 and a negative value of -1.02 percent in 2018-19, before stabilizing at 21.3 percent in 2019-20, indicating some years of decline in the relative debt burden of MSMEs.

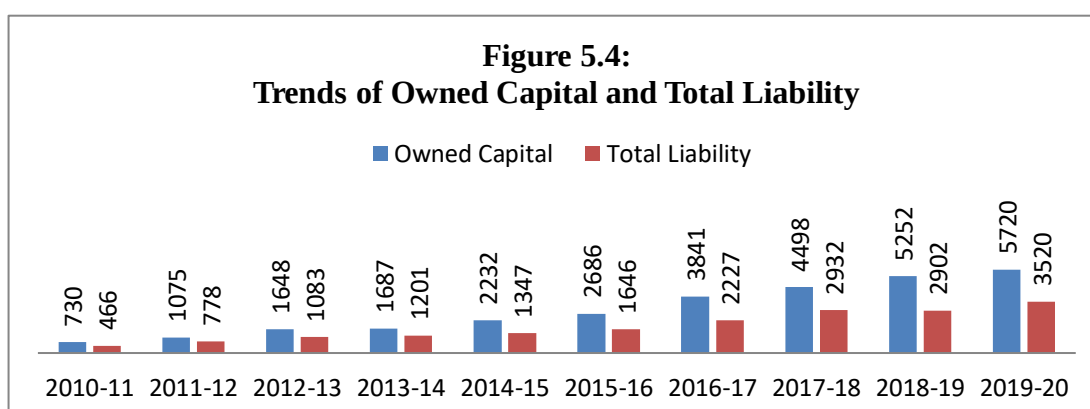
Table 5.12:**Capital Sources of MSMEs (Rs. In lakh)**

Years	Owned Capital	Borrowed Capital		Total Liability	Percentages of Owned Capital	Percentages of Total Liability
		Institutional	Non-Institutional			
2010-11	730	230	236	466	-	-
2011-12	1075	388	390	778	47.26	66.95
2012-13	1648	501	582	1083	53.3	39.2
2013-14	1687	581	620	1201	2.37	10.9
2014-15	2232	665	682	1347	32.31	12.16
2015-16	2686	792	854	1646	20.34	22.2
2016-17	3841	1161	1066	2227	43	35.3
2017-18	4498	1552	1380	2932	17.1	31.66
2018-19	5252	1545	1357	2902	16.76	-1.02
2019-20	5720	1755	1765	3520	8.91	21.3

Source: Analysis of primary data.

5.4.2 Trends of Owned Capital and Total Liability:

The figure 5.4 below shows that the trends line of owned Capital and total Liability from 2010-11 to 2019-20. From the trends line it can be analyzed that the growth rate of owned capital and total liability data have increased over the years. This growing trend suggests an increase in the financial resources available to MSMEs, with a higher reliance on both owned capital and borrowed capital to support MSMEs operations and expansion.



Source: Trend analysis using primary data.

H₀: There is no significant difference of percentages growth rate of Capital sources for Owned Capital and Total Liability.

H₁: There is a significant difference in the percentage growth rate of Capital sources for Owned Capital and Total Liability.

Table 5.13 below indicates t-test for two samples assuming equal variances. The test was conducted to determine whether there are statistically significant differences between owned capital and total liability. The results revealed that the p-value for the one-tailed test was 0.05009, and for the two-tailed test, it was 0.1001. Since both p-values exceed the 0.05 significance level, we fail to reject the null hypothesis in both tests. This suggests that there is no statistically significant difference between the mean of owned capital and the mean of total liability.

Table 5.13:

T-test

Parameters	Owned Capital	Total Liability
Mean	2936.9	1810.2
Variance	3164465.656	1062374.622
Observations	10	10
Pooled Variance	2113420.139	-
Hypothesized Mean Difference	0	-
Df	18	-
t statistics	1.733007235	-
P(T<=t) one-tail	0.050095871	-
t Critical one-tail	1.734063592	-
P(T<=t) two-tail	0.100191742	-
t Critical two-tail	2.100922037	-

Source: Calculated of t-test using primary data.

5.4.3 Sources of Borrowed Capital of MSMEs over a period of 10 years:

The sources of borrowed capital are primarily divided into two categories: institutional and non-institutional borrowed capital, spanning from FY 2010-11 to

FY 2019-20. Institutional borrowed capital is further sub-divided into three categories: public banks, private banks, and co-operative banks. In contrast, non-institutional borrowed capital is divided into three categories: family/friends, money lenders, and leases.

5.4.4 Sources of Institutional Borrowed Capital:

The table 5.14 below presents the year-wise sources of institutional borrowed capital in MSMEs from 2010-11 to 2019-20. Additionally, the sources of institutional borrowed capital are broadly categorized into three segments: public banks, private banks, and cooperative banks. The data reveals a significant increase in borrowing from all three sources over the years. Among all institutional sources, public banks show the highest growth. Public bank borrowings rose from Rs. 92 lakh in 2010-11 to Rs. 685 lakh in 2019-20. While private bank borrowings increased from Rs. 67 lakh to Rs. 425 lakh, whereas, cooperative bank borrowings increased Rs. 71 lakh to Rs. 645 lakh, respectively for the study period. The overall percentage growth shows upward, with notable surges in 2016-17 and 2017-18. However, 2018-19 recorded a decline in private bank borrowing. From the overall data it can be analyzed that sources of institutional borrowing capital has increased particularly from public and cooperative banks in MSMEs.

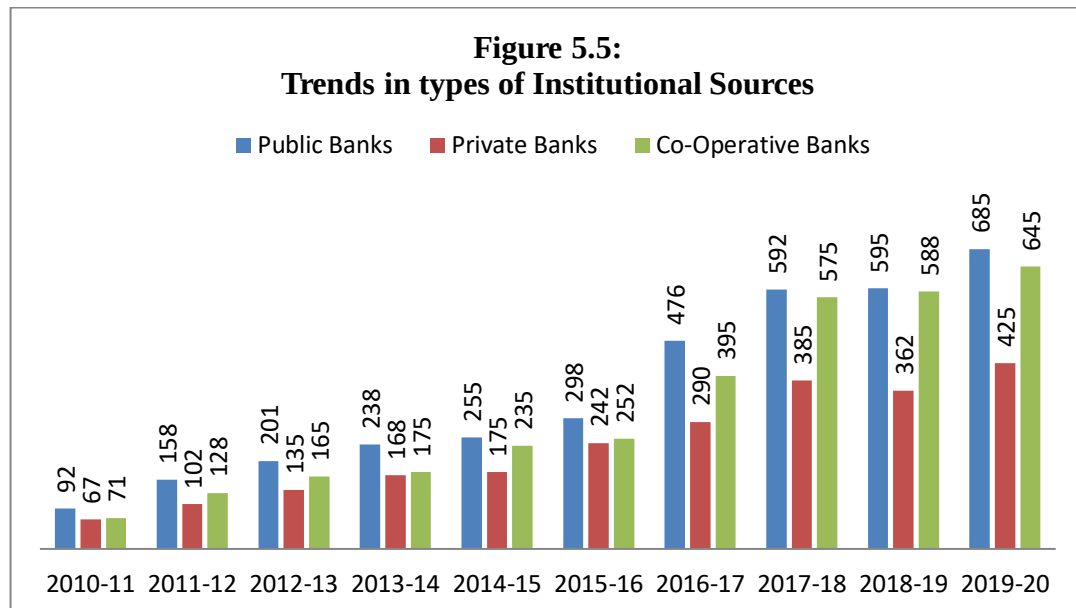
Table 5.14:**Year wise and Percentages of Institutional Sources of Borrowed Capital**

Year	Sources of Institutional (Rs. in lakh)					
	Public Banks	Private Banks	Co-Operative Banks	Percentages of Public Banks	Percentages of Private Banks	Percentages of Co-Operative Banks
2010-11	92	67	71	-	-	-
2011-12	158	102	128	71.74	52.24	80.28
2012-13	201	135	165	27.22	32.35	28.91
2013-14	238	168	175	18.41	24.44	6.06
2014-15	255	175	235	7.14	4.17	34.29
2015-16	298	242	252	16.86	38.29	7.23
2016-17	476	290	395	59.73	19.83	56.75
2017-18	592	385	575	24.37	32.76	45.57
2018-19	595	362	588	0.51	-5.97	2.26
2019-20	685	425	645	15.13	17.4	9.69

Source: Analysis of primary data.

5.4.5 Trends in types of Institutional Sources:

The figure 5.5 below indicates the trends in different types of institutional sources, including public banks, private banks, and cooperative banks, from 2010-11 to 2019-20. From the trends line it can be analyzed that a consistent increase in borrowing from all three sources over the years, while the percentage shares of these banks decline across different periods.



Source: Trend analysis using primary data.

H_0 : There is no significant difference in the growth rate of Institutional sources for Public, Private and Co-Operative banks.

H_1 : There is a significant difference in the growth rate of Institutional sources for Public, Private and Co-Operative banks.

Table 5.15 data shows one-way ANOVA was conducted to determine whether there were any statistically significant differences between the percentage growth rates of institutional sources, including public, private, and cooperative banks. The test was used to assess the null hypothesis, which states that no significant differences exist among these growth rates. The ANOVA results indicate that the calculated F-value is lower than the critical F-value, leading to the acceptance of the null hypothesis. Therefore, it can be concluded that there is no statistically significant difference in the growth rates of institutional sources among public, private, and cooperative banks.

Table 5.15:

ANOVA test

Source of Variation	SS	DF	MS	F	P-value	F critical
Between Groups	171.6573	2	85.82863	0.161269	0.851978	3.402826
Within Groups	12772.98	24	532.2074	-	-	-
Total	12944.64	26	-	-	-	-

Source: Calculated of ANOVA test using primary data.

5.4.6 Sources of Non-Institutional Borrowed Capital:

The table 5.16 presents the year-wise data in non-institutional sources of borrowed capital for MSMEs from 2010-11 to 2019-20, categorized into family/friends, money lenders, and lease. The data indicates a significant rise in borrowing from all three sources over the years. The non-institutional borrowed capital from family/friends and money lenders remains the primary sources of credit. Borrowing from family/friends increased from Rs. 72 lakh in 2010-11 to Rs. 615 lakh in 2019-20, while lending from money lenders rose from Rs. 85 lakh to Rs. 585 lakh during the same period. Lease-based credit also showed substantial growth, reaching from Rs. 79 lakh to Rs. 565 lakh in 2019-20. The overall percentage growth rates increased, with notable peaks in 2011-12, 2015-16, and 2017-18. However, 2018-19 saw a decline in lender and lease-based borrowing. From the overall data it can be analyzed that all the non-institutional sources shows growing reliance on credit fund for MSMEs.

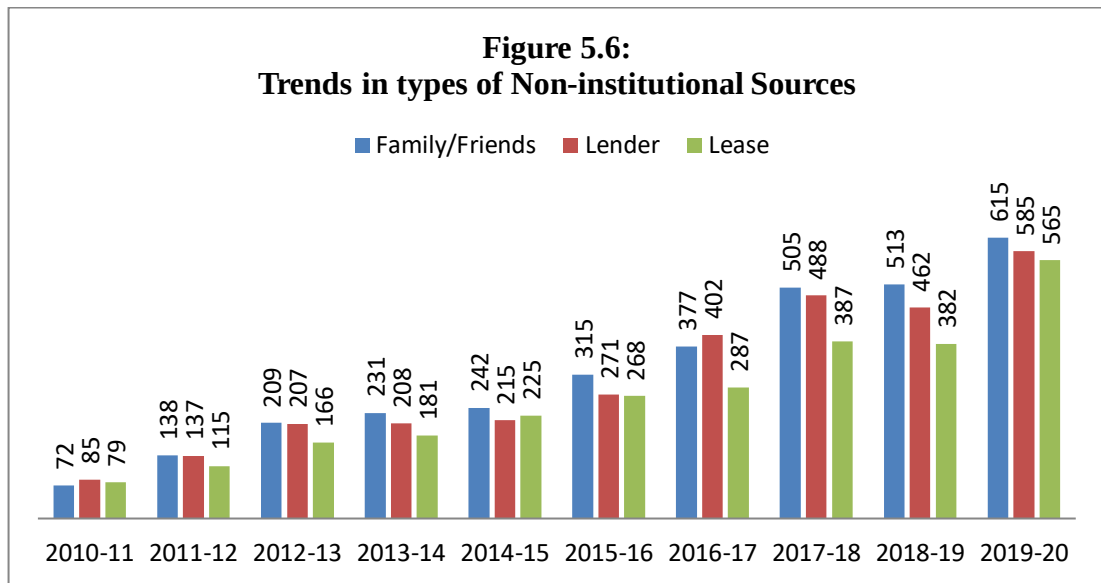
Table 5.16:**Year wise and Percentages of Non- Institutional Sources of Capital**

Year	Sources of Non- Institutional (Rs. in Lakh)					
	Family /Friends	Lender	Lease	Percentages of Family/Friends	Percentages of Lender	Percentages of Lease
2010-11	72	85	79	-	-	-
2011-12	138	137	115	91.67	61.18	45.57
2012-13	209	207	166	51.45	51.09	44.35
2013-14	231	208	181	10.53	0.48	9.04
2014-15	242	215	225	4.76	3.37	24.31
2015-16	315	271	268	30.17	26.05	19.11
2016-17	377	402	287	19.68	48.34	7.09
2017-18	505	488	387	33.95	21.39	34.84
2018-19	513	462	382	1.58	-5.33	-1.29
2019-20	615	585	565	19.88	26.62	47.91

Source: Analysis of primary data.

5.4.7 Trends in types of Non- Institutional Sources:

The figure 5.6 below shows the trends in different types of non-institutional sources, including family/friends, lenders, and lease, from 2010-11 to 2019-20. From the trends line it can be analyzed that a steady increase in borrowing from all three sources across study periods.



Source: Trend analysis using primary data.

H_0 : There is no significant difference in growth rate of Non-Institutional sources for family/friends, lender and lease.

H_1 : There is a significant difference in growth rate of Non-Institutional sources for family/friends, lender and lease.

The table 5.17 interprets one-way ANOVA was conducted to determine whether there were any statistically significant differences between the percentage growth rates of non-institutional sources, including family/friends, lenders, and lease. The test was performed to assess the null hypothesis. The ANOVA results indicate that the calculated F-value is lower than the critical F-value, leading to the failure to reject the null hypothesis. Therefore, it can be concluded that there is no statistically significant difference in the growth rates of non-institutional sources among family/friends, lenders, and lease.

Table 5.17:

ANOVA test

Source of Variation	SS	DF	MS	F	P-value	F critical
Between Groups	74.2979 9	2	37.1489 9	0.06576 4	0.93652	3.40282 6
Within Groups	13557.1 2	24	564.879 9	-	-	-
Total	13631.4 1	26	-	-	-	-

Source: Calculated of ANOVA test using primary data.

5.4.8 Investment Sources of MSMEs over a period of 10 years:

The table 5.18 data presents the fixed and current assets from 2010-11 to 2019-20. As per the fixed assets shows a consistent growth, with a notable increase in 2012-13, reaching a peak of Rs. 6288 lakh in 2019-20. The percentage of fixed assets increased, peaking at 53.79 percent in 2012-13, and remained relatively stable thereafter, despite some years of decline. While, current assets also grew, it starts from Rs. 398 lakh in 2010-11 and reaches Rs. 2952 in 2019-20. The percentage of current assets exhibits greater volatility, peaking at 80.65 percent in 2011-12. However, it experienced a sharp decline in 2018-19, turning negative at -5.08 percent. From the overall data it can be analyzed that while fixed assets and current assets demonstrates steady growth, with some years showing considerable declines.

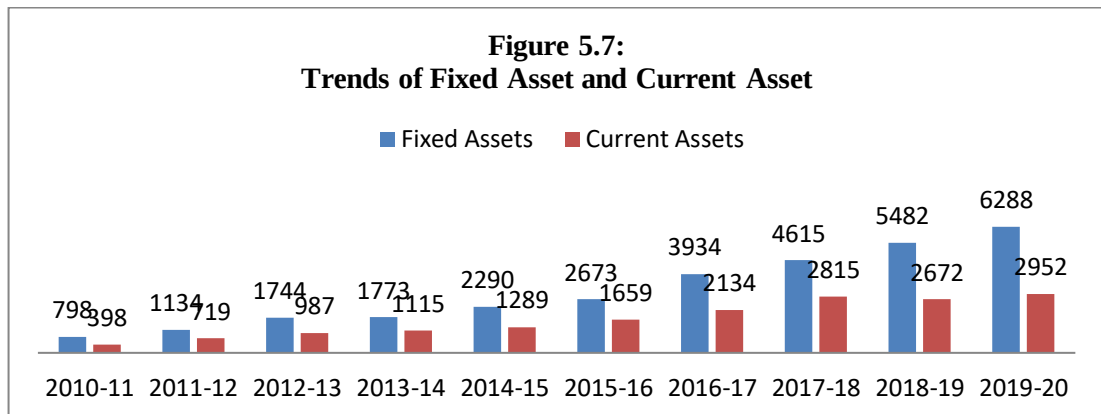
Table 5.18:**Fixed Assets and Current Assets of MSME (Rs. in lakh)**

Years	Fixed Assets	Current Assets	Percentages of Fixed Assets	Percentages of Current Assets
2010-11	798	398	-	-
2011-12	1134	719	42.11	80.65
2012-13	1744	987	53.79	37.27
2013-14	1773	1115	1.66	12.97
2014-15	2290	1289	29.16	15.61
2015-16	2673	1659	16.72	28.7
2016-17	3934	2134	47.18	28.63
2017-18	4615	2815	17.31	31.91
2018-19	5482	2672	18.79	-5.08
2019-20	6288	2952	14.7	10.48

Source: Analysis of primary data.

5.4.9 Trends of Fixed Asset and Current Asset:

Figure 5.7 below interprets the trends in fixed and current assets from FY 2010-11 to FY 2019-20. The graph reveals a consistent increase in both fixed and current asset categories over the study period. It indicates growth and expansion in business operations. This upward trajectory suggests that MSMEs are likely enhancing their capacity and resources, including acquiring more machinery, property, and equipment as part of fixed assets. Simultaneously, the rise in current assets reflects improvements in liquidity and operational efficiency, essential for day-to-day business management. From the overall data it can be analyzed that growth in both fixed and current asset trend line points to a positive financial outlook for MSMEs, demonstrating their capacity for expansion, long-term investments, and effective management of routine operations.



Source: Trend analysis using primary data.

H_0 : There is no significant difference between the growth rate of Capital Investment for fixed assets and current assets.

H_1 : There is a significant difference between the growth rate of Capital Investment for fixed assets and current assets.

The table 5.19 below summarizes the results of the t-test for two samples assuming equal variances, used to examine whether there are statistically significant differences between the percentage growth rates of capital investment in fixed assets and current assets. In the case of a one-tailed test, there is sufficient evidence to conclude that the mean of fixed assets is greater than the mean of current assets. However, the evidence is not strong enough to conclude a significant difference between the means of fixed assets and current assets at the 5 percent significance level. The p-value is close to the threshold; a slightly lower significance level (0.0503) lead to rejecting the null hypothesis. Overall, the analysis suggests a difference between fixed assets and current assets, particularly in the context of the one-tailed test. This finding implies that further studies with a larger sample size or additional data may provide more conclusive evidence

Table 5.19:**T-test**

Parameters	Fixed Assets	Current Assets
Mean	3073.1	1674
Variance	3602585.211	846207.7778
Observations	10	10
Pooled Variance	2224396.494	-
Hypothesized mean difference	0	-
Df	18	-
t Statistics	2.09762407	-
P(T<=t) one-tail	0.025162025	-
t Critical one-tail	1.734063592	-
P(T<=t) two-tail	0.050324049	-
t Critical two-tail	2.100922037	-

Source: Calculated of t-test using primary data.

5.5 Analysis for Objective 3 “To examine the Role of the MSMEs in Generation of Employment and its Growth Rate”:

The MSME sector has played a crucial role in employment generation in Tripura from 2010-11 to 2019-20. One of key advantages of MSMEs are ability to generate employment at a low capital cost. The number of workers employed in MSMEs is significantly higher compared to large businesses, highlighting the MSMEs contribution to social and economic development. MSMEs also serve as a breeding ground for entrepreneurship, driven by individual innovation and creativity.

This data and trend line analyzes the employment growth of selected MSMEs over the years, considering factors such as permanent and temporary employment, gender-specific workforce distribution, job skills, employee region, literacy levels, areas employment and age demographics. Additionally, ANOVA, t-tests, percentage and trend line analysis have been applied to examine the demographic composition of employees.

5.5.1 Permanent Employees over a period of 10 years:

The table 5.20 below presents the gender-wise distribution and growth rate of permanent employees in MSMEs from 2010-11 to 2019-20. The data reveals a steady increase in employment for both male and female workers over the years. The total number of permanent employees grew from 6,098 in 2010-11 to 20,839 in 2019-20. The highest overall growth rate (25.51 percent) was recorded in 2014-15, primarily driven by a significant increase in female employment (52.01 percentages). While male employment consistently increased, with the highest surge in 2014-15 in subsequent years. From the overall data it can be analyzed that employment growth rate remained positive but percentages of growth rate gradually declined over time, indicating stabilization in workforce expansion. This trend underscores MSMEs growing role in employment generation, particularly in enhancing female workforce participation.

Table 5.20:

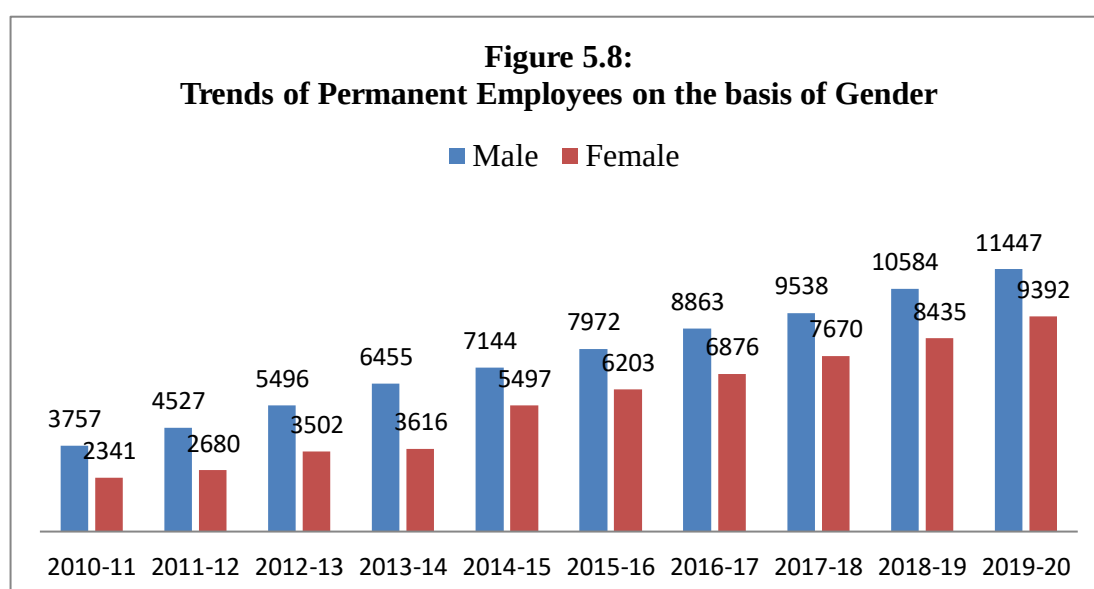
Gender wise and Percentages Growth Rate of Permanent Employees

Year	In absolute numbers			Percentage of growth rate		
	Male	Female	Total	Male	Female	Total
2010-11	3757	2341	6098	-	-	-
2011-12	4527	2680	7207	20.49	14.48	18.18
2012-13	5496	3502	8998	21.40	30.67	24.85
2013-14	6455	3616	10071	17.44	3.25	11.92
2014-15	7144	5497	12641	10.67	52.01	25.51
2015-16	7972	6203	14175	11.59	12.84	12.13
2016-17	8863	6876	15739	11.17	10.85	11.03
2017-18	9538	7670	17208	7.61	11.54	9.33
2018-19	10584	8435	19019	10.96	9.97	10.52
2019-20	11447	9392	20839	8.15	11.34	9.56
Total	75783	56212	131995	-	-	-
Percentage	57.41	42.59	-	-	-	-

Source: Analysis of primary data.

5.5.2 Trends of permanent Employees on the basis of Gender:

The figure 5.8 below shows the trends in permanent employment based on gender from 2010-11 to 2019-20. The gender category is divided into two groups: male and female employees. The data indicates that male employees consistently outnumbered female employees throughout the period. However, both male and female categories experienced steady growth in employment over the years. Notably, female employment saw a significant surge in 2014-15, contributing to an overall increase in workforce participation. From the overall trend line it can be analyzed that the both male and female employment highlights the upward trend the expanding role of MSMEs in job creation and gender inclusivity.



Source: Trend analysis using primary data.

H_0 : There is no significant difference in percentage growth rate of Permanent employees for different gender groups.

H_1 : There is a significant difference in the percentage growth rate of Permanent employees for different gender groups.

Table 5.21 shows a statistical analysis was conducted to determine whether there is a significant difference between the percentage of permanent employees in

the male and female categories. In the one-tailed test, the p-value (0.0506) is slightly higher than the significance level (0.05), and the calculated t-statistic (1.7273) is lower than the critical value (1.7340). Consequently, the null hypothesis is accepted at the 0.05 significance level. Similarly, in the two-tailed test, the p-value (0.1012) is greater than the significance level (0.05), and the calculated t-statistic (1.7273) is lower than the critical value (2.1009). As a result, we fail to reject the null hypothesis. These findings suggest that there is no statistically significant difference between the means of male and female permanent employees in MSMEs.

Table 5.21:

T-test

Parameters	Male	Female
Mean	7578.3	5621.2
Variance	6594012.011	6242736.622
Observations	10	10
Pooled Variance	6418374.317	-
Hypothesized Mean Difference	0	-
Df	18	-
t statistic	1.7273705	-
P(T<=t) one-tail	0.05061013	-
t Critical one-tail	1.734063592	-
P(T<=t) two-tail	0.10122026	-
t Critical two-tail	2.100922037	-

Source: Calculated of t- test using primary data.

5.5.3 Temporary Employees over a period of 10 years:

The table 5.22 presents the gender-wise distribution and growth rate of temporary employees in MSMEs from 2010-11 to 2019-20. The data reveals a consistent increase in temporary employment for both male and female workers over the years. The total number of temporary employees increased from 5,019 in 2010-11 to 16,865 in 2019-20. However, there was a negative percentage growth rate of male employment in 2015-16 (-0.62 percent). The highest overall growth rate (76.06 percent) was observed in 2014-15, primarily driven by a significant surge in female

employment (64.31 percentages). While female employment continued to rise. From the overall data it can be analyzed that the growth rate of temporary employment highlights the increasing of MSMEs in providing short-term employment opportunities, with female participation showing substantial variation over the years.

Table 5.22:

Gender wise and Growth Rate of Temporary Employees

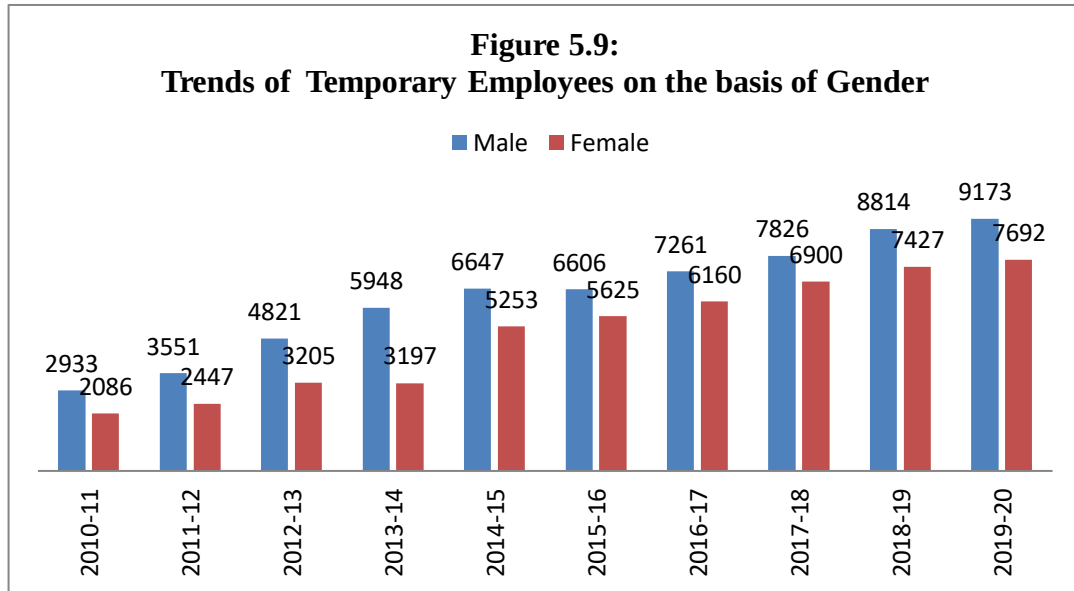
Year	In absolute numbers			Percentage Growth Rate (percent)		
	Male	Female	Total	Male	Female	Total
2010-11	2933	2086	5019	-	-	-
2011-12	3551	2447	5998	21.07	17.31	38.38
2012-13	4821	3205	8026	35.76	30.98	66.74
2013-14	5948	3197	9145	23.38	-0.25	23.13
2014-15	6647	5253	11900	11.75	64.31	76.06
2015-16	6606	5625	12231	-0.62	7.08	6.46
2016-17	7261	6160	13421	9.92	9.51	19.43
2017-18	7826	6900	14726	7.78	12.01	19.79
2018-19	8814	7427	16241	12.62	7.64	20.26
2019-20	9173	7692	16865	4.07	3.57	7.64
Total	63580	49992	113572	-	-	-
Percentage	55.98	44.01	-	-	-	-

Source: Analysis of primary data.

5.5.4 Trends of Temporary Employees on the basis of Gender:

The figure 5.9 below shows the trends in temporary employment based on gender from 2010-11 to 2019-20. The temporary gender category is divided into two groups: male and female employees. The data indicates that male employees consistently outnumbered female employees among temporary workers throughout the period. However, both categories experienced overall growth in employment over the years. From the overall trend line it can be suggests that MSMEs have

played a crucial role in generating temporary employment, with female participation showing significant variations over study period.



Source: Trend analysis using primary data.

H_0 : There is no significant difference in percentage growth rate of Temporary employees for different gender groups.

H_1 : There is a significant difference in the percentage growth rate of Temporary employees for different gender groups.

Table 5.23 reveals t-test was conducted to examine whether there were any statistically significant differences in the number of temporary employees between male and female groups. For the one-tailed test, the p-value (0.0824) is greater than the significance level (0.05), and the calculated t-statistic (1.4481) is lower than the critical value (1.7341). Similarly, in the two-tailed test, at a significance level of 0.05, the calculated t-statistic (1.4481) remains lower than the critical value (2.1009). As a result, the null hypothesis fails to be rejected, indicating that there is no statistically significant difference between the means of male and female temporary employees. This suggests that while variations exist in employment figures over the years, gender-based differences in temporary employment are not statistically significant.

Table 5.23:**T-test**

Parameters	Male	Female
Mean	6358	4999.2
Variance	4356884.667	4447718
Observations	10	10
Pooled Variance	4402301.2	-
Hypothesized Mean Difference	0	-
Df	18	-
t Statistic	1.448107036	-
P(T<=t) one-tail	0.08239116	-
t Critical one-tail	1.734063592	-
P(T<=t) two-tail	0.16478232	-
t Critical two-tail	2.100922037	-

Source: Calculated of t- test using primary data.

5.5.5 Region Wise Employment over a Period of 10 Years:

The table 5.24 presents a region-wise breakdown of employees in MSMEs from 2010-11 to 2019-20, categorized into three groups: local/same district, state/other districts, and other states. The data indicates a consistent increase in employment across all regions, with the majority of employees being recruited locally. The number of local employees grew from 4,165 in 2010-11 to 14,130 in 2019-20, reflecting steady growth. Employees from other districts within the state also saw a significant increase, particularly in 2014-15, the highest growth rate (47.02 percent) was recorded. Employment from other states followed a similar upward trend but at a comparatively lower rate. From the overall data it can be analyzed that local recruitment remained dominant, employment opportunities expanded across regions, indicating MSMEs role in facilitating workforce mobility and economic growth beyond local districts.

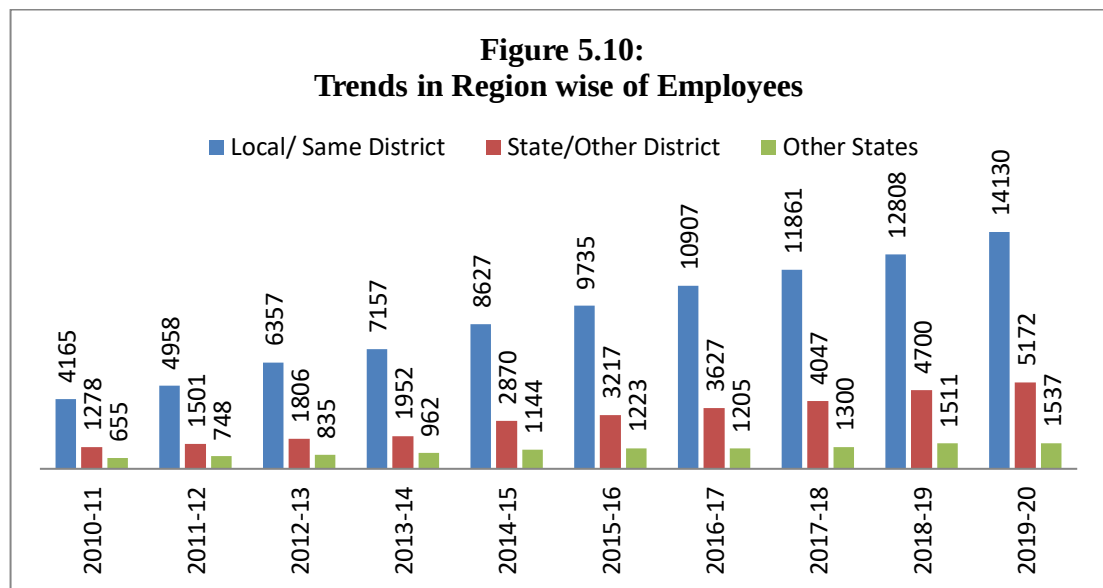
Table 5.24:**Region Wise and Growth Rate of Employees**

Year	In absolute numbers			Percentage growth rate		
	Local/ Same District	State/Other District	Other States	Local/ Same District	State/Other District	Other States
2010-11	4165	1278	655	-	-	-
2011-12	4958	1501	748	19.04	17.44	18.18
2012-13	6357	1806	835	28.21	20.32	24.85
2013-14	7157	1952	962	12.58	8.08	11.92
2014-15	8627	2870	1144	20.53	47.02	25.51
2015-16	9735	3217	1223	12.84	12.09	12.13
2016-17	10907	3627	1205	12.03	12.74	11.03
2017-18	11861	4047	1300	8.74	11.58	9.33
2018-19	12808	4700	1511	7.98	16.13	10.52
2019-20	14130	5172	1537	10.32	10.04	9.56
Total	90705	30170	11120	-	-	-
Percentage	68.71	22.85	8.42	-	-	-

Source: Analysis of primary data.

5.5.6 Trends in Region wise of Employees:

The figure 5.10 below indicates the trends in the region of employees from 2010-11 to 2019-20. The employees are categorized into three groups: local/same district, state/other district, and other states. Among these categories, the local/same district category consistently had the highest number of employees, reflecting a strong preference for local hiring. The trend line indicates a steady increase in employment across all categories over the years. While employment from other states also increased, it remained comparatively lower. From the overall trend line it can be highlights the expanding employment opportunities in MSMEs, with a significant contribution to local and regional workforce development.



Source: Trend analysis using primary data.

H_0 : There is no significant difference of percentage growth rate of employees for region of employees.

H_1 : There is a significant difference in the percentage growth rate of employees for the region of employees.

Table 5.25 reveals one-way ANOVA was conducted to determine whether there were any statistically significant differences in the percentage growth rates of employees based on their region (local/same district, state/other district, and other states). The test was performed to assess the null hypothesis, which assumes no significant difference between these groups. The ANOVA results indicate that the calculated F-value is lower than the critical F-value, leading to the failure to reject the null hypothesis. Therefore, it can be concluded that there is no statistically significant difference in the percentage growth rate of employees based on their region. This suggests that the growth trends in employment are relatively uniform across all three categories over the years.

Table 5.25:

ANOVA test

Source of Variation	SS	DF	MS	F	P-value	F critical
Between Groups	38.469 63	2	19.23481	0.25713 3	0.7753 68	3.402826
Within Groups	1795.3 16	24	74.80483	-	-	-
Total	1833.7 85	26	-	-	-	-

Source: Calculated of ANOVA test using primary data.

5.5.7 Literacy of the Employees over a period of 10 Years:

The table 5.26 presents the literacy levels of employees in MSMEs from 2010-11 to 2019-20, categorized into six groups: illiterate, 10th pass, 12th pass, diploma holders, graduates, and postgraduates. The data indicates a consistent increase in the overall number of employees, with a significant rise in educational qualifications over the years. Graduates formed the largest employee group, increasing from 1,428 in 2010-11 to 5,512 in 2019-20, highlights a growing preference for higher qualifications in the workforce. Similarly, employees with a 12th pass and diploma qualifications also saw steady growth. The number of post-graduates also shows positive trajectory, increased from 415 in 2010-11 to 1,525 in 2019-20, and it reflects an expansion in skilled labour. The illiterate workforce showed a declining trend, dropping from 305 in 2010-11 to 217 in 2019-20, suggesting improved literacy and skill levels employment in MSME. From the overall data it can be analyzed that a positive shift towards a more educated workforce, emphasizing the increasing role of skilled employees in MSMEs.

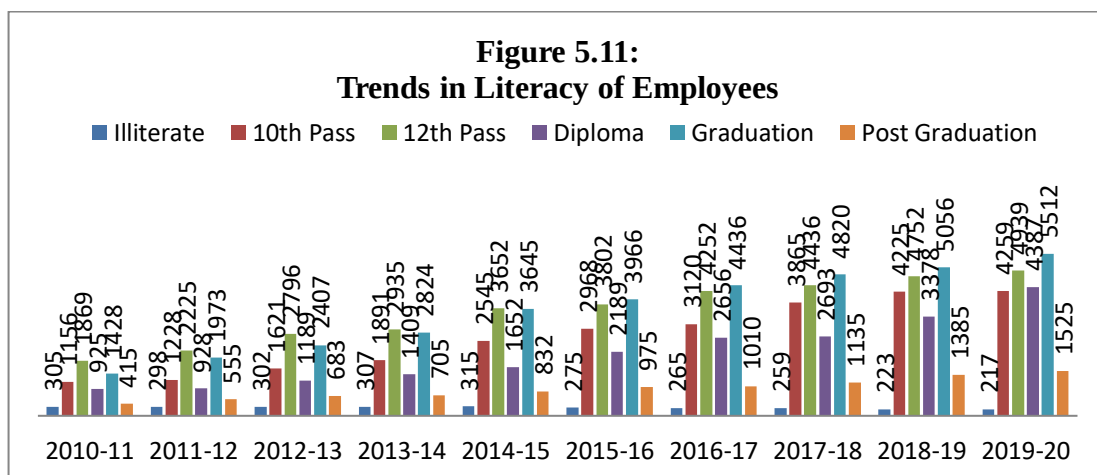
Table 5.26:**Literacy of Employee (in numbers)**

Year	Illiterate	10th Pass	12th Pass	Diploma	Graduation	Post Graduation	Total
2010-11	305	1156	1869	925	1428	415	6098
2011-12	298	1228	2225	928	1973	555	7207
2012-13	302	1621	2796	1189	2407	683	8998
2013-14	307	1891	2935	1409	2824	705	10071
2014-15	315	2545	3652	1652	3645	832	12641
2015-16	275	2968	3802	2189	3966	975	14175
2016-17	265	3120	4252	2656	4436	1010	15739
2017-18	259	3865	4436	2693	4820	1135	17208
2018-19	223	4225	4752	3378	5056	1385	19019
2019-20	217	4259	4939	4387	5512	1525	20839
Total	2766	26878	35658	21406	36067	9220	131995
Percentage	2.09	20.36	27.01	16.21	27.32	6.98	-

Source: Analysis of primary data.

5.5.8 Trends in Literacy of Employees:

The figure 5.11 below interprets the literacy trends of employees from 2010-11 to 2019-20, categorized into six groups: illiterate, 10th pass, 12th pass, diploma, graduation, and post-graduation. The trend analysis indicates a consistent upward movement across all educational qualification categories except illiterate category over the years. The number of employees with higher educational qualifications, particularly graduates and postgraduates, has shown significant growth, reflecting an increasing trend line for skilled labour in MSMEs. Meanwhile, the illiterate workforce has gradually declined, indicating an improvement in literacy and educational attainment among employees. Overall, the data highlights a positive shift toward a more qualified workforce, reinforcing the role of MSMEs in fostering educational and skill development.



Source: Trend analysis using primary data.

5.5.9 Percentages in Literacy of Employees:

The table 5.27 shows the percentages of literacy of employees from 2010-11 to 2019-20. The percentage wise employment literacy rate has fluctuated in parameters of the study. The data in percentages of graduation and post- graduation highlights significant growth among all parameters over the years. Overall, the percentages data interprets a positive shift toward a more qualified workforce, and significant role of MSMEs in fostering educational and skill development.

Table 5.27:

Percentages in Literacy of Employee (Annual Growth Rate)

Year	Illiterate	10th Pass	12th Pass	Diploma	Graduation	Post Graduation
2010-11	-	-	-	-	-	-
2011-12	-2.295	6.228	19.048	0.324	38.165	33.735
2012-13	1.342	32.003	25.663	28.125	21.997	23.063
2013-14	1.656	16.656	4.971	18.503	17.324	3.221
2014-15	2.606	34.585	24.429	17.246	29.072	18.014
2015-16	-12.698	16.621	4.107	32.506	8.807	17.188
2016-17	-3.636	5.121	11.836	21.334	11.851	3.59
2017-18	-2.264	23.878	4.327	1.393	8.656	12.376
2018-19	-13.9	9.314	7.124	25.436	4.896	22.026
2019-20	-2.691	0.805	3.935	29.87	9.019	10.108

Source: Analysis of primary data.

H₀: There is no significant difference in percentage growth rate of employees for different literacy level groups.

H₁: There is a significant difference in percentage growth rate of employees for different literacy level groups.

The table 5.28 indicates one-way ANOVA was conducted to determine whether there were statistically significant differences in the percentage growth rates of employees across different literacy groups. The test was performed to assess the null hypothesis, which assumes no significant differences among these groups. The ANOVA results indicate that the calculated F-value is greater than the critical F-value, leading to the rejection of the null hypothesis. This suggests that there is a statistically significant difference in the percentage growth rates of employees across different literacy levels. The findings highlight that educational qualifications play a crucial role in employment trends within MSMEs, with certain literacy groups experiencing higher growth rates than others over the years.

Table 5.28:

ANOVA test

Source of Variation	SS	DF	MS	F	P-value	F critical
Between Groups	3128.516	5	625.7033	6.079025	0.000195	2.408514
Within Groups	4940.555	48	102.9282	-	-	-
Total	8069.072	53	-	-	-	-

Source: Calculated of ANOVA test using primary data.

5.5.10 Area wise Employees over a period of 10 years:

The table 5.29 presents the distribution and percentage growth rates of employees in MSMEs across urban and rural areas from 2010-11 to 2019-20. The data shows a consistent increase in employment in both urban and rural areas. The rural employment outpaces urban employment in absolute numbers throughout the study period. The number of rural employees grew from 3,925 in 2010-11 to 11,359 in 2019-20, whereas rural employment showed its highest growth in 2012-13 (23.22 percent). Notably, rural employment experienced minimal growth (0.46 percent) in 2017-18.

However, urban employment increased from 2,173 in 2010-11 to 9,480 in 2019-20 during the study period. The highest growth rate for urban employment (29.7 percent) was observed in 2014-15. While urban employment continued to rise significantly. Overall, the growth indicates that MSMEs have contributed significantly to employment generation in both urban and rural areas. From the overall data it can be analyzed that while rural employment has seen rapid expansion in recent years and rural areas remain the dominant employment hub for MSMEs.

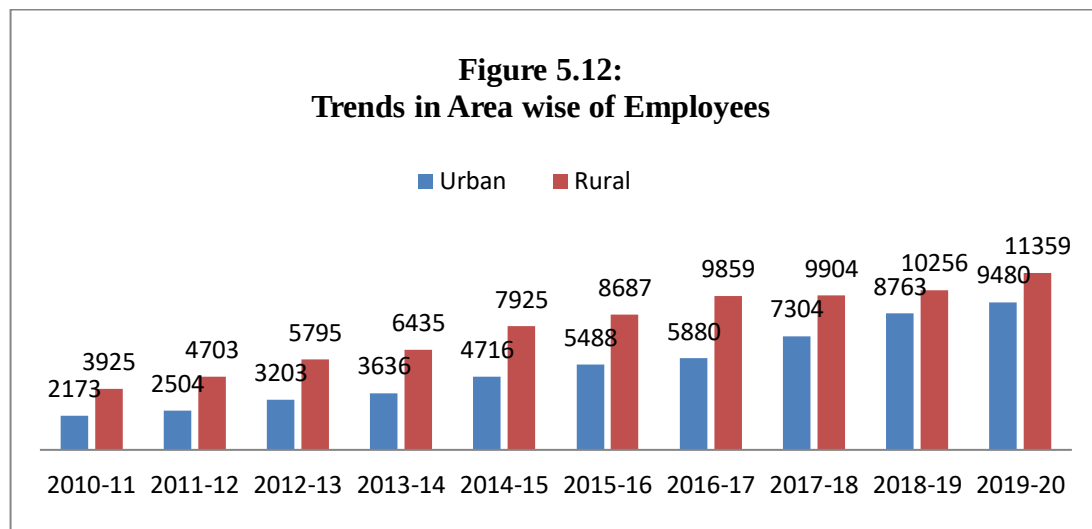
Table 5.29:**Area wise and Percentages of Employees**

Year	In absolute numbers			Percentage growth rate		
	Urban	Rural	Total	Urban	Rural	Total
2010-11	2173	3925	6098	-	-	-
2011-12	2504	4703	7207	15.23	19.82	18.19
2012-13	3203	5795	8998	27.92	23.22	24.85
2013-14	3636	6435	10071	13.52	11.04	11.92
2014-15	4716	7925	12641	29.70	23.15	25.52
2015-16	5488	8687	14175	16.37	9.62	12.14
2016-17	5880	9859	15739	7.14	13.49	11.03
2017-18	7304	9904	17208	24.22	0.46	9.33
2018-19	8763	10256	19019	19.98	3.55	10.52
2019-20	9480	11359	20839	8.18	10.75	9.57
Total	53147	78848	131995	-	-	-
Percentage	40.26	59.73	-	-	-	-

Source: Analysis of primary data.

5.5.11 Trends in Area wise of Employees:

The figure 5.12 below presents the employment trends in urban and rural areas from 2010-11 to 2019-20. The trend line indicates that rural areas have consistently contributed a higher number of employees compared to urban areas. However, both categories have shown an overall upward trend in employment over the years. From the overall trend line it can be analyzed that a steady expansion in employment opportunities in both urban and rural MSMEs, reinforcing their role in regional economic development.



Source: Trend analysis using primary data.

H_0 : There is no significant difference in percentage growth rate of employees for Area wise employees.

H_1 : There is a significant difference in the percentage growth rate of employees for Area wise employees.

The table 5.30 shows t-test for Two-Sample Assuming Equal Variances was conducted to examine whether there is a statistically significant difference in employment between urban and rural groups. For the one-tailed test, the p-value (0.0186) is greater than the significance level (0.05) and the calculated t-statistic (-2.2489) is less than the critical value (1.7340). For the two-tailed test, the calculated t-statistic (-2.2489) is greater than the critical value (2.1009). Since the null hypothesis is rejected in both cases, the results indicate a statistically significant difference in the means of employment between rural and urban areas. The negative direction of the t-statistic suggests that rural employment remains higher than urban employment. This confirms that MSMEs have a stronger employment presence in urban areas compared to rural regions over the years.

Table 5.30:**T-test**

Parameters	Urban	Rural
Mean	5314.7	7884.8
Variance	6550386	6509498
Observations	10	10
Pooled Variance	6529942	-
Hypothesized mean difference	0	-
Df	18	-
t Statistic	-2.24895	-
P(T<=t) one-tail	0.018637	-
t critical one-tail	1.734064	-
P(T<=t) two-tail	0.037273	-
t critical two-tail	2.100922	-

Source: Calculated of t- test using primary data.

5.5.12 Age Group of the Employees over a period of 10 years:

The table 5.31 presents the distribution of employees across different age groups in MSMEs from 2010-11 to 2019-20. The data reveals that employees aged 26-35 years consistently formed the largest workforce segment, followed by the below 25 and 36-45 age groups. The number of employees in the below 25 age group grew steadily from 1,700 in 2010-11 to 6,122 in 2019-20, indicating an increasing participation of young workers in MSMEs. Similarly, the 26-35 age group experienced significant growth, rising from 1,460 in 2010-11 to 7,289 in 2019-20, making it the dominant category. The 36-45 age group also showed growth but at a relatively moderate pace, while the above 45 category, although the smallest contributor in compare to other age group, and this age group also steadily increased over the years. From the overall data it can be analyzed that MSMEs role in employing a younger workforce while maintaining a balanced distribution across all age groups.

Table 5.31:

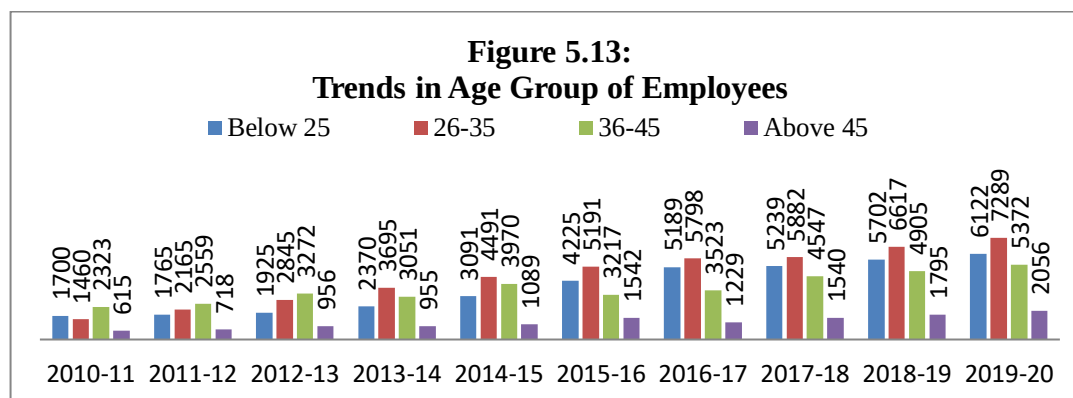
Age Group of Employees (in absolute figure)

Years	Below 25	26-35	36-45	Above 45	Total
2010-11	1700	1460	2323	615	6098
2011-12	1765	2165	2559	718	7207
2012-13	1925	2845	3272	956	8998
2013-14	2370	3695	3051	955	10071
2014-15	3091	4491	3970	1089	12641
2015-16	4225	5191	3217	1542	14175
2016-17	5189	5798	3523	1229	15739
2017-18	5239	5882	4547	1540	17208
2018-19	5702	6617	4905	1795	19019
2019-20	6122	7289	5372	2056	20839
Total	37328	45433	36739	12495	131995
Percentage	28.27	34.42	27.83	9.46	-

Source: Analysis of primary data.

5.5.13 Trends in Age Group of Employees:

The figure 5.13 below shows the trends in the age distribution of employees from 2010-11 to 2019-20. The data categorizes employees into four groups: below 25, 26-35, 36-45, and above 45 years. The trend analysis indicates that the 26-35 age groups recorded consistently the highest number of employees, surpassing other categories throughout the study period. Additionally, all age groups experienced an upward trend in employment, reflecting overall growth in MSME workforce participation. From the overall trend line it can be analyzed that a dynamic workforce composition, with MSMEs playing a key role in attracting and retaining employees across various age groups.



Source: Trend analysis using primary data.

5.5.14 Percentages in Age Group of Employees:

Table 5.32 below shows Percentages of age group of employees from 2010-11 to 2019-20. The data highlights, all the age group percentages fluctuated over the years. Additionally, all the age groups witnessed an fluctuating trend in percentages of employment, reflecting overall growth in MSME workforce participation.

Table 5.32:

Percentages of Age Group of Employee (Annual Growth Rate)

Year	Below 25	26-35	36-45	Above 45	Total
2010-11	-	-	-	-	-
2011-12	3.82	48.29	10.16	16.75	18.19
2012-13	9.07	31.41	27.86	33.15	24.85
2013-14	23.12	29.88	-6.75	-0.10	11.92
2014-15	30.42	21.54	30.12	14.03	25.52
2015-16	36.69	15.59	-18.97	41.60	12.14
2016-17	22.82	11.69	9.51	-20.30	11.03
2017-18	0.96	1.45	29.07	25.31	9.33
2018-19	8.84	12.50	7.87	16.56	10.52
2019-20	7.37	10.16	9.52	14.54	9.57

Source: Analysis of primary data.

H₀: There is no significant difference in the percentage growth rate of employees for different age groups.

H₁: There is a significant difference in the percentage growth rate of employees for different age groups.

The table 5.33 interprets one-way ANOVA was conducted to determine whether there were statistically significant differences in the percentage growth rates of employees across different age groups. The test was performed to assess the null hypothesis, which assumes no significant variation among the age groups. The ANOVA results indicate that the calculated F-values are lower than the critical F-values, leading to the failure to reject the null hypothesis. This suggests that the percentage growth rate of employees across different age groups does not show statistically significant differences. Consequently, while all age groups have experienced growth over the years, the rate of increase has remained relatively uniform across categories, indicating a balanced workforce expansion in MSMEs without significant disparities among different age demographics.

Table 5.33

ANOVA test

Source of Variation	SS	DF	MS	F	P-value	F critical
Between Groups	393.4818	3	131.16061	0.543659	0.655946	2.90112
Within Groups	7720.165	32	241.255154	-	-	-
Total	8113.647	35	-	-	-	-

Source: Calculated of ANOVA test using primary data.

5.5.15 Overall Growth of the Employees:

The table 5.34 below presents the overall employment growth in MSMEs from 2010-11 to 2019-20, categorized by skilled and unskilled level. The data indicates a steady increase in employment across skilled and unskilled workers experiencing growth over the years. Among male skilled workers consistently outnumbered unskilled workers. The male skilled employees rise from 2,493 in 2010-11 to 6,847 in 2019-20. Similarly, male unskilled employees also saw an increase, though at a slightly slower pace. However, for female employees, both skilled and unskilled categories demonstrated substantial growth. Female skilled

employment increased from 1,264 in 2010-11 to 5,604 in 2019-20, while unskilled female workers rose from 1,077 to 3,788 over the same period. The overall employment figures highlight a positive trajectory, with skilled employment growing more rapidly than unskilled employment. From the overall data it can be analyzed that a shift towards a more skilled workforce in MSMEs for both male and female category, reinforcing the MSMEs role in generating sustainable employment opportunities.

Table 5.34:

Overall Growth of the Employees

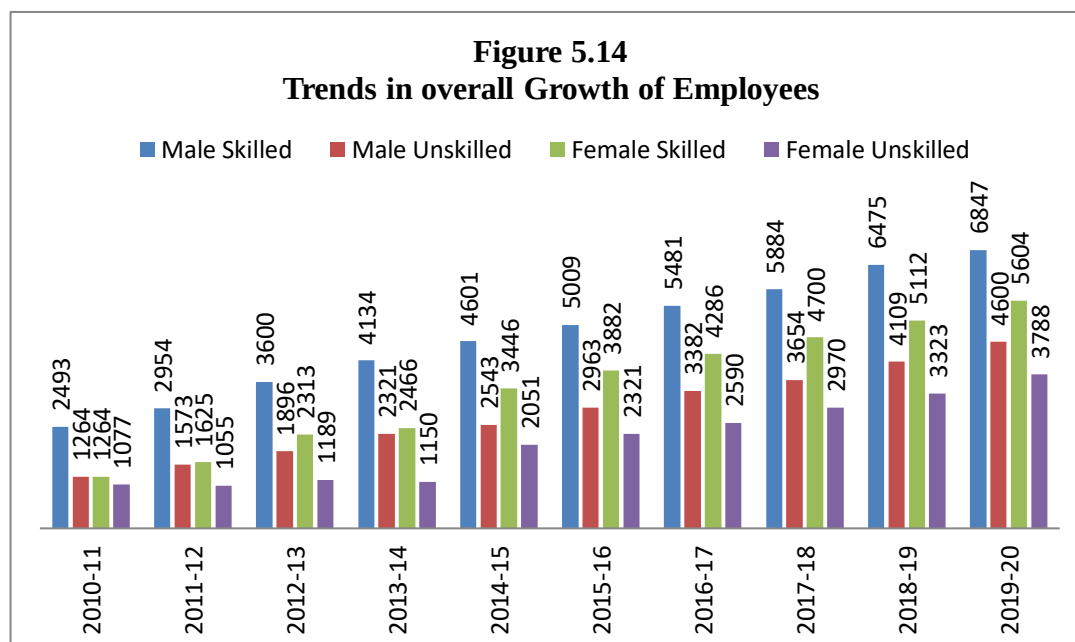
Year	Male Skilled	Male Unskilled	Male Total	Female Skilled	Female Unskilled	Female Total	Total
2010-11	2493	1264	3757	1264	1077	2341	6098
2011-12	2954	1573	4527	1625	1055	2680	7207
2012-13	3600	1896	5496	2313	1189	3502	8998
2013-14	4134	2321	6455	2466	1150	3616	10071
2014-15	4601	2543	7144	3446	2051	5497	12641
2015-16	5009	2963	7972	3882	2321	6203	14175
2016-17	5481	3382	8863	4286	2590	6876	15739
2017-18	5884	3654	9538	4700	2970	7670	17208
2018-19	6475	4109	10584	5112	3323	8435	19019
2019-20	6847	4600	11447	5604	3788	9392	20839
Total	47478	28305	75783	34698	21514	56212	131995
Percentage	35.96	21.44	-	26.28	16.29	-	-

Source: Analysis of primary data.

5.5.16 Trends in Overall Growth of Employees:

The figure 5.14 below indicates the employment trends of different skilled and unskilled gender groups from 2010-11 to 2019-20. The trends data categorizes employees into four groups: male skilled, male unskilled, female skilled and female unskilled. The trend analysis indicates that male workers consistently outnumbered female workers in both skilled and unskilled categories throughout the study period. Additionally, all categories experienced a steady increase in employment over the years, with skilled employment growing at a faster pace than unskilled employment.

The overall data highlights the significant role of MSMEs in workforce expansion, with a noticeable increase in female participation, particularly in the skilled category.



Source: Trend analysis using primary data.

5.5.17 Percentages of Overall Growth of the Employees:

The table 5.35 interprets the Percentages of overall growth of the employment from 2010-11 to 2019-20. The overall percentages show fluctuating over the study period. The percentage data analysis indicates that male workers consistently outnumbered female workers in both skilled and unskilled categories throughout the study period.

Table 5.35:

Percentages of Overall Growth of the Employees

Year	Male Skilled	Male Unskilled	Female Skilled	Female Unskilled	Total
2010-11	-	-	-	-	-
2011-12	18.49	24.45	28.56	-2.04	18.19
2012-13	21.87	20.53	42.34	12.70	24.85
2013-14	14.83	22.42	6.61	-3.28	11.92
2014-15	11.30	9.56	39.74	78.35	25.52
2015-16	8.87	16.52	12.65	13.16	12.14
2016-17	9.42	14.14	10.41	11.59	11.03
2017-18	7.35	8.04	9.66	14.67	9.33
2018-19	10.04	12.45	8.77	11.89	10.52
2019-20	5.75	11.95	9.62	13.99	9.57

Source: Analysis of primary data.

H₀: There is no significant difference of percentage growth rate of employees for gender group and different skill level.

H₁: There is a significant difference in the percentage growth rate of employees for the gender group and different skill level.

The Table 5.36 shows one-way ANOVA was conducted to determine whether there were statistically significant differences in the percentage growth rates of employees across various gender groups and skill levels. The test was performed to verify the null hypothesis, which assumes no significant variation between these groups. The ANOVA results indicate that the calculated F-value is lower than the critical F-value, leading to the acceptance of the null hypothesis. This suggests that the percentage growth rate of employees across different skill levels and gender groups does not show statistically significant differences. Consequently, while all categories have experienced growth over the years, the rate of increase remains relatively uniform among male and female employees, as well as skilled and unskilled workers. This finding highlights a balanced employment expansion across different workforce segments within MSMEs.

Table 5.36:

ANOVA test

Source of Variation	SS	DF	MS	F	P-value	F critical
Between Groups	222.5527	4	55.63818139	0.31419420	0.86679503	2.605975
Within Groups	7083.286	40	177.0821395	-	-	-
Total	7305.838	44	-	-	-	-

Source: Calculated of ANOVA test using primary data.

5.6 Analysis for Objective 4 “To Study the Annual Growth Rate of Production of Goods and Services by MSMEs in Tripura”:

The analysis of annual growth rate of production of goods and services by MSMEs in Tripura shows increasing turnover and profits over the years. Despite rising costs of goods, the ability to control operating expenses reflects improving efficiency and effective cost management within MSMEs. While the cost of goods increases despite some years of decline. The total costs remained relatively stable, demonstrating effective cost management. The overall data suggests that MSMEs have successfully adapted to changing economic conditions, balancing production costs while ensuring consistent profitability. It also suggests that production growth of MSMEs in Tripura are adapting to market conditions and leveraging operational efficiencies to drive long-term success.

5.6.1 Production of the MSMEs over a Period of 10 years:

The table 5.37 presents the production performance of MSMEs in Tripura from 2010-11 to 2019-20, highlighting key financial indicators such as cost of goods, operating expenses, total cost, turnover, and profit. The data indicates a steady increase in turnover and profits, suggesting consistent growth in the MSMEs. The cost of goods slightly decline but remained relatively stable. It is ranging from Rs. 3,039.61 lakh in 2010-11 to Rs. 3,212.17 lakh in 2019-20. Operating expenses show a general decline, from Rs. 2,122.91 lakh in 2010-11 to Rs. 1,931.52 lakh in 2019-

20, reflecting improved cost control and efficiency. Despite some years of decline in total cost, turnover exhibits a continuous upward trend, reaching from Rs. 9,349.23 in 2010-11 to Rs. 9,978.74 lakh in 2019-20. Profitability improved over time, rising from Rs. 4,186.71 lakh in 2010-11 to Rs. 4,835.05 lakh in 2019-20, indicates enhanced financial performance. From the overall data it can be analyzed that MSMEs in Tripura have successfully managed operational costs while expanding revenue, contributing to MSMEs growth and sustainability while some years of decline were observed.

Table 5.37:

Year wise Production Performance of MSME in Tripura (Rs. in Lakh)

Year	Cost of Goods	Operating Expenses	Total Cost	Turnover	Profit
2010-11	3039.61	2122.91	5162.52	9349.23	4186.71
2011-12	3088.53	2017.65	5106.18	9365.76	4259.58
2012-13	3124.15	1988.76	5112.91	9463.12	4350.21
2013-14	3272.41	2055.67	5328.08	9556.56	4228.48
2014-15	3187.21	1992.32	5179.53	9675.26	4495.73
2015-16	3293.63	1833.48	5127.11	9712.79	4585.68
2016-17	3111.52	1954.22	5065.74	9872.59	4806.85
2017-18	3133.77	1927.75	5061.52	9896.39	4834.87
2018-19	3254.85	1953.27	5208.12	9923.33	4715.21
2019-20	3212.17	1931.52	5143.69	9978.74	4835.05

Source: Analysis of primary data.

5.6.2 Percentage Growth Rate of MSMEs over a Period of 10 years:

The table 5.38 below presents the percentages of production performance of MSMEs in Tripura from 2010-11 to 2019-20. Although the cost of goods increased from 58.88 percent in 2010-11, reaching to 62.45 percent in 2019-20, production adapted well, stabilizing in later years. An effective cost control mechanism appears to be in place, as operating expenses gradually decreased from 41.12 percent in 2010-11 to 37.55 percent in 2019-20, contributing to higher profitability. The

increasing Profit and Turnover Ratio (PTR) suggests that MSMEs have successfully improved profitability over time, as the profit relative to turnover has grown despite some years of decline. The continued rise in PTR reflects a well-maintained balance between costs and turnover, highlighting the efficiency of MSMEs in managing expenses while enhancing profitability.

Table 5.38:

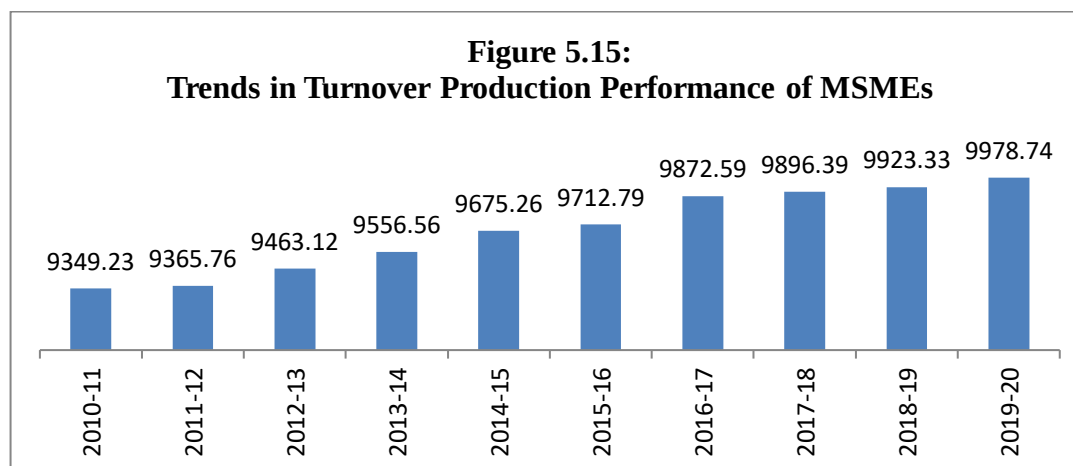
Percentages of Production Performance of MSMEs in Tripura

Year	Cost of Goods	Operating Expenses	Profit and Turnover Ratio (PTR)
2010-11	58.88	41.12	44.78
2011-12	60.49	39.51	45.48
2012-13	61.10	38.90	45.97
2013-14	61.42	38.58	44.25
2014-15	61.53	38.47	46.47
2015-16	64.24	35.76	47.21
2016-17	61.42	38.58	48.69
2017-18	61.91	38.09	48.85
2018-19	62.50	37.50	47.52
2019-20	62.45	37.55	48.45

Source: Analysis of primary data.

5.6.3 Trends in Turnover Production Performance of MSMEs:

The figure 5.15 below shows the trends in the turnover production performance of MSMEs from 2010-11 to 2019-20. Initially, the base year set as FY 2010-11, where the turnover was Rs. 9,349.23 lakh. The turnover production is categorized into five components: cost of goods, operating expenses, total cost, turnover, and profit. The trend analysis indicates a steady increase in turnover over the years, reflecting growth in the MSME sector. From the overall trend line it can be analyzed that upward trend in turnover highlights the MSMEs resilience and its role in driving production performance of MSMEs.



Source: Trend analysis using primary data.

5.6.4 Industrial Category Production Performance over a period of 10 years:

The table 5.39 below presents the turnover/sales performance of MSMEs in Tripura across the industrial product/service categories from 2010-11 to 2019-20. The data highlights the contributions of different industrial category, including agro, forest, textile, engineering, animal husbandry, and services. Among all categories, forest-based industries recorded the highest turnover, total Rs. 29,894.68 lakh (30.88 percent) over the ten-year period, followed by agro-based industries, which contributed Rs. 25,233.77 lakh (26.06 percent). The engineering-based sector remained fluctuating (10.38 percent), while textile-based industries experiencing decline (14.48 percent). The animal husbandry sector recorded the lowest turnover among all categories (4.71 percent), but it remained fluctuating. While the ‘services’ category accounted for Rs. 7668.14 lakh (7.92 percent), and experiencing fluctuating. The overall turnover increased from Rs. 9,349.23 lakh in 2010-11 to Rs. 9,978.74 lakh in 2019-20, showing steady growth despite some years of decline. While forest-based and agro-based industries, consistently contributed a significant share to the overall turnover. From the overall data it can be analyzed that MSMEs in Tripura have diversified revenue streams, with a strong reliance on forest-based and agro-based industries, reinforcing their economic significance in the region.

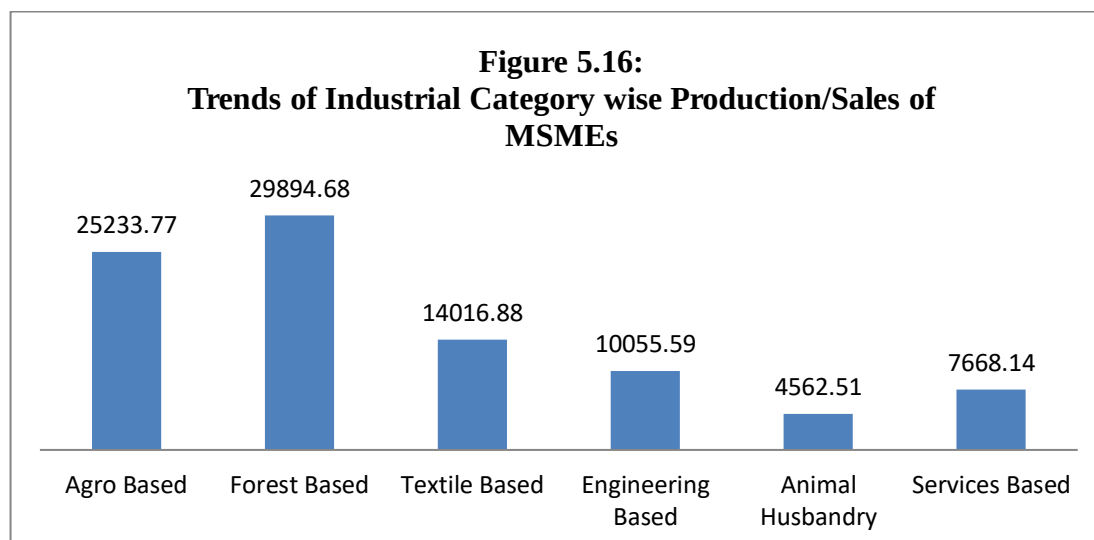
Table 5.39:**Performance of Industrial Product/services Category wise Turnover/Sales****(Rs. in Lakh)**

Year	Agro Based	Forest Based	Textile Based	Engineering Based	Animal Husbandry	Services	Total Turnover / Sales
2010-11	2025.12	2956.22	1732.11	923.21	431.14	1354.35	9349.23
2011-12	2139.13	2812.19	1621.26	1071.46	417.11	1488.57	9365.76
2012-13	2186.22	2915.59	1545.41	946.14	508.12	1454.26	9463.12
2013-14	2386.18	2935.16	1522.33	1086.28	453.06	1539.34	9556.56
2014-15	2616.29	3017.74	1324.21	996.15	491.26	1487.41	9675.26
2015-16	2602.14	3066.31	1318.56	992.39	395.43	1387.82	9712.79
2016-17	2713.39	2953.84	1169.19	1054.31	463.28	1517.59	9872.59
2017-18	2736.79	3055.71	1210.27	1099.12	479.32	1578.44	9896.39
2018-19	2896.23	3068.14	1326.31	894.16	493.58	1387.74	9923.33
2019-20	2932.28	3113.78	1247.23	992.37	430.21	780.36	9978.74
Total	25233.77	29894.68	14016.88	10055.59	4562.51	7668.14	96793.77
Percent	26.06	30.88	14.48	10.38	4.71	7.92	-

Source: Analysis of primary data.

5.6.5 Trends of Industrial Category wise Production/Sales of MSMEs:

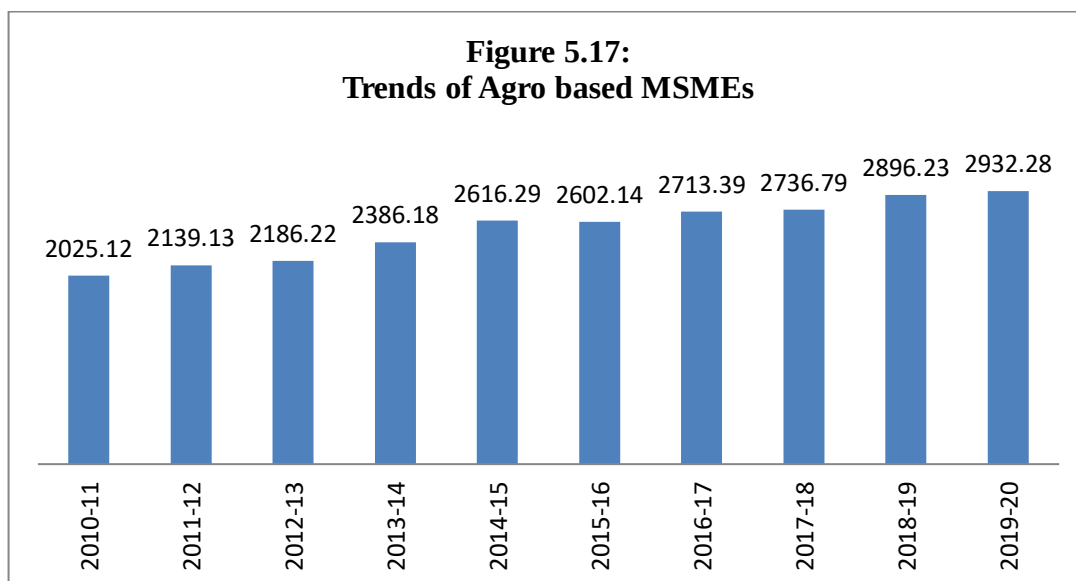
The figure 5.16 below demonstrates the trends in industrial category-wise production and sales performance of MSMEs from 2010-11 to 2019-20. The trends line indicates that forest-based products contributed the highest turnover trend line, amounting to Rs. 29,894.68 lakh, followed by agro-based products at Rs. 25,233.77 lakh. Textile-based products recorded Rs. 14,016.88 lakh, while engineering-based products contributed Rs. 10,055.59 lakh. The animal husbandry sector had the lowest contribution at Rs. 4,562.51 lakh, while the ‘services’ trend line category accounted for Rs. 7,668.14 lakh. The trends highlight the dominance of forest-based and agro-based industries in the MSMEs, reinforcing their economic importance. While textile-based trend line recorded fluctuating and engineering-based industries showed decline, overall production and sales performance remained positive, indicating sustained growth and diversification within the MSME sector in Tripura.



Source: Trend analysis using primary data.

5.6.6 Trends of Agro based MSMEs:

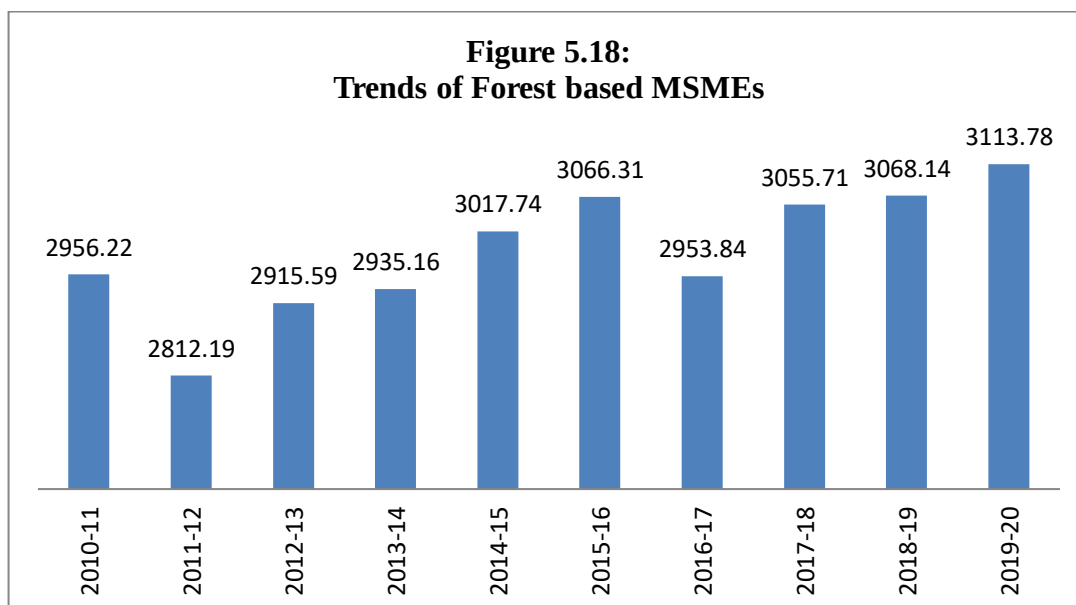
The figure 5.17 below shows the trends in agro-based MSMEs from 2010-11 to 2019-20. Among all industrial categories, agro-based MSMEs contributed the second highest turnover. The base year is set as 2010-11, with a contribution of Rs. 2,025.12 lakh, which increased to Rs. 2,932.28 lakh by 2019-20. The data indicates a steady growth in the contribution of agro-based MSMEs over the years, reflecting their expanding role in the MSME sector. The overall trend shows a positive trajectory, highlighting the MSMEs resilience and increasing demand for agro-based products in Tripura's economy.



Source: Trend analysis using primary data.

5.6.7 Trends of Forest based MSMEs:

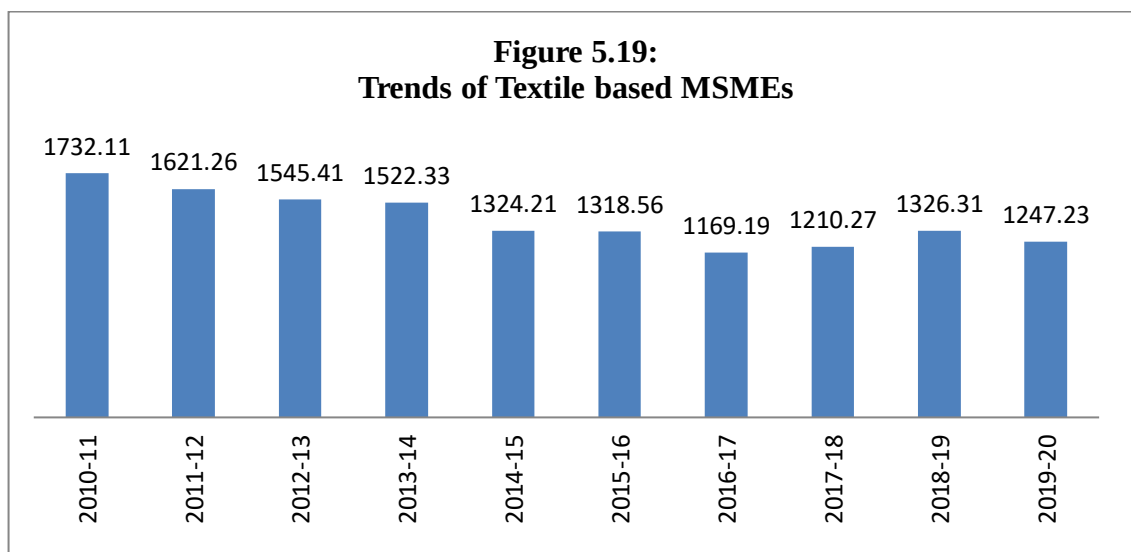
The figure 5.18 below indicates the trends in forest-based MSMEs from 2010-11 to 2019-20. Among all industrial categories, forest-based MSMEs contributed the highest turnover. The base year is set as 2010-11, with a contribution of Rs. 2,956.22 lakh, which increased to Rs. 3,113.78 lakh by 2019-20. The trend line shows that forest-based MSMEs maintained the highest contribution, over the study period. From the overall trend line it can be analyzed that forest-based industries continued increasing in MSMEs of Tripura.



Source: Trend analysis using primary data.

5.6.8 Trends of Textile based MSMEs:

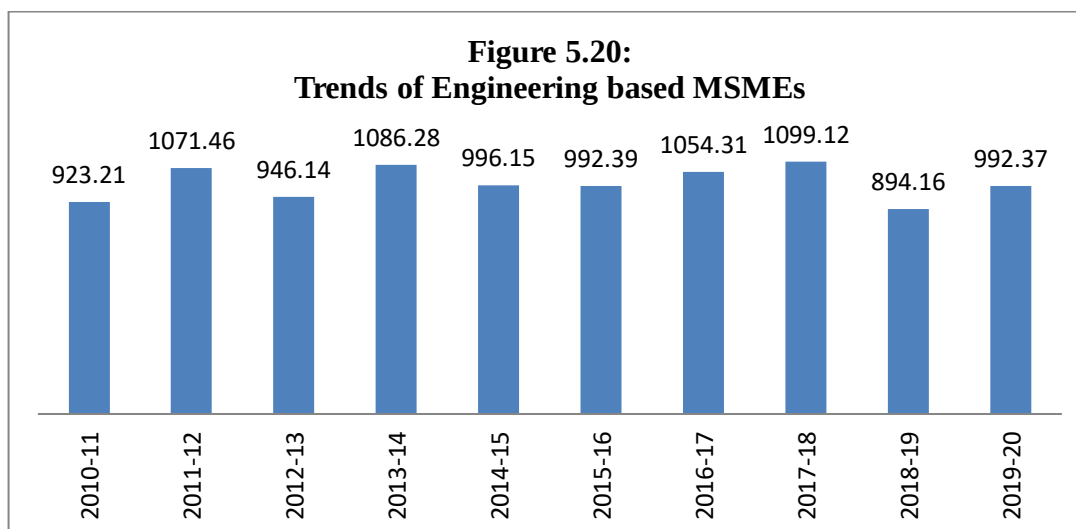
The figure 5.19 below demonstrates the trends line of textile-based MSMEs from 2010-11 to 2019-20. The base year is set as 2010-11, with a contribution of Rs. 1,732.11 lakh. However, by 2019-20, the contribution declined to Rs. 1,247.23 lakh, marking a significant deduction from the base year. The trend line data indicates that the performance of textile-based MSMEs has experienced periods of decline. The decrease in contribution suggests challenges in the sector, which could be attributed to shifts in demand, competition, production costs, or changes in government policies affecting textile-based industries. From the overall trend line it can be analyzed that despite these decline trends, the sector remains a key component of MSMEs production in Tripura.



Source: Trend analysis using primary data.

5.6.9 Trends of Engineering based MSMEs:

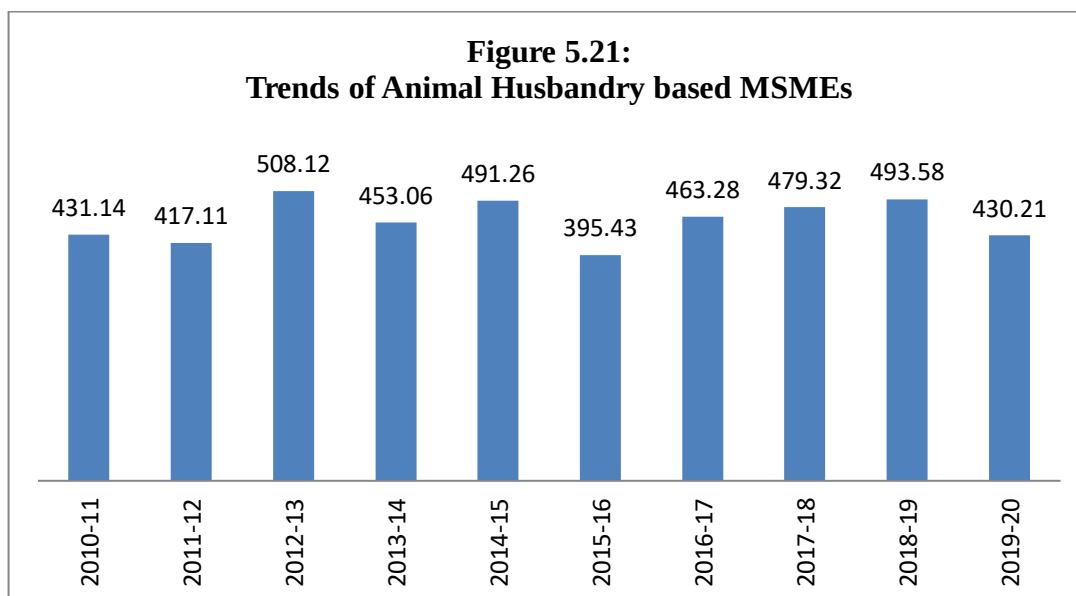
The figure 5.20 below shows the trends in engineering-based MSMEs from 2010-11 to 2019-20. Among all industrial categories, engineering-based MSMEs contributed significant role in turnover. The base year is set as 2010-11, with a contribution of Rs. 923.21 lakh, which increased slightly to Rs. 992.37 lakh in 2019-20. The trend line data indicates that the performance of engineering-based MSMEs has fluctuating over the years. While the sector maintained a stable contribution, periodic variations suggest potential challenges such as market demand shifts, technological advancements, or production constraints. From the overall trend line it can be analyzed that despite this fluctuation, engineering-based MSMEs continue to play a crucial role in the industrial landscape of Tripura.



Source: Trend analysis using primary data.

5.6.10 Trends of Animal Husbandry based MSMEs:

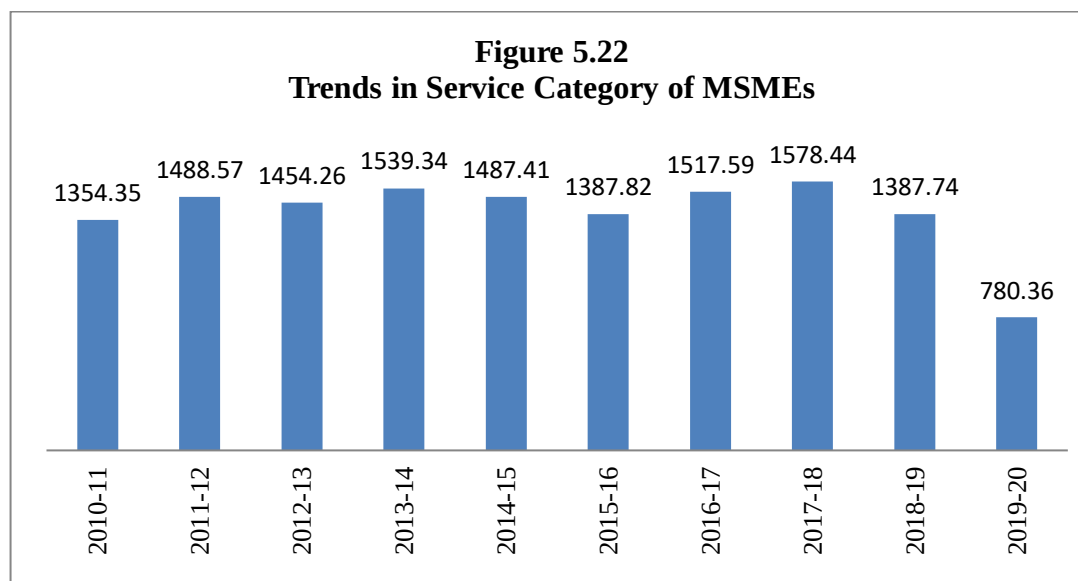
The figure 5.21 below shows the trends in animal husbandry-based MSMEs from 2010-11 to 2019-20. Among all industrial categories, animal husbandry-based MSMEs contributed significant role turnover among all product categories. The base year is set as 2010-11, with a contribution of Rs. 431.14 lakh, which slightly declined to Rs. 430.21 lakh in 2019-20. The trend line data indicates that the performance of animal husbandry-based MSMEs has fluctuating over the years, with no significant growth observed. The sector's relatively stagnant contribution suggests challenges such as market limitations, production constraints, or changes in demand. From the overall trend line it can be analyzed that despite these fluctuation, animal husbandry-based MSMEs continue to play a role in the MSME sector, albeit with limited expansion compared to other product categories.



Source: Trend analysis using primary data.

5.6.11 Trends in Services Category of MSMEs:

The figure 5.22 below demonstrates that the trends in MSMEs categorized under "Service" industries from 2010-11 to 2019-20. Among all industrial categories, this services sector contributed significant role of service category. The base year is set as 2010-11, with a contribution of Rs. 1,354.35 lakh, which declined significantly to Rs. 780.36 lakh in 2019-20. The trend line data indicates that the performance of services category has declined over the years. This downward trend line suggests challenges such as reduced market demand, shifts in industrial focus, or policy changes affecting these businesses. From the overall trend line it can be analyzed that despite these declines, the service sector continues to contribute to the MSMEs.



Source: Trend analysis using primary data.

5.7 Analysis for Objective 5 “To Explore the Total Production of Goods and Services by MSMEs and its Contribution to GSDP of Tripura”:

The table 5.40 below presents the total GSDP, growth rate of MSMEs and their contribution to the Gross State Domestic Product (GSDP) of Tripura from 2011-12 to 2022-23. The data highlights the significant role of MSMEs in GSDP, with their contribution over the years. From 2011-12 to 2022-23, the total GSDP of Tripura consistently increased, reaching from Rs. 19,208.41 crore in 2011-12 to Rs. 72,635.62 crore in 2022-23. Similarly, the MSME contribution in GSDP has increased from Rs. 12,502.29 crore in 2011-12 to Rs. 38,848.74 crore in 2022-23. However, the percentage contribution of MSMEs to GSDP has shown declined rate, the percentage data peaking at 65.09 percent in 2011-12 and declining to 53.48 percent in 2022-23. Despite this variation, MSMEs have remained a key driver of economic activity in Tripura. The recent upward trend of MSMEs contributions, reaching 53.48 percent in 2022-23, suggests renewed growth in the sector, reflecting improved business opportunities, government support, and overall economic expansion. The data underscores the need for sustained policy measures to enhance the MSMEs resilience and contribution to the GSDP.

In summary, the data revealed a dynamic picture of economic growth in MSMEs contribution to GSDP of Tripura. In addition, their relative share to the overall economy has been diminishing in recent years, reflecting shifts in the economic landscape that may warrant further analysis to understand underlying causes and implications.

Table 5.40:

Growth Rate of MSME and its Contribution in GSDP of Tripura

(Rs. in Crore)

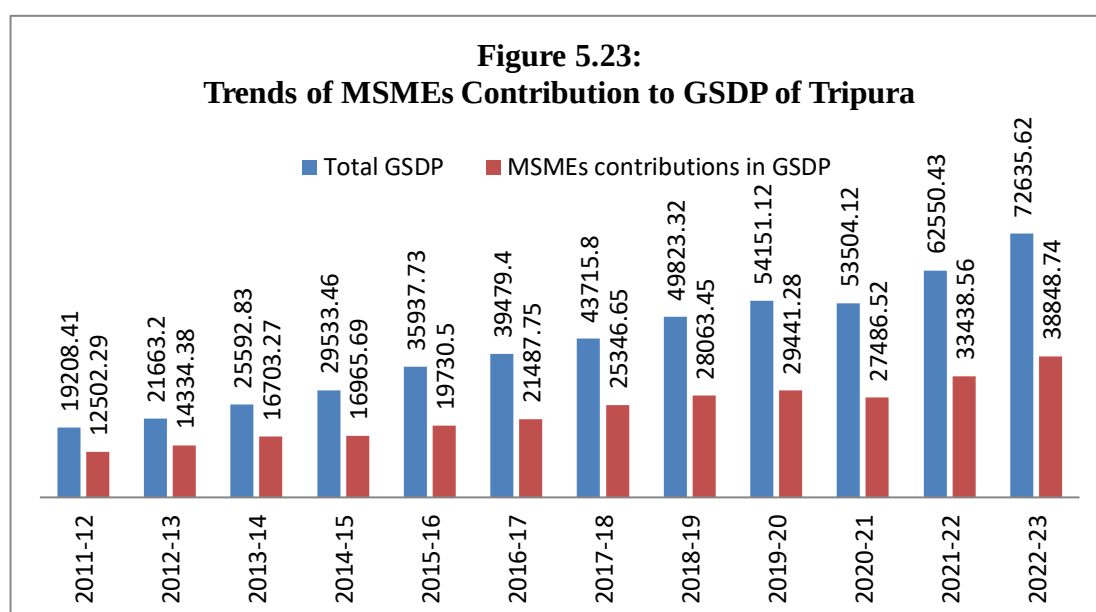
Year	Total GSDP	MSMEs contributions in GSDP	Percentages of MSMEs contributions in GSDP
2011-12	19208.41	12502.29	65.09
2012-13	21663.2	14334.38	66.17
2013-14	25592.83	16703.27	65.27
2014-15	29533.46	16965.69	57.45
2015-16	35937.73	19730.50	54.90
2016-17	39479.4	21487.75	54.43
2017-18	43715.8	25346.65	57.98
2018-19	49823.32	28063.45	56.33
2019-20	54151.12	29441.28	54.37
2020-21	53504.12	27486.52	51.37
2021-22	62550.43	33438.56	53.46
2022-23	72635.62	38848.74	53.48

Source: Directorate of Economic and Statistics 2022-23, Government of Tripura.

5.7.1 Trends of MSMEs Contribution to GSDP of Tripura:

The figure 5.23 below demonstrates the trend line in the growth rate of MSMEs and their contribution to the GSDP of Tripura from 2011-12 to 2022-23. The base year is set as 2011-12, with the total GSDP recorded at Rs. 19,208.49 crore and MSME contributions to GSDP at Rs. 12,502.29 crore. By 2022-23, the total GSDP increased to Rs. 72,635.62 crore, while MSMEs contribution to GSDP has also increased to Rs. 38,848.74 crore. The trend line data reveals a consistent upward

trend to overall GSDP, highlighting their increasing role in the state's economic development. While, in percentage of MSME contributions to overall GSDP has decline, the overall growth trajectory indicates that MSMEs have remained a key driver of economic progress. This trend underscores the MSMEs resilience and adaptability, reflecting the impact of policy measures, business expansion, and evolving market dynamics in Tripura.



Source: Trend analysis using primary data.

5.8 Testing of Hypotheses:

5.8.1 H1- There is a significant relationship between overall growth of MSMEs and GSDP.

The table 5.41 presents the results Correlation of hypothesis testing for the relationship between overall growth of MSMEs and GSDP. For that statistical tests selected including Correlation, ANOVA, and Coefficients were used to assess different aspects of MSMEs and GSDP.

The link between the quantity or performance of Micro, Small, and Medium-Sized Enterprises (MSMEs) and their contribution to the Gross State Domestic Product (MSME-GSDP) was investigated using the Pearson correlation analysis. With a Pearson correlation value of $r = 0.773$, the data show a strong positive

relationship between MSMEs and MSME-GSDP. This relationship is statistically significant at the 0.01 level ($p = 0.003$, two-tailed). This implies that MSMEs tend to contribute more to the state's GDP when their numbers or performance levels rise. A consistent and significant link between the variables under investigation was found in the analysis, which was based on 12 observations ($N = 12$).

Table 5.41:

Correlation

Parameters		MSME	MSME-GSDP
MSME	Pearson Correlation	1	.773**
	Sig. (2-tailed)	-	.003
	N	12	12
MSME-GSDP	Pearson Correlation	.773**	1
	Sig. (2-tailed)	.003	
	N	12	12

**. Correlation is significant at the 0.01 level (2-tailed).

The table 5.42 shows the ANOVA test, with a p-value of 0.003 ($p < 0.01$) and an F-value of 14.891. This supports the strength of the association between MSMEs and MSME-GSDP by confirming that the model offers a noticeably better fit than a model without predictors. When the number of MSMEs is zero, the estimated MSME-GSDP is represented by the constant term ($B = 35,028.321$, $p < 0.001$).

Table 5.42:

ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1857297949.609	1	1857297949.609	14.891	.003 ^b
	Residual	1247262186.847	10	124726218.685		
	Total	3104560136.456	11			

a. Dependent Variable: MSME-GSDP

b. Predictors: (Constant), MSMEs.

The table 5.43 shows the unstandardized coefficient for MSMEs, $B = 2.646$ ($p = 0.003$), there is an average rise of 2,646 units in MSME-GSDP for every unit

increase in the number of MSMEs. A significant positive correlation is further supported by the standardized beta value of 0.773. Overall, the regression analysis offers solid proof of a statistically significant and favourable effect of MSMEs on GDP, emphasizing the vital role that MSME expansion plays in economic development.

Table 5.43:

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	35028.321	3736.407	-	9.375	.000
	MSME	2.646	.686	.773	3.859	.003

a. Dependent Variable: GSDP

Table 5.44 demonstrates a straight forward linear regression analysis was carried out to investigate the connection between the quantity of Micro, Small, and Medium-Sized Enterprises (MSMEs) and their contribution to the Gross State Domestic Product (MSME-GSDP). With a correlation value of $R = 0.773$, the regression model demonstrated a robust association between MSMEs and MSME-GSDP. Changes in the number of MSMEs account for around 59.8% of the variation in MSME-GSDP, according to the R Square value of 0.598. A more cautious estimate is provided by the Adjusted R Square (0.558), which takes into consideration the sample size and the number of predictors. The average departure of observed values from the regression line is represented by the estimate's standard error, which is at 11,168.089. The regression model is statistically significant.

Table 5.44:

Linear Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.773 ^a	.598	.558	11168.089

a. Predictors: (Constant), MSME.

Table 5.45:

Hypothesis 1

Sl.no	Test Parameter	Analytical tool used	Findings	Result
1	Growth rate of MSMEs and MSMEs contribution to GSDP	Linear Regression analysis	The regression model demonstrated a robust association between MSMEs and their contribution to GSDP, the correlation value of $R = 0.773$. So, the result of regression suggests that there is statistically significant difference between the growth of MSMEs and the MSMEs contribution to GSDP.	Ho Rejected

Source: Hypothesis tested using Linear Regression analysis test.

5.8.2 H2- There is a significant relationship between growth of MSMEs and employment generation.

The table 5.46 presents the Pearson correlation analysis between the growth of MSMEs and growth in employment generation using data from 12 observations. The results indicate a strong positive correlation ($r = 0.889$) between the two variables, which is statistically significant at the 0.01 level (2-tailed). This suggests that as the MSME sector grows, employment generation also tends to increase

proportionally, highlighting a meaningful and positive linear relationship between the expansion of MSMEs and job creation.

Table 5.46:

Coefficients^a

Parameters		Growth of MSME	Growth of Employment Generation
Growth of MSME	Pearson Correlation	1	.889**
	Sig. (2-tailed)	-	.000
	N	12	12
Growth employment generation	Pearson Correlation	.889**	1
	Sig. (2-tailed)	.000	
	N	12	12

**. Correlation is significant at the 0.01 level (2-tailed).

The table 5.47 shows Pearson Correlation Coefficient was conducted to determine whether there were statistically significant differences in the percentage growth rates of MSMEs and growth rate of employment generation. The test was performed to assess the null hypothesis, which assumes no significant variation among the variance. The Pearson Correlation Coefficient suggests that the percentage growth rate of MSMEs and growth rate of employment generation does not show statistically significant differences. So, the result leads to the failure to reject the null hypothesis.

Table 5.47:

Hypothesis 2

Sl.no	Test Parameter	Analytical tool used	Findings	Result
1	Growth of MSMEs and Growth of Employment Generation.	Pearson Correlation Coefficient	The growth of MSMEs and growth of employment are strongly positively correlated, as indicated by the Pearson correlation coefficient of 0.889 and the relationship is statistically significant at the 1% level ($p = 0.000$).	Ho fail to reject

Source: Hypothesis tested using Pearson Correlation Coefficient test.

CHAPTER 6:
MAJOR FINDINGS OF THE STUDY

6.1 Introduction:

The study comprehensively evaluated the evolving landscape of the MSMEs in Tripura, highlighting its significant contribution to numbers of MSMEs employment, investment, production, and GSDP. Drawn from detailed tables and figures, the research investigated the structural and functional dimensions of MSMEs using quantitative techniques, including correlation analysis, t-tests, and ANOVA. The data provided in the study encompass trends in enterprise growth, capital and investment patterns, employment distribution, production performance, and the MSMEs contribution to the GSDP. The findings reveal a strong positive correlation between the number of MSMEs, employment, and investment, indicating a mutually reinforcing growth pattern. This chapter shows demographic and objectives wise major findings of MSMEs contributions in the economic development of Tripura. The research revealed that the MSME sector has undergone notable transformation, becoming an increasingly significant driver of economic activity in the state. Collectively, these findings show the MSMEs evolving and integral role in Tripura's economic development. The major findings of this study as mentioned below:

6.2 Findings related to Demographic profile of the Study Area:

The majority of enterprises in this study area fall into the 'Micro' category, accounting for a significant 94.48 percent. 'Small' enterprises make up a notable but relatively smaller portion, comprising 5.52 percent of the total.

The data records among all the districts, West Tripura has the highest concentration of MSMEs, accounting for 27.62 percent of the total dataset. Followed by North Tripura contributes, with 17.13 percent of the study area.

The data reveals the distribution of Product/Service produced by selected MSMEs in Tripura. Among these, forest-based products contributed the highest percentage, accounting for 33.43 percent of the total. The agro-based product, comprise a significant portion 20.99 percent. Substantial contributions of 9.39 percent of enterprises are oriented towards providing services sector.

Sole Proprietorship stands out as the dominant type, with 45.86 percent. Substantial contributions of 27.35 percent of enterprises are owned by Partnership. The significant shares 19.89 percent of enterprises owned by the private limited company.

The 'Male' gender category stands out with a dominant presence, comprising a substantial majority of 117 entrepreneurs (70.48 percent). On the other hand, the 'Female' gender category, though relatively smaller in number with 49 entrepreneurs (29.52 percent).

From the male category 91 individual, accounting for 54.82 percent are married and 26 individuals, accounting for 15.67 percent are unmarried of the total count. From the female category 38 individual, accounting for 22.89 percent are married and 11 individuals, accounting for 6.62 percent are unmarried of the total count.

The above 45 years age group, a significant portion of the entrepreneurial community, amounting to 63.25 percent, falls within this range. The next category is 36 - 45 age group, constituting a substantial 24.09 percent of the total. Lastly, 'below 25 years' age group accounts for 3.61 percent of the individuals, indicating a minority of entrepreneurs.

There are 88 entrepreneurs in the 'General' caste category, which accounts for 53.01 percent of the total count. There are 38 entrepreneurs classified as 'OBC', representing 22.89 percent of the total count. The 'SC' category has 25 individuals, making up 15.06 percent of the total count. Similarly, there are 15 entrepreneurs in the 'ST' category, also making up 9.03 percent of the total count.

The larger portion of individuals represented 'Post Graduate' category comprises 75 individuals, accounting for 45.18 percent of the total count. The 'Graduate' category comprises 52 individuals, accounting for 31.32 percent of the total count. There are specifically 38 individuals, are categorized as 'Diploma' making up 22.89 percent of the total count.

6.3 Findings for Objective 1 “To Analyze Progress and Pattern of MSMEs in Tripura”:

From the table 5.10 data it was found that the number of MSMEs shows a clear upward trend over the study period, increasing from 218 enterprises in 2010-11 to 16,604 enterprises in 2022-23.

From the Employment figures in MSMEs also demonstrated a steady increase, rising from 4,315 employees in 2010-11 to 178,917 employees in 2022-23.

In Investment figures, displays significant volatility, with sharp increases trend over the study period, increasing from Rs. 3,393.25 lakh in 2010-11 to Rs. 46,475 in 2022-23.

From the data it was found that the correlation between the number of MSMEs and employment is 0.99674, signifying an almost perfect positive correlation. This implies that as the number of MSMEs increases, employment levels also raise proportionally.

In case of the number of MSMEs shows a strong positive correlation with investment (0.89478), suggesting that higher numbers of MSMEs are associated with increased investment levels.

Additionally, the correlation between employment and investment is also high (0.874), further reinforcing the interconnected growth pattern among these variables. Overall, the results highlight the mutually reinforcing relationship between MSME expansion, employment generation, and capital investment.

6.4 Findings for Objective 2 “To Study the Capital and Investment Pattern of MSMEs in Tripura and its Growth Rate”:

From the table 5.12 data it was found that capital sources of MSMEs reveals a notable overall increase in both owned capital and total liabilities, and also highlighting the MSMEs evolving financial structure. The Owned capital

consistently increased from Rs. 730 lakh in 2010-11 to Rs. 5,720 lakh in 2019-20, reflecting significant growth in the financial position of MSMEs.

The total liability shows an upward trend, rising from Rs. 466 lakh in 2010-11 to Rs. 3520 lakh in 2019-20 over the study period.

From the data it was found that the mean of owned capital was 2936.9, while the mean of total liability was 1810.2. This indicates that, on average, MSMEs have relied more on internally generated funds (owned capital) than on borrowed or external liabilities during the observed period.

From the table 5.14 data revealed Public banks showed a steady increase in the amount of borrowed capital from Rs.92 lakh in 2010-11 to Rs.685 lakh in 2019-20. Public banks remained a dominant source of institutional finance for MSMEs throughout the period.

In case of Private bank borrowings also rose over the period, starting from Rs.67 lakh in 2010-11 and reaching to Rs.425 lakh in 2019-20. The borrowing trends suggest that private banks played a significantly important role in MSME financing.

In terms of Co-operative banks experienced growth from Rs.71 lakh in 2010-11 to Rs. 645 lakh in 2019-20. The ANOVA results showed that the differences in average borrowing from co-operative banks were not statistically significant compared to public and private banks.

From the table 5.16 data it was found that family and friends emerged as a consistently growing source of non-institutional capital, increasing from Rs.72 lakh in 2010-11 to Rs. 615 lakh in 2019-20. Overall, trend indicates a reliable and growing dependence on family/friends networks for capital.

In case of capital from lenders exhibited strong growth, starting at Rs.85 lakh in 2010-11 and rising to Rs.585 lakh by 2019-20. The trend underscores stability and sensitivity of lender-based capital to economic or institutional factors.

In terms of lease based capital demonstrated the increasing trend, from Rs.79 lakh in 2010-11 to Rs.565 lakh in 2019-20.

6.5 Findings for Objective 3 “To Examine the Role of the MSMEs in Generation of Employment and its Growth Rate”:

As per the table 5.20 data interpreted the total gender wise population, male and female, have witnessed a consistent upward trend over the decade, starting at 6,098 in 2010-11 and increasing to 20,839 in 2019-20.

However, the male population has steadily increased from 3,757 in 2010-11 to 11,447 in 2019-20.

In terms of the female population has seen a continuous rise from 2,341 in 2010-11 to 9,392 in 2019-20.

From the data it was found that both male and female populations have experienced growth. However, male workforce 75,783 (57.41 percent) contributed more in comparison to female workforce 56,212 (42.59 percent) in permanent employment category throughout the study.

From the data it was found an independent two-sample t-test assuming equal variances revealed that the average number of male employees (7,578.3) was higher than female employees (5,621.2).

From the table 5.22 data found that gender-wise employment and growth rate of temporary employees from 2010-11 to 2019-20. Data reveals significant expansion in both temporary male and female employment.

In case of Male temporary employment rose from 2,933 in 2010-11 to 9,173 in 2019-20. The highest growth was observed in 2012-13 (35.76 percent) and 2013-14 (23.38 percent), followed by a period of moderation, with the growth rate declining to 4.07 percent by 2019-20.

In case of female temporary employment increased significantly, from 2,086 to 7,692 over the same period. The most substantial annual growth occurred in 2014–15, with a sharp rise of 64.31 percent. However, growth became modest in later years, with only 3.57 percent recorded in 2019-20.

From the data it was found that the independent two-sample t-test assuming equal variances was conducted to compare the mean number of male and female temporary employees over a ten-year period. The mean number of male employees was 6,358, while that of female employees was 4,999.2. The results indicate that male mean number was higher than female employees in temporary employment category.

The data also indicated that in terms of temporary employees, the 'Male' category stands out with a dominant presence, comprising a substantial majority of 63,580 (55.98 percent). Whereas, the 'Female' workforce category, relatively smaller in numbers with 49,992 workforce (44.01 percent).

From the data 5.24 found that the region-wise analysis of employment from 2010-11 to 2019-20, reveals consistent growth across all three categories: local/same district, state/other district, and other states. The ANOVA (Analysis of Variance) test selected to assess whether there are statistically significant differences in the average three categories for MSMEs over the period.

From the data 5.24 found region wise employment from the local or same district rose from 4,165 2010-11 to 14,130 in 2019-20, showing substantial growth in the study period. The data shows that among all three categories Local/same district contributed highest concentration 90,705 workforce, accounting for 68.71 percent. The state/ other district contributed 30,170 workforces, accounting for 22.85 percent and other states shares 11,120 workforce, accounting for 8.42 percent.

From the data it was found that the F-value is 0.257, which is substantially lower than the critical F-value of 3.403 at the 5 percent significance level. This implies that there is no statistically significant difference in the percentage growth rates of employees across the three regions over the observed period.

From the table 5.26 data found on employee literacy levels from 2010-11 to 2019-20 and it revealed a consistent upward trend across all education categories, with notable growth in higher educational attainments.

From the overall total workforce, a larger portion of employees, 36,067 numbers have completed their 'graduation', accounting for 27.32 percent of the total count. The '12th Pass' education level is completed by 35,658 employees, constituting 27.01 percent of the total count.

Among all employees, 21,406 employees are categorized as 'Diploma', making up 16.21 percent of the total count. The 'Post Graduate' category comprises 9,220, accounting for 6.98 percent of the total count. There are 2,766 employees categorized as 'illiterate' representing 2.09 percent of the total count.

From the data it can be found that MSMEs have a stronger employment presence in rural areas 78,848, accounting for 59.73 percent of the total count compared to urban areas 53,147 (40.26 percent) over the study period.

From the table 5.31 data found that a larger number of employees records in age group between 26-35 categories 45,433 (34.42 percent). 'Below 25 years' age group accounts for constituting substantial growth 37,328 employees (28.27 percent) of the total count. Lastly, 'above 45 years' age group recorded 12,495 employees, accounts for 9.46 percent, indicating a minority of employees.

From the table 5.34 data indicated that overall employment growth from 2010-11 to 2019-20 and it shows a consistent and significant increase across all categories: male skilled, male unskilled, female skilled and female unskilled workers.

From the data it can be found that from the overall growth of the employment, skilled male employees represent the largest group, comprising 47,478 employees, 35.96 percent of the workforce, while skilled female 34,698 employees account for 26.28 capable. Minimally Unskilled male 28,305 employees constitute 21.44 percent, and Minimally Unskilled female 21,514 employees, makeup 16.29 percent of the total workforce.

6.6 Findings for Objective 4 “To Study the Annual Growth Rate of Production of Goods and Services by MSMEs in Tripura”:

From the table 5.37 data indicated the year-wise production performance of goods/services data of MSMEs in Tripura from 2010-11 to 2019-20. It showed a consistent upward trend in turnover and profit, reflecting overall growth in the MSMEs.

In case of the turnover increased steadily from Rs. 9349.23 lakh in 2010-11 to Rs.9978.74 lakh in 2019-20. Similarly, profit rose from Rs.4186.71 lakh in 2010-11 to Rs.4835.05 lakh in 2019-20 during the study period.

However, the cost of goods and operating expenses remained relatively stable with minor annual variations, which contributed to a controlled total cost.

In case of the share of cost of goods fluctuated within a narrow band, rising modestly from 58.88 percent in 2010-11 to 62.45 percent in 2019-20, indicating a relatively stable production cost scenario.

Concurrently, operating expenses slightly declined as a proportion of total cost from 41.12 percent to 37.55 percent signifying enhanced operational efficiency and cost control over the study period.

From the table 5.39 data revealed that the forest-based sector demonstrated a positive growth trend, albeit with slight fluctuations. This forest based product category contributed the highest turnover among all categories, rising from Rs. 2,956.22 lakh in 2010-11 to Rs. 3,113.78 lakh in 2019-20. This indicates the sector's resilience and adaptability over the years. The total turnover for the forest-based sector amounted to Rs. 29,894.68 lakh, (30.88 percent) making it a substantial contributor to the overall MSMEs.

Similarly, the agro-based sector experienced a consistent growth trajectory throughout the study period. As the second-highest contributor in terms of turnover, it steadily increased from Rs. 2,025.12 lakh in 2010-11 to Rs. 2,932.28 lakh in 2019-

20. Over the entire period, the agro-based sector recorded turnover of Rs. 25,233.77 lakh, (26.06 percent) reflecting its significant role within the MSME landscape.

From the data of textile-based product category witnessed decline in turnover during the study period. It reached a peak of Rs. 1,732.11 lakh in 2010-11 but declined to Rs.1247.23 lakh by 2019-20. Despite these variations, the sector maintained a noteworthy contribution to overall turnover, amounting to Rs. 14,016.88 lakh, (14.48 percent) highlighting its continued relevance in the MSME framework.

In case of the engineering-based product category exhibited relatively stable performance, with turnover remaining within a moderate range over the years. Starting at Rs. 923.21 lakh in 2010-11, it increased to Rs.992.37 lakh in 2019-20. This stability amidst economic variations underscores the MSMEs resilience. The total turnover contribution from engineering-based products stood at Rs. 10,055.59 lakh (10.38 percent) for the study period.

In terms of the animal husbandry category demonstrated moderate growth, with turnover moving from Rs.431.14 lakh in 2010-11 to Rs.430.21 lakh in 2019-20. Although this figure is lower compared to other sectors, the category remained a steady and consistent contributor, 4562.51 lakh (4.71 percent) underscoring its stable presence within the broader MSME ecosystem.

In case of the services category shows a consistent growth trajectory throughout the study period. This services category contributed turnover rising from Rs. 1,354.35 lakh in 2010-11 to Rs. 780.36 lakh in 2019-20. The total turnover for the service sector amounted to Rs. 7668.14 lakh, (7.92 percent) making it a substantial contributor to the overall MSMEs.

6.7 Findings for Objective 5 “To Explore the Total Production of Goods and Services by MSMEs and its Contribution to GSDP of Tripura”:

From the table 5.40 data found total GSDP and the absolute contribution of MSMEs have shown a consistent upward trend, with GSDP increasing from

Rs.19,208.41 crore in 2011-12 to Rs.72,635.62 crore in 2022-23, and MSMEs contribution rising from Rs.12,502.29 crore to Rs.38,848.74 crore over the study period.

However, despite the nominal growth in MSME output, their percentage share in the GSDP has experienced a declining trajectory. From a high of 65.09 percent in 2011-12, the share began to drop steadily, falling to 53.48 percent in 2022-23.

This trend suggests that while MSMEs continue to grow, other sectors of the economy have expanded at a relatively faster pace, thereby reducing the proportional contribution of MSMEs to the overall GSDP.

In overall findings, the data revealed a dynamic picture of economic growth, with MSMEs playing an important role. In addition, their relative share to the overall economy has been diminishing in recent years, reflecting shifts in the economic landscape that may warrant further analysis to understand underlying causes and implications.

CHAPTER 7:
CONCLUSION AND SUGGESTIONS

7.1 Conclusion:

The MSME has emerged as a highly significant contributor to economic development. Its significance lies in its labor-intensive nature and its potential to reduce regional imbalances, foster economic independence among rural populations, and support sustainable development. The MSMEs growth trends underscore its responsiveness to changing market conditions and economic policies. The notable increases observed in study period can be attributed to improved access to finance, favorable government initiatives, and overall economic progress. Conversely, some periods of decline may be linked to economic slowdowns, regulatory shifts, and other external challenges. The study has examined the role of MSMEs in economic development of Tripura. It focused on capital structure, sources of capital (both institutional and non-institutional), sources of investment, and the composition of current and fixed assets. The overall capital structure trend reflects a positive trajectory in owned capital and total liabilities, suggesting opportunities for business expansion and enhanced financial stability. Moreover, the evaluation of trends in owned capital, liabilities, fixed assets and current assets offers meaningful insights into the financial dynamics of the sector. Thereby, supporting informed decision making and strategic planning for future sustainability. Additionally, the consistent upward trend in the gender-wise workforce distribution particularly the increase in skilled female workers points to the effectiveness of skill development programs and improved access to training. This progress signified an encouraging shift towards gender equality in skill acquisition and employment opportunities within the MSMEs.

However, the production of goods and services contributed in the economic development of MSMEs. The Total Cost comprised the cost of goods and operating expenses has shown a consistent upward trend, reflecting the rising operational expenditures incurred by MSMEs. The findings emphasized the diverse and dynamic nature of MSMEs across various industrial product categories, reinforcing the need for adaptability, efficient cost management, and strategic planning to navigate the complexities of an evolving market landscape.

The study concluded that while the MSMEs are experiencing growth and other dimensions of the economy are expanding at a comparatively faster rate. As a result, the relative contribution of MSMEs to the Gross State Domestic Product (GSDP) has been declining. Overall, the findings presented a dynamic picture of economic development. However, the diminishing share of MSMEs in the broader economy in recent years reflects structural shifts that merit deeper analysis to uncover the underlying causes and assess their implications for future policy and support.

7.2 Suggestions:

The study provides a framework for the role of the MSME sector in economic development of Tripura. It has been observed that the MSME sector promotes employment generation, Production, capital, investment and also actively contributes to the GSDP of the state. To encourage the growth and sustainability of MSME in Tripura, the government has initiated various steps. The entrepreneurs of MSME adapted that facilitation for the development of the economic condition of the state. However, for the further improvement of this sector, some suggestions were provided for the MSMEs entrepreneurs and government. These suggestions will help to find out those areas where there is a requirement of improvement and also help in determining proper actions that can improve the MSMEs.

7.2.1 Suggestions for MSMEs Entrepreneurs/Business Units:

- 1) Building collaborative networks and platforms among MSMEs, large enterprises, government agencies, and research institutions can significantly enhance knowledge sharing, innovation, and collective growth. This can be effectively achieved through the establishment of industry clusters, business incubators, and innovation hubs that foster cooperation and technological advancement.
- 2) Conducting regular market research is essential for understanding local consumer preferences, market demands, and competitive dynamics. Additionally, consistently seeking and incorporating customer feedback helps

align products and services with consumer expectations. This approach enables MSMEs to identify niche markets and adapt their offerings accordingly.

- 3) For the advancement of the MSME sector, the adoption of new technology upgrades is critical. Embracing modern technologies enhances market reach, boosts competitiveness, and use Artificial Intelligence (AI) tools to improves productivity in both domestic and international markets.
- 4) Implementing branding quality improvement management systems is vital for ensuring higher product quality and compliance with industry standards. This can enhance brand reputation and foster customer loyalty.
- 5) Facilitating market access for MSMEs plays a crucial role in expanding their reach to both domestic and international markets. This involves strengthening supply chain networks, improving infrastructure, and offering support for export promotion initiatives.
- 6) MSMEs should effectively leverage various central and state government schemes designed to support the sector. They should also utilize available incentives, grants, and subsidies aimed at infrastructure development, technology adoption, and market expansion.
- 7) Maintaining comprehensive financial records and conducting regular financial planning are essential for effective cash flow management and sound business decision-making.
- 8) Focusing on digital marketing strategies such as online advertising, social media engagement, and Search Engine Optimization (SEO) can help MSMEs reach a broader audience and increase sales.
- 9) Adopting sustainable business practices is necessary to minimize negative environmental impacts. These practices include enhancing energy efficiency, reducing waste and using eco-friendly materials responsibly.

7.2.2 Suggestions for Government:

- 1) The MSME registration process should be easy and smooth.
- 2) Increased investment in Skill Development Programs (SDPs) tailored to the specific needs of MSMEs can significantly enhance their capabilities, creativity, competitiveness, and productivity. Collaborations with vocational training centers and technical institutes can ensure a steady supply of a skilled and industry-ready workforce.
- 3) Simplifying access to finance for MSMEs is essential and can be achieved through the single-window system. This access to finance process should be easy and less paper work.
- 4) Encourages single-window clearance system and promote to alternative financing options such as crowd funding, venture capital, and angel investment. This should be complemented by strengthening the formal banking sector's outreach to MSMEs and increasing the availability of collateral-free loans.
- 5) The development of industrial estates or MSME clusters can foster networking, collaboration, and the sharing of infrastructure among enterprises. Such initiatives promote economies of scale and facilitate collective growth and innovation.
- 6) An infrastructure development approach can contribute to the holistic advancement of the MSME sector. Strategic investments in infrastructure projects such as logistics, transportation, supply chain management, and energy can lower operational costs for MSMEs and enhance the overall business ecosystem, thereby creating a more enabling environment for growth.
- 7) Addressing the high risk perceptions associated with small enterprises requires the implementation of effective risk mitigation strategies. This includes providing access to risk-sharing mechanisms, through insurance coverage, and capacity-building programs to enhance the resilience of MSMEs.

- 8) The regular monitoring, evaluation, and implementation of policies and schemes targeted at MSME development are crucial for ensuring their relevance and effectiveness. Such practices enable timely adjustments in response to evolving challenges and emerging needs within the sector.
- 9) Encouraging and supporting MSME clusters in sectors where Tripura holds competitive advantages such as forest-based industries, agro-based enterprises, handlooms, textiles, animal husbandry, and handicrafts is vital. Providing these clusters with common services and shared facilities can further enhance their operational efficiency and growth potential.
- 10) There is a pressing need to encourage investment diversification toward small and medium enterprises. This shift can be supported through the implementation of targeted financial incentives and structured support mechanisms aimed at fostering balanced growth across all categories within the MSMEs.
- 11) The strategic geographical location of Tripura offers significant export opportunities. These can be leveraged by disseminating information on international trade practices, organizing trade fairs, and promoting active participation in global exhibitions to integrate local MSMEs into international markets.

7.3 Future Scope of the Study:

- 1) For the advancement of the MSMEs, central and state governments have introduced various initiatives and policies for the empowering MSMEs owners. So, a more comprehensive and updated study can be done to assess their impact and explore emerging opportunities and challenges within the sector.
- 2) Significant amendments occurred in 2020 with the revision of the definition of MSMEs, which effectively expanded the MSMEs scope and eligibility criteria. This redefinition is expected to encourage more entrepreneurs to establish businesses. So, there is a scope for comparative study on the basis of previous and new definitions criteria of MSMEs.

- 3) The MSMEs contribution to GDP has created a significant role for the economic development. So, there is a scope for further analysis and understand causes and implications.

QUESTIONNAIRE

Dear,

Sir/Madam,

I Bikram Das, Ph.D. Research scholar of Department of Management from Mizoram University, Aizawl, Mizoram and my research title is “Role of Micro Small and Medium Enterprises (MSMEs) in Economic Development of Tripura” would like to request you to fill the questionnaire and return the same. Your support in terms of investing time and respond this questionnaire would be great contribution to accomplish the study. I also assure you that the responses will be treated highly confidential and will only be used for the academic purpose.

In case of any queries regarding any of the questions below, I am reachable at:

E.mail: dasbikram1706@gmail.com (M): 8131948094.

Thank you very much for your kind support for this research.

Part-A

1. Identification:

1.1 Name of the enterprise:

1.2 Contact Details (Optional): email:

Mobile/Phone: _____

1.3 Address of the unit:

1.4 Year of the Establishment:

1.5 Category of the unit: Micro ☐ Small ☐ Medium ☐

1.6 Name of the product/ services of your enterprises

2. Social and Economic profile of the entrepreneur:

2.1 Owner's Name/promoters Name:

2.2 Sex: Male ☐ Female ☐

- 2.3 Marital status: Married ☐ Unmarried ☐
- 2.4 Age: Below 25 years ☐ 26-35 years ☐ 36-45 years ☐ Above 45 years ☐
- 2.5 Social Status: General ☐ SC ☐ ST ☐ OBC ☐
- 2.6 Educational Qualification: Less or Equivalent 10th pass ☐ 12th pass ☐ Diploma ☐ Graduation ☐ Post-Graduation ☐ Any other ☐ Others ☐ (Specify) _____
- 2.7 Which is the best describe the ownership of your enterprise:
Sole Proprietorship ☐ Partnership ☐ Cooperative ☐
Private Company ☐ Public Company ☐ Others ☐ (Specify) _____

Part- B

3. Furnish the details of employees/ workers of your enterprise:

3.1 Numbers of full time workers in your business: Less than 10 ☐

11-30 ☐ 31-50 ☐ 51-100 ☐ 100 and above ☐

3.2 Numbers of part time workers/Seasonal workers in your business: Less than 10 ☐ 11-30 ☐ 31-50 ☐ 51-100 ☐ 100 and above ☐

Skilled workers: Skilled workers refer to employed who have specialized training or skills. These workers are capable of exercising judgment and have knowledge of the particular trade or industry they work.

Unskilled workers: Unskilled workers are employed for carrying out such jobs which do not require any specialised professional skill and likely have no formal education. This type of work usually involves simple duties that don't require judgment.

3.3 Permanent employees/ workers:

Years	Male		Female		Total	
	Skilled	Unskilled	Skilled	Unskilled	Male	Female
2010-11						
2011-12						
2012-13						
2013-14						

2014-15						
2015-16						
2016-17						
2017-18						
2018-19						
2019-20						

3.4 Temporary employees/ workers:

Years	Male		Female		Total	
	Skilled	Unskilled	Skilled	Unskilled	Male	Female
2010-11						
2011-12						
2012-13						
2013-14						
2014-15						
2015-16						
2016-17						
2017-18						
2018-19						
2019-20						

3.5 Origin of employment:

Years	Area				Total
	Local	District	State	Other States	
2010-11					
2011-12					
2012-13					
2013-14					
2014-15					
2015-16					
2016-17					
2017-18					
2018-19					
2019-20					

3.6 State the literacy of your employees/ workers:

(in numbers)

Years	Illiterate	10 th pass	12 th pass	Diploma	Graduation	Post-Graduation
2010-11						
2011-12						
2012-13						
2013-14						
2014-15						
2015-16						
2016-17						
2017-18						
2018-19						
2019-20						

3.7 State the Urban/ Rural comparison of employees/ workers:

Years	Urban (Number)	Rural (Number)
2010-11		
2011-12		
2012-13		
2013-14		
2014-15		
2015-16		
2016-17		
2017-18		
2018-19		
2019-20		

3.8 State the age group of your employees/ workers:

Periods	Age Groups			
	Below 25 years	26-35 years	36-45 years	Above 45 years
2010-11				
2011-12				
2012-13				
2013-14				
2014-15				
2015-16				
2016-17				
2017-18				
2018-19				
2019-20				

3.9 Trends in the growth of employment:

Years	Skilled Workers	Un-skilled Workers	Percentage of increase (%)
2010-11			
2011-12			
2012-13			
2013-14			
2014-15			
2015-16			
2016-17			
2017-18			
2018-19			
2019-20			

Part- C

4. Details of Production:

4.1 Please mention the information of profit and loss of the unit (in Rs.) during 2010-2020:

(Amount in Lakhs)

Year	Cost of Goods	Operating Expenses	Total Cost	Turnover	Profit
2010-11					
2011-12					
2012-13					
2013-14					
2014-15					
2015-16					
2016-17					
2017-18					
2018-19					
2019-20					

4.2 Over the next two years, do you plan to... (Tick that Apply):

Grow the business modestly	
Grow the business substantially	
Maintain the business at current level	
Reduce the business from current levels	
Sell/ Transfer/ Wind up the business	

Part-D

5. Details of Capital and Investment:

5.1 Please mention the capital sources of your Venture/ Business:

Owned Capital ☐ Borrowed Capital ☐

5.2 What percentage (%) of capital invested?

Owned capital (%): _____ Borrowed Capital (%): _____

5.3 Please mention the sources of borrowed capital:

Institutional ☐ Non- Institutional ☐

5.4 If, Institutional please mention the sources of borrowed capital:

Public Sector Bank ☐ Private Sector Bank ☐

Co-operative Society ☐ Others ☐

5.5 Please specify the bank name:

5.6 If, Non- Institutional please mention the sources of borrowed capital:

Family members/Friend ☐ Indigenous Lender ☐ Leasing ☐

Govt. Programs/Subsidy ☐ Others ☐ Specify: _____

5.7 Please Specify the Source of Capital: (Amount in lakhs)

Years	Owned Capital	Borrowed Capital	Total Capital
2010-11			
2011-12			
2012-13			
2013-14			
2014-15			
2015-16			
2016-17			
2017-18			
2018-19			
2019-20			

5.8 Please Specify the Source of Investment: (Amount in lakhs)

Years	Fixed Assets	Current Assets	Total Assets
2010-11			
2011-12			
2012-13			
2013-14			
2014-15			
2015-16			
2016-17			
2017-18			
2018-19			
2019-20			

Thank you very much for spare time and your kind response.

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- 2) University Name: Mizoram University.
- 3) Ph.D. Registration number: MZU/Ph.D./1266 of 01/08/2018.
- 4) Topic: Role of Micro Small and Medium Enterprises (MSMEs) in EconomicDevelopment of Tripura.

Academic Achievements:**Paper Publication:**

- 1) Published a paper in Industrial Engineering Journal (IEJ), ISSN: 0970-2555, Volume XVIII & Issue No.10, October 2025 issue, UGC Care Indexed journal. The title of the article is, “An Analytical Study on the Performances of Micro Small and Medium Enterprises (MSMEs) in Economic Development of Tripura.
- 2) Published a paper in European Economic Letters (EEL), ISSN 2323-5233, ABDC Journal, Role of Micro Small and Medium Enterprises (MSMEs) in Economic Development of India: An Analytical Study. 15(3), 3420–3432.
- 3) Published a paper in International Journal of Food and Nutritional Sciences (IJFANS), UGC Care Indexed journal, ISSN: 2320-7876, Impact Factor: 7.832, Vol: 11, Issue: 2, Date of Publication: November, 2022, on the topic of “Micro Small and Medium Enterprises (MSMEs) in Tripura: An Overview”.
- 4) Published a paper in “Cuestiones de Fisioterapia”, a SCOPUS Indexed journal on the topic “An Analytical study on the Performances of Micro Small and Medium Enterprises (MSMEs) in Economic Development of Tripura” Vol: 54, Issue: 2, 2025.

Paper presented:**International Conference/Seminar:**

- 1) Paper presented in collaboration with Royal University, Bhutan and North-Eastern Management Association (NEMA) sponsored for International conference on the topic of “An Analytical Study on the performance of Micro Small and Medium Enterprises (MSMEs) sector in Economic Development of Tripura”, at Royal University, Bhutan.

National Conference/Seminar:

- 2) Paper presented in ICSSR sponsored two days National seminar on the topic of “A Study on Employment Generation in Micro Small and Medium Enterprises (MSMEs) sector in India”, at Holly Cross College, Agartala, Tripura.
- 3) Paper presented in Two days National seminar on the topic of “Status of Ease of Doing Business (EDB) with Special Reference to Micro Small and Medium Enterprises (MSMEs) sector in Tripura” at Mizoram University, Aizwal, Mizoram.
- 4) Paper presented in NABARD sponsored two days National seminar on the topic of “An Analytical Study on Micro Small and Medium Enterprises (MSMEs) sector in Economic Development of India”, at ICFAI University, Agartala, Tripura.
- 5) Paper presented in two days National Seminar on the topic of “Employment Generation in Tripura: A Study” at MC Das govt. College, Silchar, Assam.
- 6) Paper presented in Two days National Seminar on the topic of “Entrepreneurship Development and Employment Generation in Tripura: A Study” at Aizwal Govt. College, Aizwal, Mizoram.
- 7) Paper presented in ICSSR sponsored national Seminar on the topic of “An Analysis of Performance of the Micro Small and Medium Enterprises (MSMEs) sector in Economic Development of Tripura.” at Mizoram University, Aizwal, Mizoram.

Attended Workshop:

- 1) Attended in Indian Council of Social Science Research (ICSSR) Sponsored three days National Workshop on the topic of “Capacity Building Workshop in Social Science Research” organized by OKD Institute of Social Change and Development, Guwahati and collaboration with Govt. T. Romana College, Aizwal, Mizoram.
- 2) Attended in Economic Science Society of Tripura (ESSOT) Sponsored three days Online National Workshop on the topic of “Entrepreneurship in Micro and Small Sectors” organized by Ramthakur College, Agartala, Tripura.
- 3) Attended in National Seminar on the topic of “Intellectual Property Rights” Organized by Holy Cross College, Agartala, with collaboration with Internal Quality Assurance Cell (IQAC).

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ABSTRACT
ROLE OF MICRO SMALL AND MEDIUM ENTERPRISES
(MSMES) IN ECONOMIC DEVELOPMENT OF TRIPURA

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**ROLE OF MICRO SMALL AND MEDIUM ENTERPRISES (MSMES) IN
ECONOMIC DEVELOPMENT OF TRIPURA**

**BY
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**Submitted
In partial fulfillment of the requirement of the Degree of Doctor of Philosophy
in Management of Mizoram University, Aizawl**

Chapter 1: Introduction

1.1 Introduction to Micro Small and Medium Enterprises (MSMEs) in India:

The Micro Small and Medium Enterprises (MSMEs) have emerged as an exceptionally vibrant and dynamic component of the Indian economy (Prakash et al., 2023). MSMEs, regarded as 'Engines of Economic Growth' are crucial for the economies of developing countries like India due to their potential to generate significant employment (Virk and Negi, 2019). This sector has attracted the attention of policy makers as its employment generation capacity, and it holds the potential to address issues of regional disparities, promote economic self-sufficiency in rural areas, and contribute to sustainable development (Bhat & Singh, 2020). The MSMEs in India is widely recognized as essential to the nation's economic growth in the 21st century (Kumari & Kumari, 2024). In India's current push for the MSMEs, rebranded as 'Make in India,' there is a concerted effort to foster research in business systems and continuous development in industries striving to achieve optimal quality, appropriate product offerings, and effective services at competitive prices for both domestic and international markets (Chauhan & Sarvaiya, 2024). A significant number of domestic and international investors are increasingly inclined to invest in the 'Make in India' initiative, thereby contributing to the growth of the Indian economy (Babu & Vinitha, 2019). This 'Make in India' policy, in conjunction with the 'Digital India' initiative, has created numerous opportunities for the expansion of MSMEs, particularly in the communication network sector (Chandrachud & Suganya, 2020). Additionally, the growth of the MSME sector has led to an increase in Foreign Direct Investment (FDI) in India (Singha & Kumar, 2020).

The MSMEs has played a vital role in fostering economic development through continuous business innovation. MSMEs are increasingly expanding their presence across various sectors of the economy, offering a wide array of products and services that cater to both domestic and international markets (Annual Report of MSME 2020-21, Govt. of India). There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSMEs in India (Annual Report of MSME 2019-20, Govt. of India). According to the Annual Report of MSME 2024-25, Govt. of India indicated that MSMEs has made substantial contributions to the Indian economy, accounting for 30.1 percent of the Gross

Domestic Product (GDP), 36 percent of manufacturing output, and 45 percent of total exports. Additionally, the sector has shown remarkable growth in number of MSMEs, with 5.77 crore registered in the Udyam and Udyam Assist Portals. It has also emerged as a major source of livelihood, generating employment opportunities for approximately 24.4 crore individuals. Notably, the MSME sector ranks second in employment generation, after the agriculture sector in India (Annual Report of MSME 2024-25, Govt. of India).

The MSMEs are considered as the catalyst of economic and social development of India as well as Tripura. The MSME in Tripura plays a significant role in promoting industrialization, employment generation, and balanced regional development (Economic Review of Tripura 2022-23, Government of Tripura). Thus, the study analyzes the role of MSMEs in economic development of Tripura. The study evaluates the MSMEs role across five dimensions, including the progress and pattern of MSMEs, production of goods and services, MSMEs contribution to Gross State Domestic Product (GSDP), employment generation, and capital investment of MSMEs in Tripura.

1.2 MSMEs in Global perspective:

MSMEs play a crucial role in most economies, particularly in developing countries. These enterprises represent the majority of businesses and are pivotal contributors to employment generation and economic development globally (Yahaya et al., 2016). According to the World Bank 2019, MSMEs account for approximately 90 per cent of enterprises and over 50 per cent of total employment worldwide. In emerging economies, formal MSMEs contribute up to 40 per cent of Gross Domestic Product (GDP), with even larger figures when informal MSMEs are included. To accommodate the growing global labour force, an estimated 600 million jobs will be needed by 2030, making the expansion of MSMEs a critical priority for governments worldwide. In developing economies, MSMEs are responsible for generating 7 out of every 10 formal jobs (World Bank, 2019).

The contributions of MSMEs to the economic growth of countries have been highly significant. MSMEs play a vital role in enhancing a nation's Gross Domestic Product (GDP), generating employment, boosting industrial output, alleviating poverty, promoting exports, and fostering self-reliance (Ministry of MSME 2021,

Government of India). In Nigeria, MSMEs contribute approximately 41 Percent to the country's GDP (SMEDAN & NBS, 2021). Globally, the MSME impact is evident across various economies. In Japan, MSMEs account for 80 Percent of the total industrial workforce, while in Germany and the United States, they comprised 50 Percent and 46 Percent respectively (Yahaya et al., 2016). These figures highlight the MSMEs pivotal role as a powerful engine for development, particularly in employment generation, industrial productivity, and export promotion across different nations (Yahaya et al., 2016).

1.3 MSMEs in Tripura: An Introduction

Tripura is located in the north-eastern part of India, and is the third smallest hilly state by area. It shares an 856 km international border with Bangladesh and also shares borders with Assam and Mizoram. In 2012, the government of Tripura restructured its administrative framework, creating four new districts, six new subdivisions, and five new blocks, with the goal of decentralizing administration and improving the implementation of government policies. Currently, Tripura has twelve industrial estates, with some ongoing development across eight districts. These industrial estates were originally managed by the State Industries and Commerce Department (SICD) but are now overseen by the Tripura Industrial Development Corporation (TIDC).

The MSMEs continues to be a focal point in the state's economic policies. The government is committed to providing an efficient and cost-effective infrastructure, a stable environment, and good governance, which are essential for establishing a business climate for the sustainable industrial growth of MSMEs. According to the Udyog Aadhaar Memorandum (UAM) 2022-23, Government of Tripura, indicated that there is total 16,604 (growth rate 97.74 per cent) MSMEs exist in Tripura. In those MSMEs total 178,917 (growth rate 80.69 per cent) employees employed. However, the investment amount invested by those MSMEs was Rs. 46,475.73 lakh (growth rate 47.26 per cent) in Tripura. In addition, as per the Directorate of Economic and Statistics, Government of Tripura 2022-23 showed the MSMEs contribution in total GSDP was Rs. 38,848.74 crore (growth rate 53.48 percent) in Tripura.

1.4 Status of MSMEs in Tripura:

The Micro, Small, and Medium Enterprises Development (MSMED) Act, 2006, was implemented in Tripura to promote and support the growth of the MSME sector in the state. Section 9 of the MSMED Act empowers the Central Government to implement policy for the promotion and development of MSMEs, including measures to enhance their competitiveness. The Act aims to facilitate the growth and enhancement of these enterprises, while simultaneously improving their competitiveness. It provides the first-ever legal framework for recognizing the concept of ‘enterprise’, encompassing both manufacturing and service entities. The state of Tripura has made concerted efforts to develop its MSMEs, recognizing its potential in fostering economic growth, generating employment, and promoting regional development (Economic Review of Tripura 2022-23).

According to the study, Tripura’s industrial profile continues to be dominated by micro 342 (94.48 percent) and small 20 (5.52) enterprises. As per the data selected proportionately, out of all districts west Tripura district 100 enterprises (27.62 percent) contributed highest percentage in numbers of MSMEs exist for the study. Followed by north Tripura 62 enterprises (17.13 percent) and 46 enterprises (12.71 percent) in number of MSMEs. Key sectors include forest based 121 enterprises (33.43 percent), followed by agro based 76 enterprises (20.99 percent) and textile based 59 enterprises (16.3 percent) contributed in MSMEs in Tripura. As per the forms of ownership, sole proprietorship 166 (45.86 percent) contributed highest contribution followed by partnership 99 (27.35 percent) and private limited 72 enterprises (19.89 percent). Among all proprietors male 117 (70.48 percent) contributed highest percentage than female 49 numbers (29.52 percent) in MSMEs in Tripura.

1.5 Definition of MSMEs:

The table 1.1 below shows the new classification of MSMEs came into effect on 1st July 2020. Prior to this, the classification under the MSMED Act, 2006 was based on investments in plant and machinery or equipment, which varied for manufacturing and service units. The previous thresholds were relatively low in terms of monetary limits. However, given the significant changes in the economy, an update to the MSME classification rules was announced as part of the MSME

Amendment Act 2020 government of India. This revision was introduced to align with contemporary economic conditions, create a more rational and targeted classification framework, and facilitate the ‘Ease of Doing Business’ for enterprises. The updated investment limits for MSMEs in both the manufacturing and service sectors are summarized in the table below:

Table 1.1:
The Classification of a New Concept of MSMEs

Revised MSME Classification			
Composite Criteria: Investment And Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing and Services	Investment: greater than Rs. 1 crore and Turnover: greater than Rs. 5 crores.	Investment: greater than Rs. 10 crores and Turnover: greater than Rs. 50 crores.	Investment: greater than Rs. 20 crores and Turnover: greater than Rs. 100 crores.

Source: MSME Amendment Act 2020, Government of India.

1.6 Significance of the study:

As per the ‘Udyog Aadhaar Memorandum (UAM) 2019-20’ published by Ministry of MSME, Government of Tripura, revealed that there are 6,581 registered MSMEs available in different districts of Tripura. The study considered the whole state of Tripura covering the eight districts. Among all these districts, micro enterprises contribute more than small enterprises in Tripura. In the North- Eastern region, Tripura has second highest contributors after Assam in terms of register MSMEs. Therefore, this sector contributes a vital role for the economic development of the state. This study examined the contribution of the MSME sector in Gross State Domestic Product (GSDP), production of goods & services, employment generation, capital and Investment by MSME sector of Tripura. The findings of this study can be beneficial for local entrepreneurs, aiding them in formulating strategies to capitalize

on the opportunities within the MSME. Furthermore, the study will serve as a valuable resource for both state and central governments in shaping policies that foster the growth and development of the MSME.

1.7 Scope of the Study:

The MSMEs represents 95 percent of business firms worldwide and is responsible for generating 60 percent of global employment and it contributes up to 40 per cent to GDP across the worldwide (Kumar, 2020). According to the Annual Report of MSME 2024-25, Govt. of India indicated that the MSMEs has made contributions to the Indian economy, accounting for 30.1 percent to GDP, 36 percent of manufacturing output, and 45 percent of total exports. Additionally, the MSME has recorded remarkable growth in number of MSMEs, with 5.77 crore. The MSMEs have created employment opportunities for approximately 24.4 crore individuals in India. Notably, the MSME sector ranks second in employment generation, after the agriculture sector in India (Annual Report of MSME 2024-25, Govt. of India). The scope of the study evaluates the MSMEs impact across various dimensions, including the progress and pattern of MSMEs, production of goods and services, MSMEs contribution to Gross State Domestic Product (GSDP), employment generation, and capital investment within the MSME sector in Tripura. According to the Udyog Aadhaar Memorandum 2019-20, published by the Government of Tripura, there are 6,581 registered MSMEs across eight districts in the state. Thus, the study is confined to the MSME sector in Tripura, covering all districts from the fiscal years 2010-11 to 2023-24.

1.8 Statement of the Problem:

According to data from the National Sample Survey (NSS) 73rd round, conducted by the Ministry of Statistics and Program Implementation, there were 633.88 lakh enterprises in India, out of that 230.35 lakh in the trade sector, 196.65 lakh in the manufacturing sector, 0.03 lakh in non-captive electricity generation and transmission, and 206.85 lakh in other services (Annual Report of MSME 2022-23, Govt. of India). Despite its significant contribution to the Indian economy, the MSME sector faces several challenges, including lack of awareness about available schemes, insufficient technical and skilled labour, and a shortage of motivational

factors. These issues highlight the need for a comprehensive study that explores the role of the MSME sector in economic development.

The available literature suggests that micro enterprises dominate the MSME sector in Tripura, followed by small and medium enterprises. But the data relating to employment, capital generation and growth rates of MSME sector in Tripura's sufficient data are not available. Also, the role of new policy for the development of industrial estates in Tripura is not known. Therefore, this study aims to gather information regarding the generation of employment, contribution to Gross State Domestic Product (GSDP), production of goods and services, and capital investment by the MSMEs in Tripura.

1.9 Objectives of the Study:

The study aims to explore the 'Role of Micro Small and Medium Enterprises (MSMEs) in the Economic Development of Tripura'. The Central and State governments of India have launched various policies and schemes to support the development of MSMEs. Tripura has particularly relied on the MSMEs for the employment generation, it has contributed to the growth of GSDP, increase the number of enterprises, and promote the production of MSME products, as well as capital investment in the sector. The present study concentrated on the various aspects of MSME sector of Tripura. Therefore, following objectives were outlined below:

- 1) To analyze progress and pattern of MSMEs in Tripura.
- 2) To study the capital and investment pattern of MSMEs in Tripura and its growth rate.
- 3) To examine the role of the MSMEs in generation of employment and its growth rate.
- 4) To study the annual growth rate of production of goods and services by the MSMEs in Tripura.
- 5) To explore the total production of goods and services by MSMEs and its contribution to GSDP of Tripura.

1.10 Hypotheses:

H1- There is a significant relationship between overall growth of MSMEs and GSDP.

H2- There is a significant relationship between growth of MSMEs and employment generation.

1.11 Research Methodology:

Initially, a pilot study was conducted to select a random sample of MSMEs, and based on the information gathered from the pilot study, the questionnaire was subsequently modified. This study follows a descriptive research approach, utilizing both primary and secondary data sources for data collection. To examine the MSME sector in Tripura, a structured questionnaire was developed to gather primary data from a randomly selected sample of MSME owners, managers, and government officials associated with the MSMEs. The questionnaire focused on key areas such as employment generation, contribution to the growth of Gross State Domestic Product (GSDP), growth in the number of enterprises, production of MSME products, and capital investment within the MSME sector in Tripura.

1.11.1 Tools for Analysis:

To facilitate a comprehensive analysis and interpretation of the data, and to assess the role of MSMEs in the economic development of Tripura, several statistical methods have been used. These include the One-Way ANOVA test, t-test, correlation analysis, Linear Regression analysis, Pearson Correlation Coefficient, trend line analysis, and percentage methods.

1.11.2 Population:

The target population under the purview of this study considered MSME owners, managers and authorized representatives of MSMEs. According to the Udyog Aadhaar Memorandum (UAM) 2019-20, a total of 6,581 registered MSMEs exist in Tripura.

1.11.3 Sources of Data:

For this study, both primary and secondary data have been utilized. Primary data was collected through field surveys and interviews. Meetings were conducted with owners, managers, and authorized representatives of MSMEs, as well as government officials associated with the MSME sector in Tripura. The responses from these interviews were recorded using questionnaires. Secondary data was

sourced from various publications, including the Annual Report of MSME, Economic Review Reports, Economic Survey Reports, and other documents published by the state and central governments related to the MSME sector in Tripura. Additionally, journals, books, articles, magazines, newspapers, and published theses were also referenced to support the study.

1.11.4 Sample Design:

The study employed a multi-stage sampling technique to ensure a representative and structured selection of respondents from the target population. An attempt was made to identify the eight administrative districts of Tripura: Dhalai, Gomati, Khowai, North Tripura, Sipahijala, South Tripura, Unokoti, and West Tripura (Table 1.2). This stratified random selection of the district was based on administrative significance and the distribution of micro and small enterprises within the state. Following the district-level identification, stratified random sampling was implemented. Each district served as a stratum, and samples were drawn in proportion to the population size of the respective districts. This stratification ensured that the sample adequately represented the demographic and economic characteristics of each district. Within each stratum, simple random sampling was employed to select the individual MSME, thereby minimizing selection bias and enhancing the representativeness of the sample. Furthermore, enterprises were classified into two categories- micro and small units based on enterprise size (Table 1.3). This combined use of stratified, and simple random sampling techniques ensured a comprehensive, reliable, and unbiased data collection process, thereby strengthening the validity and generalisability of the study.

The sample size for this study was determined using the standard sample proportion formula, which is widely employed for finite populations. The formula used is:

$$n = \frac{N \times Z^2 \times p(1-p)}{(N-1) \times e^2 + Z^2 \times p(1-p)}$$

Where:

n = sample size,

N = population size (6,581),

Z = Z-score for a 95 Percent confidence level (1.96),

p = estimated population proportion (0.5),

e = margin of error (0.05).

Substituting the values into the formula:

$$n = \frac{6581 \times (1.96)^2 \times 0.5 (1-0.5)}{(6581-1) \times (0.05)^2 + (1.96)^2 \times 0.5 (1-0.5)}$$

$$n = \frac{6322.1324}{17.4104}$$

$$n = 362$$

Thus, the required sample size for the study was determined to be 362 respondents.

Table 1.2:

District wise Selected MSMEs for Study

District name	Dhalai	Gomati	Khowai	North Tripura	Sipahijala	South Tripura	Unokoti	West Tripura	Total
Total	24	38	31	62	33	46	28	100	362
Percentage	6.63	10.50	8.56	17.13	9.12	12.71	7.73	27.62	100

Source: Analysis of primary data.

Table 1.3:

Categorization of Selected MSMEs for Study

Units	Micro	Small	Total
Total	342	20	362
Percentage	94.48	5.52	100

Source: Analysis of primary data.

A multi-stage sampling technique was adopted to ensure representativeness and structure in respondent selection. Initially, simple random sampling identified the eight administrative districts of Tripura based on administrative importance and enterprise distribution. Subsequently, stratified random sampling was applied, treating each district as a stratum and drawing samples proportionately to population size. Within each stratum, simple random sampling selected individual micro and small enterprises. Enterprises were categorized into micro and small units for detailed analysis. According to fulfil of desired sample size requirements, a total of 375 respondents were initially targeted. Following a data quality check and cleaning process, 362 valid responses were retained as per the sample size requirements for final analysis.

1.11.5 Period of the Study:

For this research study, the time duration selected for primary data collection is from 2010-11 to 2019-20, while for secondary data, the time frame extends from 2010-11 to 2023-24.

1.11.6 Limitations of the Study:

The research study is based on both primary and secondary data sources. The primary data covers the period from 2010-11 to 2019-20, while the secondary data extends from 2010-11 to 2023-24. One of the key limitations encountered was the difficulty in interacting directly with the owners and managers of MSMEs, which served as a limiting factor for data collection. Maximum numbers of MSMEs owners and managers in all districts in Tripura were hesitating to provide their enterprises financial information as well as information related to employment and production. Consequently, the study's examine of the role of MSMEs in the economic development of Tripura is based on a limited set of dimensions. Furthermore, the scope of fieldwork was geographically constrained, potentially leading to sample bias. Additionally, secondary data is primarily sourced from the Annual Reports of MSME, the Economic Review of Tripura, and various reports published by both the central and state governments. Therefore, the accuracy of the findings depends on the data published by government schemes only.

1.12 Chapters Outline:

The present study consists of seven chapters.

The first chapter provided an introduction to the MSME sector from global, Indian, and Tripura perspectives. It covers topics such as industrial policies, history of MSMEs, definition under the MSME Act of 2006, and an overview of the study. This chapter also includes the significance, scope, problems, objectives, hypothesis, and research methodology of the study.

The second chapter is dedicated to the review of literature and identification of research gaps. It is divided into four sections: the global perspective, the Indian perspective, the North-East perspective, and the Tripura perspective on MSMEs.

The third chapter focused on MSMEs and their role in economic development. It provides an overview of the geographical location of Tripura and outlines various schemes, introduced by central and state government that support to

MSMEs in the state. This chapter also includes the contributions of MSMEs in economic development of India as well as Tripura.

The fourth chapter has designed flow charts of industrial department of Tripura and the industrial policies introduced central and state government, which are implemented in North-Eastern Region, especially in Tripura. In addition, numbers of incentives and subsidies also have been includes by central and state government to support the development of the MSMEs in the north-east region as well as Tripura.

The fifth chapter presented the data analysis and interpretation of selected MSMEs in Tripura. Initially, the introduction profile provided a detailed analysis and interpretation of the number of selected MSMEs, district-wise distribution of selected MSMEs, and a breakdown by product/service categories for sample study. This chapter also focused on the demographic profile of the entrepreneurs. In addition, it included the contributions of MSMEs to the economic development of Tripura, examining five key dimensions: progress and pattern, capital and investment, employment generation, production of goods and services, and the contribution of MSMEs to the Gross State Domestic Product (GSDP) of Tripura. At last, this chapter designed hypothesis analysis of the study.

The sixth chapter presented the major findings of the study. It highlights the results from demographic profile and each of the study's objectives. The first objective discusses the progress and pattern of the MSME sector in Tripura, while the second objective focuses on the capital and investment patterns within the sector and its growth rate. The third objective examines the role of the MSME sector in employment generation, and the fourth objective looks at the annual growth rate of production of goods and services by the MSME sector. The fifth objective evaluates the contribution of MSMEs to the Gross State Domestic Product (GSDP) of Tripura.

The seventh chapter concluded the study by providing key suggestions for both MSME entrepreneurs and the government. It highlights recommendations to support MSME growth and development. Additionally, this chapter discussed the future scope of the study, outlining potential areas for further research within the MSME sector.

Chapter: 2 Review of Literature

2.1 Introduction of Review of Literature:

The second chapter review of literature sets the foundation for developing the methodology component of the research. To write a review of literature is to depth and critical evaluation of past research that is solely based on secondary sources. It evaluates the work done in a present area to get a better understanding of the research. In addition, the primary goal of writing this chapter is: It examines the literature available in the selected research fields and summarises the literature facts based on review. However, it also analyses objectively the facts and information collected by finding gaps in prior understanding, disclosing shortcoming in hypotheses. In addition this component of the study serves as a foothold for further research in this area. Finally, this review of literature is presented in a structured way.

2.1.1 Methods of Review of Literature:

For this study, review of literature approach was followed systematically to better understand. The study related to economic development of the MSME sector. For this research a total of 90 studies were identified. Among these, 76 were selected for the review and quality assessment. After that, 9 studies were eliminated due to quality issues. In addition, this present study is based on 67 relevant studies to the topic.

Table 2.1:

Classification of Review of Literature

Identification	Studies related to topic from various sources	90 Literatures
Criteria of Inclusion	Studies related to Economic Development	76 Literatures
Elimination of Iterations	Studies are deleted due to quality issues	9 Literatures
Total Review of Literatures	Review based on National, international journal, articles and published theses	67 Literatures

Source: Author's compilation.

However, the review of literature has been divided into four categories such as; Global perspective, Indian perspective, North-East perspective and Tripura

perspective. In addition, from the perspective of the North-East and Tripura region there are fewer studies related to the topic. The following literature has been reviewed to justify the need for the current study:

Table 2.2:
Overview of Literature Studied

Sl.no	Literatures	National/ International	Years covered	Sources	Reference Formatting
1	Literatures Review on Global perspective	11	2016- 2024	Shodhganga, Google Scholar, International and Indian Journal and Research Gate	Formatting APA style- Author, Year, Title, Journal, Volume, Issue, Page number
2	Literatures Review on National perspective	47	2001-2022		
3	Literatures Review on North-East perspective	05	2013-2022		
4	Literatures Review on Tripura perspective	04	2022-2025		

Source: Author's compilation.

2.1.2 Global Studies on MSMEs:

Yahaya et al., (2016) the study interpreted the role of Micro, Small, and Medium Enterprises (MSMEs) in Nigeria's economic development, focusing on Damaturu, Yobe State. Using qualitative methods through interviews with eight MSME managers, a SMEDAN official, and a microfinance officer. The study highlights MSMEs contributions to employment and economic growth. The findings highlights the challenges such as insecurity (Boko Haram insurgency), high-interest rates, and limited access to finance, poor electricity, low policy awareness, and military-related disruptions hinder growth. These barriers significantly outweigh government efforts and restrict the MSMEs expansion and economic impact in the region.

Ajuwon et al., (2017) their study "MSMEs and Employment Generation in Nigeria" investigated the link between firm size and job creation. For the study data

collected from 473 enterprises, it consists of 110 micro, 218 small, 116 medium and 29 large enterprises. The data sourced from the 2014 World Bank Enterprise Survey. The study used LOWESS method, to analyzed employment trends. The results align with Birch's theory that small businesses drive employment. The study recommends targeted policies and support for MSME development to effectively reduce unemployment in Nigeria.

Bello et al., (2018) their article *indicated* "Impact of Small and Medium Scale Enterprises on Economic Growth: Evidence from Nigeria". It examined the effect of SMEs on Nigeria's economy using time series data from 1986 to 2016, sourced from the Central Bank of Nigeria. The study used Augmented Dickey-Fuller and Phillips-Perron unit root tests alongside OLS regression. The study found that both SME output and bank credit to SMEs positively and significantly influence to real GDP growth. A unit increase in SME output raises GDP by 12.67 percent, while a unit increase in bank credit contributes 3.68 units. The model accounts for 88 percent of GDP variation highlighted SMEs' vital role in Nigeria's economic development.

Abdullahi et al., (2018) their study investigated the impact of small and medium scale enterprises (SMEs) on Nigeria's economic growth using time series data from 1986 to 2016. The data sourced from the Central Bank of Nigeria and for the data analyzed selected regression analysis. The study found a positive and significant relationship between SMEs and output growth, affirming SMEs contribution to Nigeria's economic development. It recommends that the government implement policies to limit imports of goods producible by local SMEs and improve infrastructure to support SME operations. Thereby fostering industrial growth and protecting domestic producers from foreign competition.

2.1.3 Studies Conducted in India about MSMEs:

Gade (2018) the study explored the contribution of India's MSMEs to national development. Recognized for generating employment at low capital cost and promoting industrialization in underdeveloped regions, MSMEs play a key role in reducing regional disparities and ensuring equitable income distribution. The study used a descriptive approach and highlighted the MSMEs superior growth performance and emphasizes the need to strengthen its core features. The findings

suggested that nurturing MSMEs is essential for sustainable economic growth and inclusive development in India.

Zanjurne (2018) the study underscored the critical role of MSMEs in achieving key socio-economic objectives, including economic growth, employment generation, entrepreneurship promotion, and export development. It highlighted the MSMEs considered as the backbone of India's industrial landscape. The paper examined the performance, growth, and opportunities of MSMEs, with government initiatives such as 'Make in India' and 'National Manufacturing policy'. The study also emphasized MSMEs strategic importance in raising manufacturing GDP share up to 25 percent by 2022. The study concluded that the sector significantly contributed to employment, exports, and manufacturing output, reinforcing its role in inclusive national growth.

Boateng et al., (2019) the study evaluated the performance and economic contribution of MSMEs in India. The study also highlighted MSMEs as a key driver for equitable development. The study revealed that MSMEs contributed significantly to exports (40 percent), GDP (30 percent), GVA (32 percent), and employment (40 percent). States like Uttar Pradesh, West Bengal, and Tamil Nadu host the highest MSME concentrations. Additionally, 51 percent of MSMEs operated in rural areas. Employment distribution showed a male dominance (76 percent) and higher urban engagement (55 percent). The study affirms MSMEs indispensable role in India's sustained economic growth.

Srivastava (2020) MSME sector is a vital component of the Indian economy, significantly contributing to entrepreneurship development and employment generation. The study recorded that over 63 million enterprises, MSMEs account for more than 40 percent of exports, over 28 percent of GDP, and employ approximately 111 million people. Given the global economic slowdown, strengthening the MSMEs is essential for expanding job opportunities, especially for youth. Gujarat, known for its entrepreneurial spirit, plays a crucial role in this sector, and employing 3.85 million people. The study found MSMEs contributed in Gujarat and India's industrial and economic growth.

2.1.4 Studies Conducted in North East India about MSMEs:

Daizova and Sharma (2014) their study examined the overview of MSMEs role in Mizoram. As per the Industrial Survey, 2012 report, there were 1198 registered and 454 unregistered units in Mizoram, out of which 1234 units were located in urban areas, 413 units were located in rural areas where only 9 units were in semi urban areas. It can be observed that the majority of the units 896 (54.11) percent were engaged in manufacturing, the rest that is 760 (45.89) percent were from the service sector. Out of the total units, 98 percent of the units were managed by sole proprietor, 1.45 percent was in partnership firm, whereas only 0.55 percent were on joint venture that is Public Private Partnership (PPP). The study also revealed that Aizawl district has the maximum concentration of small scale units and majority of the small scale industries. The study concluded that MSMEs contributed an important role for the economic development of Mizoram.

Rajpal (2014) the study explored MSMEs play a crucial role in the economic development by fostering entrepreneurship, generating employment, promoting industrialization, and contributing to GSDP growth in North Eastern Region of India. The NER is endowed with abundant natural resources; however, it remains largely dependent on mainland India for fulfilling its needs. This study aims to analyze the current status and challenges faced by MSMEs across the North Eastern states, emphasizing their importance for regional economic advancement. This reliance suggested that the NER resources are either underutilized or inefficiently used. Given these circumstances, the development and expansion of MSMEs are essential for the sustainable growth of the NER.

Balkrishna et al. (2022) the study examined the contribution of MSMEs to entrepreneurship, employment, and sustainable societal development in Kamrup (rural), Assam. The study highlighted MSMEs as vital drivers of economic inclusion, particularly for tribal communities, by promoting decentralized industrial activity and utilizing local resources. Based on secondary data, the study reviewed capital investment, employment and marketing. Assam is at the top in terms of MSME growth (28.2 percent), fixed investment growth (36.3 percent), employment growth (43.7 percent), and output increase (79.7 percent). Kamrup district demonstrates remarkable growth in MSME units, investments, and output. The study concluded

that MSMEs are crucial for inclusive development and recommends strategic support to enhance their effectiveness in marginalized regions.

Kumar and Shobana (2022) the study explored MSMEs role in North Eastern Region of India, where it accounts for 62 percent of industrial output despite representing only 1.5 percent of India's total MSMEs. Secondary data revealed a consistent growth in enterprise numbers, employment, and asset value. The study also highlighted MSMEs capacity for inclusive development, job creation, and rural-urban balance. The MSMEs supports innovation, low-cost indigenous solutions, and sustainable development, but the North East's participation in regional trade remains limited, indicating untapped economic potential.

2.1.5 Studies Conducted in Tripura about MSMEs:

Das and Das (2022) the paper examined the role of the Micro, Small, and Medium Enterprises (MSMEs) sector in the economic development of Tripura. According to, Directorate of Industries and Commerce, Tripura 2019-20 showed a total of 7,193 registered units available in Tripura, out of which, 6,308 micro units (87.69 per cent), 849 small units (11.81 per cent) and medium 36 units (0.5 per cent) available in different districts of Tripura. However, in overall 59,532 numbers of employees were recorded in this MSME sector of Tripura. The study also highlighted that the overall numbers of MSMEs growth rate of Tripura is 19 percent and overall employment generation growth rate is 11 percent calculated by Compound Annual Growth Rate (CAGR) method from FY 2007-08 to 2019-20. The study concluded fluctuating patterns in all key indicators across the study period.

Debnath and Datta (2023) their study indicated that the MSMEs has widely regarded as an essential driver of inclusive growth. This study investigated how the MSME sector contributes to the sustainable development of women in Tripura, with particular reference to the Gandachara Sub-division in Dhalai district. The research explored key dimensions including the trends and growth rates of MSME units, employment generation, and government investment in the sector. Both quantitative and qualitative methods were employed: primary data were collected through field surveys, while secondary data were sourced from libraries and online academic resources. To evaluate growth, the study utilized Compound Annual Growth Rate (CAGR) and percentage-based methods. The findings demonstrated that MSMEs

significantly promote gender-inclusive economic development by providing income opportunities and empowering women in underdeveloped rural areas.

Chatterjee et al., (2023) their study highlighted the vital role of MSMEs in Tripura's economic growth through employment generation, entrepreneurship, and poverty reduction, contributing over 29 percent to the national GDP. The study also highlighted the increase government supports, both rural and urban women are engaging in micro-enterprise development. The study examines trends in women's participation in financial schemes and their perceptions of entrepreneurship. Findings revealed persistent gender-stereotyped attitudes in the allocation of economic resources, which hinder women's empowerment and limit broader social inclusion despite government initiatives.

Das et al., (2025) their study investigated the role of MSMEs in the economic development of Tripura, focusing on employment generation, number of operational units, investment levels, and contribution to the Gross State Domestic Product (GSDP). As per the 'Udyog Aadhaar Memorandum (UAM) 2022-23' explained that a total numbers of 33,274 registered MSME units exist in Tripura. In this MSMEs 341,620 numbers of employees working and Rs. 201,230.2 lakhs investment invested by these MSME units, and data collected from the fiscal year 2011-12 to 2022-23. The data found high positive correlations between the number of MSME units, employment, and investment indicate strong interrelationships. As MSME units increase, both employment and investment increase proportionately, demonstrated the MSMEs integral role in economic development. The data also revealed that the Year wise and percentage growth rate of MSME's contribution in GSDP of Tripura. It showed that total GSDP of Tripura has increased over the year.

2.2 Research Gap:

From the available literature reviewed, it was found that various studies have been conducted with relation to the MSME sector but not much on the theme of contribution of MSME in the economic development of Tripura. The MSME sector has recorded 95 per cent enterprises and thus it's generating 60 per cent of employees across the world (Kumar, 2020). In addition, this sector is also considered as an 'Engine of economic growth' in India and thus this sector

generated the 'second highest employment' after the agriculture sector in India (Annual Report of MSME 2022-23, Government of India). There are many reports published by different government authorities, which reflect that the MSME sector has contributed to GDP, increased per capita income, enhanced productivity, created more employment and increased exports in India. But being such a dominant sector in the economy, these types of studies are absent in Tripura. So, the study was an attempt to examine the role of MSME in the economic development of Tripura in various aspects, such as contribution of MSMEs to GSDP, employment generation, production of goods and services and capital and investment by MSMEs etc.

Chapter: 3 MSME and Economic Development:

3.1 Introduction of MSME and Economic Development

This third chapter included overview of Tripura, and the policies set by both central and state governments cover different aspects of MSME operations. At the national level, the National Board for MSMEs has been established in 15th May 2007, to manage the implementation of strategies and the execution of related programs for the development of MSMEs. This chapter also includes the role of MSMEs in economic development of India as well as Tripura. According to the data of MSME report of Udyog Aadhaar Memorandum (UAM), 2023-24 highlighted the data registered MSMEs in India from 2020-21 to 2023-24, it indicates a consistent upward trend in the registration of MSMEs. This substantial increase reflects growing formalization of MSMEs and enhanced awareness among entrepreneurs regarding registration benefits. In addition, as per the Annual Report of MSME 2024-25, Govt. of India, highlighted the share of MSMEs in India's GDP was recorded at 27.3 percent in 2023-24. However, the contribution of MSMEs to India's total exports growth rate reached to 45.73 percent in the year 2023-24. This indicates a substantial increase in export activities within the MSMEs during that period. In addition, the year 2023-24, recorded the Budget Estimate for the MSME was Rs. 22,137.95 crore, which was slightly revised to Rs. 22,138.01 crore. The Actual Expenditure recorded was Rs. 22,094.17 crore, indicating consistent and efficient budget utilization in the MSMEs in India. In addition, this chapter also includes the role of MSMEs in driving the economic development of Tripura, collected from 2010-11 to 2022-23. The growth of the MSME is reflected in the progress and patterns of MSMEs, as evidenced by the increasing number of registered MSMEs, employment generation, and investment. Furthermore, the data shows the MSMEs contribution to Gross State Domestic Product (GSDP), underscoring their importance in promoting economic stability and inclusive growth in Tripura.

3.2 Role of MSMEs in Economic Development of India:

The data shows the MSMEs critical role in driving to economic development of India from 2020-21 to 2023-24. The MSMEs growth is reflected in the increasing number of registered MSMEs, indicating the sector's expanding across India. MSMEs contribute significantly to the Gross Domestic Product (GDP), underscoring

their importance in sustaining economic stability and inclusive growth. Furthermore, MSMEs share in the country's export performance highlights their role in enhancing India's global trade competitiveness. The central government has implemented budgetary allocations it facilitates access to finance in MSME across India. Collectively, the data indicates the contributions of MSMEs in India's economic development framework.

3.2.1 Growth in Numbers of Registered MSMEs in India:

The table 3.1 shows the data of percentages growth rate in Numbers of Registered MSMEs in India from 2020-21 to 2023-24. The data interpreted the consistent growth, the numbers of registered MSMEs are 2,847,544 in 2020-21 and it increased to 15,027,865 in 2023-24. The MSMEs growth rate percentages showed positive trajectory by year on year. In the year 2021-22 interpreted 81 percent growth rate from the previous year. However, the financial year 2022-23 and 2023-24 presented growth rate 67 percent and 75 percent respectively. From the data it can suggested that the numbers of MSMEs in India has been increased by year on year.

Table: 3.1

Growth in Numbers of Registered MSMEs (in numbers)

Years	Numbers of Registered MSMEs	Percentage (%) of Growth Rate
2020-21	2847544	-
2021-22	5147993	81
2022-23	8582179	67
2023-24	15027865	75
Total	31605581	-

Source: MSME report of Udyog Aadhaar Memorandum (UAM), 2023-24.

3.2.2 Contribution of MSMEs in Total GDP in India:

The table 3.2 interprets the percentage data in contribution of MSMEs to total Gross Domestic Product (GDP) in India from 2019-20 to 2023-24. The data of MSMEs has demonstrated fluctuating over the years and the highest growth rate found in 2019-20 was 30.5 percent. Followed by in 2020-21, the growth rate moved decline to 27.3 percent and then growth rate increased to 29.6 percent and 30.1 percent in 2021-22 and 2022-23 respectively. The data also shows the contribution of MSMEs to GDP in India has declined to 27.3 percent in 2023-24. These data highlighted the fluctuating growth rates within the MSMEs over the years.

Table 3.2:
Contribution of MSMEs in Total GDP in India

Years	Percentage (%) shares of MSMEs in Total GDP
2019-20	30.5
2020-21	27.3
2021-22	29.6
2022-23	30.1
2023-24	27.3

Source: Annual Report of MSME 2024-25, Govt. of India.

3.2.3 Contribution of MSMEs to Total Exports in India:

The table 3.3 shows the data in contribution of MSMEs to total exports in India from 2019-20 to 2023-24. The data of percentage growth rate of MSMEs has decline over the years. The highest growth rate recorded in 2019-20 was 49.75 percent and the lowest growth rate observed in 2022-23 was 43.59 percent. The overall contribution of MSMEs to total export in India has declined over the years.

Table: 3.3
Percentages in Contribution of MSMEs in Total Exports

Years	Percentage (%) of MSMEs share in total Exports
2019-20	49.75
2020-21	49.35
2021-22	45.03
2022-23	43.59
2023-24	45.73

Source: Annual Report of MSME 2024-25, Govt. of India.

3.3 Role of MSMEs in Economic Development of Tripura:

The data from 2010-11 to 2022-23 highlights the role of MSMEs in driving the economic development of Tripura. The growth of the MSME is reflected in the progress and patterns of MSMEs (Table 3.4), as evidenced by the increasing number of registered MSMEs, employment generation, and investment. Furthermore, MSMEs contribute significantly to the Gross State Domestic Product (GSDP) (Table 3.5), underscoring their importance in promoting economic stability and inclusive growth in Tripura.

3.3.1 Progress and Pattern of MSME sector in Tripura:

The table 3.4 below interprets the progress and pattern of the MSMEs in Tripura from 2010-11 to 2022-23 reveal a remarkable growth trajectory across all key indicators- number of MSMEs, employment generation, and investment. The number of registered MSME units increased significantly from 218 in 2010-11 to 16,604 in 2022-23, marking a cumulative total of 33,274 units over the period. Correspondingly, employment generation rose from 4,315 in 2010-11 to 178,917 in 2022-23, culminating in a total of 341,620 jobs created. In addition, Investment data also reflect steady growth, climbing from Rs. 3,393.25 lakh in 2010-11 to Rs. 46,475.73 lakh in 2022-23, aggregating to a total investment of Rs. 201,230.2 lakh. The overall pattern demonstrates that the MSMEs in Tripura have shown robust expansion, playing a pivotal role in economic development in the state.

Table 3.4:

Progress and Pattern of MSMEs in Tripura

Years	No. of MSME Units	Percentages of MSME units	Employment (in numbers)	Percentages of Employment	Investment (Rs. in lakh)	Percentages of Investment
2010-11	218	-	4315	-	3393.25	-
2011-12	205	-5.96	2744	-36.41	5556	63.74
2012-13	150	-26.83	1952	-28.86	6422	15.59
2013-14	173	15.33	2053	5.17	2798.31	-56.43
2014-15	172	-0.58	2234	8.82	5015.36	79.23
2015-16	608	253.49	4623	106.94	9034.1	80.13
2016-17	1311	115.63	8680	87.76	19036	110.71
2017-18	701	-46.53	5675	-34.62	12016	-36.88
2018-19	1552	121.40	7577	33.52	13663	13.71
2019-20	1491	-3.93	8893	17.37	22720	66.29
2020-21	1692	13.48	14936	67.95	23541	3.61
2021-22	8397	396.28	99021	562.97	31559.41	34.06
2022-23	16604	97.74	178917	80.69	46475.73	47.26
Total	33274	-	341620	-	201230.2	-

Source: Udyog Aadhaar Memorandum (UAM) 2022-23, Government of Tripura.

3.3.2 Contribution of MSMEs to GSDP of Tripura:

The table 3.5 below shows the contribution of MSMEs to the Gross State Domestic Product (GSDP) of Tripura from 2011-12 to 2022-23 highlights its significant role in the state's economy. During this period, the contribution of MSME

recorded from Rs. 12,502.29 crore in 2011-12, the contribution steadily increased to Rs. 38,848.74 crore by 2022-23. Although the percentage share saw a gradual decline from 66.17 percent in 2012-13 to around 53.48 percent in 2022-23, the absolute contribution rose significantly in line with the expanding state economy. This consistent and substantial contribution underscores the significant role of the MSMEs in driving economic development in Tripura.

Table 3.5:
Contribution of MSME to GSDP of Tripura (Amount in Crore)

Year	Total GSDP	MSMEs contributions in GSDP	Percentages of MSMEs contributions in GSDP
2011-12	19208.41	12502.29	65.09
2012-13	21663.2	14334.38	66.17
2013-14	25592.83	16703.27	65.27
2014-15	29533.46	16965.69	57.45
2015-16	35937.73	19730.50	54.90
2016-17	39479.4	21487.75	54.43
2017-18	43715.8	25346.65	57.98
2018-19	49823.32	28063.45	56.33
2019-20	54151.12	29441.28	54.37
2020-21	53504.12	27486.52	51.37
2021-22	62550.43	33438.56	53.46
2022-23	72635.62	38848.74	53.48

Source: Directorate of Economic and Statistics, Government of Tripura.

Chapter: 4 The North-Eastern Industrial Development Policies with Reference to MSMEs in Tripura

4.1 Introduction of North-Eastern Industrial Development Policies with Special Reference to MSMEs in Tripura:

The fourth chapter indicated the North-eastern region of India is rich in natural resources and plays a significant role in job creation within the MSMEs (Chakrabartty, 2019). This region, known as the "Seven Sisters" including Tripura, Arunachal Pradesh, Mizoram, Meghalaya, Assam, Manipur, Nagaland, and Sikkim has the potential to leverage its resources to foster economic development and create employment opportunities. In response, the government has introduced various industrial policies and schemes through the Ministry of MSME and its associated agencies to actively promote the growth of MSMEs in the North-eastern Region (Sahoo and Swain, 2020). Moreover, the MSMEs are crucial for the expanding economy of the Northeast, as it contributes to job creation, strengthens domestic manufacturing/service, and supports other key economic activities.

In North East Region (NER), Tripura has prioritized the growth of MSMEs in its industrial policy. The Tripura Industrial Investment Promotion Policy (TIIPP), 2022, has specified schemes for development of MSMEs. These include capital investment subsidies, interest subsidies, and reimbursement of power charges. The policies also offer support for skill development, quality certification, and market linkage. Tripura's geographical location and access industrial base make MSMEs critical for localized growth. The government promotes cluster-based development to improve productivity and competitiveness (Kumar and Shobana, 2022). There is a focus on agro-based, bamboo, and handloom sectors, which align with local resources. However, the success of these policies depends on effective implementation and coordination among stakeholders. Strengthening institutional capacity and improving logistics are essential for sustainable MSMEs development. This chapter has designed flow charts of industrial department of Tripura and the central and state government industrial policies, which are implemented in North-Eastern Region, especially in Tripura. In addition, numbers of incentives and subsidies also have been includes by central and state government to support the development of the MSMEs in the north-east region as well as Tripura.

Chapter: 5 Data Analysis and Interpretation

5.1 Introduction

This fifth chapter presents the analysis of primary data collected through field work with reference to the role of MSMEs in the economic development of Tripura. This chapter also includes the analysis of secondary data, collected from the Udyog Aadhaar Memorandum (UAM) and Directorate of Economic and Statistics report 2022-23. To analyze the contribution of MSMEs in economic development in Tripura, objective wise five key dimensions have been identified: progress and pattern of MSMEs (Objective 1), capital investment pattern of MSMEs (objective 2), growth rate of employment generation (objective 3), production of goods/services (objective 4) and MSMEs contribution to Gross State Domestic Product (GSDP) in Tripura (objective 5). In order to analyze these dimensions, various statistical methods have been utilized, including correlation tests, one-way ANOVA, t-tests, percentage analysis, trend line analysis and hypothesis testing. This chapter also highlights an examination of the demographic profile of entrepreneurs. The analysis begins with the categorization of MSMEs selected for the study to provide a clear understanding of the MSME structure in Tripura.

5.1.1 Analysis of Demographic profile of the Entrepreneurs:

This portion of the study indicates the demographic profile of selected MSMEs entrepreneurs in Tripura. It shows predominantly characterized by sole proprietors, with a growing interest in partnerships and a minor contribution from private limited companies. In contrast, cooperative societies, public enterprises, and other ownership forms remain relatively insignificant.

5.1.2 Analysis for Objective 1 “To Analyze Progress and Pattern of MSMEs in Tripura”:

The data reveals the analysis of progress and patterns in the number of MSMEs, employment, and investment category over the period of 2010-11 to 2022-23. According to the Udyog Aadhaar Memorandum (UAM) 2022-23, there are currently 33,274 registered MSMEs operating in Tripura. These units employed a total of 341,620 individuals and have attracted an investment of Rs. 201,230.2 lakh. The overall data on MSMEs in Tripura reveals significant growth in study period,

despite some years of decline across three key dimensions: the number of MSMEs, employment, and investment.

5.1.3 Analysis for Objective 2 “To Study the Capital and Investment Pattern of MSMEs in Tripura and its Growth Rate”:

The analysis of capital and investment plays a crucial role in the growth and development of MSMEs. However, the analysis of capital and investment divides into two major categories, such as owned capital and borrowed capital. In addition, borrowed capital divides two more important aspect i.e. institutional and non-institutional categories. Furthermore, this institutional and non-institutional includes total liability. The aim is to analyze the capital and investment of MSMEs, to find out the growth rate of sources of MSMEs capital structure in Tripura.

5.1.4 Analysis for Objective 3 “To Examine the Role of the MSMEs in Generation of Employment and its Growth Rate”:

The MSME sector has played a crucial role in employment generation in Tripura from 2010-11 to 2019-20. One of key advantages of MSMEs is ability to generate employment at a low capital cost. The number of workers employed in MSMEs is significantly higher compared to large businesses, highlighting the MSMEs contribution to social and economic development. MSMEs also serve as a breeding ground for entrepreneurship, driven by individual innovation and creativity. The data analyzes the employment growth of selected MSMEs over the years, considering factors such as permanent and temporary employment, gender-specific workforce distribution, job skills, employee region, literacy levels, areas employment and age demographics.

5.1.5 Analysis for Objective 4 “To Study the Annual Growth Rate of Production of Goods and Services by MSMEs in Tripura”:

The analysis of annual growth rate of production of goods and services by MSMEs in Tripura shows increasing turnover and profits over the years. Despite rising costs of goods, the ability to control operating expenses reflects improving efficiency and effective cost management within MSMEs. While the cost of goods increases despite some years of decline. The total costs remained relatively stable, demonstrating effective cost management. The overall data suggests that MSMEs have successfully adapted to changing economic conditions, balancing production

costs while ensuring consistent profitability. It also suggests that production growth of MSMEs in Tripura are adapting to market conditions and leveraging operational efficiencies to drive long-term success.

5.1.6 Analysis for Objective 5 “To Explore the Total Production of Goods and Services by MSMEs and its Contribution to GSDP of Tripura”:

The data presents the total GSDP, growth rate of MSMEs and their contribution to the Gross State Domestic Product (GSDP) of Tripura from 2011-12 to 2022-23. The data highlights the significant role of MSMEs in GSDP, with their contribution over the years. In summary, the data revealed a dynamic picture of economic growth in MSMEs contribution to GSDP of Tripura. In addition, their relative share to the overall economy has been diminishing in recent years, reflecting shifts in the economic landscape that may warrant further analysis to understand underlying causes and implications.

5.2 Testing of Hypotheses:

5.2.1 H1- There is a significant relationship between overall growth of MSMEs and GSDP.

Table 5.1:
Hypothesis 1

Sl.no	Test Parameter	Analytical tool used	Findings	Result
1	Growth rate of MSMEs and MSMEs contribution to GSDP	Linear Regression analysis	The regression model demonstrated a robust association between MSMEs and their contribution to GSDP, the correlation value of $R = 0.773$. So, the result of regression suggests that there is statistically significant difference between the growth of MSMEs and the MSMEs contribution to GSDP.	Ho Rejected

Source: Hypothesis tested using Linear Regression analysis test.

5.2.2 H2- There is a significant relationship between growth of MSMEs and employment generation.

Table 5.2:
Hypothesis 2

Sl.no	Test Parameter	Analytical tool used	Findings	Result
1	Growth of MSMEs and Growth of Employment Generation.	Pearson Correlation Coefficient	The growth of MSMEs (PMSME) and growth of employment (EMPP) are strongly positively correlated, as indicated by the Pearson correlation coefficient of 0.889 and the relationship is statistically significant at the 1% level ($p = 0.000$).	Ho fail to reject

Source: Hypothesis tested using Pearson Correlation Coefficient test.

Chapter: 6 Major Findings of the Study

6.1 Findings related to Demographic Profile of the Study Area:

The majority of enterprises in this study area fall into the 'Micro' category, accounting for a significant 94.48 percent. 'Small' enterprises make up a notable but relatively smaller portion, comprising 5.52 percent of the total.

The data records among all the districts, West Tripura has the highest concentration of MSMEs, accounting for 27.62 percent of the total dataset. Followed by North Tripura contributes, with 17.13 percent of the study area.

The data reveals the distribution of Product/Service produced by selected MSMEs in Tripura. Among these, forest-based products contributed the highest percentage, accounting for 33.43 percent of the total. The agro-based product, comprise a significant portion 20.99 percent. Substantial contributions of 9.39 percent of enterprises are oriented towards providing services sector.

Sole Proprietorship stands out as the dominant type, with 45.86 percent. Substantial contributions of 27.35 percent of enterprises are owned by Partnership. The significant shares 19.89 percent of enterprises owned by the private limited company.

The 'Male' gender category stands out with a dominant presence, comprising a substantial majority of 117 entrepreneurs (70.48 percent). On the other hand, the 'Female' gender category, though relatively smaller in number with 49 entrepreneurs (29.52 percent).

6.2 Findings for Objective 1 “To Analyze Progress and Pattern of MSMEs in Tripura”:

From the data it was found that the number of MSMEs shows a clear upward trend over the study period, increasing from 218 enterprises in 2010-11 to 16,604 enterprises in 2022-23.

From the Employment figures in MSMEs also demonstrated a steady increase, rising from 4,315 employees in 2010-11 to 178,917 employees in 2022-23.

In Investment figures, displays significant volatility, with sharp increases trend over the study period, increasing from Rs. 3,393.25 lakh in 2010-11 to Rs. 46,475 in 2022-23.

From the data it was found that the correlation between the number of MSMEs and employment is 0.99674, signifying an almost perfect positive correlation. This implies that as the number of MSMEs increases, employment levels also raise proportionally.

In case of the number of MSMEs shows a strong positive correlation with investment (0.89478), suggesting that higher numbers of MSMEs are associated with increased investment levels.

Additionally, the correlation between employment and investment is also high (0.874), further reinforcing the interconnected growth pattern among these variables. Overall, the results highlight the mutually reinforcing relationship between MSME expansion, employment generation, and capital investment.

6.3 Findings for Objective 2 “To Study the Capital and Investment Pattern of MSMEs in Tripura and its Growth Rate”:

From the data it was found that capital sources of MSMEs reveals a notable overall increase in both owned capital and total liabilities, and also highlighting the MSMEs evolving financial structure. The Owned capital consistently increased from Rs. 730 lakh in 2010-11 to Rs. 5,720 lakh in 2019-20, reflecting significant growth in the financial position of MSMEs.

The total liability shows an upward trend, rising from Rs. 466 lakh in 2010-11 to Rs. 3520 lakh in 2019-20 over the study period.

From the data it was found that the mean of owned capital was 2936.9, while the mean of total liability was 1810.2. This indicates that, on average, MSMEs have relied more on internally generated funds (owned capital) than on borrowed or external liabilities during the observed period.

From the data revealed Public banks showed a steady increase in the amount of borrowed capital from Rs.92 lakh in 2010-11 to Rs.685 lakh in 2019-20. Public banks remained a dominant source of institutional finance for MSMEs throughout the period.

In case of Private bank borrowings also rose over the period, starting from Rs.67 lakh in 2010-11 and reaching to Rs.425 lakh in 2019-20. The borrowing trends suggest that private banks played a significantly important role in MSME financing.

In terms of Co-operative banks experienced growth from Rs.71 lakh in 2010-11 to Rs. 645 lakh in 2019-20. The ANOVA results showed that the differences in average borrowing from co-operative banks were not statistically significant compared to public and private banks.

6.4 Findings for Objective 3 “To Examine the Role of the MSMEs in Generation of Employment and its Growth Rate”:

As per data interpreted the total gender wise population, male and female, have witnessed a consistent upward trend over the decade, starting at 6,098 in 2010-11 and increasing to 20,839 in 2019-20.

However, the male population has steadily increased from 3,757 in 2010-11 to 11,447 in 2019-20.

In terms of the female population has seen a continuous rise from 2,341 in 2010-11 to 9,392 in 2019-20.

From the data it was found that both male and female populations have experienced growth. However, male workforce 75,783 (57.41 percent) contributed more in comparison to female workforce 56,212 (42.59 percent) in permanent employment category throughout the study.

From the data it was found an independent two-sample *t*-test assuming equal variances revealed that the average number of male employees (7,578.3) was higher than female employees (5,621.2).

6.5 Findings for Objective 4 “To Study the Annual Growth Rate of Production of Goods and Services by MSMEs in Tripura”:

From the data indicated the year-wise production performance of goods/services data of MSMEs in Tripura from 2010-11 to 2019-20. It showed a consistent upward trend in turnover and profit, reflecting overall growth in the MSMEs.

In case of the turnover increased steadily from Rs. 9349.23 lakh in 2010-11 to Rs.9978.74 lakh in 2019-20. Similarly, profit rose from Rs.4186.71 lakh in 2010-11 to Rs.4835.05 lakh in 2019-20 during the study period.

However, the cost of goods and operating expenses remained relatively stable with minor annual variations, which contributed to a controlled total cost.

In case of the share of cost of goods fluctuated within a narrow band, rising modestly from 58.88 percent in 2010-11 to 62.45 percent in 2019-20, indicating a relatively stable production cost scenario.

Concurrently, operating expenses slightly declined as a proportion of total cost from 41.12 percent to 37.55 percent signifying enhanced operational efficiency and cost control over the study period.

6.6 Findings for Objective 5 “To Explore the Total Production of Goods and Services by MSMEs and its Contribution to GSDP of Tripura”:

From the data found total GSDP and the absolute contribution of MSMEs have shown a consistent upward trend, with GSDP increasing from Rs.19,208.41 crore in 2011-12 to Rs.72,635.62 crore in 2022-23, and MSMEs contribution rising from Rs.12,502.29 crore to Rs.38,848.74 crore over the study period.

However, despite the nominal growth in MSME output, their percentage share in the GSDP has experienced a declining trajectory. From a high of 65.09 percent in 2011-12, the share began to drop steadily, falling to 53.48 percent in 2022-23.

This trend suggests that while MSMEs continue to grow, other sectors of the economy have expanded at a relatively faster pace, thereby reducing the proportional contribution of MSMEs to the overall GSDP.

Chapter: 7 Conclusion and Suggestions

7.1 Conclusion:

The MSME has emerged as a highly significant contributor to economic development. Its significance lies in its labour-intensive nature and its potential to reduce regional imbalances, foster economic independence among rural populations, and support sustainable development. The MSMEs growth trends underscore its responsiveness to changing market conditions and economic policies. The notable increases observed in study period can be attributed to improved access to finance, favourable government initiatives, and overall economic progress. Conversely, some periods of decline may be linked to economic slowdowns, regulatory shifts, and other external challenges. The study has examined the role of MSMEs in economic development of Tripura. It focused on capital structure, sources of capital (both institutional and non-institutional), sources of investment, and the composition of current and fixed assets. The overall capital structure trend reflects a positive trajectory in owned capital and total liabilities, suggesting opportunities for business expansion and enhanced financial stability. Moreover, the evaluation of trends in owned capital, liabilities, fixed assets and current assets offers meaningful insights into the financial dynamics of the sector. Thereby, supporting informed decision making and strategic planning for future sustainability. Additionally, the consistent upward trend in the gender-wise workforce distribution particularly the increase in skilled female workers points to the effectiveness of skill development programs and improved access to training. This progress signified an encouraging shift towards gender equality in skill acquisition and employment opportunities within the MSMEs.

However, the production of goods and services contributed in the economic development of MSMEs. The Total Cost comprised the cost of goods and operating expenses has shown a consistent upward trend, reflecting the rising operational expenditures incurred by MSMEs. The findings emphasized the diverse and dynamic nature of MSMEs across various industrial product categories, reinforcing the need for adaptability, efficient cost management, and strategic planning to navigate the complexities of an evolving market landscape.

The study concluded that while the MSMEs are experiencing growth and other dimensions of the economy are expanding at a comparatively faster rate. As a result, the relative contribution of MSMEs to the Gross State Domestic Product (GSDP) has been declining. Overall, the findings presented a dynamic picture of economic development. However, the diminishing share of MSMEs in the broader economy in recent years reflects structural shifts that merit deeper analysis to uncover the underlying causes and assess their implications for future policy and support.

7.2 Suggestions:

The study provides a framework for the role of the MSME sector in economic development of Tripura. It has been observed that the MSME sector promotes employment generation, Production, capital, investment and also actively contributes to the GSDP of the state. To encourage the growth and sustainability of MSME in Tripura, the government has initiated various steps. The entrepreneurs of MSME adapted that facilitation for the development of the economic condition of the state. However, for the further improvement of this sector, some suggestions were provided for the MSMEs entrepreneurs and government. These suggestions will help to find out those areas where there is a requirement of improvement and also help in determining proper actions that can improve the MSMEs.

7.2.1 Suggestions for MSMEs Entrepreneurs/Business Units:

- 1) Building collaborative networks and platforms among MSMEs, large enterprises, government agencies, and research institutions can significantly enhance knowledge sharing, innovation, and collective growth. This can be effectively achieved through the establishment of industry clusters, business incubators, and innovation hubs that foster cooperation and technological advancement.
- 2) Conducting regular market research is essential for understanding local consumer preferences, market demands, and competitive dynamics. Additionally, consistently seeking and incorporating customer feedback helps align products and services with consumer expectations. This approach enables MSMEs to identify niche markets and adapt their offerings accordingly.

- 3) For the advancement of the MSME sector, the adoption of new technology upgrades is critical. Embracing modern technologies enhances market reach, boosts competitiveness, and use Artificial Intelligence (AI) tools to improves productivity in both domestic and international markets.
- 4) Implementing branding quality improvement management systems is vital for ensuring higher product quality and compliance with industry standards. This can enhance brand reputation and foster customer loyalty.
- 5) Facilitating market access for MSMEs plays a crucial role in expanding their reach to both domestic and international markets. This involves strengthening supply chain networks, improving infrastructure, and offering support for export promotion initiatives.
- 6) MSMEs should effectively leverage various central and state government schemes designed to support the sector. They should also utilize available incentives, grants, and subsidies aimed at infrastructure development, technology adoption, and market expansion.
- 7) Adopting sustainable business practices is necessary to minimize negative environmental impacts. These practices include enhancing energy efficiency, reducing waste and using eco-friendly materials responsibly.

7.2.2 Suggestions for Government:

- 1) The MSME registration process should be easy and smooth.
- 2) Increased investment in Skill Development Programs (SDPs) tailored to the specific needs of MSMEs can significantly enhance their capabilities, creativity, competitiveness, and productivity. Collaborations with vocational training centers and technical institutes can ensure a steady supply of a skilled and industry-ready workforce.
- 3) Simplifying access to finance for MSMEs is essential and can be achieved through the single-window system. This access to finance process should be easy and less paper work.
- 4) Encourages single-window clearance system and promote to alternative financing options such as crowd funding, venture capital, and angel investment. This should be complemented by strengthening the formal

banking sector's outreach to MSMEs and increasing the availability of collateral-free loans.

- 5) The development of industrial estates or MSME clusters can foster networking, collaboration, and the sharing of infrastructure among enterprises. Such initiatives promote economies of scale and facilitate collective growth and innovation.
- 6) Addressing the high risk perceptions associated with small enterprises requires the implementation of effective risk mitigation strategies. This includes providing access to risk-sharing mechanisms, through insurance coverage, and capacity-building programs to enhance the resilience of MSMEs.
- 7) The strategic geographical location of Tripura offers significant export opportunities. These can be leveraged by disseminating information on international trade practices, organizing trade fairs, and promoting active participation in global exhibitions to integrate local MSMEs into international markets.

7.3 Future Scope of the Study:

- 1) For the advancement of the MSMEs, central and state governments have introduced various initiatives and policies for the empowering MSMEs owners. So, a more comprehensive and updated study can be done to assess their impact and explore emerging opportunities and challenges within the sector.
- 2) Significant amendments occurred in 2020 with the revision of the definition of MSMEs, which effectively expanded the MSMEs scope and eligibility criteria. This redefinition is expected to encourage more entrepreneurs to establish businesses. So, there is a scope for comparative study on the basis of previous and new definitions criteria of MSMEs.
- 3) The MSMEs contribution to GDP has created a significant role for the economic development. So, there is a scope for further analysis and understand causes and implications.

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