



SME

Transformation
for Meeting the

SDGs

in Asia

The Asian Productivity Organization (APO) is an intergovernmental organization that promotes productivity as a key enabler for socioeconomic development and organizational and enterprise growth. It promotes productivity improvement tools, techniques, and methodologies; supports the National Productivity Organizations of its members; conducts research on productivity trends; and disseminates productivity information, analyses, and data. The APO was established in 1961 and comprises 21 members.

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SME TRANSFORMATION FOR MEETING THE SDGs IN ASIA

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FOREWORD

SMEs are major contributors to economic growth and employment generation, representing 90% of all businesses globally. In Asia, SMEs have an even more significant impact on economic growth and constitute a significant proportion of all enterprises and national labor forces, contributing significantly to GDP. However, their role in economic development goes beyond simply generating income and employment. Therefore, it is essential to examine the various phases of the SME life cycle, the challenges they face, other related issues, and factors affecting their competitiveness such as access to finance, technology, and markets as well as regulatory and policy frameworks.

Moreover, SMEs play a crucial role in achieving other facets of economic development such as poverty alleviation, gender equality, clean energy, and decent working conditions as enshrined in the UN SDGs. In pursuit of sustainable economic development, the focus should be on enhancing the competitiveness of SMEs by improving their access to resources and enhancing their productivity and efficiency. Meeting the SDGs requires the collective efforts of the global community, and SMEs have a critical role to play in this.

This research delved into the opportunities and challenges faced by SMEs in contributing to sustainable development and explored various dimensions of SME transformation, such as economic activities, sectoral compositions, competitiveness fundamentals, and sustainable business practices. By highlighting the role of SMEs in meeting the SDGs, this publication contributes to ongoing global efforts to build a more prosperous, sustainable future for all.

The efforts of the team of experts from Cambodia, the Republic of China, Fiji, India, Indonesia, Mongolia, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand, Türkiye, and Vietnam who conducted the research and wrote this publication, are very much appreciated. The APO hopes that *SME Transformation for Meeting the SDGs in Asia* will serve as a useful guide for readers in member economies and elsewhere to transform SMEs to meet the SDGs through the proposed competitiveness framework.

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INTRODUCTION

When examining the contributions of different sectors of the economy, one cannot overlook the important role played by Small and Medium Enterprises (SMEs) and Micro, Small, and Medium Enterprises (MSMEs). These enterprises are considered major drivers of economic growth, as they contribute significantly to national income and play a crucial role in generating employment opportunities for millions of people worldwide. According to a World Bank estimate [1], approximately 90% of businesses and more than 50% of employment worldwide are associated with SMEs.

In the context of Asia, MSMEs are particularly noteworthy, constituting about 97% of all enterprises and 69% of the national labor force [2]. On average, these enterprises contribute about 41% to the GDP of their respective countries.

Given that MSMEs play such a significant role in economic output, it is intriguing to explore their impact on other aspects of economic development. These aspects include a wide range of issues, including but not limited to poverty alleviation, equal opportunities across gender, clean energy, and decent working conditions. These facets are well documented in the UN Sustainable Development Goals (SDGs), which aim to foster global transformation towards a more prosperous and sustainable world through collective action. It is, therefore, important to explore the role of MSMEs in achieving the 17 SDGs and how they actively participate in driving this. Figure 1 illustrates the 17 SDGs.



The question, however, that comes to mind before delving into this role, is why MSMEs should strive to achieve it. The answer is two-fold. By pursuing SDGs, MSMEs contribute to a sustainable future and continuously update their survival and growth strategies, which are essential to remain competitive. Just as policymakers need to develop new strategies to address contemporary issues, MSMEs must stay abreast of changing business practices and technologies to remain commercially successful. Thus, the MSMEs have a pivotal role to play in achieving SDGs. According to the Business and Sustainable Development Commission [3], embracing sustainable business models could unlock economic opportunities worth USD12 trillion and create 380 million jobs by 2030.

Given the critical role of MSMEs, it is important to explore how they are related to each of the mentioned SDGs. The following table provides a brief overview of the same.

TABLE 1**POTENTIAL ROLE OF MSMEs IN ACHIEVING THE SDGs.**

SDGs	Catalytic Role of MSMEs
Goal 1 No Poverty	Providing job opportunities and supporting economic growth in marginalized communities.
Goal 2 Zero Hunger	Enhancing small-scale farming by using newer technologies to ensure food security.
Goal 3 Good Health and Well-Being	Relative cost advantage can give MSMEs an edge in the health sector.
Goal 4 Quality Education	Work in conjunction with the existing education model by providing vocational training and apprenticeship opportunities with wider reach to local communities.
Goal 5 Gender Equality	Promote gender equality by providing equal employment opportunities and offering scope for more women-led enterprises.
Goal 6 Clean Water and Sanitation	Playing an active role in the judicious use of water and WASH areas.
Goal 7 Affordable and Clean Energy	By shifting to clean energy options like solar energy MSMEs can contribute towards reducing the carbon footprint.
Goal 8 Decent Work and Economic Growth	Formalizing and ensuring minimum standards to foster conducive and inclusive workplace practices.
Goal 9 Industry, Innovation, and Infrastructure	Continuous innovation and product development would lead to greater market size and infrastructure development.
Goal 10 Reduced Inequalities	Reduce inequality by creating economic opportunities for marginalized groups and underserved regions.
Goal 11 Sustainable Cities and Communities	Providing solutions in domains like affordable housing, waste management, and transport, among others.
Goal 12 Responsible Consumption and Production	Ensuring environmental standards and using cleaner fuels would improve consumption and provide eco-friendly services.

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SDGs	Catalytic Role of MSMEs
Goal 13 Climate Action	Using greener options and diversifying their income streams to support climate action at the national and global levels.
Goal 14 Life Below Water	Small-scale fisheries and marine-based enterprises can take responsible actions to reduce overfishing, promote coastal tourism, and preserve aquatic life.
Goal 15 Life on Land	Moving towards organic farming, coupled with improved technologies and efforts focused on ecological restoration, holds great potential.
Goal 16 Peace, Justice, and Strong Institutions	Having strong business ethics in conjunction with CSR initiatives with robust governance mechanisms adds a significant advantage.
Goal 17 Partnerships for the Goals	Local and global participation with people, businesses, and government can lead to collective action to achieve the SDGs.

Source: Policy guidebook for MSME development in Asia and the Pacific, 2nd edition. ESCAP, United Nations; 2022 [2].

To understand the potential role of MSMEs in achieving the SDGs, it is important to delve into the life cycle of these enterprises. Understanding how they function, the various phases they go through, the challenges they encounter, and related paradigms become crucial. Only by gaining a comprehensive understanding of the functioning of their operations can we chart out the trajectory for them to effectively contribute to the SDGs.

How do MSMEs Function?

Before delving into the nuances of the functioning of these enterprises, it is important to understand what SMEs and MSMEs represent. However, it should be noted that there is no universal determinant or criteria for defining them. The classification depends on the nature of the host country and its administrative functioning, which results in a relative measure for enterprises. Various criteria may be used to define an enterprise in different countries. Some countries rely solely on the number of employees as the criteria, while others combine this with additional criteria such as the value of the firm's assets or the size of revenues, usually denominated in the local currency. Table 2 provides a snapshot of the diverse definitions used across selected countries.

TABLE 2

DEFINITIONS OF SME AND MSME IN SELECTED COUNTRIES.

Country	By Number of Employees	By Size of Assets, Capital, or Turnover
India		Micro: Enterprises with net assets under INR10 million and annual sales turnover under INR50 million
		Small: Enterprises with net assets under INR100 million and an annual sales turnover between INR50 million and INR500 million
		Medium: Enterprises with net assets up to INR200 million and an annual sales turnover between INR500 million and INR2.5 billion

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Country	By Number of Employees	By Size of Assets, Capital, or Turnover
Philippines	Micro: Employing up to nine people	Micro: Enterprises with maximum net assets of PHP3 million
	Small: Employing between 10 and 99 people	Small: Enterprises with net assets between PHP3,000,001 and PHP15 million
	Medium: Employing between 100 and 199 people	Medium: Enterprises with net assets between PHP15,000,001 and PHP100 million
Pakistan	Micro: Enterprises employing up to 10 people	–
	Small: Enterprises employing up to 50 people	Small: Enterprises with a maximum annual sales turnover of PKR150 million
	Medium: In manufacturing and services, enterprises employ between 51 and 250 people. In trading, enterprises employing between 51 and 100 people	Medium: In manufacturing, services, and trading, enterprises with an annual sales turnover between PKR150 million and PKR800 million
Mongolia	Micro: Employing up to nine people	Micro: Enterprises with an annual sales income of up to MNT300 million
	Small: Employing between 10 and 49 people	Small: Enterprises with an annual sales income of MNT300 million to MNT1 billion
	Medium: Employing between 50 and 199 people	Medium: Enterprises with an annual sales income of MNT1 billion to MNT2.5 billion

Source: Compiled from various country documents [4–7].

It is evident from Table 2 that countries use different criteria for defining MSMEs, making it difficult to compare them. Nevertheless, understanding the functioning of these enterprises is crucial. A typical MSME goes through four stages during its life cycle: market entry, survival, prosperity, and exit. Depending on the enterprise's trajectory, it may experience all of these stages or undergo just two of them, such as entry and exit. However, policymakers tend to focus more on the market entry stage, and relatively less effort at the latter stages [2]. The reasons for this emphasis relate to ensuring competition, incentivizing market growth, and implementing a one-time push from the government at a relatively low cost, among other factors.

The policy action, however, should not overly prioritize the first stage but rather give equal attention to other stages as well. While removing entry barriers is important, providing an enabling environment for Research and Development (R&D) is also critical for policymakers to look into. It is argued that as economic and financial institutions, created during the scaling phase of the economy, accommodate and support opportunity-seeking entrepreneurial activity, these enterprises can emerge as significant drivers of economic growth and wealth creation for an economy [1].

Moreover, the overarching goal should be to enhance the competitiveness of enterprises, rather than just increase their number. A mere increase in the number of enterprises may not yield significant gain in terms of value-added or employment, as it could lead to disguised employment, or would eventually turn redundant. Therefore, enterprises must stay competitive.

The concept of ‘competitiveness’ is espoused in the competitiveness framework of Michael Porter. The idea is based on the premise that countries and enterprises must increase their productivity to progress from traditional factor-driven economies to efficiency-driven economies, and ultimately to, innovation-driven economies [8, 9]. Only by increasing productivity can a firm or a country achieve sustainable growth. This productivity can be bolstered through various means, such as acquiring skills through education and training, reaping economies of scale, promoting R&D, and creating an enabling environment for industry to flourish with support from institutions, infrastructure, etc. As the business model evolves into an innovation-driven model, enterprises transform into true entrepreneurs [10].

These entrepreneurs differ from conventional MSMEs in their focus on continuous innovation and the rolling out of new products and services, unlike the mere production and sale of goods and services, which is characteristic of most MSMEs. Moreover, they prioritize innovation over solely generating profits [11]. However, it is not easy for these MSMEs to transform into entrepreneurs. The reality of many MSMEs is different. It is not that these enterprises lack the aspiration to become entrepreneurs; rather, they face intricate and myriad challenges that often restrict them as micro or small enterprises. Some of the challenges that the MSMEs face include, but are not limited to (a) difficulties in accessing accurate and timely market information the ability to analyze it meaningfully, (b) paucity of appropriate and regular financial resources, (c) a shortage of high-quality human capital, (d) access to low-cost technology, and (e) a prevalence of large-scale informality that impedes their growth trajectory.

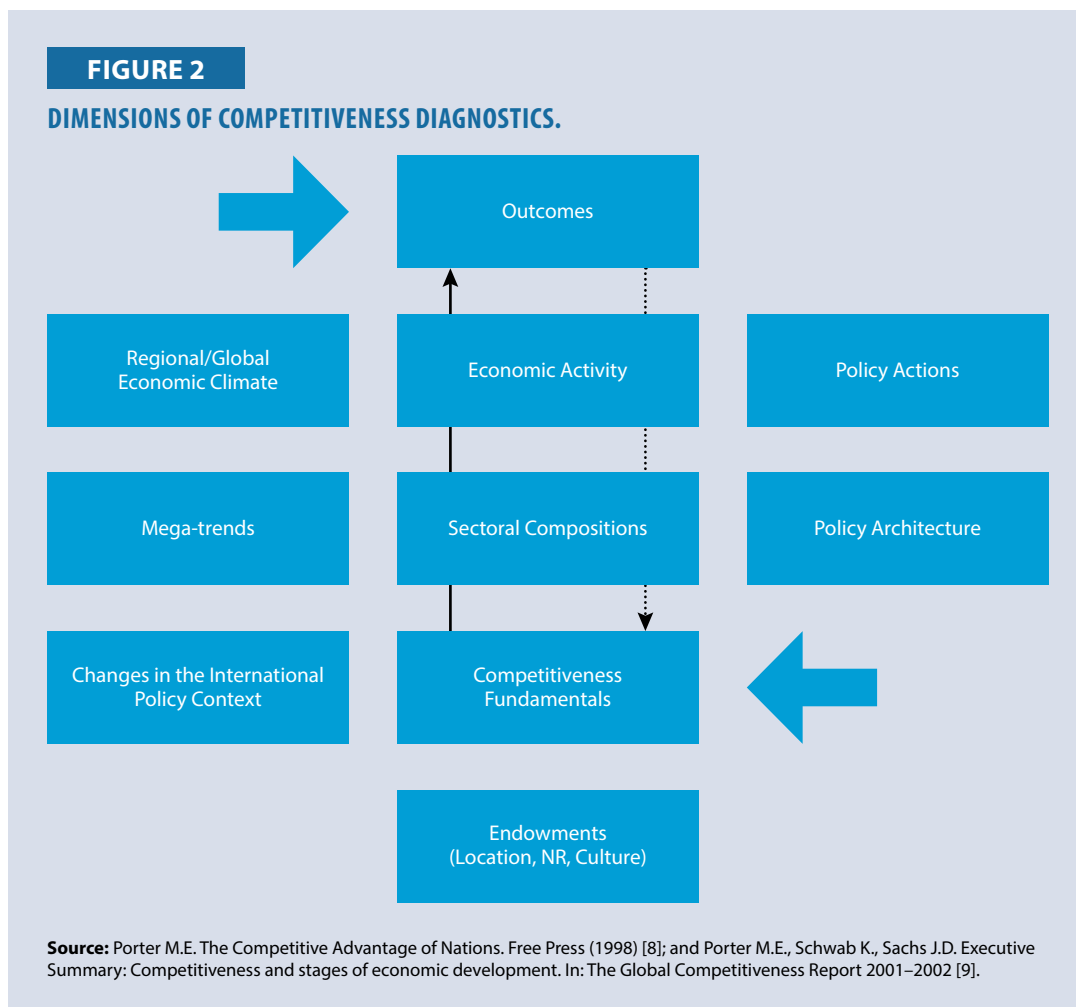
For instance, it is estimated that more than 60%, or about 2 billion, of the world’s employed population is part of the informal economy [12]. This includes self-employment and types of enterprises that are not legally registered businesses, such as Own-Account Enterprises¹ in India. Moreover, the prevalence of informality varies significantly across countries. Therefore, it is crucial to understand that while the challenges faced by MSMEs may have some commonality across regions, the solutions need to be customized according to specific local conditions.

The aforementioned challenges, apart from many others, are the precise reasons for the lack of action or the passive role of MSMEs in achieving the SDGs. Thus, it becomes essential to address these challenges to achieve the SDGs. Adopting the competitiveness framework can serve as a guiding principle for achieving both the SDG goals and transitioning towards an innovation-driven economy, as the idea of competitiveness is rooted in productivity.

The Competitiveness Framework

The following framework is based on Michael Porter’s work on competitiveness and aims to assess the current trends in the SME sector. By using the framework, researchers can capture various dimensions of SMEs and gain a comprehensive view of the position of SMEs. It can also help identify the areas for improvement, increase productivity, and strengthen the elements of sustainability highlighted in the 2030 Agenda for Sustainable Development. Additionally, this approach facilitates cross-country comparisons of the scale, nature, and policies concerning SMEs. The country-specific chapters in this report analyze SMEs largely based on the framework illustrated in Figure 2.

¹ An enterprise, which is run without any hired worker employed on a fairly regular basis, is termed an own account enterprise.



Under each of the four dimensions outlined in Competitiveness Diagnostics, various indicators are identified and the description for the indicators is also presented in Table 3. The selection of these indicators in the competitiveness framework is guided by the following factors:

- They provide the opportunity to take stock of the SME sector holistically.
- They are pillars of intervention where the respective governments can take policy measures to influence the direction of the enterprise's operations.
- They are essential to attain greater productivity or sustainable growth or both.
- Improvements in those indicators will help the countries achieve their SDGs.

Indicators under Dimensions of Competitiveness Diagnostics

1. Outcomes

- Dynamics of economic growth of SMEs
- Labor productivity
- Labor mobilization

- Gender gap in labor force participation rate
- Regional disparities
- Social and environmental outcomes
- Energy use

2. Economic Activity

- Growth of enterprises in the SME sector
- Trade activity
- Nature of investments in SMEs

3. Sectoral Composition

- Production capacity
- Share of SMEs in value added (VA) and employment
- Sectoral mix (VA and employment)
 - a. SMEs in the manufacturing sector
 - b. SMEs in the service sector
 - c. SMEs in the green energy sector
- Informality in SMEs

4. Competitiveness Fundamentals

- Human capital
 - a. Workforce characteristics
 - Education and training level of employees
 - Entrepreneurship and employment of women in the workforce
 - Employment of people from marginalized sections
 - Employees in highly skilled operations
 - b. Skilling the workforce
 - Employees receiving on-job training
 - Skilling policies

- c. Finance
 - Funds allocated and disbursed for the development of SMEs
 - Availability of loans from the domestic banking sector and financial institutions
 - Credit extended by microfinance institutions
 - Taxation policy
- d. Technology and Innovative Capacity
 - Expenditure towards R&D
 - Technology Imports
 - Digitalization of value chains
 - Entry into e-commerce
- e. Regulatory and Business Environment
 - Entry requirements and industrial licensing
 - Intellectual Property Rights protection
 - Labor protection laws and labor market regulations
 - Logistics Performance Index
 - Grievance redressal process
- f. Environmental Factors
 - Guidelines for disposal of industrial gases and wastes
 - Environmental clearances required for businesses

Acknowledging that each country faces unique challenges, it is argued that the competitiveness framework can serve as an important step in providing solutions for MSMEs and achieving SDGs. This is because the competitiveness framework targets key indicators that are critical for the development of SMEs. For instance, under competitiveness fundamentals, the focus on human capital through education and employability initiatives improves workforce productivity. This contributes to the fulfillment of SDGs 5, 8, and 10. Similarly, the emphasis on technology and innovative capacity not only enhances MSMEs' access to technology and export markets but also helps achieve SDGs 8, 9, and 11.

Thus, the competitiveness framework can become the guiding factor for all MSMEs to strive for, enabling them to address their unique challenges while actively contributing to SDG achievement. Table 3 below

highlights the indicators with their descriptions that each country can use to align productivity with their SDG agenda. This alignment will facilitate better policy decisions, foster sustainable development, and support the growth and competitiveness of MSMEs in their respective contexts.

TABLE 3**INDICATORS UNDER DIMENSIONS OF COMPETITIVENESS DIAGNOSTICS.**

Dimensions/Indicators	Description
Outcome	
Dynamics of economic growth of SMEs	Gross VA, GDP, long-term growth trends (decadal changes), and factor productivity growth of SMEs.
Labor productivity	GDP per employee in SMEs, GDP per working-age population, and growth rate of labor productivity.
Labor mobilization	Employees as a share of the working-age population, and different types of employment, such as self-employed, casual workers, regular salaried, etc.
Gender gap in labor force participation rate	Disparities between male and female labor force participation, and trends over the past decade.
Regional disparities	Spread of SMEs in various regions of the country, and regions that have more and less concentrations of SMEs.
Social and environmental outcomes	Contribution of SMEs towards social progress and empowerment of people, and their impact on the environment.
Energy use	Energy consumption by SMEs, and energy use per GDP.
Economic Activity	
Growth of enterprises in the SMEs sector	Growth in new firms, types of growing industries, and changes in the size of SMEs.
Trade activity of SMEs	Percentage of goods and services produced by SMEs that are exported, the share of SMEs produce in total exports, and types of goods exported.
Nature of investments in SMEs	Total domestic investments and Foreign Direct Investments in SMEs, investments in various industries, and the proportion of investments towards SMEs in total industrial investments.
Sectoral Composition	
Production capacity	Total production of SMEs sector, and contribution of SMEs in total production of goods and services in the country.
Share of SMEs in VA and employment	Total VA and employment of SMEs, the sectoral contribution of various industries, and changes in contributions over the decade.
Sectoral Mix	
SMEs in the manufacturing sector	Total VA and employment of manufacturing SMEs, the share of each country in the global manufacturing value-added, contribution towards employment, the composition of various types of goods produced, and percentage share of manufacturing SMEs and employment in the total industrial sector.

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Dimensions/Indicators	Description
SMEs in the service sector	Total VA and employment of service SMEs, the share of each country in global services value-added, and contribution towards employment, the composition of various services produced.
SMEs in the green energy sector	Enterprises involved in the green energy sector and their contributions towards the economy.
Informality in SMEs	VA and employment by legal status (formal or informal) and sector.
Competitiveness Fundamentals	
Human Capital	
Workforce Characteristics	
Education and training level of employees	Level of education of the employees (literacy rates, primary, secondary, and tertiary sectors) working in various SMEs, skill differences across gender in education levels, and employees with technical and vocational training.
Entrepreneurship and employment of women in the workforce	Total employment of women in SMEs, the division between formal and informal sectors, type of SMEs, and women as entrepreneurs.
Employment of people from marginalized sections	Provisions for the employment of people from marginalized sections in respective countries, and employment of people from marginalized sections in the firms.
Employees in highly skilled operations	Employees working in highly skilled roles in SMEs.
Skilling the Workforce	
Employees receiving on-job training	Firms investing and providing training to improve productivity in the employees.
Skilling policies	Government policies aiming at providing skills training to people, technical or vocational, and budgetary allocation for skilling programs.
Finance	
Funds allocated and disbursed for the development of SMEs	Allocation of funds by the governments for promoting SMEs and protection in times of crisis or economic shocks.
Loans from the domestic banking sector and financial institutions	Domestic public and private banks offering loans to SMEs, financial institutions providing loans to SMEs, and the total quantity of loans offered.
Credit extended by microfinance institutions	Long-term and short-term loans by microfinance bodies.
Taxation policy	Taxation rates, tax benefits, and incentives to SMEs.
Technology and Innovation Capacity	
Expenditure towards R&D	Total expenditure made by the SME sector on research and development.

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Dimensions/Indicators	Description
Technology imports	Volume and nature of technology imports: import of equipment, licensing, co-production, technical services, and technical consulting (based on size or the number of contracts).
Digitalization of value chains	Digital marketing, digitalization of business processes, and modes of integrating SMEs in the country.
Entry into e-commerce	Platforms available for selling SME products online, the support given by governments to SMEs for their entry into the e-commerce market.

Regulatory and Business Environment

Entry requirements and industrial licensing	Ease of registering for a business, capital outlay, costs incurred to start businesses and licenses required.
Intellectual Property Rights protection	Process of registering IPR and IPR protections by the law.
Labor protection laws and labor market regulations	Laws to protect the rights of laborers, ensure the health and safety of workers, eliminate child labor, address grievances, solve disputes between employees and management, and strictness of labor market regulations.
Logistics Performance Index	Nature and quality of transportation-related infrastructure for goods mobility in the country.
Grievance redressal process	Legal acts, laws, and statutes to protect and resolve the grievances related to operations of the SME sector.

Environmental Factors

Guidelines for disposal of industrial gases and wastes	Governmental guidelines on the disposal of industrial gases and wastes for SMEs and the strictness of their enforcement.
Environmental clearances required for businesses	Environmental laws and clearances to be fulfilled, and the strictness of their enforcement.

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CAMBODIA

Introduction

The SME sector is crucial to the economy of all nations. More than half of all jobs are held by SMEs, and SMEs generate up to 40% of GDP in developing countries, according to the World Bank [1]. These enable SMEs to contribute to sustainable industrialization and the promotion of innovation and inclusive, sustainable economic development, employment, and decent work for everyone in the SDG context.

Cambodia has more small and medium-sized businesses than large businesses. The data compiled by the Ministry of Industry, Science, and Technology and Innovation (MISTI) [2] indicates that as of October 2022, there were 44,012 SMEs in manufacturing in the country. A World Bank study points out that the SME sector contributed over USD14.2 billion or 58% of Cambodia's GDP in 2018. This highlights the important role played by the SME sector in driving the economic growth of the country, which has also been acknowledged by the Royal Government of Cambodia (RGC). Further, the government has introduced a range of policies focused on the development of SMEs that reflects its commitment to meeting the SDGs.

Business development and productivity among SMEs in Cambodia often face hurdles due to a lack of technological innovation and outdated methods of managing goods and processes. The Government of Cambodia has developed several programs to help deal with these issues, including the COVID-19 economic recovery plan, which has made the widespread use of technology and digitalization of SMEs a top goal. This research report focuses on examining the policies and best practices for resource management and efficiency in SMEs to meet the SDGs. It also takes stock of the transformation strategies adopted by SMEs by aligning themselves to the SDGs.

Methodology

Since there is no universally accepted definition of small and medium-sized businesses, for this research the definitions as explained in Table 1 were used. This was done to understand the transformation of SMEs for meeting the SDGs. It is important to note that SMEs are typically classified according to the size of the company, the number of employees, the balance sheet, as well as turnover. The boundaries for these categories vary from country to country. The term small and medium enterprise or SME refers to businesses that fall into two criteria: the number of workers and the turnover or assets. These criteria are used to identify SMEs in each industry.

The desk review is an essential part of this report because it serves as a foundation upon which the remainder of the work may be built. The desk review includes gathering, reviewing, and evaluating secondary data framework literature and is led by the national expert. The purpose of the desk review is to determine key themes, gaps, and opportunities by analyzing publicly available secondary data; recognizing trends in the country's context; and collecting data and compiling it for the report.

TABLE 1

DEFINITION OF SMEs IN CAMBODIA.

Industry	Number of Employees		Turnover (in USD)			Asset (in USD)	
	Small	Medium	Small	Medium		Small	Medium
Agriculture	1–49	50–199	62,250– 250,000	250,001– 1,000,000	or	50,000– 250,000	250,001– 500,000
Industry	1–49	50–199	62,500– 400,000	400,001– 2,000,000		50,000– 500,000	500,001– 1,000,000
Service and Commerce	1–49	50–199	62,500– 250,000	250,001– 1,500,000		50,000– 250,000	250,001– 500,000

Source: Result of Second SMEs Promotion Policy Committee Meeting Number: 36, Office of the Council of Ministers.

Scope and Limitation

Scope

To support the project in preparing map-out recommendations and way forward for increasing the resource efficiency of SMEs, aligning the operations with national endeavors to meet the SDGs, and enabling Cambodia to meet the dual objectives of developing the SMEs and meeting the SDGs.

Limitation

A desk review is restricted to what is readily accessible and, as a result, may only give partial responses to the required information in terms of data availability.

Dimension of Competitiveness Diagnostics

Outcome

Dynamics of Economic Growth of SMEs

Cambodia is one of the world's fastest-growing economies, with a yearly average growth of 7.7% from 1998 to 2019. Cambodia's economic recovery after the outbreak has been steady yet patchy. Exports of manufactured goods and agricultural commodities, two traditional engines of economic development, are back to full health, and although tourism has increased, it is still much lower than it was before COVID-19. Increases in both domestic travel and overseas visitors have contributed to the uptick in tourism. Another pre-pandemic economic generator that has failed to recover is the building and real estate industry. Exports of goods and consumer spending are expected to drive the economic expansion of 4.8% in 2022, up from an initial estimate of 4.5% in April [1]. Long-term export growth and diversification may be helped by SMEs. The new investment legislation and free trade agreements are estimated to contribute to yearly GDP growth of around 6% over the medium term. Cambodia has already reached the minimum annual GDP growth rate of 7% established for least developed nations. Having entered the ranks of the middle income in 2015, its sights are now set on the upper middle income, which it hopes to achieve by the year 2030.

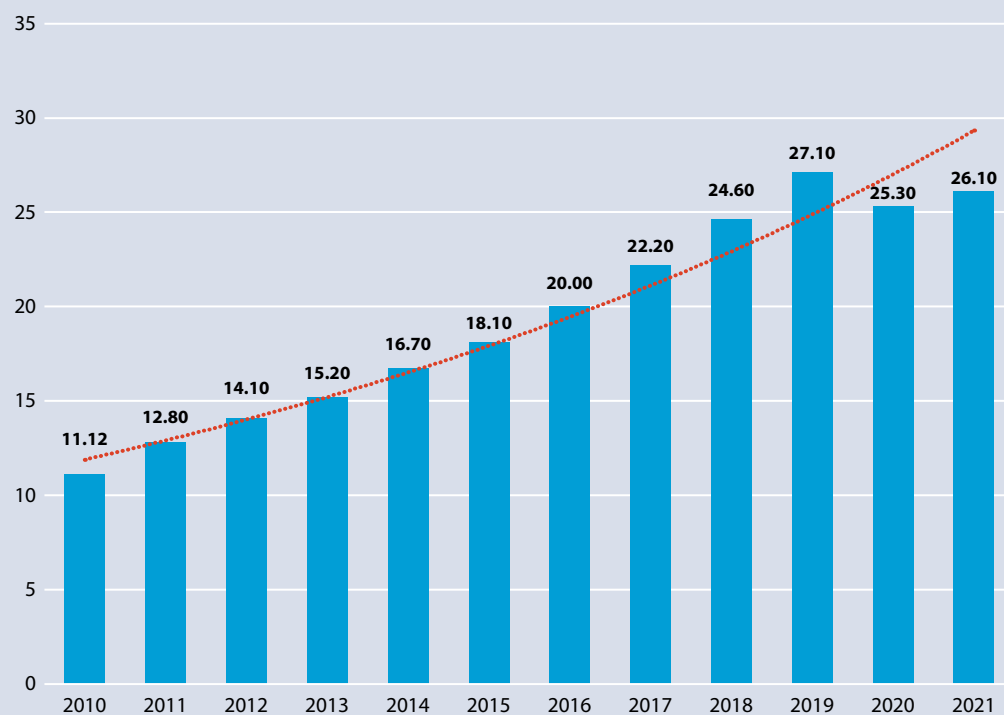
The standard of living for a large number of Cambodians is said to have improved due to the efforts of the SME sector. Disposable income increased by 16% annually to an average of USD555.50 in 2019–2020 [4].

Labor Productivity

Cambodia's employee productivity improved by an impressive 30% in 2019 as compared to 2010 as illustrated in Figure 2.

FIGURE 1

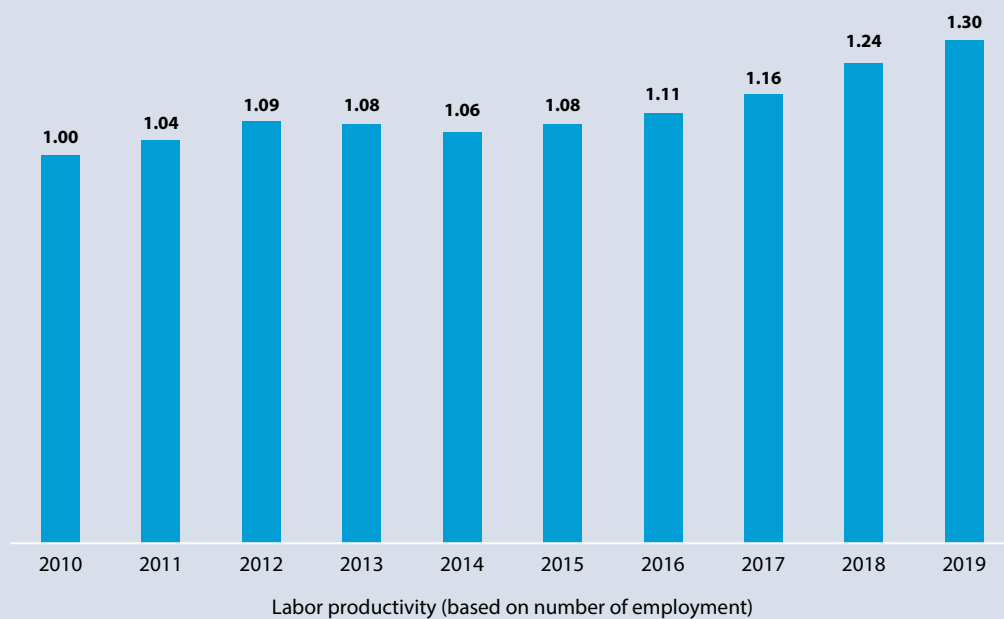
ANNUAL GDP VALUE OF CAMBODIA FROM 2010 TO 2021 (IN USD BILLION).



Source: Small and Medium Enterprises (SMEs) Finance, World Bank [1].

FIGURE 2

CAMBODIA'S LABOR PRODUCTIVITY INDEX.

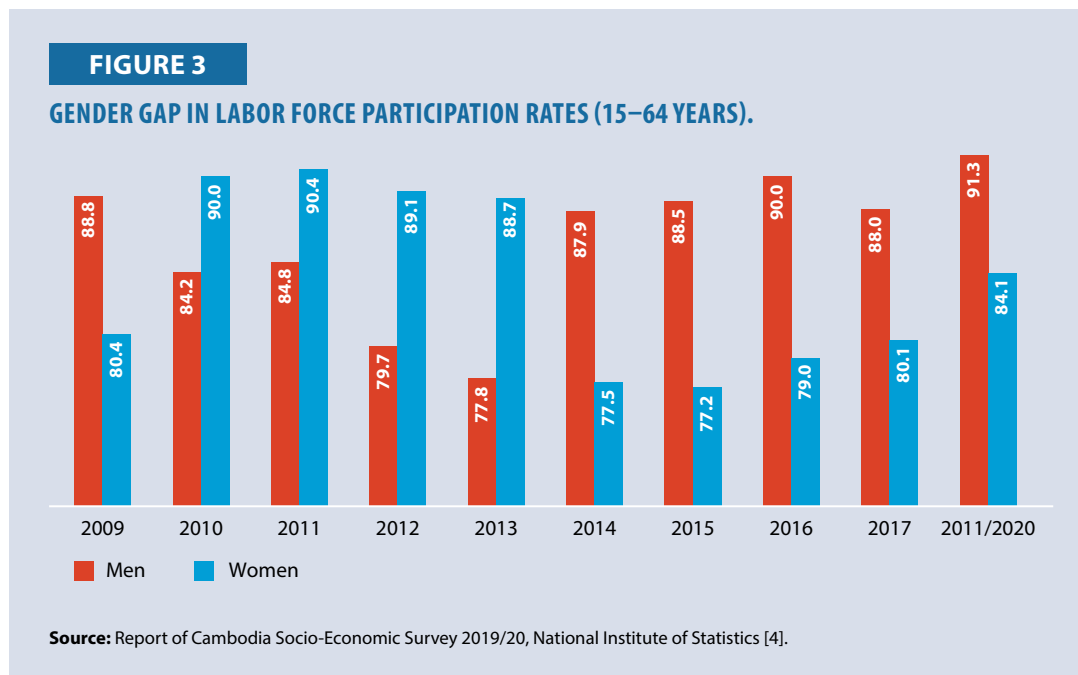


Source: Productivity Database 2021 Ver.1, APO [5].

Gender Gap in Labor Force Participation Rate and Regional Disparities

Except for 2009, women had a higher labor force participation rate than men from 2009 to 2013. However, from 2014 to 2019/2020, the rates for women were slightly lower than those for men in the labor force (participation rate of the population aged 15–64).

The objective of SDG 5 is to promote gender equality and empower women and girls. Two important metrics used to measure progress are the percentage of women in management positions and the average wages by gender. In 2019, a little more than 30% of management roles were held by women [6].

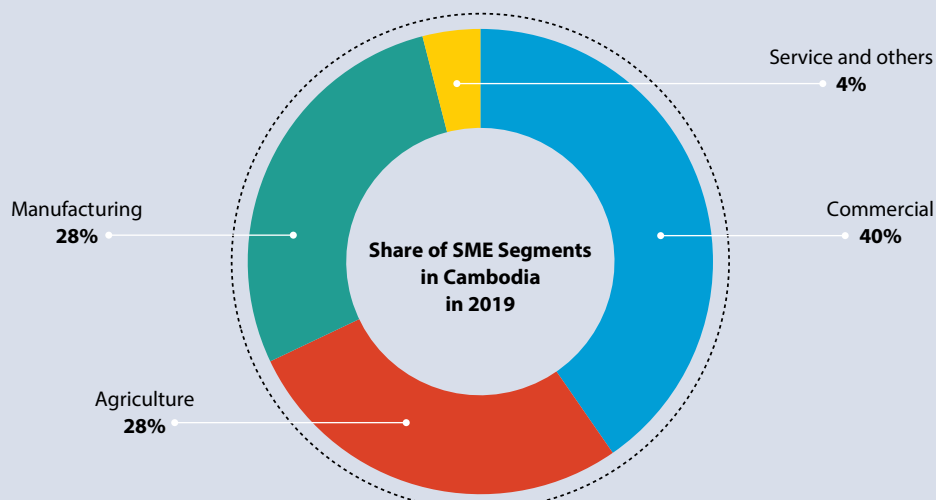


Economic Activity

Growth of Enterprises in the SMEs Sector

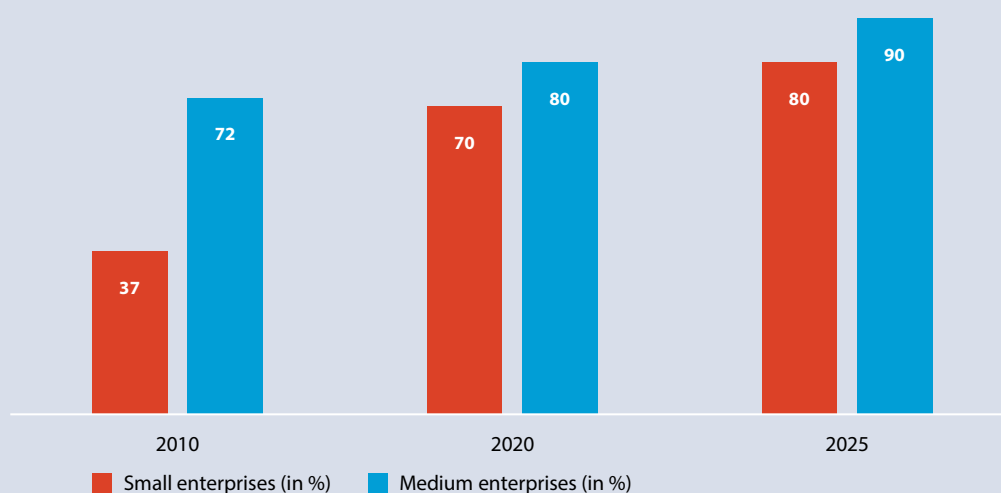
More than 90% of companies in Cambodia are classified as small and medium enterprises. It is obvious that the number of registered SMEs has increased over the last several years, and the pattern is expected to continue as Cambodia becomes increasingly linked to the economies of both ASEAN and the rest of the world. In Cambodia, SMEs are classified into three main categories: the production sector, including agricultural processing, manufacturing, and mining; the service sector; and the trade sector [7].

In the year 2010, the percentage of small enterprises that were formally registered was 37%, while the percentage of medium enterprises was 72%, and the percentage of large enterprises was 93% (Figure 5). By the year 2025, it is anticipated that between 80–95% of small and medium firms would be formally registered [9]. On 15 June 2022, the RGC launched the Cambodia Data Exchange platform (CamDX), the online company registration platform. It is an initiative to streamline the company registration process and make Cambodia more appealing to SMEs. Before the launch of CamDX, registering a company in Cambodia was a time-consuming and costly process. Applicants were required to visit the Ministry of Commerce (MoC), the General Department of Taxation (GDT), and the Ministry of Labor and Vocational Training (MoLVT), submit various documents, navigate numerous processes, and wait for months to get a response.

FIGURE 4**THE PROPORTION OF SME SEGMENTS IN CAMBODIA (2019).**

Source: Roles of SMEs in Cambodian Economic Development and their Challenges [8].

The new platform has replaced the paper-based process having semi-online application forms from various ministries and the whole registration procedure is now conducted online through a single site, including filling in the information and paying for the services. With a single click, the data is concurrently transferred to numerous ministries through the local platform, and the registration with MoC, GDT, and MoLVT is completed in just eight business days. The single portal offers digital credentials to applicants without requiring a face-to-face meeting once each department and the ministry approve the application. These digital certificates have legal significance and can be used by corporates. In addition, the registration cost has also been cut by 40% [10].

FIGURE 5**SHARE OF OFFICIALLY REGISTERED ENTERPRISES (% OF TOTAL REGISTERED COMPANIES).**

Source: Cambodia Industrial Development Policy 2015–2025: Market Orientation and Enabling Environment for Industrial Development, Royal Government of Cambodia, 2015 [9].

Trade Activity and Nature of Investments in SMEs

The bulk of private enterprises are small businesses, many of which are family-owned. The majority of SMEs can be found in Phnom Penh, which accounts for 23% of these businesses, followed by Siem Reap, the second-largest city in Cambodia, in the northwest, which accounts for 19% of these companies. Battambang and Kampong Cham are the other two cities that account for a 9% share of the overall SMEs, each [11]. The expansion and diversification of a nation's exports over the long term may be significantly aided by the efforts of its SMEs. The contribution of SMEs to Cambodia's overall exports is dominated by textile commodities, which account for around 70% of the total. In 2019, the value of items shipped from Cambodia reached a total of USD14.8 billion with the SME sector contributing around USD1.48 billion of the overall export from the country [12].

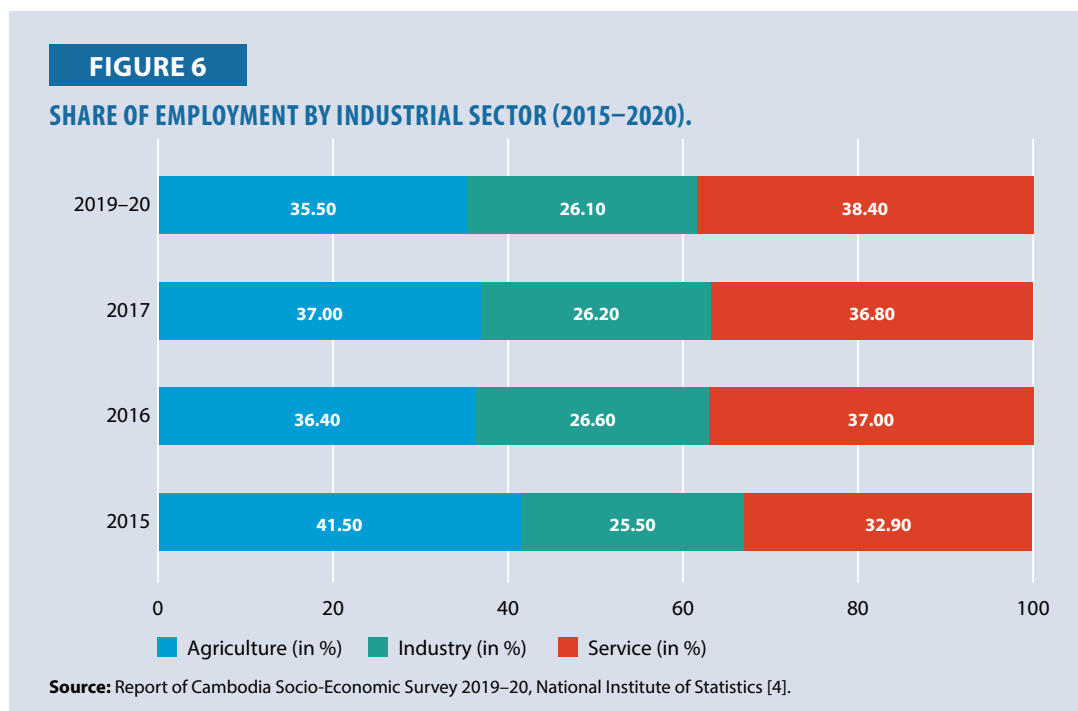
Sectorial Composition

Production Capacity and Share of SMEs in VA and Employment

SMEs have been widely recognized as a key driver of economic development in developing countries, playing a significant role in generating employment opportunities in a country. The substantial growth in the number of SMEs has led to a significant reduction in the unemployment rate. As per the Annual Report 2018 of MISTI, SMEs employed approximately 3.50 million to 4 million individuals, contributing to 70% of employment in Cambodia [12].

Sectorial Mix (VA and Employment)

In Phnom Penh, the employment rate stands at 77.50%, while the unemployment rate is 3.70%. The employment rate remains high in both urban and rural regions, with the unemployment rate remaining low, at less than 3%, according to the Cambodia Socio-Economic Survey 2019–2020. The report also indicates that the working-age population, aged 15 to 64 years, experienced an annual increase of approximately 1.6 million people from 2009 to 2019/20. In 2019–20, the total working population was 10,316,000, of whom 9,020,000 people were part of the labor force, while 1,296,000 people were not working. Figure 6 illustrates the share of employment across different industrial sectors, namely agriculture, industry, and service [4].

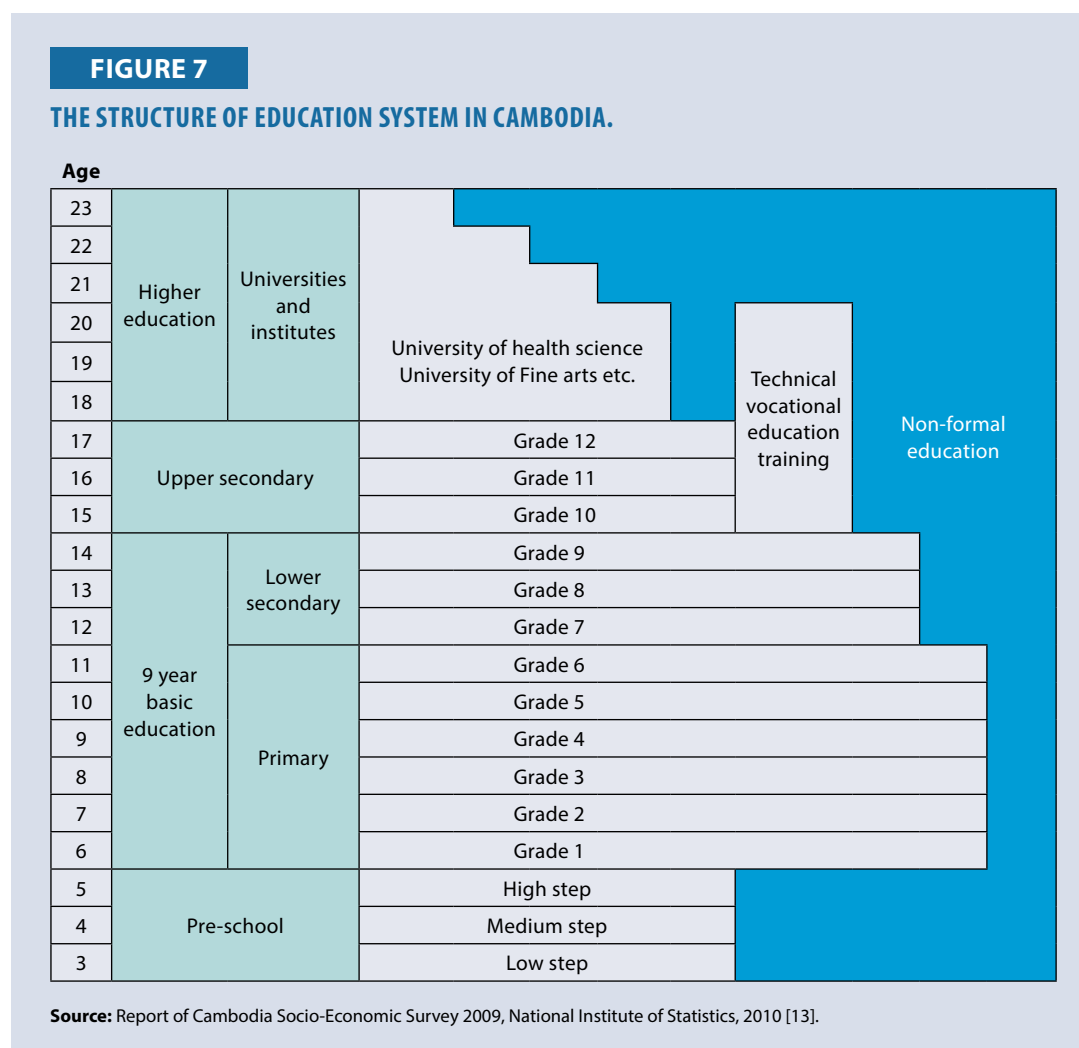


Competitiveness Fundamental

Human Capital

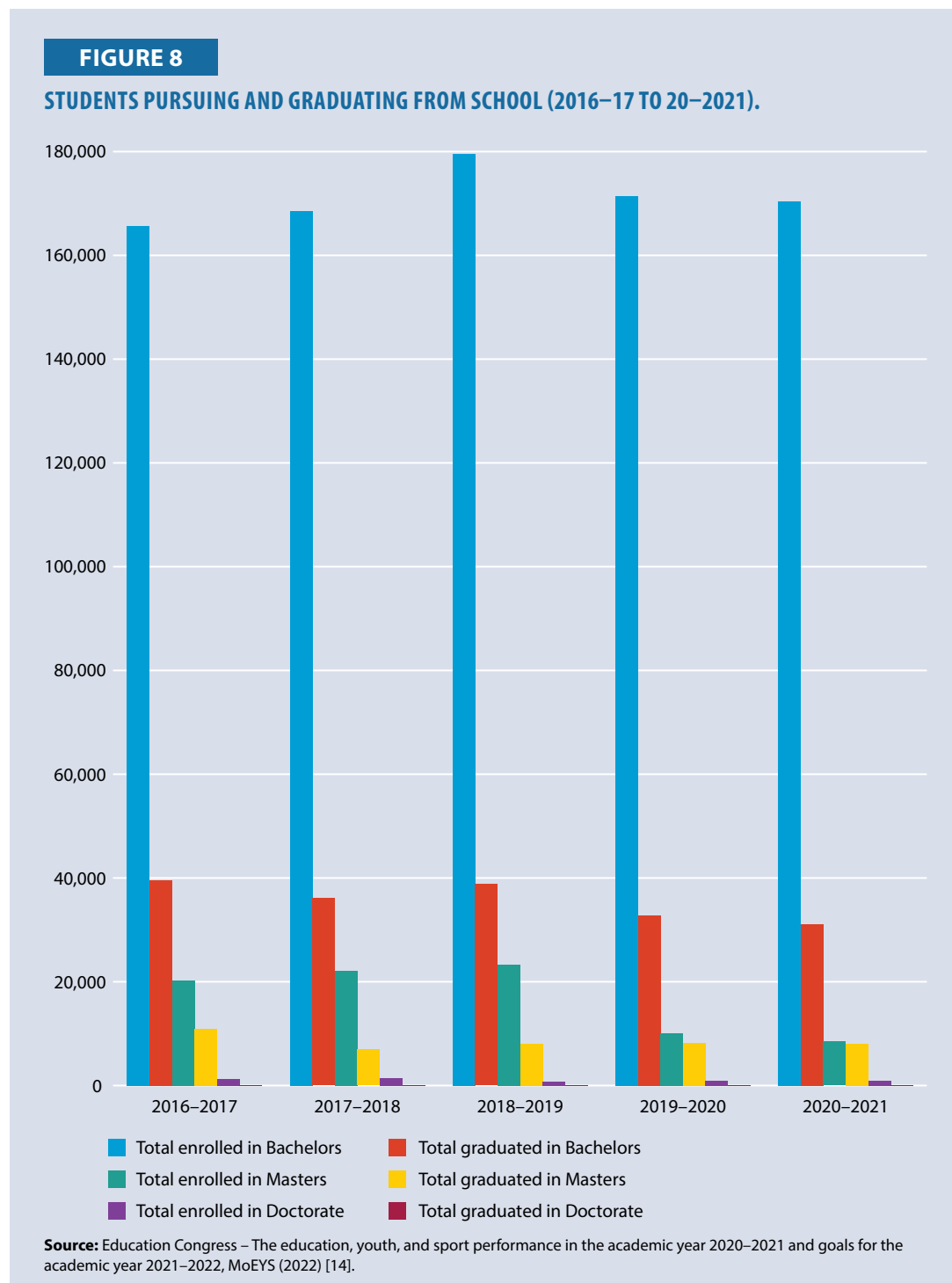
Education and Training Level of Employees

The Ministry of Education, Youth and Sport (MoEYS) in Cambodia has made significant strides in ensuring inclusive and equitable quality education and promoting life-long learning opportunities for all, through the Education Strategic Plan 2019–2023 [13]. Notably, the ministry has reported improvements in enrollment rates at the elementary and secondary school levels, particularly in rural areas. The gradual expansion of schools and an increase in the number of teachers also stand out as the country's significant achievements (see Figure 7).



In Cambodia, there are a total of 130 higher education institutions that offer Bachelor's, Master's, and Doctorate programs to students (see Figure 8). Out of these, 48 institutions are public, while the remaining 82 are private. During the 2020–2021 academic year, 170,246 students were pursuing Bachelor's degrees, indicating a slight decrease of 0.55% compared to the previous year. Furthermore, during the same academic year, 31,056 students successfully graduated with a Bachelor's degree, accounting for approximately 18% of the total registered student population as mentioned above [14]. Apart from their core curriculum, higher education institutions such as the National University of Management, Paragon University, Institute of Technology of Cambodia, Cambodia Academy of Digital Technology, Pannasastra University of Cambodia, Norton

University, and the Royal University of Phnom Penh offer additional programs aimed at nurturing students' entrepreneurial and startup business skills. These programs include innovation labs, incubation programs, and entrepreneurship hubs [15].



A majority of the Cambodian labor force possesses educational qualifications below the high school level. Approximately 72% of employed workers in Cambodia have completed less than grade 12 of education. Furthermore, within the labor force, 13% of individuals aged 15 and 64 have minimal or no formal education [4].

Cambodia faces significant limitations in terms of technical knowledge and skills, resulting in a shortage of qualified and skilled workers, technicians, and engineers, thus preventing the country from fully absorbing and using modern technology for industrial development. The shortage of skilled workers, low productivity, skill mismatches, and wages present ongoing challenges to the further development of Cambodia [7]. It is not only the competence of workers that requires improvement, but the management and leadership skills of SME owners also necessitate additional support and reinforcement [8]. These challenges related to the knowledge and skills of both workers and owners in the SME sector highlight the critical role of education and training in enhancing the capabilities of key actors within SMEs, serving as a major solution that could address these challenges.

There are various training opportunities available for employees in SMEs, including but not limited to the Skills Development Fund (SDF) implemented by MoLVT, MoEYS, and the Ministry of Economy and Finance (MEF). Additionally, the Global Alliance for Trade Facilitation and implementing partner Swisscontact offer the Improving Small Package e-Trade for SMEs project. Numerous other organizations and institutions such as Impact Hub, Cambodia-Japan Cooperation Center, Mekong Institute, InSTEDD iLab Southeast Asia, and Eurocham Cambodia also provide training programs for SMEs.

The SDF serves as a co-financing platform that supports skills development and training initiatives in private enterprises. Established in 2018, SDF has the vision to become the most trusted source of financing for demand-driven skills development in Cambodia. The project aligns with Cambodia's strategic objective of transforming its industries from labor-intensive to skill-intensive industries. A press release from a workshop on Achievements of the Skills Development Fund Project and Memorandum of Understanding Signing Ceremony indicates that as of November 2022, SDF has disbursed USD5.5 million in training funds to private firms operating in five prioritized sectors of manufacturing, construction, ICT, electronics, and tourism.

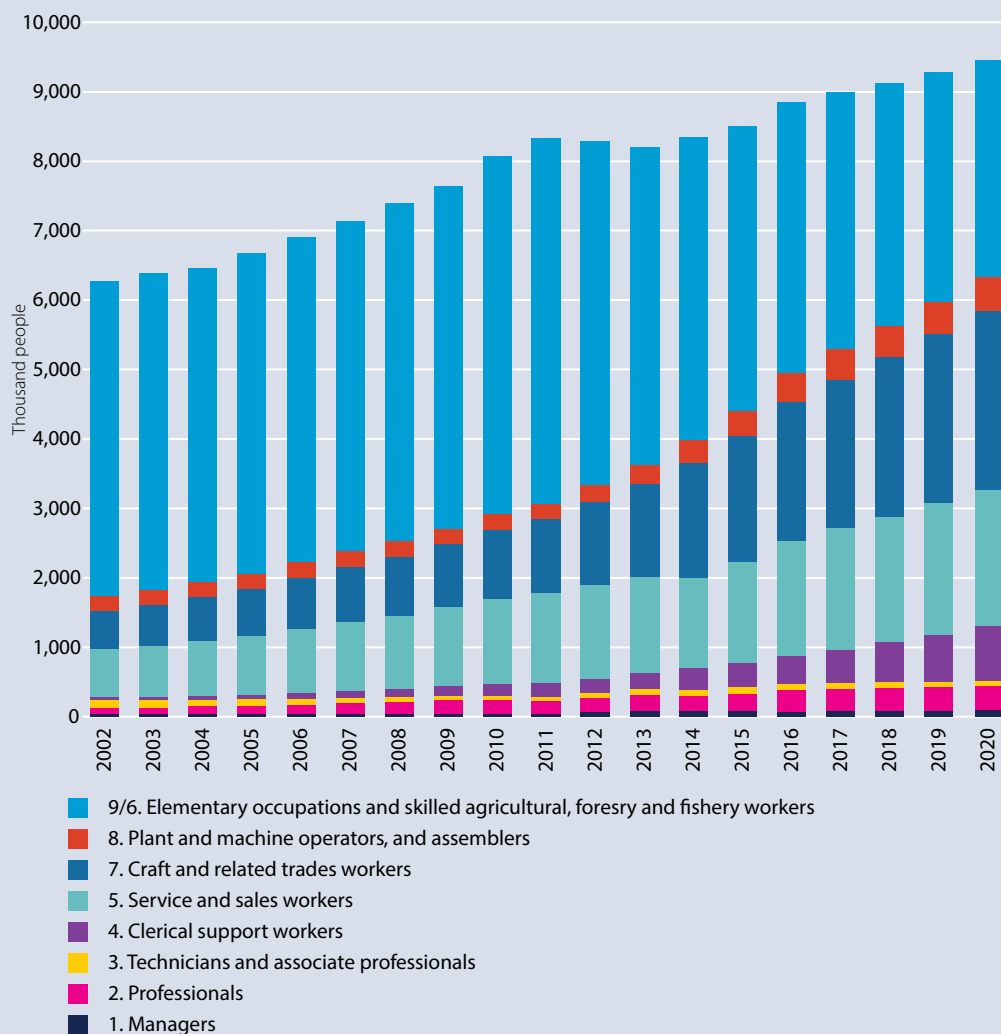
Employees in Highly Skilled Operations

A small number of highly skilled workers and professionals are employed in Cambodia's labor market, which is dominated by low-skilled and unskilled workers with low-paying jobs in a variety of economic sectors, such as agriculture, manufacturing, construction, and services. The number of service and sales workers, and craft and related trades workers, increased significantly between 2002 and 2019, from 702,000 and 551,000 to 1,888,000 and 2,437,000, respectively. While the employment of plant and machine operators and assemblers doubled from 222,000 in 2002 to 466,000 in 2019, the number of clerical support workers witnessed a massive increase from 33,000 in 2002 to 678,000 in 2019. The employment of managers and professionals still covers the least proportion of total employment, while the number of technicians and associate professionals gradually decreased from 115,000 in 2002 to 73,000 in 2019.

Employees Receiving On-the-Job Training

The Cambodia Employer Skills Needs Survey in 2015, conducted by the National Employment Agency, highlighted the significant skills gap within the labor force, with many employees lacking the necessary skills required for specific job roles. Besides, employers faced challenges in filling certain vacancies due to a shortage of skilled workers. Hence, to close the skills gap and solve the skill shortage issues, it is critical to invest in the training and development of workers. Despite the development of numerous policies aimed at promoting investment in work-based lifelong learning, the overall success in implementing these initiatives has been limited [17].

FIGURE 9
EMPLOYMENT BY OCCUPATION (2002–20).



Source: The Contribution of Vocational Skills Development to Cambodia's Economy [16].

Skilling Policies

There are 325 Technical and Vocational Education and Training (TVET) institutions in Cambodia, supervised by 12 government line ministries, with 56 of them being public institutions [18]. Specifically, under the MoLVT, there are 38 public, 44 private, and 21 NGO institutions across the country. To address the challenges posed by the Fourth Industrial Revolution and the digital economy, the MoLVT has established the Strategic Action Plan for Modernization of Technical and Vocational Education and Training 2019–2023. The plan prioritizes the promotion and support of research, innovation, and applied technology in TVET institutions as one of its five priority areas [19].

In response to the demand of the workforce, the MEF implemented measures to strengthen and modernize the education and training system. These measures include encouraging businesses to provide training for their employees and increasing the private sector's contribution to skill

development. The SDF initiative was introduced as a pilot project to facilitate industry-driven workforce development. The overarching goal is to foster industry partnerships and increase collaboration with the private sector to meet their specific training needs. The SDF may assist businesses that may be interested but hesitant to engage more actively in workforce development initiatives [20].

Finance

Funds Allocated and Disbursed for the Development of SMEs

As of 2019, Cambodia had approximately 20 private equity (PE) and venture capital (VC) firms operating in the country. Between 2015 and 2021, at least 25 tech startups received financial investments from various PE and VC sources [21]. By the end of 2021, the disclosed investment funds raised by startups from both local and international VCs, PEs, and angel investors exceeded USD20 million [22]. Some of the disclosed PEs, corporates, and VCs include Smart Axiata Digital Innovation fund, 500 Startups, Belt Road Capital Management, ISI Group, ISGS (lead investor), UNICEF, OBOR Capital, USAID, Small World Venture, and Mistletoe Inc [21].

To support MSMEs in accessing financing, the MEF established the SME Bank in November 2020. Launched with an initial capital of USD100 million in April 2020, the SME Bank gives priority to those sectors that are aligned with the Industrial Development Plan, including innovative industries, manufacturing, agro-processing, tourism, and other supporting industries. So far, 753 SMEs have benefited from the services offered by the SME Bank [23].

Crowdfunding as an alternative investment funding for SMEs, is still relatively new in Cambodia. Local crowdfunding platforms such as CiC Investment, Rai Capital, and KDEISROMAI are operating within the ecosystem. Additionally, international crowdfunding platforms like Pozible, Birchal, and The Private Financing Advisory Network provide opportunities for Cambodian tech startups to raise funds [15].

Taxation Policy

For SMEs in Cambodia, taxation poses significant challenges that require careful consideration. The common concerns in this area include indirect and direct taxation, tax compliance costs, and the administrative process involved in tax compliance. KhmerSME [24], highlights the following most important government regulations on taxation that hold particular importance for SMEs.

- **SME Tax Incentives Scheme:** Implemented in October 2018 under Sub-decree N124, the scheme offers various benefits to eligible SMEs in Cambodia. The scheme provides a tax exemption on income for a period of 3 to 5 years. Additionally, SMEs in six priority sectors can enjoy additional incentives in the form of deductible expenditures. The six priority sectors covered under the scheme are (i) agricultural or agro-agricultural products, (ii) food manufacturing and processing, (iii) manufacturing of local consumable goods, (iv) waste recycling and production of goods for the tourism sector, (v) manufacturing of finished products, spare parts or assembling parts to supply other manufacturers, and (vi) R&D associated with IT or IT-based services, and enterprises located in SME Cluster Zones as well as those involved with the development of Cluster Zone.
- **Customs (Sub-Decree N.50):** On 25 March 2019, a new customs incentive was introduced to support SMEs in the country. Under the decree, SMEs operating in the priority sectors such as domestic sellers, Special Economic Zones, exporters or entities

supporting export, portable water, and the IT sector, can benefit from a customs duty exemption on imports of production equipment, construction equipment, raw materials, and other production inputs.

- **Tax Incentive on Voluntary Registration (Sub-Decree N.17):** It defines the tax incentive mechanism to encourage SMEs to voluntarily register for taxation and thereby help in creating a transparent and fair tax system.

Technology and Innovative Capacity

Expenditure towards R&D

Regarding the expenditure of R&D by SMEs, there is a lack of a comprehensive dataset. However, in 2021, when Cambodia's GDP was around USD29 billion, the government spent nearly USD35,000 on R&D. According to the ADB report Key Indicators for Asia and The Pacific 2022, R&D investment in Cambodia increased from 0.05% of GDP in 2010 to 0.12% in 2020, reflecting a growth of 0.07% [25]. In line with this, the Government of Cambodia has outlined its commitment to the Cambodia Science, Technology and Innovation Roadmap 2030 to increase R&D spending to 1% of GDP by 2030. The roadmap emphasizes the importance of timely investment in R&D for knowledge creation to support the evolving needs of SMEs.

Technology Imports

Cross-border learning plays a pivotal role for nations and their emerging firms to bridge the knowledge gap. Access to international markets provides a valuable opportunity for these firms to tap into diverse knowledge resources that may not be readily available domestically. The global market catalyzes for SMEs to catch up by facilitating learning for the acquisition and adoption of knowledge and technologies from advanced economies. Within this context, two primary mechanisms of cross-border learning are crucial for emerging firms: technology import and learning by doing [26].

Entry into E-Commerce

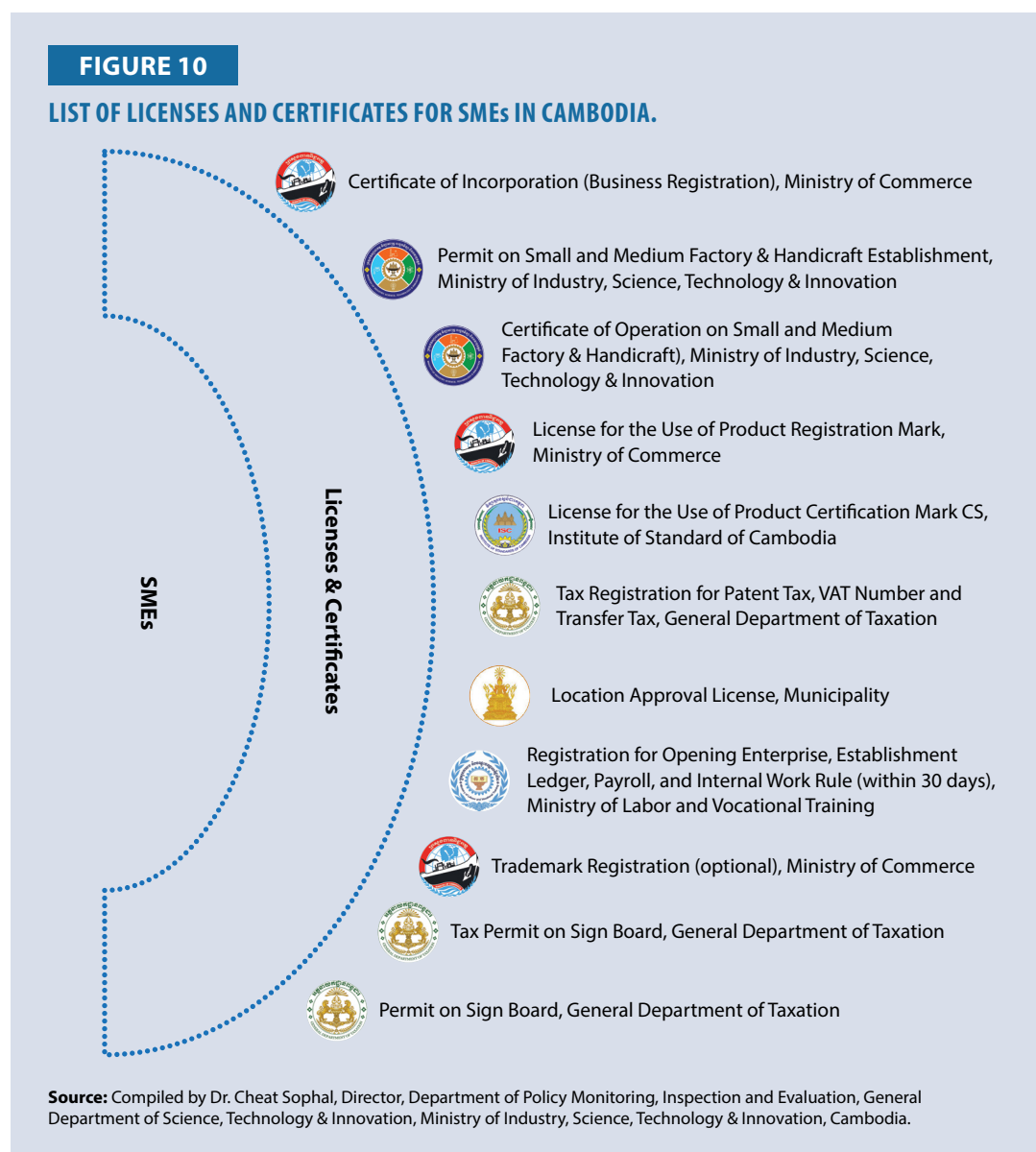
The significant growth of e-commerce in Cambodia is proof of the benefits it offers to businesses. To ensure responsible and fair practices toward consumers, the ASEAN Online Business Code of Conduct was established, providing guidelines for online businesses. In addition, the RGC has made strategic investments toward creating a regulatory framework, enhancing logistics, strengthening ICT infrastructure, and improving SME capabilities. With this, the government hopes to support the growth of the e-commerce sector. To further enhance the e-commerce ecosystem, a comprehensive set of e-commerce strategies has been formulated, encompassing 10 key components such as strategy and policy focus and institutional coordination, legal and regulatory framework, SME regulations, ICT infrastructure, digital skills infrastructure (like digital literacy, IT skills, and digital entrepreneurship), payment systems, domestic trade logistics, cross-border trade, access to financing, and trade information and in-market support. These strategies, as outlined by KhmerSME [24], aim to facilitate effective public sector facilitation and address the specific needs of the e-commerce sector in Cambodia.

Regulatory and Business Environment

Entry Requirements and Industrial Licensing

In Cambodia, a developing nation with a growing number of new enterprises, local SMEs often face challenges in navigating the local legal requirements and processes for business registration. However, the introduction of a digital registration platform has simplified the process of starting a

business in the country. In June 2020, the MEF unveiled the Information Technology Platform, which offers a faster, more affordable, and more convenient method for business to register their enterprises in compliance with the law. The digital registration platform aims to streamline these processes since SMEs need to get several registrations and licenses. The number of licenses and inspections depends on the nature of the business, the size of the operation, and the business location. Figure 10 shows the list of licenses and certificates required by SMEs, particularly in manufacturing.



Intellectual Property Rights Protection

Intellectual Property (IP) holds significant importance for businesses operating in Cambodia, across almost all industries. Whether it involves distinguishing products from competitors, safeguarding the results of research findings, or protecting confidential financial plans, IP issues are pervasive. Since Cambodia's accession to the WTO in 2004, the country has enacted numerous regulations to govern intellectual property rights. Although full WTO compliance may take some time, the evolving regulatory environment presents opportunities for investors to seek protection for their inventions, trademarks, industrial designs, and other innovative products. Although the

regulations are constantly evolving, Cambodia has established reasonably effective processes for registering and protecting significant IP rights. Neglecting or delaying IP asset registration can lead to significant long-term costs. Trademarks, patents, industrial designs, copyrights, trade secrets, right of publicity, and unfair competition is among the key areas of IP that are applicable and enforceable in Cambodia. Businesses are encouraged to understand and navigate the IP landscape to safeguard their valuable assets effectively.

Labor Protection Laws and Labor Market Regulations

The labor protection and labor market in Cambodia are governed by a comprehensive set of legal instruments. These include the Constitution, the Civil Code, the Labor Law, the Law on Minimum Wages, the Law on Social Security Schemes, the Law on Trade Unions, as well as international treaties that have been incorporated into Cambodian law through parliamentary enactments, along with other labor-related rules and regulations. The RGC and relevant ministries, particularly the MoLVT, periodically publish these legal instruments to ensure transparency and accessibility.

In addition to these legal instruments, arbitration decisions finalized by the Arbitration Council (AC) serve as important references for labor-related disputes. The AC has the power to hear and decide on both group and individual disputes, and its arbitral awards hold significant persuasive authority for interpretation by the court of law. The administration and enforcement of the Labor Law lie with the MoLVT and the Department of Labor and Vocational Training at the local and provincial levels. Labor inspectors play a crucial role in ensuring compliance with the existing labor laws and other labor-related regulations. They are responsible for conducting labor inspections and monitoring labor standards.

The court structure in Cambodia comprises the Supreme Court, the Appeal Court, municipal and provincial courts, and the Military Court. While there are currently no specialized courts such as labor courts or administrative courts, ordinary courts have the jurisdiction to hear labor cases [27].

Environmental Factors

Guidelines for Disposal of Industrial Gases and Wastes

The Ministry of Environment (MoE) plays a crucial role in the management of solid waste in Cambodia. The management of solid waste in Cambodia is defined by legislation to include various activities such as transportation, storage, elimination, and treatment of waste. The MoE is responsible for developing laws, regulations, and rules about the management and inspection of wastes, including hospital wastes, industrial wastes, and hazardous wastes.

The specific regulations governing solid waste management are outlined in three sub-decrees.

1. The 1999 sub-decree on solid waste management
2. The 2015 sub-decree on the management of garbage and solid waste in urban areas
3. The 2015 sub-decree on electronic waste management

These sub-decrees serve as important legal instruments to guide and regulate solid waste management practices in Cambodia. They help establish guidelines and standards for waste management, ensuring proper handling, disposal, and treatment of different types of waste in an environmentally sustainable manner under the supervision of the Ministry of Environment.

Environmental Clearances Required for Businesses

In Cambodia, specific businesses are required to undergo an Environmental Impact Assessment (EIA) as part of their operations. The legal requirements for EIAs are outlined in Chapter III of the Law on Environmental Protection and Natural Resource Management (EPNRM Law) of 1996, along with the Sub-Decree on Environmental Impact Assessment of 1999, commonly referred to as the EIA Sub-Decree. According to the EIA Sub-Decree, all projects are subject to an Initial Environmental Impact Assessment (IEIA) to determine whether a full EIA is necessary. Cambodia follows a structured approach in the IEIA/EIA process, which involves the following seven steps.

1. Project screening
2. Project scoping
3. Preparation of the EIA Report and Environmental Management Plan (EMP)
4. Reviewing and assessment of the EIA report
5. Approval or refusal of the EIA report
6. Construction and operation
7. Project monitoring, compliance, and enforcement [7]

Under the current framework established by the EPNRM Law of 1996, certain documents, such as the IEIA report, pre-feasibility study report, or environmental impact assessment report, are required for all investment project applications and state-proposed projects. These requirements are outlined in Articles 6 and 7 of the EPNRM Law. As part of the application process, a copy of the relevant documents must be submitted to the Project Approval Ministry/Institution and the MoE.

Policy Recommendations

Conclusion

In conclusion, based on the desk review, it is evident that SMEs play a vital role in Cambodia's business community in Cambodia and contribute significantly to the country's economy. They have a positive impact on poverty reduction by creating employment opportunities and increasing income levels. Additionally, supporting SMEs aligns with the SDGs as they contribute to economic growth and social development. However, SMEs still face limitations and complexities while adopting digitalization. Factors such as education level, technology adoption, R&D public support investment, policies and regulations, and the impact on the environment can hinder their digital transformation.

Recommendations

To empower SMEs in Cambodia to effectively deal with the challenges of transformation and align with the SDGs, the policymakers and other relevant stakeholders can take several steps as recommended.

- Strengthen the policy and regulatory environment
- Foster human capital and entrepreneurship development

- Promote productivity, technology, and innovation.
- Enhance market access and internationalization via e-commerce.
- Increase financial access.

The Way Forward

To effectively implement the aforementioned recommendations, the following actions should be taken:

1. **Simplify policies and regulations for SME transformation:** Regulating should be streamlined and standardized. This involves integrating laws that already exist that are like one another or that exist in several places into a single, streamlined set of rules. SMEs need to be involved in the development and revision of regulations to ensure that their needs are considered.
2. **Promote technology startups:** To gather and aggregate in one location all the relevant programs that are given by a variety of actors. From the stage of having an idea to where start-ups are ready to enter the market by helping them to iterate, test, and scale. SMEs need education and assistance to comprehend. Training like this could be offered by commercial consultancies, industry groups, or government entities.
3. **Enhance business technology incubation:** Government organizations can play a part in the promotion and enhancement of business technology incubation by giving financial assistance, offering mentoring, and networking opportunities, and establishing an atmosphere that is supportive of the incubation process. Partnerships with universities and research institutions are also the key to driving it. It brings talented students and researchers who have the potential to start successful technology businesses with access to resources that they might not otherwise have.
4. **Boost e-commerce platforms to support growth:** To boost e-commerce for companies and entrepreneurs, the government has to provide education and assistance in this area. This involves delivering instruction on how to set up an e-commerce website, as well as how to promote and sell online, as well as how to handle payments and logistics.
5. **Diversify innovation and transfer of knowledge:** This can be done across SMEs, larger firms, the public sector, and academia via establishing innovation centers around the kingdom would give a venue for small and medium-sized businesses, bigger corporations, the public sector, and academic institutions to come together and work on creative initiatives together.

By undertaking these actions, Cambodia can create an enabling ecosystem that supports SME transformation, fosters innovation, and technology adoption, and drives sustainable economic growth.

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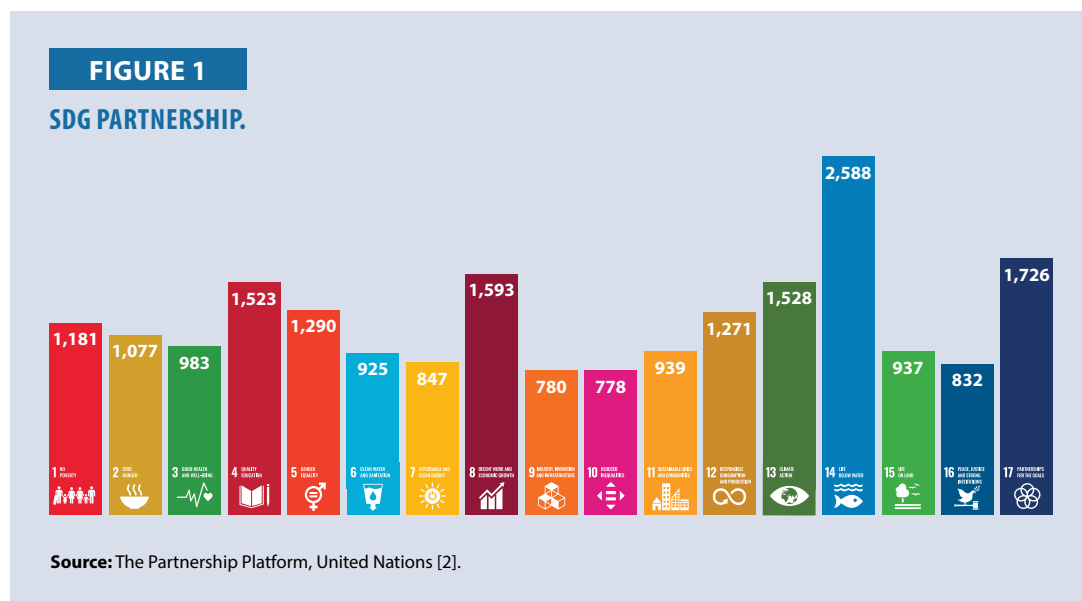
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REPUBLIC OF CHINA

Sustainable development was defined in the report ‘Our Common Future’ by the World Commission on Environment and Development [1] as the ‘development that meets the needs of the present without compromising the ability of the future generations to meet their own needs’. It aims to reconcile economic development with social and environmental balance and protection.

- The Member States adopted the Millennium Declaration, consisting of eight Millennium Development Goals (MDGs) to reduce extreme poverty by 2015.
- In January 2015, the General Assembly process culminated in the adoption of the 2030 Agenda for Sustainable Development, which contains 17 SDGs at its core [2].

The UN also established a partnership platform for the global registry of voluntary commitments and multi-stakeholder partnerships made by the stakeholders in support of the implementation of the SDGs.



The UN SDGs have become a universal language for corporate reporting on societal issues. Countries, businesses, and individuals recognize that the SDGs offer a framework for communicating progress in a globally recognized manner. In the Republic of China (ROC), the National Council for Sustainable Development (NCSD) began announcing the ROC Sustainable Development Goal, aligned with the UN SDGs, in 2019 [3]. The structure of the NCSD is depicted in Figure 1, and its primary task is to promote sustainable development policies. Notably, the following policies were introduced by the ROC in 2020.

- The National Development Plan incorporated the philosophy and concept of sustainable development.

- The concepts of carbon neutrality, sustainable public construction, barrier-free environment, and universal design were incorporated into mid to long-term projects.
- The concept of Voluntary Department Review and Voluntary Local Review was introduced to promote SDGs.
- The decision to promote the integration of University Social Responsibility with SDGs.

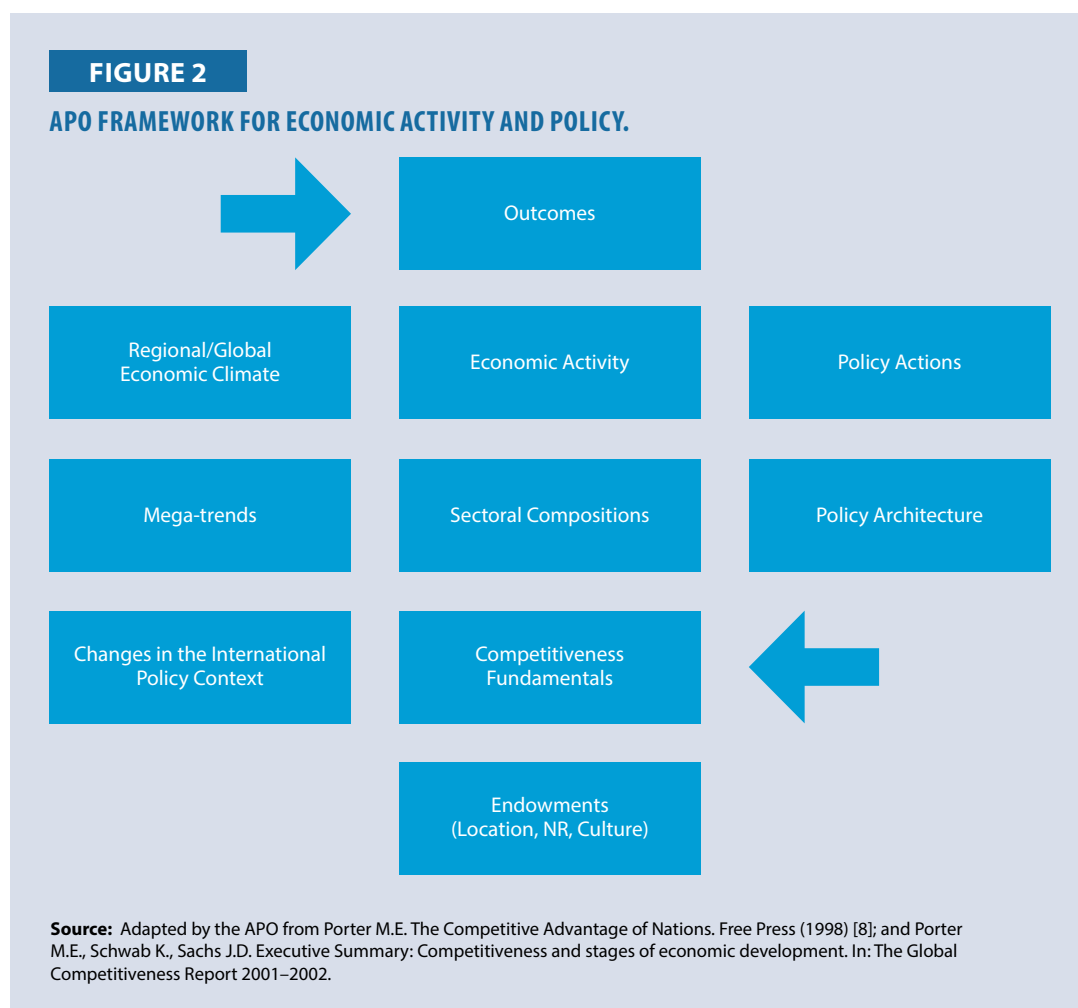
Currently, many enterprises have increased their focus on corporate social responsibility (CSR) initiatives and disclosed their environmental, social, and governance (ESG) performances. The COVID-19 pandemic crisis in 2020 once again brought ESG principles into the spotlight for global companies and investors. ESG performance indicators serve as vital strategies to ensure the sustainable development of enterprises [4] and act as driving forces [5]. They also provide necessary measurement standards when enterprises implement CSR initiatives [6], serving as criteria and strategies for investors to assess corporate behavior and future financial performance [5]. This is because enterprises with robust ESG sustainable development strategies demonstrate strong resilience to dealing with variable risk factors, such as climate change and epidemics. Their flexible contingency measures, ingrained in their operations, allow them to navigate through crises smoothly.

ESG, which has become one of the most important global issues, serves as a performance indicator for evaluating the stability and soundness of enterprises and is considered the best measure of sustainable development. Husted and Sousa-Filho [7] defined ESG as follows:

- Environmental performance indicators refer to good environmental practices, such as considering biodiversity, formulating environmental policies, implementing pollution controls, and disclosing Climate Change-Related risks and opportunities.
- Social performance indicators refer to the formulation of health and safety policies, equal employment opportunities, and activities related to stakeholders.
- Governance performance indicators represent good corporate governance, such as promoting diversity in the composition of board members, separating the CEO's and chairman's roles, and implementing policies on shareholder rights.

In recent years, enterprises have increasingly focused on ESG performance indicators, leading to extensive research by scholars and experts. The research includes examining the relationship between ESG performance indicators and financial performance, as well as responses from the capital market.

While abundant literature is available on the economic and environmental sustainability of manufacturing industries [8], social sustainability aspects have often been neglected. Sustainable work should be integral to organizational and economic sustainability. However, social sustainability is sometimes qualitative, lacking standardized measurement criteria. In addition, few studies have deployed an objective method to analyze the indicators for enterprises, especially for non-financial reports. In this report, the contents are shown as APO framework. First, the regional and global economic climate is described, followed by the megatrend of climate migration and the description of related policies.



Introduction

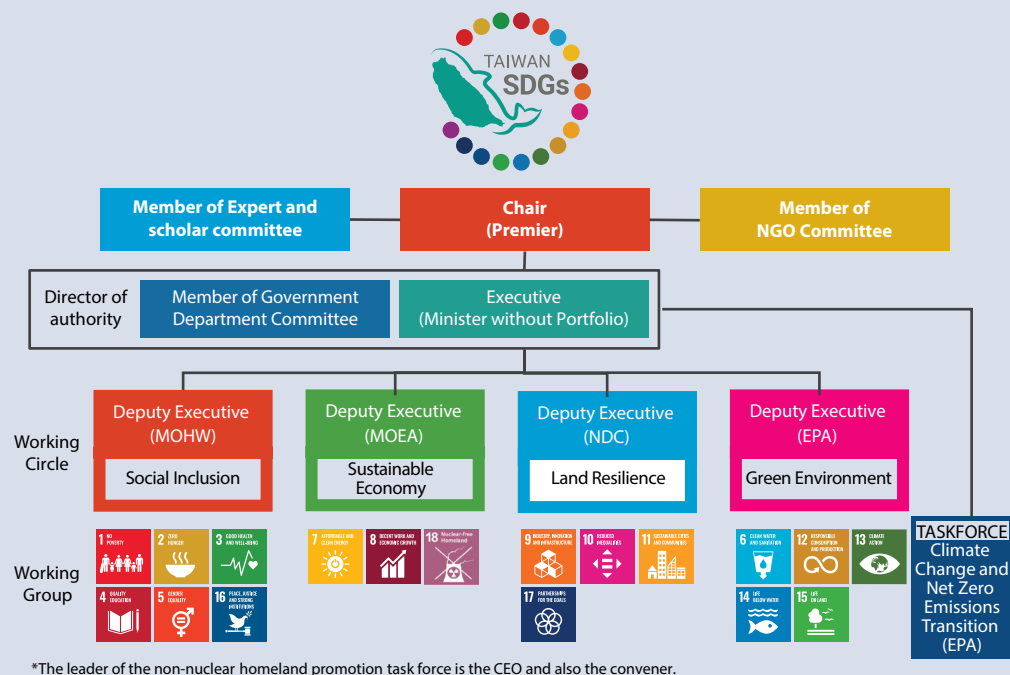
Regional and Global Economic Climate

In response to the promotion of SDGs and local needs, the ROC formulated 18 goals and 143 targets in 2018. The following year, it formulated 336 corresponding indicators and coordinated target tracking supervision evaluation based on local needs. This approach ensured that while evaluating the progress of the SDGs, a set of more coordinated review standards could be applied, thus accurately reflecting the true implementation status of SDGs [9].

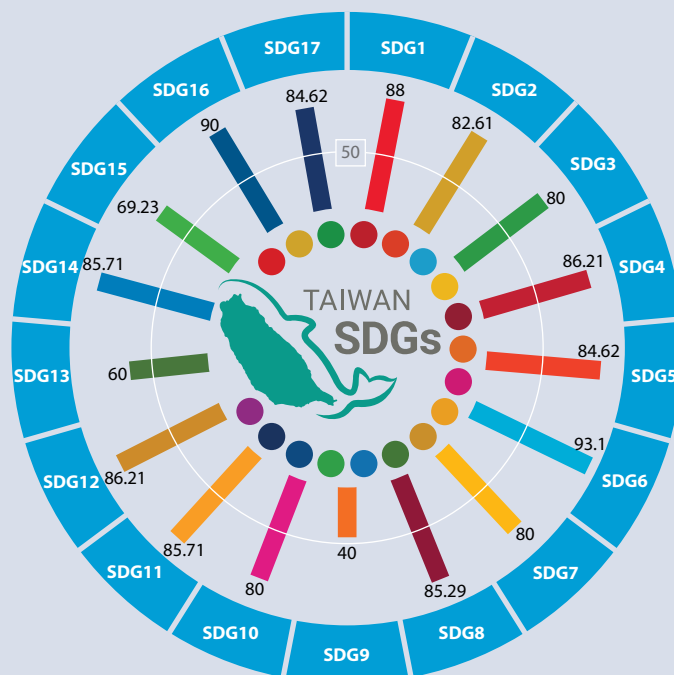
The ROC's achievement of the SDGs is calculated as the number of indicators whose progress meets expectations, divided by the total number of indicators, excluding those that have not reached the statistical period. Figure 4 illustrates the ROC's achievement rate for SDGs. It indicates that the ROC's score on SDG 6 (93.1) and SDG 16 (90) are 90 and above, while it is 60 and below for SDG 9 (40) and SDG 13 (60).

The Mega Trend

By 2020, over 110 countries had committed to a net zero emissions target by 2050, and China, as the largest emitter, had committed to the same by 2060 [10]. Carbon neutral refers to a state where some emissions are still being generated, but they are offset somewhere else, resulting in net zero emissions. The objective of the Paris Agreement is to ensure that global warming stays within 2°C by 2100, but preferably closer to 1.5°C, as stated in the UN Emissions Gap Report 2020.

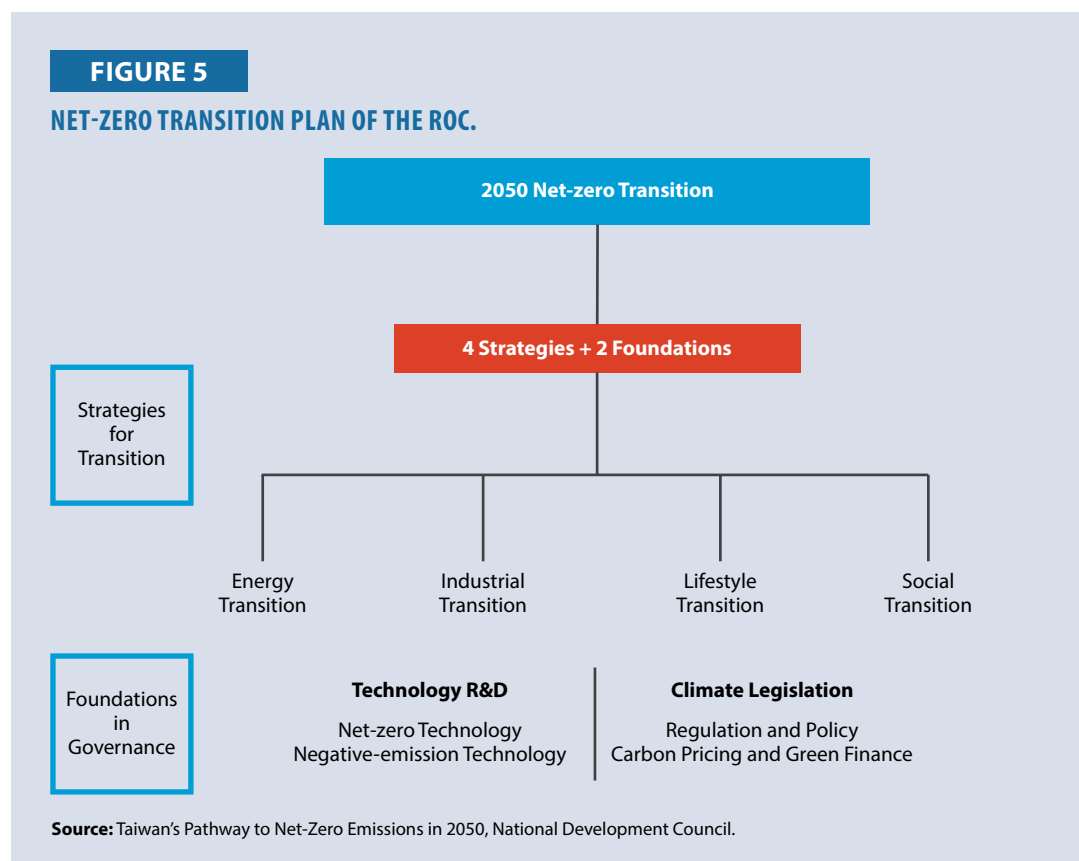
FIGURE 3
STRUCTURE OF NATIONAL COUNCIL FOR SUSTAINABLE DEVELOPMENT.


Source: 2022 Taiwan's Voluntary National Review, National Council for Sustainable Development [9].

FIGURE 4
SDG ACHIEVEMENT RATE OF THE ROC IN 2020.


Source: 2022 Taiwan's Voluntary National Review, National Council for Sustainable Development [9].

In March 2022, the ROC officially published the Republic of China's Pathway to Net-Zero Emissions in 2050 [11], providing the action plan to achieve '2050 Net-Zero Emissions'. This blueprint focuses on promoting technology R&D and fostering innovation in key areas, guiding the green transition of industry, and driving a new wave of economic growth. The 2050 net-zero emissions pathway is built on four major transition strategies of Energy Transition, Industrial Transition, Lifestyle Transition, and Social Transition. Additionally, it relies on two governance foundations: Technology R&D and Climate Legislation and is supplemented by 12 key strategies. This comprehensive framework aims to develop action plans for energy, industrial, and life transitions, facilitating the implementation of net zero goals. Figure 5 illustrates the ROC's 2050 Net-zero transition plan.



At the same time, the ROC looks forward to promoting green financing, increasing investment at various key milestones, and ensuring a reasonable transition period. The Financial Supervisory Commission in the ROC has mandated that enterprises with capital exceeding NTD20 million must publish their ESG report and disclose their ESG indicators. As a result, numerous enterprises have started disclosing their ESG and SDG results in their reports.

Policy Architecture

In 2019, it formulated 18 goals and 143 targets as part of its policy architecture. Additionally, the ROC has also published its Pathway to Net-Zero Emissions in 2050.

Policy Action

The majority of SDG goals have specific indicators to monitor and assess their progress. Table 1 presents an overview of the SDG progress in the ROC.

TABLE 1
PROGRESS OF SDGs IN THE ROC.

SDG	Progress in the ROC
1	The minimum wage has increased by 25% since 2016, and measures were taken to increase it by 30.6% by January 2020, compared to the 2016 level.
2	The Intelligent Agriculture 4.0 program has been launched, integrating sensing, smart devices, IoT, and big data to establish digitized agriculture with smart production and marketing systems. The program integrates scientific research, production, processing, and sales while enabling annual, all-weather production and incorporating biotechnology, agricultural engineering, and new agricultural materials.
3	National health insurance is being promoted, benefiting 99.7% of the population.
4	Efforts to promote lifelong learning and preschool education include subsidies to ensure that 96.2% of 5-year-old children from economically disadvantaged families receive preschool education.
5	The ROC has a gender inequality index of 0.056. It ranks 8th globally and first in Asia.
6	The water from recycled municipal wastewater is provided for industrial use after treatment and the recycling rate for industrial wastewater is 70.7%.
7	Renewable energy currently constitutes 4% of the energy mix, with plans to increase it to 20% by 2025.
8	Efforts have been made to integrate people with disabilities into the labor market, resulting in an employment rate of 71% for people with disabilities in 2018.
9	The ROC is actively pursuing circular industrialization, with the industrial waste recycling rate reaching 80% in 2018.
11	Waste reduction has been identified as the most significant project for environmental improvement, leading to a 36% reduction in average waste produced per person per day compared to the 1998 baseline.
12	Green consumption is promoted, with gross green consumption surpassing USD2.8 billion in 2018.
13	The ROC has decided to treat the 2005 greenhouse gas emissions level as a baseline and is working towards achieving a 20% reduction by 2030, and a 50% reduction by 2050.
14	Efforts to reduce plastic products that are harmful to marine life include restrictions on plastic bags, microbeads, and plastic straws. Additionally, marine protected areas have been designated, and a hierarchical protection system has been established to protect marine biodiversity and ensure the livelihood of fishermen.
15	Conservation efforts include establishing protected areas to conserve biodiversity supplemented by grassroots ecological conservation activities such as mountain cleanups and river patrols.
17	The initiative launched jointly by the ROC EPA and the US EPA in 2014 aims to develop regional collaboration networks for knowledge-sharing and capacity-building on cross-border pollution and global environmental issues. Overall, 87 programs have been implemented under the initiative.

Source: SDG progress in Taiwan, TSDG, 2021 [13].

Impact of Enterprises on SDGs

This research analyzes and illustrates the sustainability reports of six enterprises. The case studies include companies like O’right, HeySong, King Yun Fu, ROC Fructose, ONENESS Biotech, and Grape King Bio.

Enterprise Case Studies from the ROC

Case Study 1: O’right

In 2020, O’right had a total of 277 employees (excluding temporary employees), with 65.7% of the workforce based at their Green Headquarters, located in Taoyuan, ROC. As the leading green beauty brand, O’right is the first GMP-certified green cosmetics plant, holding certificates for ISO 9001, ISO 22716, ISO 50001, ISO 14001, and ISO 45001 [14]. The company’s product manufacturing relies on renewable clean energies, specifically solar and wind power, along with efficient water recycling systems. O’right is one of the few beauty manufacturers in the ROC that focuses on green R&D, green design, green processing, and innovative marketing.

In 2021, O’right achieved 10 SDGs through its commitment to green products and services, generating social and ecological value (see Figure 6). The company’s SDG framework stimulates action on five key themes: people, planet, prosperity, peace, and partnerships. It also shows its core values: green, innovation, and sustainability.

FIGURE 6
BUSINESS CORE OF O’RIGHT.



Source: 2021 Corporate Sustainability Report, O’right [14].

O'right has also taken several significant steps toward driving green productivity. The company recycles and reclaims 100% of rainwater and pre-production wastewater to meet its daily water consumption, including for air-conditioning, irrigation, and other purposes. From 2019 to 2021, their wastewater recycling has shown a remarkable increase, rising from 56.81% to 99.43%. Currently, all the recycled wastewater meets the quality standards for irrigation water and O'right is on the path to achieving zero liquid discharge from wastewater treatment.

Case Study 2: HeySong Corporation

To fulfill its mission of providing healthy, delicious, and convenient dietary products, while raising the standards for healthy food, HeySong has been committed to using ingredients from natural sources. The company is actively involved in the development, sales, and promotion of low-sodium and low-sugar products, as well as the improvement of the formula of existing products to meet the health expectations and needs of the local population.

The company takes 'Serving with integrity' as its guiding business philosophy, and is committed to implementing corporate governance, improving operational performance, and actively pursuing sustainable management practices. HeySong Corporation, which established its CSR Committee in February 2015, renamed it the Sustainable Development Committee in 2021[15].

HeySong has also taken steps towards green productivity with the use of renewable energy sources. The company's monthly power consumption is estimated to be 55,000 kWh. However, HeySong found that it could adequately generate solar power generation for at least three months in 2022, accounting for approximately 165,000 kWh of electricity.

Case Study 3: King Yun Fu

The mission of King Yun Fu (KYF) is to 'be a reliable and sustainable packaging designer and capacity provider in the global packaging industry'. It is committed to generating benefits for stakeholders, including employees, customers, communities, environment, government, etc., starting with leveraging its core capabilities as an enterprise.

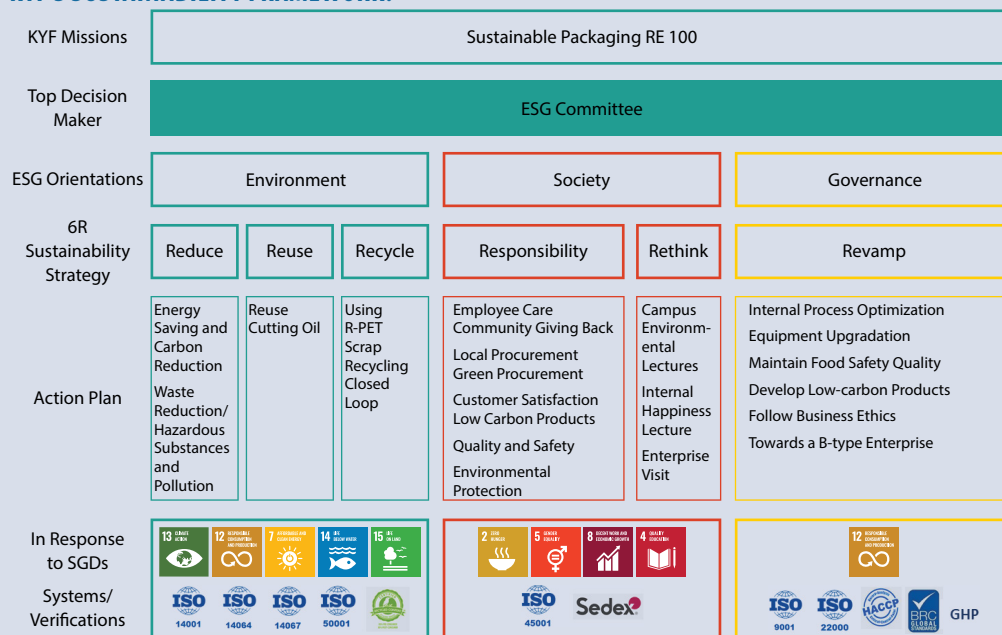
KYF operates as an export-oriented company, serving customers worldwide, primarily in North America. In 2021, their export revenue was impacted by supply chain bottlenecks. However, their domestic sales increased by 12% compared to the previous year, thanks to their ESG performance and the comprehensive sustainable packaging solution they offer. Since the second half of 2018, KYF has introduced several SDGs action projects, focusing on circular economy principles, combined with environmental education to deepen their sustainable practices year by year.

Addressing the urgent matter of climate change, KYF has planned the pathway for carbon reduction and the approach to stay focused on a circular economy, energy conservation, and energy management. The company obtained ISO 14064-1 and ISO 14067 certification and became a member of RE100, an initiative advocating for 100% renewable energy, in August 2021. KYF has announced its commitment to achieving 100% green power usage by 2050. In 2022, the company introduced the ISO 50001 energy management system, marking a significant step towards decarbonization. Figure 7 shows the KYF sustainability framework.

KYF's key performance indicators for ESG are classified into three aspects, beginning with the environmental aspect.

FIGURE 7

KYF'S SUSTAINABILITY FRAMEWORK.



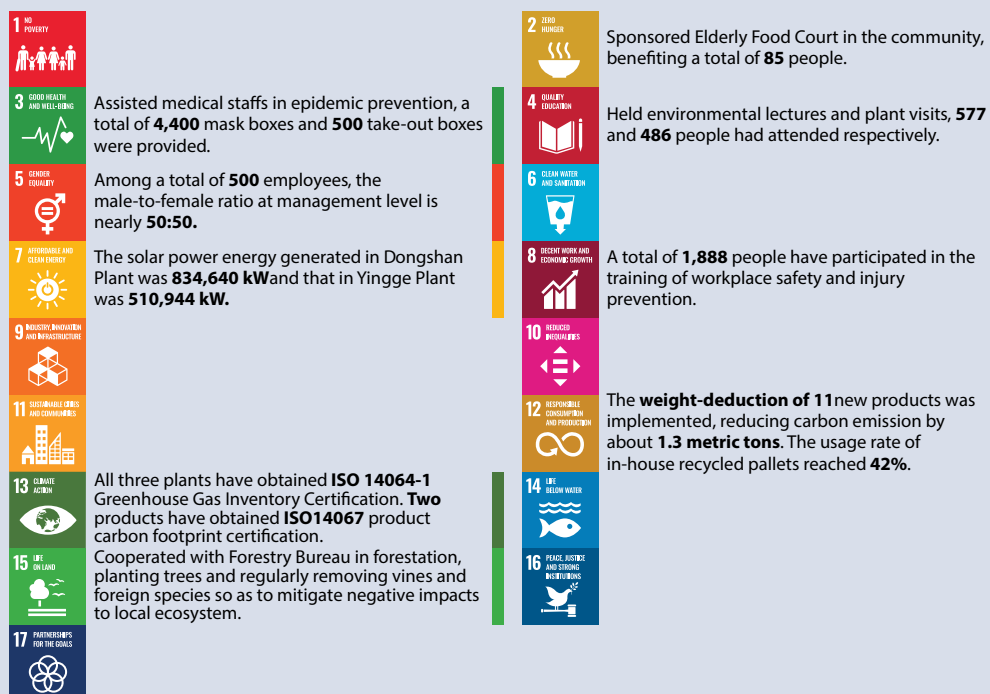
Source: King Yun Fu ESG Report 2021, KYF Packaging [16].

1. With ISO 14064-1:2018 and ISO 14067:2018 certification, KYF achieved 6,804.4 metric tons of recycled PET (rPET) products (16.0%), resulting in a substantial carbon reduction benefit of 12,247.2 t CO₂e,
2. The company introduced 11 new products that contributed to 5.7 metric tons of thinning, translating into a carbon reduction benefit of 17.3 tCO₂e. Additionally, it achieved a 42% recycling rate of crushed materials, resulting in a carbon reduction benefit of 124,599.5 tCO₂e. KYF also adopted 1.2 hectares of forest land, which adsorbs 132.0 metric tons of tCO₂e. Furthermore, the company generated 1,345,000 kWh of electricity through solar energy devices, effectively reducing Carbon emissions by 674.0 tCO₂e.
3. The following sections delineate KYF's efforts in fostering green practices across various domains.
 - The Dongshan Plant generated 834,640 kW of solar power energy, while the Yingge Plant generated 510,944 kW.
 - A total of 1,888 people participated in workplace safety and injury prevention training.
 - The implementation of weight deduction in 11 new products led to a carbon emission reduction of approximately 1.3 metric tons. The usage rate of in-house recycled pallets reached 42%.
 - All three plants have achieved ISO 14064-1 Greenhouse Gas Inventory Certification, while its two products have been granted the ISO14067 product carbon footprint certification.

FIGURE 8

THE OUTCOME OF KYF'S EFFORTS TOWARDS MEETING SDG OBJECTIVES.

2021 ESG Corporate Social Responsibility Performance



Source: King Yun Fu ESG Report 2021, KYF Packaging [16].

Case Study 4: ROC Fructose Company

ROC Fructose, originally named Shin-Ho-Mei Confectionery Company was founded in 1984. Its customer base extends across the ROC, Thailand, Malaysia, and the Philippines. As a professional food manufacturer, ROC Fructose has obtained GMP certification from the Industrial Development Bureau of the Ministry of Economic Affairs. The company received Halal certification in 2014 and Kosher certification in 2019 to expand its business territory. Overall, it can produce 39,165 metric tons of maltose, which is its primary product. It also has the capacity to produce 21,686 metric tons of fructose.

Case Study 5: Oneness Biotech

Oneness Biotech Company was established in June 2008, with its corporate headquarters located in Taipei City. In 2010, Oneness was approved by the government as a 'New Drug Biotech' company for R&D of new drugs. In June 2011, the company received approval from the Securities and Futures Bureau (SFB) for listing on the stock market while trading of its shares started on 23 September 2011. In August 2019, the company merged with Fountain Biopharma to expand its scale of operation and strengthen its capabilities in new drug R&D. The merger was intended to facilitate collaboration with larger international research institutes and pharmaceutical companies, enhancing Oneness Biotech's competitiveness in the global market. As of 2021, the company's paid-in-capital amounted to NTD3.88 billion, with an operating income of NTD65.77 million, and a total of 160 employees.

Case Study 6: Grape King Bio

Grape King Bio's core CSR philosophy is to “Contribute and build a better future for the society”. The company that believes in people-oriented corporate culture, has chalked out a sustainable strategy blueprint under the framework of technology, health, and hope. The company has identified six primary categories for sustainable development, namely Innovation and R&D, Ethical Governance, Product Liability, Happy Workplace, Social Prosperity, and Green Environment. These categories serve as the foundation of the company’s sustainable management approach over the next three years, driving continued investment in sustainability. Furthermore, Grape King Bio implements performance management that is aligned with three key aspects of environmental, social, and corporate governance.



In 2021, Grape King Bio invested NTD428,000 in outsourced water quality inspections. Besides, over 637 items were inspected internally. Quality assurance specialists periodically collect water samples and perform 11 to 13 inspection procedures under relevant regulations.

Company-specific SDG Projects

The SDGs represent a major opportunity for businesses to shape, steer, communicate, and report business strategies, goals, and activities, allowing them to capitalize on a range of benefits.

O'right's SDG Projects

The cosmetic company, O'right has identified SDGs 3, 4, 5, 6, 7, 11, 12, 13, 14, and 15 to provide guidance, align its strategies, and manage contributions for the realization of the SDGs.

TABLE 2

O'RIGHT'S SDG ACTIONS.

SDGs	Actions
8 and 9	<ul style="list-style-type: none"> Create economic value in agricultural products. Equipped with a biosafety level 2 laboratory, accredited by TAF in 5 categories. It also became the first hair and skin care company in the ROC to perform preservation efficacy testing by ISO 11930 standards.
	<ul style="list-style-type: none"> Share work schedules and weekly reports, providing job transparency to improve work efficiency.
16	<ul style="list-style-type: none"> Establish cross-functional sustainability communities to find solutions to specific sustainability issues.
3, 11, 17	<ul style="list-style-type: none"> Installed stainless steel drainage pipes and used steam sterilization instead of chemical solvents. Promoted the use of electric vehicles and provided free charging services to reduce carbon emissions.
	<ul style="list-style-type: none"> Disclosed the percentage of natural ingredients in the products and earn the USDA-certified bio-based product label for 100% bio-based content.
6	<ul style="list-style-type: none"> Established three water recycling systems with the wastewater recycling rate reaching 99.43% in 2021. It continues to target the goal of zero wastewater discharge. Projects include enhancing the green procurement system to ensure the quality of green ingredients and raw materials, optimizing the water balance chart to manage the quality of on-site water resources, and proposing water conservation plans to reduce water use by 10%
13	<ul style="list-style-type: none"> Joined the RE100 initiative with a target of sourcing 100% renewable electricity by 2025. Built Asia's first GMP-certified cosmetic plant, which has earned the EEWB Gold-level Green Building Label and Diamond-level Building Carbon Footprint Label.
4	<ul style="list-style-type: none"> Offered guided tours at their Green Headquarters to provide environmental education and insights into sustainability values. Organized Earth Hour, Plant a Tree, and coastal cleanup events to raise environmental awareness and communicate their sustainability message through green products.
	<ul style="list-style-type: none"> Produced short videos to show gratitude to their stakeholders, and a convention to give suppliers a chance to know O'right better, and to introduce them to their newly constructed Green Education Hall. Projects include the Climate Leader program, which aims to cultivate environmental awareness among kids and help them develop sustainable habits that are likely to stick with them as they grow up and increase their influence.

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SDGs	Actions
5	<ul style="list-style-type: none"> As beauty products mostly target females, over 73% of employees at O'right are women. In 2020, it hired three female customer service specialists for the night shift. A newcomer to O'right is given an employee handbook that includes pay and benefits, hours of work, retirement plans, maternity leave, rewards and punishment, health and safety at work, sexual harassment, and other guidelines and regulations employees are required to abide by to ensure orderly operations and provide the best possible work environment in the office.
	<ul style="list-style-type: none"> In 2020, O'right experienced a 3.06% decline in revenue growth compared to the previous year.

Source: 2021 Corporate Sustainability Report, O'right [14].

HeySong's SDG Projects

HeySong is set to celebrate its 100th anniversary of founding in 2025. The company has been proactive in responding to the UN SDGs, incorporating the principles of sustainable governance into all aspects of its value chain management. With a comprehensive approach, HeySong has formulated strategies to manage packaging materials, production energy consumption, waste, product, and customer health. Through these efforts, the company hopes to achieve sustainable operations with a clearer and more systematic management approach.

TABLE 3

HEYSONG'S SDG ACTIONS.

SDGs	Actions
12	<ul style="list-style-type: none"> In 2022, there was a notable increase of 1.8% in the reduction of plastics used in primary packaging as compared to 2021. Countermeasures: <ul style="list-style-type: none"> The PCO1881 two-piece liner cap (2.75g) for the CSD product was changed to a one-piece liner cap (2.4g). (simplified product material) By shortening the bottle mouth for the HR-PET bottle (B#9) the company was able to achieve the goal of reducing 3.0g plastic. (HR-PET bottle is 10% lighter) The HPR-PET bottle (B#11_C&C product) was changed from 34.8g to 31.5g. (C&C products are 9.5% lighter) 2023 Goal: 10% reduction in the weight of waste per ton of product. Countermeasures: <ul style="list-style-type: none"> Since 2022, waste re-utilization is being carried out through composting. Reuse of the insulation foam for the red wine cabin. Processing of tea dregs and coffee grounds. Upgrade the pallet machine for small PET bottles of carbonated products to reduce waste generation.

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SDGs	Actions
13	<ul style="list-style-type: none"> By 2025, under Scope 1 and Scope 2 emissions, the carbon emission per ton of products of the Zhongli Plant will be reduced by 15% as compared to 2020. Reduce carbon emissions by 291.7 metric tons, a 2.5% reduction in carbon emissions compared with 2020.
7	<ul style="list-style-type: none"> By 2025, more than 8% of the electricity used in the Zhongli Plant for operation will be generated from solar photovoltaic power.
6	<ul style="list-style-type: none"> By 2025, the water consumption rate (the amount of water used to make 1 ton of product) will be reduced by 10%, compared to 2020.
2	<ul style="list-style-type: none"> Continue to develop nutritional supplements for the needs of all age groups. By 2025, health supplements will obtain three clean labels and continue to maintain two health food permits.
4	<ul style="list-style-type: none"> Through various environmental education programs, services will be provided to 40% of primary schools in Taoyuan City by 2025, to cultivate 10 environmental education seed teachers, and develop 2 environmental education model schools, spreading the influence of the programs.

Source: HeySong Sustainability Report, HeySong [18].

KYF's SDG Projects

In line with the UN SDGs, KYF is actively creating a comprehensive sustainability framework, the ESG “6R Sustainability Strategy”, along with its corresponding action plans, and system certification. The company officially commenced its SDG programs in H2 of 2018 and has been publishing its CSR report annually since January 2018. In addition to focusing on ESG, the company is also linked to the SDGs proposed by the United Nations, aiming to follow the global trend. Overall, the company is committed to achieving nine SDG goals.

TABLE 4

KYF'S SDG ACTIONS.

SDGs	Actions
2	<ul style="list-style-type: none"> Sponsored a food court for elders in the community, benefiting a total of 85 people.
3	<ul style="list-style-type: none"> Assisted medical staff in epidemic prevention, a total of 4,400 mask boxes and 500 take-out boxes were provided.
4	<ul style="list-style-type: none"> Plans to organize lectures on environmental issues and plant visits.
5	<ul style="list-style-type: none"> Among a total of 500 employees, the male-to-female ratio at the management level is nearly 50:50.
7	<ul style="list-style-type: none"> The solar power energy generated by Dongshan Plant was 834,640 kW while that in Yingge Plant was 510,944 kW. Promote the RE 100 initiative.
8	<ul style="list-style-type: none"> Trained 1,888 attendants on workplace safety and injury prevention.

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SDGs	Actions
	<ul style="list-style-type: none"> • Increase the ratio of recycled material (rPET), with a target of 25% in 2022. • Increase post-industrial recycling by 40%. • Increase reuse of cutting oil by 92%.
12	<ul style="list-style-type: none"> • Reduce business waste as compared to the previous year; the target is 7.6kg/ton of finished products. • A total of 11 new products have been thinned, reducing carbon by about 1.3 metric tons. The recycling rate of crushed material reached 42%.
13	<ul style="list-style-type: none"> • ISO 14064-1 Greenhouse Gas Inventory Certification for all three plants. • Obtained ISO14067 product carbon footprint certification for two products. • Conduct annual greenhouse gas inventory audit. • Plan decarbonization path and apply to join the SBTi. • Reduce electricity consumption per unit over the previous year; the target is 1,606 kWh/ton of finished product. • Adapt ISO 50001 energy management system.
15	<ul style="list-style-type: none"> • Cooperated with Forestry Bureau in forestation, planting trees and regularly removing vines and foreign species to mitigate negative impacts on the local ecosystem.

Source: King Yun Fu ESG report 2021, KYF Packaging [16].

ROC Fructose's SDG Projects

ROC Fructose upholds its business philosophy of 'safety, hygiene, quality, service, and innovation.' Despite the impact of the global epidemic, the company remains committed to maintaining stable business growth while prioritizing product and service excellence. Continuously striving for improvement, ROC Fructose has enhanced its entire management system, aiming to begin with customer requirements and culminate in customer satisfaction regarding quality management. The company aims to strengthen its corporate governance following Corporate Governance 3.0. It also strives for transparency of operational information, protecting shareholders' rights and interests, and preventing illegal practices. To achieve these goals, ROC Fructose continues to update its international quality certifications, including HACCP, FSSC 22000, ISO 22000, Kosher (Jewish certification), and Halal. As the company grows, it plans to improve production processes and management to enhance product quality and customer satisfaction. To improve the quality of the products and customer satisfaction, the company plans to channel revenue and growth back to the shareholders and employees and pursue the concept of sustainable management.

TABLE 5

ROC FRUCTOSE'S SDG ACTIONS.

SDGs	Actions
4	<ul style="list-style-type: none"> • ROC Fructose will re-evaluate the demand for professional education and training every three years. In 2021, there were 1,192 trainees with a total of USD122,279.00 in education and training expenses. Each person received at least one hour of training, with an implementation rate of 95.37%, using the course satisfaction survey as the evaluation mechanism.

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SDGs	Actions
5	<ul style="list-style-type: none"> There are 37 female employees, accounting for 23.42% of the total, and there are 2 female mid-level and senior executives. In addition, they have established 'sexual harassment prevention measures, complaints, and disciplinary measures' to actively promote anti-sex discrimination. In 2021, there were no cases of discrimination in employment, and 1.27% of the total number of employees with physical and mental disabilities were employed, which is in line with the government's requirement of employing two disabled employees for a workforce of 200 or less. In 2021, the company hired six employees with physical and mental disabilities, and two of them had extreme physical disabilities. When the company needs to extend working hours (overtime), it considers the financial needs of these employees as more urgent than others, asking the unit to arrange overtime work for them on a priority basis to increase their income.
13	<ul style="list-style-type: none"> ROC Fructose adheres to the guidelines set by the Environmental Protection Agency for greenhouse gas inventory registration management, as well as the greenhouse gas emissions inventory registration page guidelines and the greenhouse gas inventory protocol - corporate accounting and reporting standards for inventory operations. By following these protocols, the company aims to provide comprehensive information related to its greenhouse gas management. Through the inventory process and analysis of the results, ROC Fructose effectively tracks and monitors greenhouse gas emissions, ensuring compliance with the EPA requirements for greenhouse gas emissions. Notably, the Nankan plant received the ISO 14064-1:2006 inspection certificate in August 2022.

Source: Taiwan Fructose ESG report 2021, Fructose [19].

Oneness Biotech's SDG Projects

Oneness Biotech is a science-based company dedicated to the research and development of new drugs, primarily contributing to SDG 3: good health and well-being. However, the company recognizes the close linkages between its operations and other SDGs. To understand the positive contributions and negative effects of its corporate actions on the SDGs, Oneness Biotech has conducted a thorough evaluation of all operational aspects. To ensure that its operation is in line with the SDGs, the company's material topic identification process has taken into account the mutual effects between the material topics and the SDGs. As a result, the SDGs were integrated into the company's operational plans for the material topics, enabling the formulation of strategies that enhance the positive impact of the SDGs.

TABLE 6

ONENESS BIOTECH'S SDG ACTIONS.

SDGs	Actions
3	<p>The biotech and pharmaceutical industry is important for promoting the health and well-being of humans. Oneness Biotech develops new drugs with science and innovation, provides affordable treatment for patients, protects the R&D results with a sound intellectual property management system, and creates value to be shared between Oneness Biotech and the society</p>

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SDGs	Actions
5	The company has a workplace culture that values gender equality. In addition, the Board of Directors has a diverse and inclusive structure composed of both management and employees, so that different voices can be heard during the decision-making process to enhance the team cohesiveness between employees and thereby encourage the growth of the company's operation.
8	Employees' safety and benefits are protected. The concept of "equal pay for equal work" is reflected in salaries. Complete employee development plans are in place to increase employees' professional abilities, ensure proper career development, and promote sustainable economic growth.
9	Large amounts of resources have been put into technological innovation to develop high-quality, reliable, and sustainable new drugs, upgrade production equipment, improve manufacturing processes, and increase the efficiency of the use of energy.
12	Based on an environmentally friendly design, their lead product, the FESPIXON® cream is composed of botanically active pharmaceutical ingredients which are derived from plants with non-toxic organic cultivation. Moreover, manufacturing processes are subjected to lifecycle-based reviews to gradually increase recycling and achieve the goal of zero pollution.
13	In the face of the physical and transitional risks posed by climate change, Oneness Biotech has introduced the TCFD structure, verified its inventory of organization-level and product-level carbon footprints, and taken mitigation and adaptation measures to improve energy intensity and reduce carbon emissions.
16	Operation with integrity is not only one of the social responsibilities of an enterprise but also a cornerstone for sustainable operation. Oneness Biotech has established a good corporate governance and risk management mechanism, follows and complies with global legal requirements, and endeavors to prevent any corruption and dishonest behaviors.

Source: ESG Report 2021, Oneness Biotech [20].

Grape King Bio's SDG Projects

In 2015, the UN adopted the 17 SDGs as part of the 2030 Agenda for Sustainable Development. Building upon its ongoing efforts, Grape King Bio has been actively integrating the SDGs into its corporate sustainability strategy since 2019. The company has established relevant management measures to align with its long-term commitment to implement the corporate sustainability philosophy and SDGs.

TABLE 7

GRAPE KING BIO'S SDG ACTIONS.

SDGs	Actions
1	<ul style="list-style-type: none"> Over the past four years, the company had provided 7,180 meal vouchers to 146 students during school holidays. Since 2017, it has donated 2,400 crates of food benefitting 2,400 families and feeding 9,600 people. The Breakfast Project provided a meal for 15,695 people till 2021.

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SDGs	Actions
2	<ul style="list-style-type: none"> Targets for 2022–2023: Benefits to a minimum of 13,000 people. Targets for 2024–2025: Benefit to a minimum of 15,000 people. Targets for 2026 and beyond Benefit to a minimum of 17,000 people.
	<ul style="list-style-type: none"> Professional doctors offer on-site services for two hours every month. In 2021, it invested NTD1.86 million in employee health management. A total of 31 health promotion activities were hosted for 1,837 participants.
	<ul style="list-style-type: none"> Developed anti-aging, eye care, and anti-depression products targeted at Asian users. Their main products contain different types and concentrations of vitamins B, C, D, and E, according to product formulation and positioning requirements
4	<ul style="list-style-type: none"> A total of 212 students have interned at their factories over the past three years. It plans to conduct an Industry-university cooperation project with the Ministry of Science and Technology, Council of Agriculture, Ministry of Education, and Various colleges and universities. Published journal 30 articles, one conference paper, and organized 25 conferences.
	<ul style="list-style-type: none"> Donated a total of NTD1.2 million to 10 schools in 2021, after surveying the needs of disadvantaged children on campus.
	<ul style="list-style-type: none"> The ratios of starting salaries and benefit values for the male and female employees were both 1:1 The ratio of male and female employees is around 1:1
7	<ul style="list-style-type: none"> Targets for 2022–2023: Achieve a consumption share of 2% for renewable energy. Targets for 2024–2025: Achieve a consumption share of 4% for renewable energy. Targets for 2026 and beyond: Achieve a consumption share of 5% for renewable energy.
	<ul style="list-style-type: none"> Maintained to be 0 without major disasters.
	<ul style="list-style-type: none"> Overall, job satisfaction scores stand at 75. The local procurement ratio for this year was 61.25%.
9	<ul style="list-style-type: none"> Obtained approval for 32 patents in 2021. Developed a total of 227 products in 2021. Invested NTD252 million in innovation and R&D in 2021.
	<ul style="list-style-type: none"> Audited 217 raw material suppliers and achieved an audit ratio of 100%.
	<ul style="list-style-type: none"> 100% of their products are produced by certified production lines.
12	<ul style="list-style-type: none"> Investing NTD15,655,271.00 in food safety management fees. 100% of the source materials of the products can be traced through the internal ERP system. Invested NTD45,273,229.00 in various environment-related initiatives.
	<ul style="list-style-type: none"> Became the first healthcare enterprise in the ROC to officially sign on as a TCFD Supporter in 2021.
	<ul style="list-style-type: none"> Continued to develop solar power capacity and purchase renewable energy under the RE100 initiative.

Source: ESG Report 2021, Grape King Bio [17].

Conclusion

Currently, many enterprises are increasing their CSR initiatives and disclosing their ESG principles within the ROC. The trend aligns with the government's initiative of promoting the ROC Sustainable Development Goals, modeled after the UN's SDGs. Notably, all policy frameworks have been either initiated or revamped with a strong focus on addressing the challenges posed by Climate Change. Given that SMEs form the upper stream of the supply chain, they are intrinsically linked to its dynamics. Consequently, these SMEs are also subject to the transformative influence of evolving supply chain practices. Few SMEs have begun publishing the ESG report to demonstrate their sustainability results. These pioneering SMEs are the seed of change, capable of influencing other companies to publish their ESG reports.

In this report, six cases of ESG reports are explored to find the trend of SME transformation for meeting the SDGs in the ROC. The trends are summarized as follows.

- It is found that some enterprises began to demonstrate their SDG projects to align with the SDGs. Among these enterprises, the first step is to analyze their sustainable strategies. Then, the action plans are deployed based on their strategies for the SDGs.
- It is also found that a lot of companies began to conduct the carbon dioxide emissions (greenhouse gases) inventory in 2021. The goal is not only to conduct the carbon dioxide emissions (greenhouse gases) inventory but to reduce the carbon dioxide emissions. Therefore, it could be seen that most of the SDG 13 Climate Action projects conducted in the ROC are not only in the big enterprises but also in the SMEs.
- To reduce greenhouse gases, a lot of green productivities have been explored for example, the innovation of lower carbon products. Investments in renewable energies have also been conducted. Also, water recycling systems are built for saving water. Some companies began to consider the issues of circular economy.

To sum up, it is not easy for the SME transformation to meet the SDGs since the SMEs are limited in their resources. However, the SMEs still work hard for the issues. The reason is not only for business orders but also for human sustainability.

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Introduction

With Generation Z leading innovation in today's competitive market, many young individuals have ventured into self-established businesses. These businesses are classified as Small and Medium-sized Enterprises or SMEs. According to the Glossary of Statistical Terms [1], SMEs are non-subsidiary, independent firms that employ lesser than a given number of employees. This number varies across countries. The most frequent upper limit designating an SME is 250 employees [2], which may vary from one country to another. In May 2016, the Reserve Bank of Fiji released the Small and Medium Enterprises Credit Guarantee Scheme Guideline [3] that defines SMEs in the country. The document classifies the companies based on the turnover or total assets and number of employees.

- **Small enterprises:** It refers to an enterprise with a turnover or total assets between USD30,000 and USD100,000, employing six to 20 employees.
- **Medium enterprises:** This refers to an enterprise with a turnover or total assets between USD100,000 and USD500,000, employing 21 to 50 employees.
- **Micro enterprises:** It refers to an enterprise that has a turnover or total assets below USD30,000, and has less than six employees.

The Ministry of Commerce, Trade, Tourism, and Transport's (MCTTT) policy statement [4] indicates that the contribution of MSMEs towards the GDP of Fiji is over 18% while they employ approximately 60% of the country's labor force.

According to the 2017 census [5], Fiji's total population stands at 884,887. However, the trends analyzed by worldometers.info [6] point out that the country's population is around 911,913. This is less than a million and significantly smaller when compared to the other members of the APO. Despite the low population (meaning a low-consuming population), the Fiji Revenue and Customs Services report published in 2018 points out that there were 28,984 SMEs registered in the country [7]. Going ahead, the total number of registered SMSs has grown significantly during the years, primarily due to the COVID-19 lockdown.

Fiji is in the Southern Pacific Ocean, with its closest neighbors being Australia and New Zealand. It can be very isolated from the Asian markets, which makes it very competitive. It has huge potential to export to Asian markets, but the transportation cost becomes a concern due to its geographical location. The location of the country, coupled with its low population, is a hindrance for many Fijians to diversify into indigenous businesses and products. Similarly, most materials used by SMEs to produce goods and services in Fiji are imported, and according to Knoema.com [8], Fiji imported goods and services worth USD2.5 billion in 2020. This is alarming since the American dollar is twice as strong as the Fijian dollar. On the same note, transportation, and logistical costs are additional factors that SMEs need to account for when determining their operational budgets.

The government launched several initiatives and reforms for SMEs in the 2022–2023 annual budget announcement. Some of these announcements have been listed:

- To support female entrepreneurs in the MSME sector, the government provided USD1 million to the Fiji Development Bank Women Entrepreneurs Loan Package [9].
- Concessional loans to MSMEs [10].
- Electricity subsidy for MSMEs worth USD62,000 [10].
- Money Wallet and Payment Gateway for MSMEs [10].
- The government set up an MSME unit under the MCTTT to formulate, implement, and enhance policies and strategies for strengthening agricultural enterprises and monitoring their performance [10].
- The Government of Fiji unveiled COVID-19 concessional finance support packages to aid the MSMEs [11].

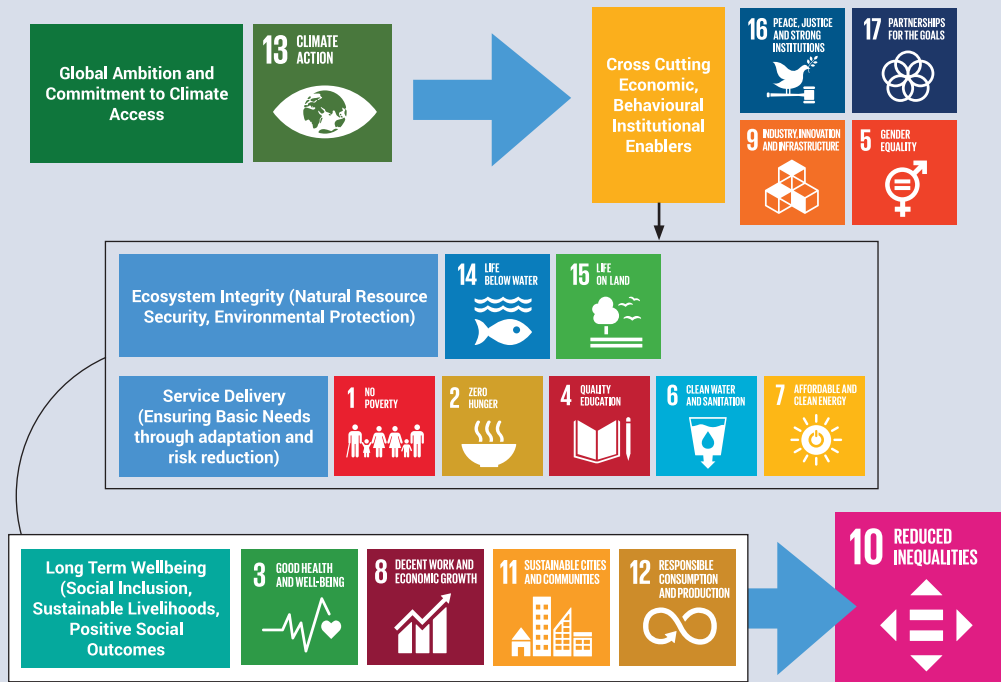
While the primary focus of the budget was on economic recovery in the aftermath of the pandemic, specific provisions were made in the budget to support and sustain existing MSMEs while also encouraging the establishment of new ones. It is important to note that the initiatives mentioned above are specific to the 2022–2023 budget announcement. The government had already allocated sufficient funds for the development and growth of the SME sector in the previous fiscal, with an emphasis on implementing a COVID recovery plan for these enterprises. In December 2022, following the general elections, there was a change in the government. The new government, however, has decided to continue with these initiatives in the short term. The existing government plans to announce new initiatives about SMEs and their alignment with the SDGs at a later stage.

Fiji and the SDGs

According to Sustainable Development Report, Fiji has been ranked 52 out of 163 countries in terms of its progress towards achieving the SDGs [12]. Fiji has shown strong performance in SDG13 (climate action) and SDG 4 (quality education). However, there are significant gaps in attaining the other SDGs, where the contribution of SMEs can play a crucial role in bridging these gaps to achieving the targets. In 2019, Fiji conducted a qualitative voluntary review of its SDGs achievement. Figure 1 demonstrates how Fiji's national plan is integrated with the SDGs. The review, Fiji's Voluntary National Review, is the first-ever comprehensive review of the implementation of the transformative 2030 Agenda and its 17 SDGs and the government has made a special effort to ensure inclusivity throughout the process.

In the case of Fiji, the country's vulnerability to climate change poses a significant risk to the progress made across all the SDGs. To address this challenge, Fiji's National Climate Change Policy (NCCP) has adopted an approach that centers on SDG13, climate action [13]. This integrated approach recognizes the interconnectedness of the SDGs and acknowledges that global and national commitment to climate action is a crucial enabler for achieving the SDGs holistically.

FIGURE 1
INTEGRATION OF FIJI'S NATIONAL PLAN WITH THE SDGs.



Source: Voluntary National Review, 2019. Ministry of Economy, Government of Fiji.

The NCCP recognizes that achieving gender equality (SDG 5), establishing strong institutions (SDG 16), fostering partnerships (SDG 17), as well as promoting sustainable physical infrastructure and innovation (SDG 9), are major prerequisites for improving basic services (SDG 1, 2, 4, 6, and 7) and protecting the ecosystem integrity (SDG 14 and 15). Implementing actions to achieve these goals will enhance long-term well-being, economic resilience, and sustainability (SDG 3, 8, 11, and 12), ultimately leading to the reduction of societal inequality (SDG 10). By addressing these interrelated goals, Fiji aims to mitigate the impacts of climate change while advancing sustainable development and reducing disparities within society.

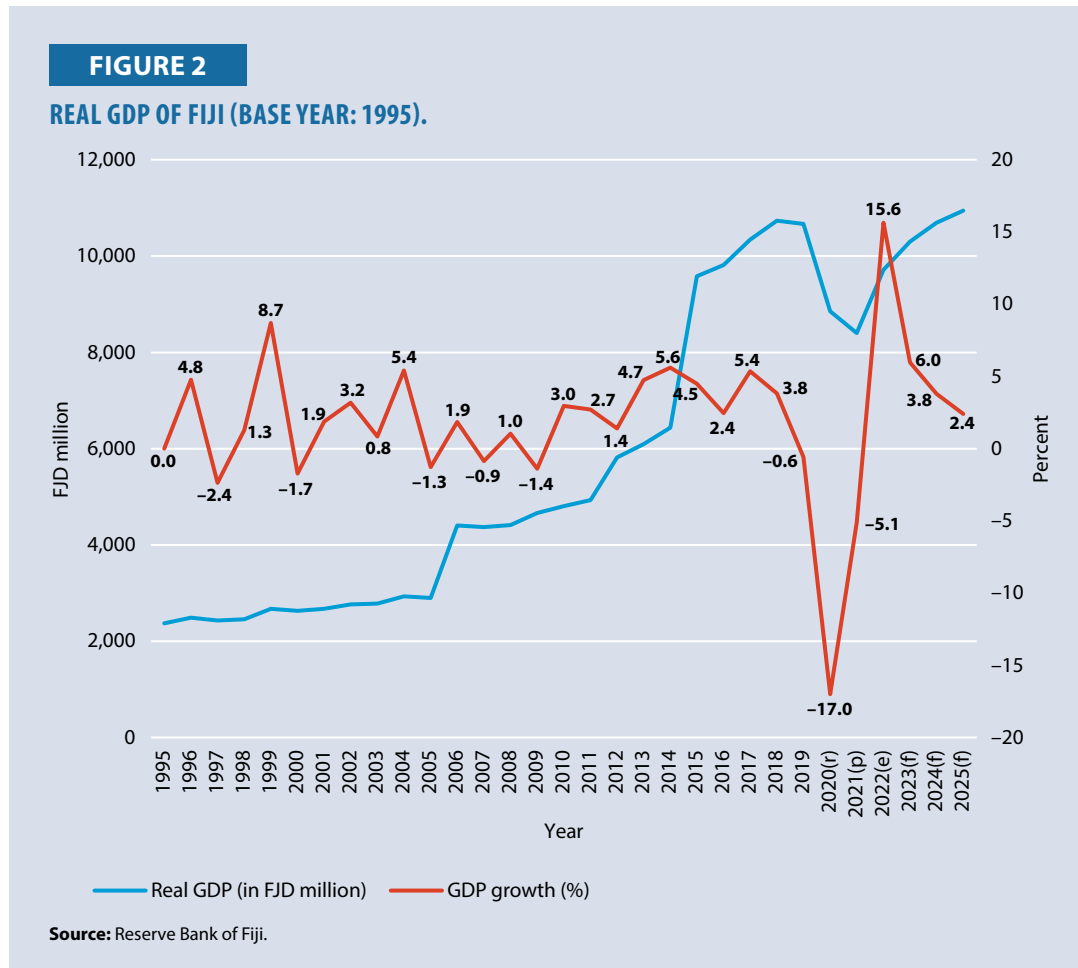
Dimensions of Competitiveness Diagnostics

Outcomes

Each SME comes with its unique success story. Many SMEs struggle to achieve sustainability in a competitive market and eventually fade away at an adolescent stage (still developing but more established). These businesses have little market share and consumer appeal. However, others thrive by overcoming hurdles through innovation and creativity. SMEs in Fiji face a lot of challenges from foreign competitors. The cost of raw materials, that are not manufactured locally, poses an additional obstacle. In comparison, Fiji's Asian competitors have an advantage, since they have easier access to raw materials due to Asia's vast land area covering approximately 30% of the Earth's landmass [14]. Asia is also the world's most populous continent, accounting for about 60% of the total population [14]. Additionally, Asia also benefits from low labor costs when compared to Fiji's minimum wage of USD3.67 per hour [15]. Since SMEs in Fiji contribute 18% to the country's GDP and employ around 60% of the Fijian labor force [3], the government has implemented schemes and benefits to support these enterprises.

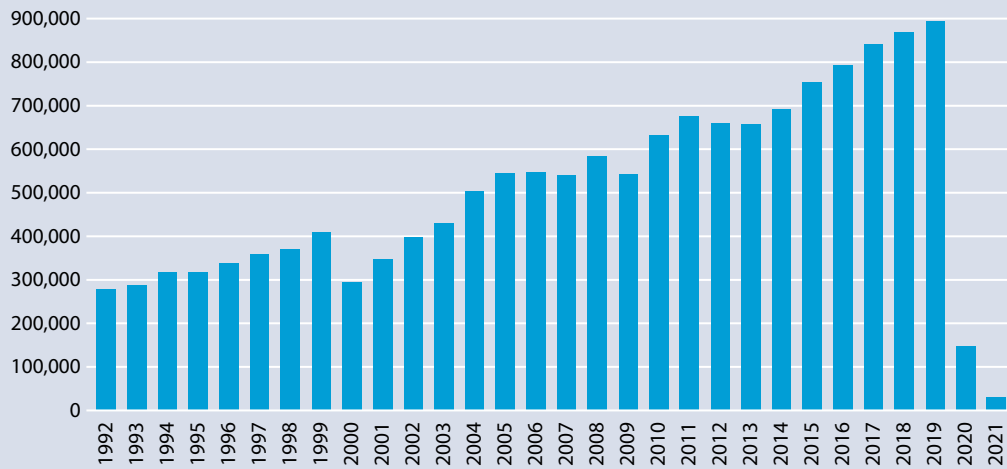
Economic Growth and Tourism

The Fijian economy is dominated by the hospitality and tourism industry, with economic growth heavily reliant on visitor arrivals. Consequently, the majority of the SMEs in Fiji operate within the supply chain linked to the tourism industry. This makes the economy particularly vulnerable to volatility during times of crisis, as evidenced in the years 2020 and 2021. However, the high vaccination coverage and resumption of flights led to a rebound in the country's economy in 2022.

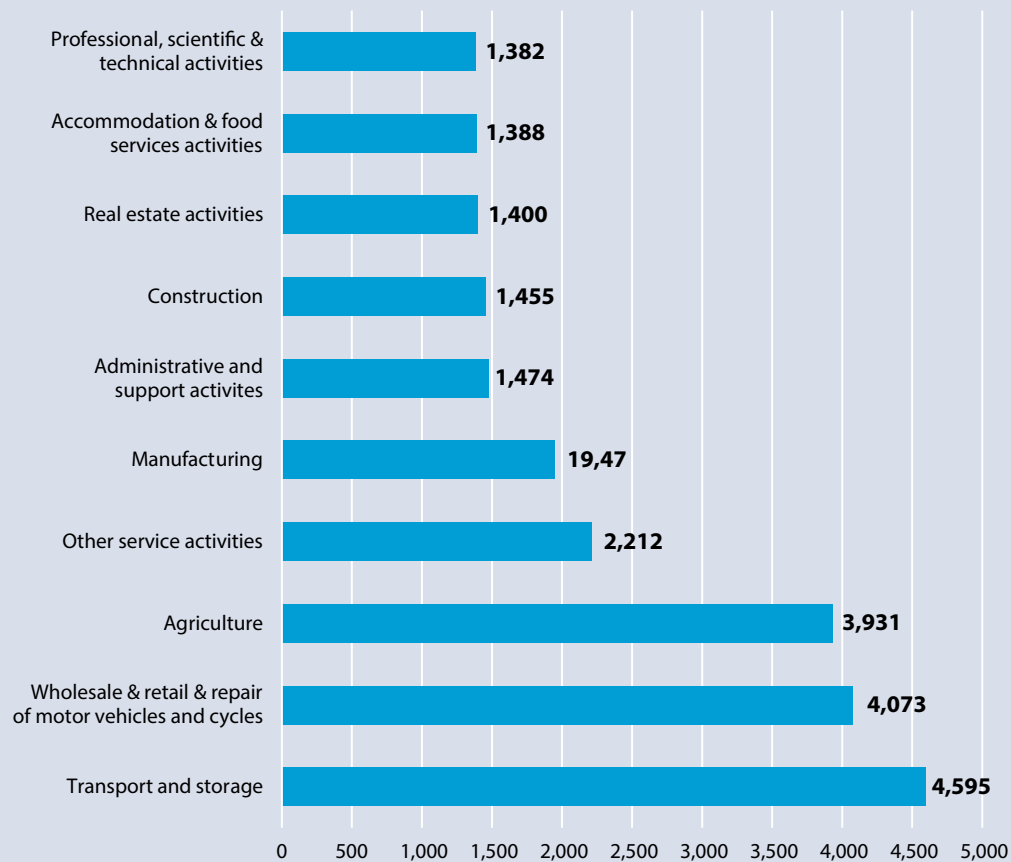


The credit for generating ideas and driving the success of SMEs goes to the business owners themselves. Various factors have contributed to the growth of SMEs in the country, with one significant factor being the high unemployment rate during the COVID-19 lockdown [16]. Social media has been flooded with posts showcasing individuals who have developed successful business plans during this period. Also, a considerable number of SME owners in Fiji are young individuals under the age of 40. To support these aspiring businesses, the Young Entrepreneurs Council provides a platform for SMEs to connect and network with other SMEs, facilitating the exchange of best practices [16]. In terms of sector distribution, the transport sector emerges as the largest segment among SMEs, based on 2018 statistics, indicating the growth and prominence of transportation-related businesses within the SME landscape.

On 3 September 2018, Dr. Isimeli Tagicakiverata, the Director of the National Training and Productivity Center, highlighted that SMEs in Fiji employ nearly 60% of the labor force in the country. With over 28,984 registered SMEs in Fiji [16], labor productivity becomes more vulnerable.

FIGURE 3**VISITOR ARRIVALS IN FIJI.**

Source: Fiji Bureau of Statistics, 2022.

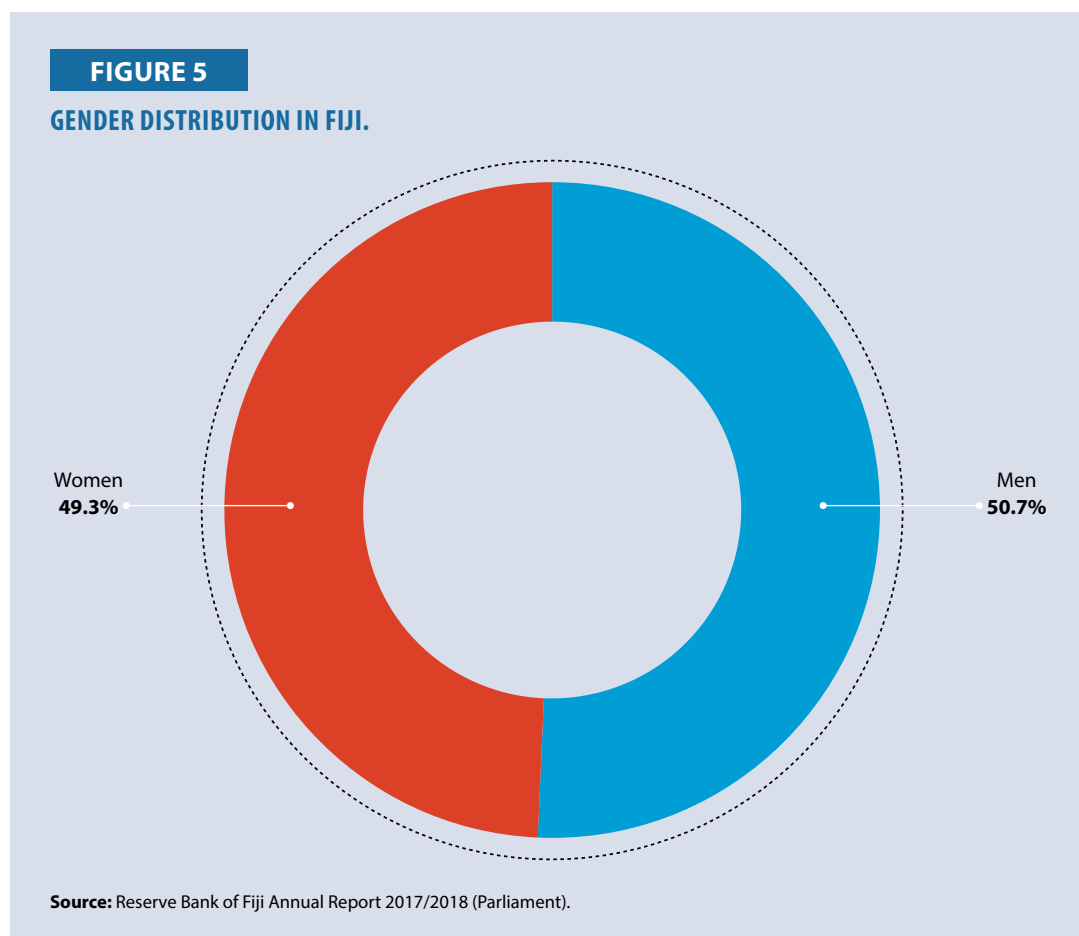
FIGURE 4**TOP 10 SECTORS FOR SMALL AND MICRO ENTERPRISES IN FIJI.**

Source: Fiji Revenue and Customs Services.

According to Dahal and Wagle [17], countries with a higher proportion of SME employment tend to be more susceptible to risks due to factors such as low cash-to-asset ratios and challenges in retaining workers on their payroll. One notable aspect of SMEs is their inclusivity, as they are operated by individuals from diverse ethnicities, genders, geographic locations, and cultures [17]. Also, a considerable number of MSMEs operate within the informal sector. These enterprises are particularly important for the tourism industry because they comprise a large part of the non-accommodation segment, encompassing activities such as tour operators, guides, and handicraft sellers [17]. The sector faced immense stress due to COVID-19 as travel came to a standstill, and the resumption of tourism activities was not expected shortly. This had a significant impact on MSMEs within the tourism industry, placing them under tremendous pressure and uncertainty.

Labor mobilization for SMEs in Fiji is not as prominent as compared to the Asian markets. However, in recent years, Fiji has become a participant in the Pacific Labor Scheme, governed by the Pacific Australia Labor Mobility framework. Through this, numerous Fijians have had the opportunity to travel and work in various industries in Australia, including apple orchards, meat and dairy manufacturers, tourism sectors, and other industries.

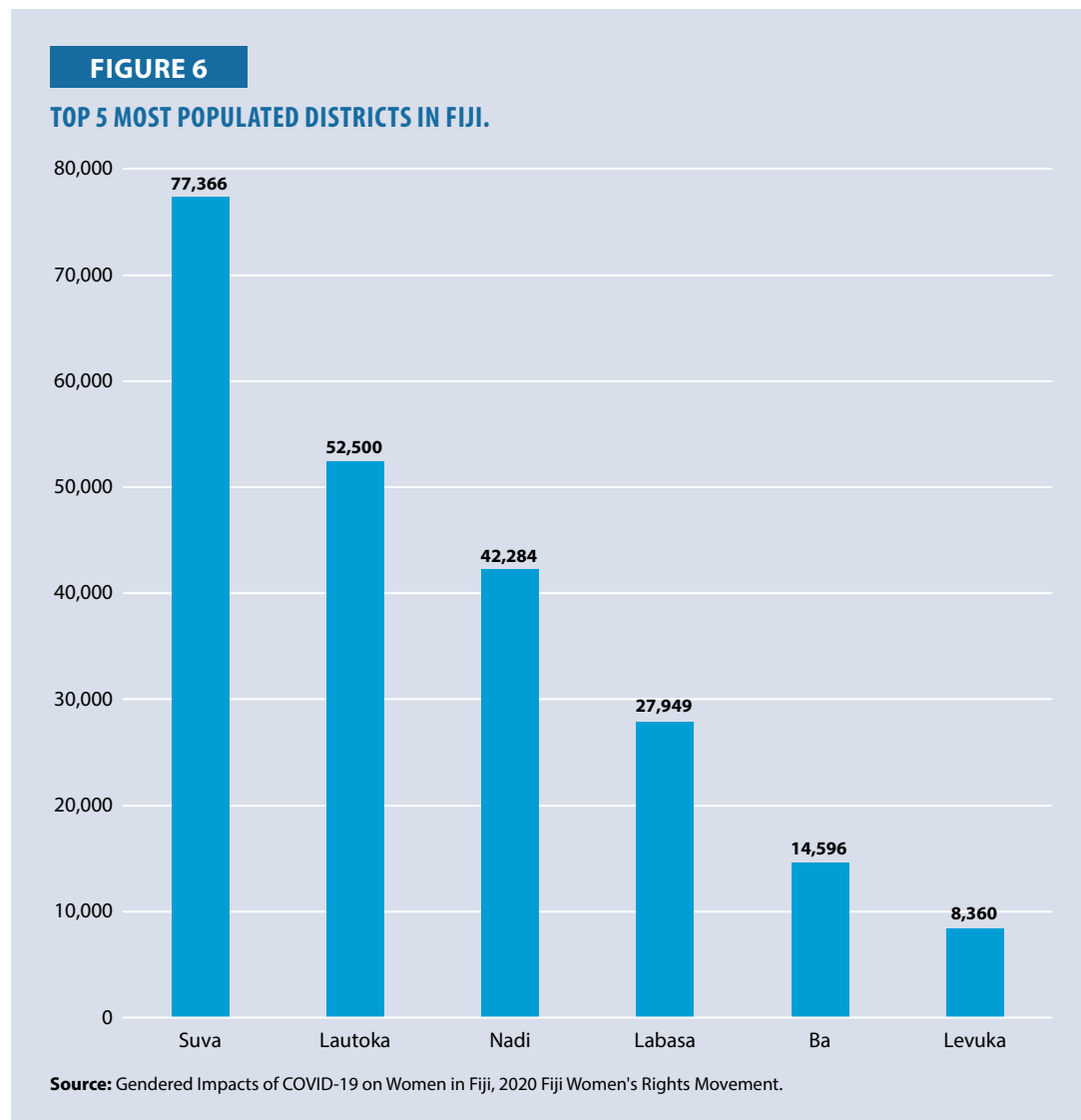
To ensure gender equality in SMEs, Standing Order 110 (2) mandates the Standing Committee on Economic Affairs to ensure gender equality in SMEs. In line with this, the National Financial Inclusion Strategic Plan (2016–2020) aims to facilitate the integration of nearly 65,000 women into the formal financial system. Recognizing the potential of SMEs to contribute up to 90% of Fiji's economy, it is crucial to promote gender equality and the inclusion of women in business ventures [18].



Nineteen percent of businesses in Fiji are registered by women and a majority of them focus on micro and small businesses [19]. There is, however, a notable gender disparity in young women's participation, with their involvement being half that of young men. Women in the age group of 15–34 years have a labor participation rate of 33%, compared with their male counterparts at 67%. Furthermore, the unemployment rate is high among Lesbian, Bisexual, and Trans women, and gender nonconforming individuals, with 62% being unemployed or engaged in precarious work.

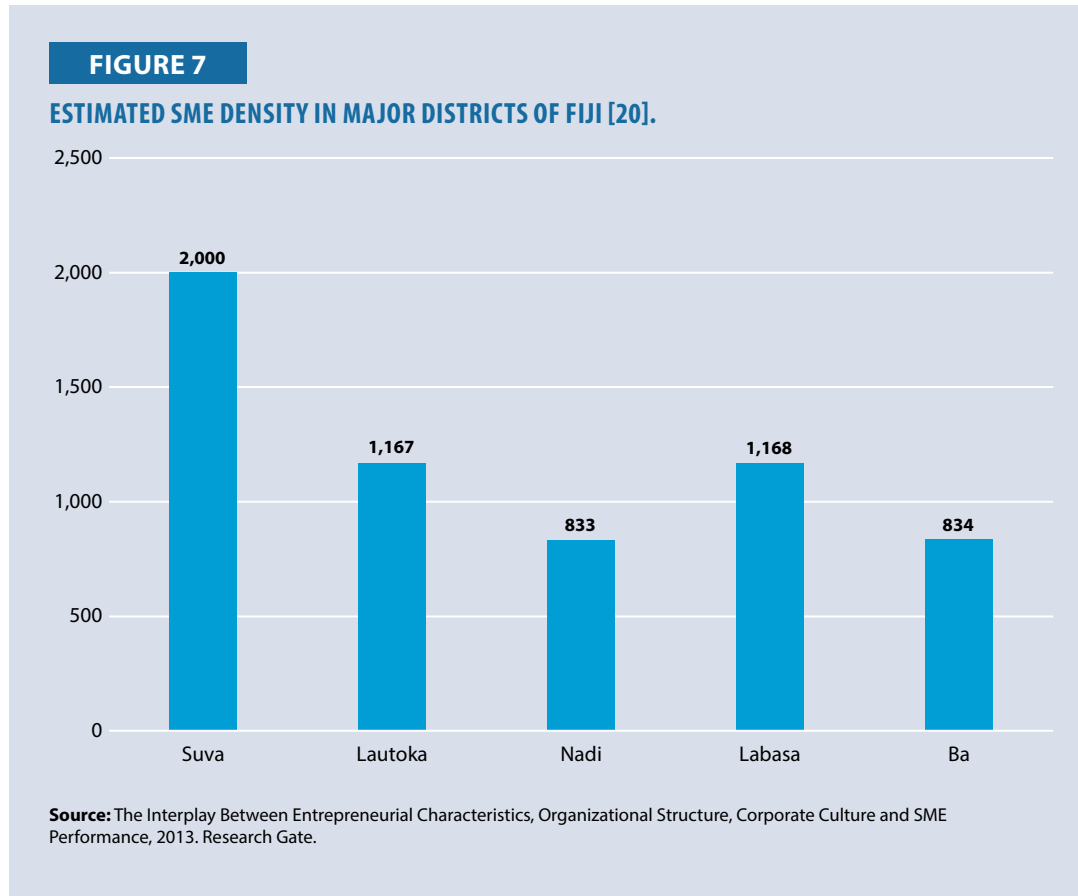
In terms of membership in the Fiji National Provident Fund (FNPf), voluntary membership comprises 52% male and 48% female members, while compulsory membership stands at 59% male and 41% female. Additionally, 44% of accounts have a balance of less than USD4,500 within the age group of 50–54 years. The recipients of FNPf pension include 74% male and 26% female.

The Registrar of Companies in Fiji maintains detailed information on companies registered in the country, including both large business firms and SMEs. Fiji is divided into five densely populated business regions. The capital city Suva, with a population of 77,366, is the densest among the business regions according to worldpopulationreview.com.



Most SMEs are registered in the five densest regions in the country,

Although the data used in Figure 7 dates back to 2004, the disparities remain, since most economic activities happen in these regions. Exceptions could be made when considering tourist activities, however, the difference will not be significant or worth noting.



SMEs work on operational expenses and it is important to factor in their energy use and expenditure. While specific data on the energy consumption by SMEs in Fiji is not available, Energy Fiji Limited (EFL) has introduced a special tariff known as the Small Business Tariff for SMEs. This tariff applies to businesses with a maximum demand of less than 75 kilowatt-hours (kWh). For the relevant billing period, customers will be charged 40.99 cents per unit for the first 14,999 kWh and 42.95 cents per unit for units exceeding 14,999 kWh, as explained in Table 1 [21].

TABLE 1
COMMERCIAL TARIFF FOR SMES IN FIJI.

Consumption	Rate per kWh per Month (Excluding VAT)*
Units up to 14,999 kWh	40.99 cents
Units over 14,999 kWh	42.95 cents
Excess Reactive Energy	42.95 cents

Note: * in Fijian currency.

Source: Energy Fiji Limited.

The regulations and laws in Fiji have been drafted to foster competition and promote a fair market environment while safeguarding the interests of consumers, the environmental, and socioeconomic factors. The Environment Management Act 2005 plays a crucial role in ensuring that SMEs operate in a manner that does not harm the environment. It addresses concerns related to waste disposal, land degradation, chemical disposition, and forest activities. The social structure within SMEs is designed to promote inclusivity and prevent discrimination based on gender, ethnicity, and age. Social inclusion is a key principle that applies to all institutions, ensuring equal and fair treatment across all sectors.

Responding to the impact of the COVID-19 pandemic, the FPNP launched the Micro-Business Assistance program. This allowed eligible FPNP members, those aged 50 to 54 with a minimum balance of USD1,035 in their general account, and who were affected by the pandemic, to apply for micro-business assistance. This withdrawal scheme opened on 11 October 2021 and outlined the conditions and entitlements for the assistance [22].

The APO has also estimated and determined the labor productivity level per worker in Fiji.

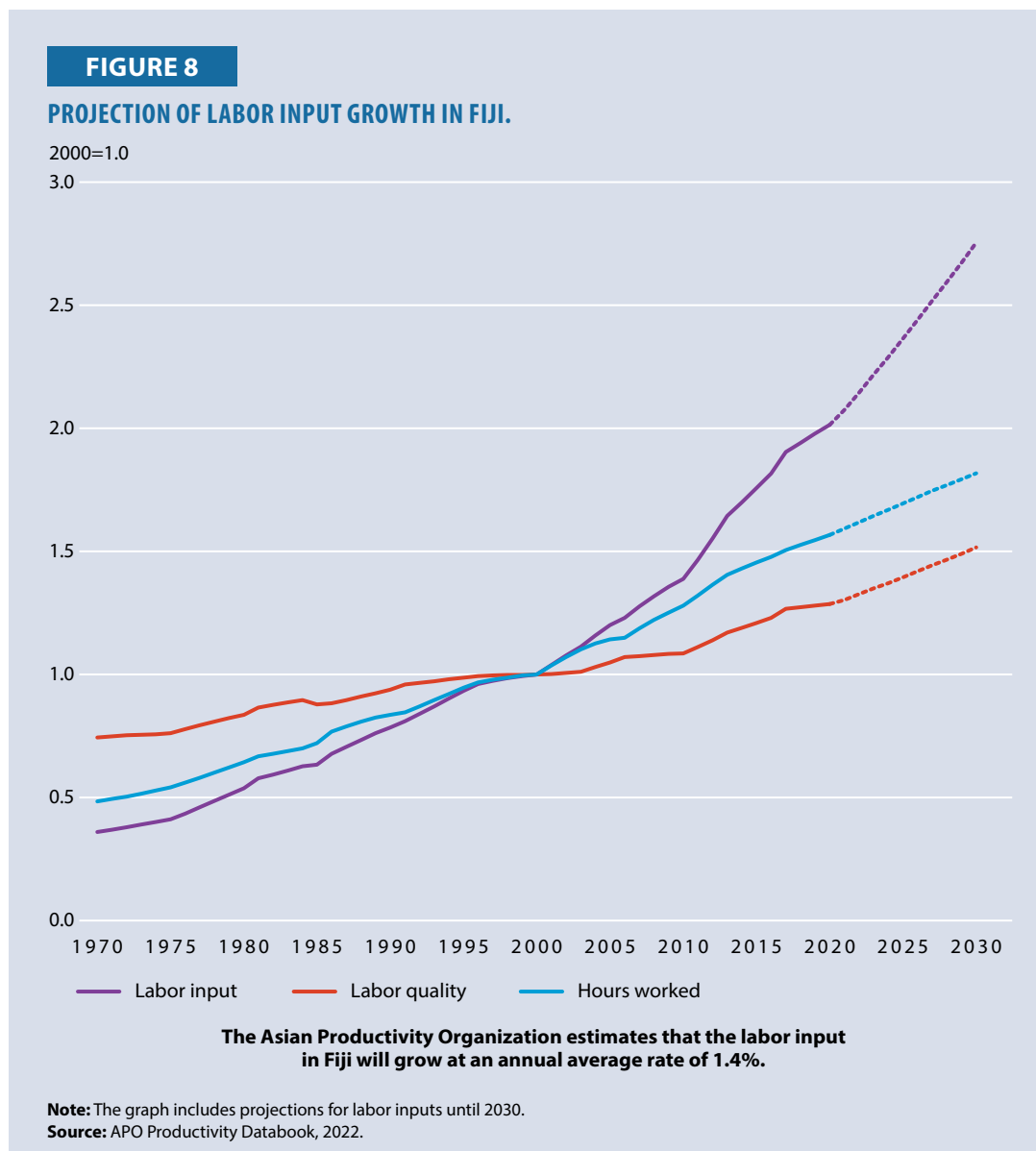
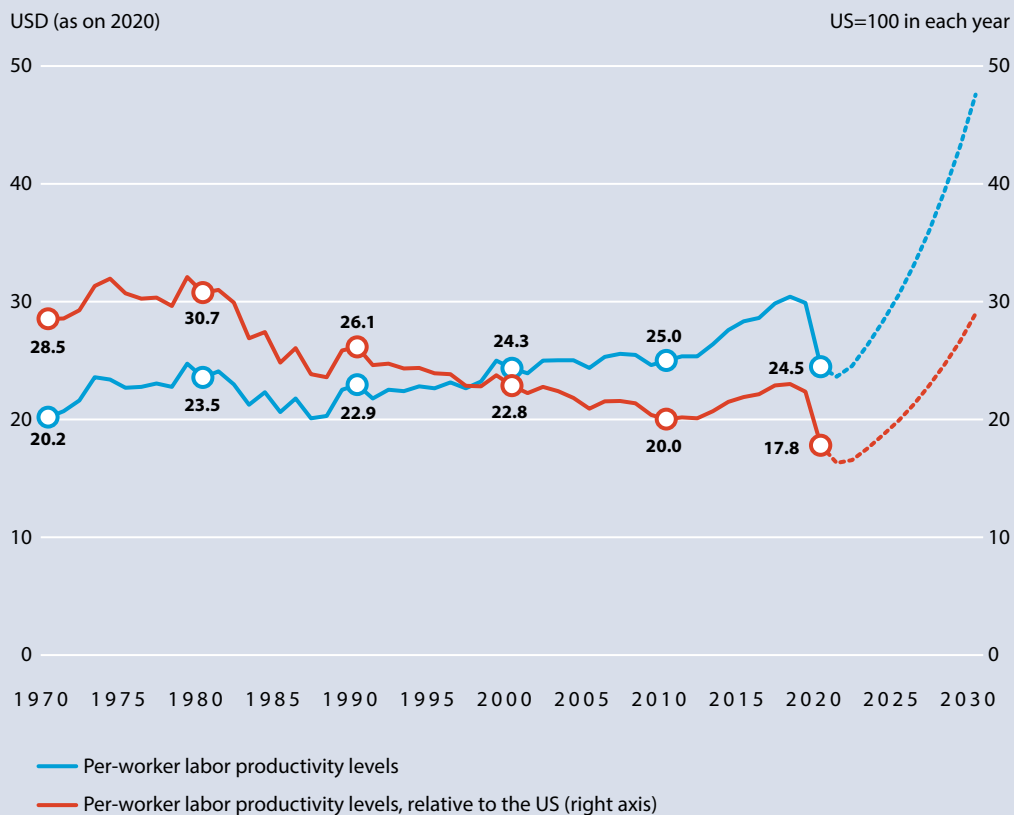


FIGURE 9

LABOR PRODUCTIVITY LEVEL PER WORKER IN FIJI.



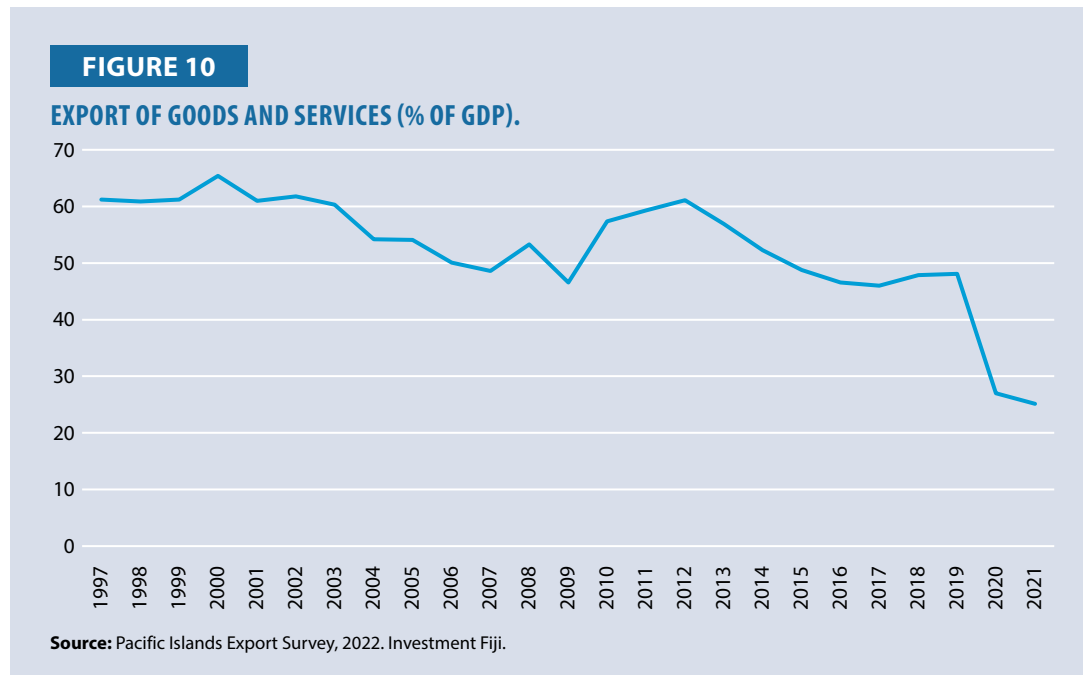
Source: APO Productivity Databook, 2022. Asian Productivity Organization [42.]

Economic Activity

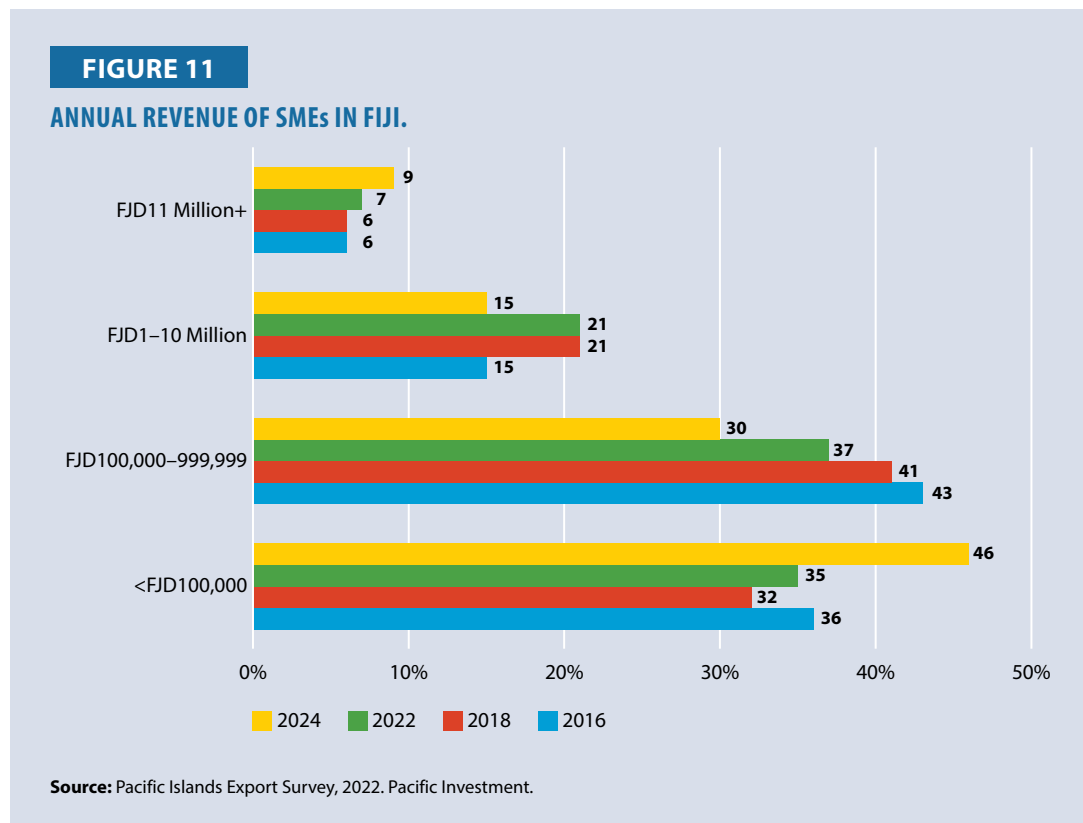
The National Centre for Small and Micro Enterprises Development (NCSMED) was originally set up in 2002 under the Small and Micro Enterprises (SMEs) Development Act 2002 [23]. It is a statutory organization under the Ministry of Industry, Trade, and Tourism and was established to support the creation and development of SMEs in Fiji. NCSMED focuses on encouraging sustainable business growth, investment, and meaningful employment. It aims to assist in the creation of “Globally competitive MSMEs that can contribute to a vibrant and prosperous economy for Fiji and its people”.

The Government of Fiji is continuously working towards creating a conducive business environment to foster the growth and expansion of the private sector. The government has also made an effort to reduce tax rates, streamline registration and licensing requirements while introducing a new Companies Act. The government has also implemented measures to relax business-opening hours, encourage private sector participation in strategic areas, and develop supportive infrastructure. Further, the government has launched the Export Capability Program to help exporters find new markets and work on expansion plans [24]. Investment Fiji (Fiji’s Trade & Investment Promotion Agency) is working on creating the country’s first guideline for investors and exporters. These guidelines will provide information on government agencies, fees, and regulations, enabling SMEs to make informed financial decisions.

Fiji has experienced significant growth in exports of goods and services, which has made a substantial contribution to the country's GDP. Figure 10 depicts the percentage of GDP attributed to the export of goods and services.



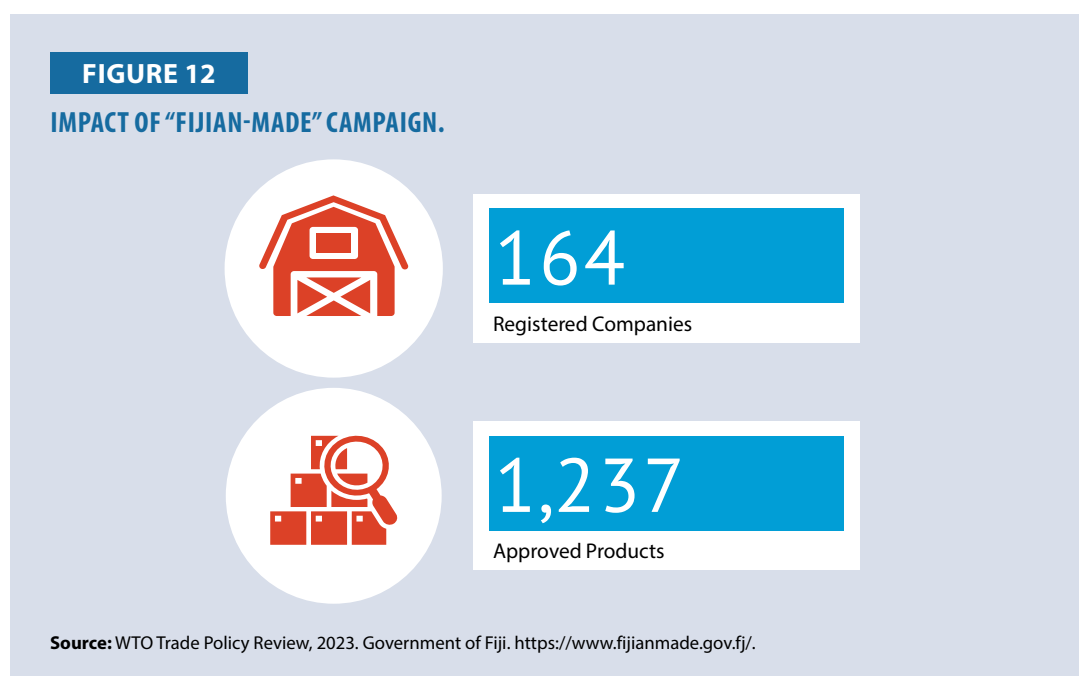
The Pacific Islands Export Survey conducted in 2022 by the Pacific Trade Invest [25] shows the revenue generated by SMEs.



An article published by the Fiji Times indicates that exporting is the prevalent method for businesses to enter foreign markets, especially for small firms. This approach is particularly favored due to its low resource commitment and high flexibility, making it an attractive strategy for internationalization [26]. According to the Fiji Export Council, there were approximately 1,400 exporters in Fiji in 2016. Among these exporters, around 250 were classified as SMEs, with an export value below USD458,000 export value. The total export value of these SMEs in 2016 was about USD30.7 million. Additionally, there were approximately 200 small businesses with an export value below USD229,000 (totaling USD16.5 million in 2016) and about 50 to 60 medium businesses with an export value ranging from USD229,000 to USD458,000 million (totaling USD15.1 million in 2016). SMEs in Fiji face several challenges while exporting, including a lack of export marketing expertise and insufficient financial resources to cover additional expenses. In many cases, the responsibility of export marketing usually falls on the enterprise owners, who may have achieved success in local markets but have limited knowledge of international markets.

Foreign investment by investment firms into Fiji's SMEs is low. Although some funding comes from family members as support and in good faith, most of the investments are made by SME owners. This, however, is not a limiting factor since the government has introduced several taxation laws, policies, aids, funds, and initiatives to drive the growth and development of SMEs.

To support SMEs in Fiji, the government launched the "Fijian Made Campaign". The initiative, launched in 2011, aims to build a recognizable "Fijian" brand and promote Fijian-made products and produce, both within the country and internationally. As a result, 164 companies have registered under the campaign, with 1,237 products approved under the "Fijian Made" label. The campaign plays a vital role in boosting the visibility and marketability of local SMEs and enhancing consumer confidence in Fijian products.



Registered companies and approved products are required to use the Fijian Made logo as displayed in Figure 13.

FIGURE 13**LOGO OF THE FIJIAN-MADE CAMPAIGN INITIATIVE.****Fijian Made – Buy Fijian Brand**

The Fijian Government launched the 'Fijian Made- Buy Fijian' Brand in 2011 in conjunction with the enactment of the Industry Emblem Act 2011. The 'Brand' comprises nine emblems and has its individual set of compliance criteria. The nine industry emblems are: Fijian Sewn, Fijian Product, Fijian Packed, Fijian Organic, Fijian Grown, Fijian Designed, Fijian Crafted, and Fijian Assembled.

**Fijian Sewn**

The good must be substantially transformed through a change in tariff heading.

**Fijian Product**

All significant components must originate from Fiji; and significantly all process involved in the production or manufacture of the goods must be conducted in Fiji.

**Fijian Packed**

Processes such as preservations, cutting, packaging, labelling, mixing and assembly.

**Fijian Organic**

All produce or products grown or processed in Fiji are to be certified with the Pacific Organic Guarantee Scheme standards or any international standard.

**Fijian Grown**

All products that are obtained in an unprocessed state such as fruit and vegetables and products harvested and obtained by hunting and fishing.

**Fijian Designed**

Processes such as preservations, cutting, packaging, labelling, mixing and assembly.

**Fijian Crafted**

All handicraft which use as its major components locally sourced materials that are viewed, crafted, and stringed to depict authentic Fijian craft.

**Fijian Assembled**

Processes such as preservations, cutting, packaging, labelling, mixing and assembly.

Source: Fijian Made, Government of Fiji. <https://mcttt.gov.fj/division/economic/fijian-made/>.

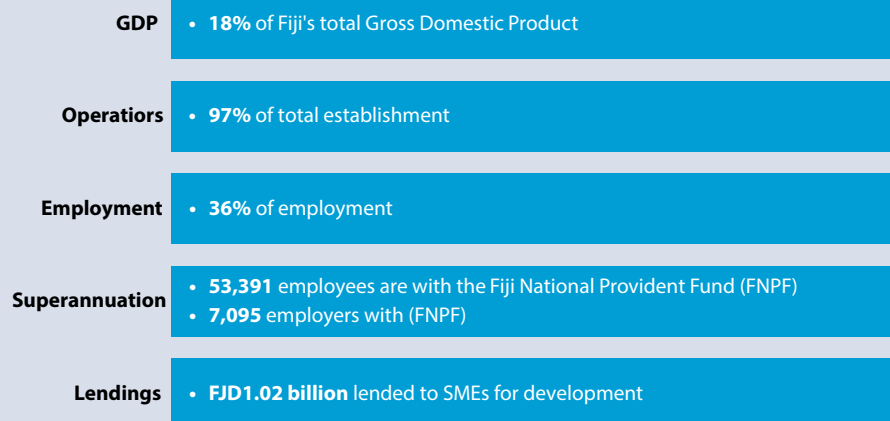
Sectoral Compositions

The impact of COVID-19 has been severe on SMEs in Fiji, leading to closure and disruptions in operations. The restrictions on movement resulted in delays in shipment and unavailability of raw materials, which further hampered these businesses. According to a survey [27], approximately 74% of the 2,200 MSMEs surveyed have either temporarily or permanently closed or are operating for lesser hours. Difficulties in access to credit and skilled labor remain a widespread issue for most private sector firms in Fiji, hindering their ability to invest, innovate, and improve productivity.

While the government has introduced various financing schemes for MSMEs, the underlying infrastructure challenges within the SME sector continue to impede access to financing. In terms of the production capacity of SMEs in Fiji, there isn't sufficient data available. However, other statistics highlight the important role that SMEs play in driving the economy of Fiji.

FIGURE 14

CONTRIBUTION OF THE SME SECTOR IN DRIVING THE ECONOMY OF FIJI.

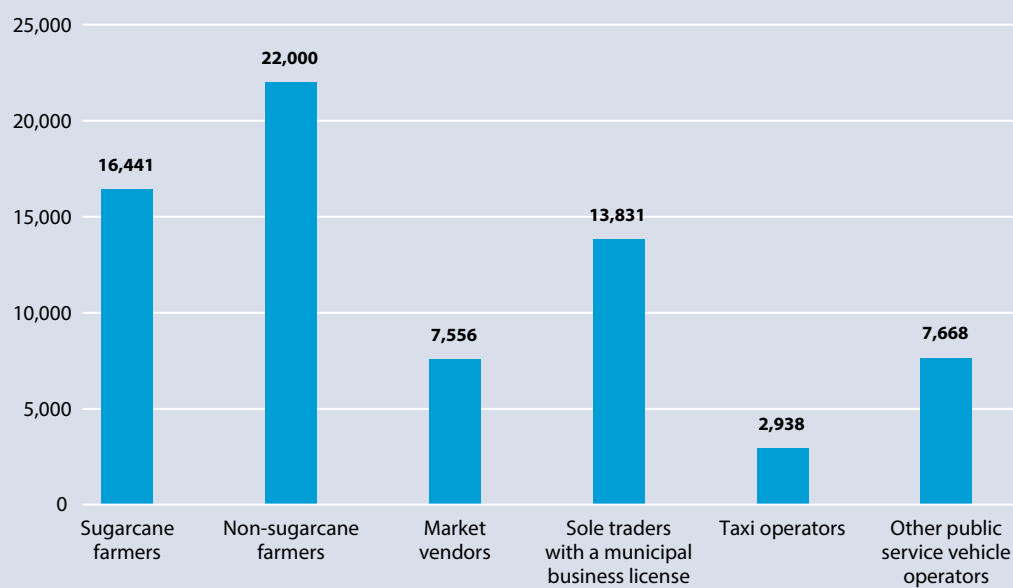


Source: Micro, Small and Medium Enterprise Fiji – Policy Framework, 2020. Reserve Bank of Fiji.

SMEs constitute a significant 97% of Fiji's total establishments, comprising workers from diverse trades.

FIGURE 15

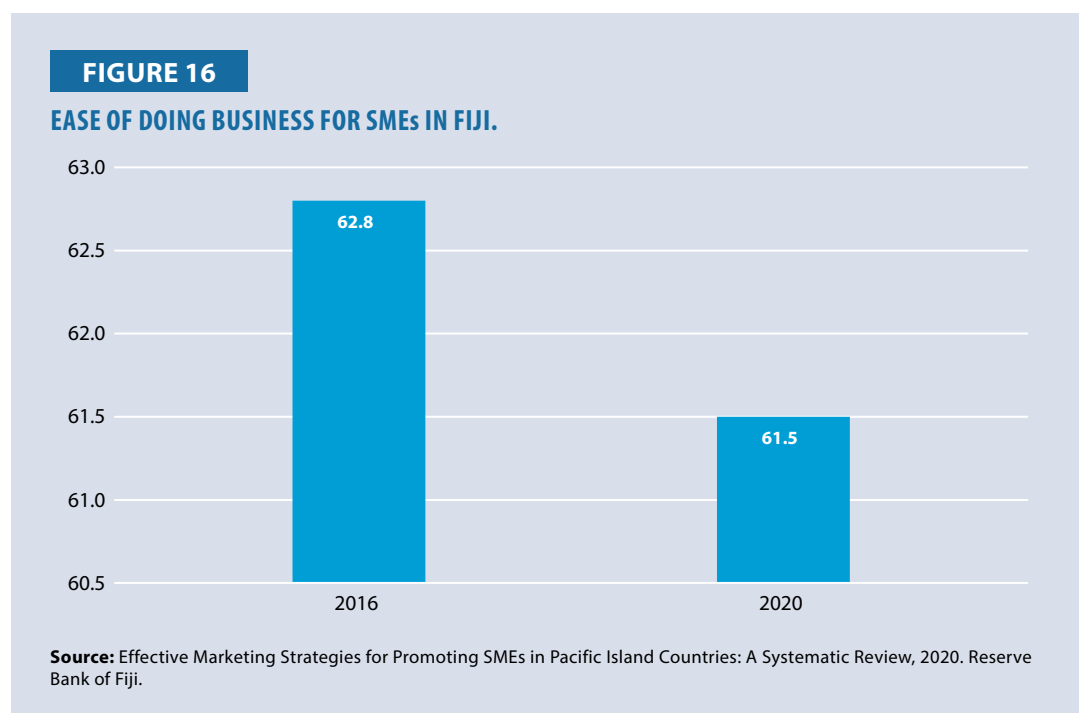
INDIVIDUALS EMPLOYED IN SMEs.



Source: MSME Growth and Access to Finance, 2018. Reserve Bank of Fiji.

Despite their economic significance, SMEs in the Pacific Island Countries (PICs) face numerous challenges that hinder their capacity to contribute fully to their national GDP and employment. Most of them highlighted that the lack of finance is one of the major problems faced by SMEs in the region [28]. SMEs often face challenges in accessing financing from commercial banks due to issues such as asymmetric information and lack of collateral. As a result, SMEs in Fiji often rely on informal sources of finances rather than banks. For example, the Fiji Development Bank offers loans ranging from a minimum of USD5,000 to a maximum of USD 50,000, with a loan term of five years

Another constraint inhibiting the growth of SMEs in the PICs is the enabling business environment. According to the World Bank's Doing Business Indicators 2022, which assesses the ease of doing business in different countries, PICs performed poorly in comparison to the East Asia and Pacific region's average rank of 96 among 190 countries.



To encourage the growth of SMEs in the Green Energy Sector, the Fijian government offers various incentives. The following incentives have been listed as per the Fiji Revenue and Customs Services (FRCS) [29].

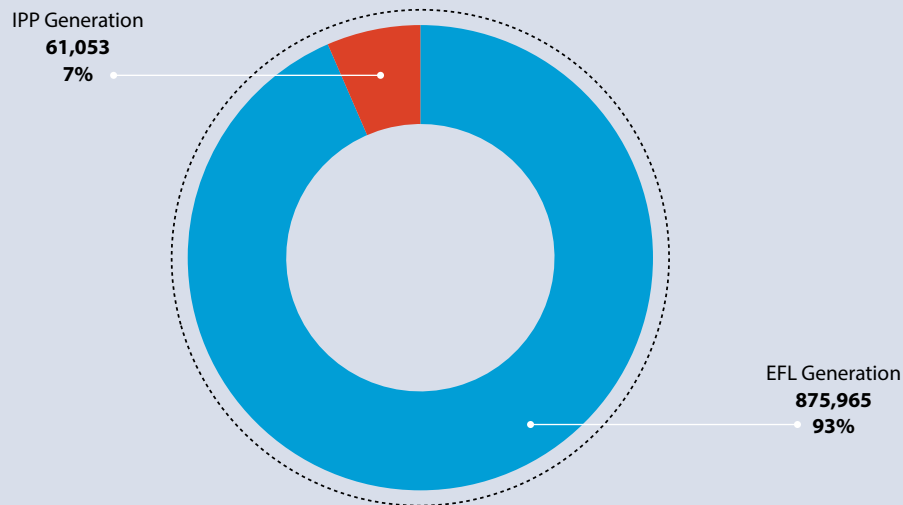
- Tax holiday for taxpayers who want to set up projects for processing agricultural commodities into biofuels (they must employ 20 local employees or more for every income year).
- A tax deduction of 55% for any business that invests in electric buses.
- Concession in applicable duty for approved companies involved in the production of bio-diesel and Ethanol.
- Concession in applicable duty for companies or entities importing renewable energy goods.

Here is a list of sectors that have active participation of SMEs in Fiji.

- Manufacturing
- Agri processing
- Transportation (public service vehicles)
- Fishing
- Tourism (backpackers, tour guides, and Airbnbs)
- Restaurants and caterers
- Medical laboratory
- Music and film industry
- Medical centers
- Mechanical services
- Renewable energy
- Construction
- Road-side food vendors
- Market vendors
- Wholesale and retail businesses
- Real estate
- Cleaning service providers
- Pest management
- Chemical producers and handlers
- Educational institutes

The annual report for 2021 published by EFL [30] provides insight into energy generation and the contribution from Independent Power Producers (IPP), many of which can be classified as SMEs.

As indicated in Figure 17, the majority of energy production is carried out by EFL, with IPP generating only 7% of the total energy. However, it is noteworthy that this 7% represents green and clean energy, indicating the potential for growth in this sector.

FIGURE 17**TOTAL ENERGY GENERATED IN FIJI (MWh).**

Source: Annual Report 2021, Energy Fiji Limited.

In Fiji, the rise in informal businesses, particularly SMEs, can be attributed to the growing urbanization trend. Population movement to urban areas, particularly to Suva, has created opportunities for numerous businesses to thrive. This, in turn, has contributed to the growth of the SME sector. However, it is important to note that due to growing competition and the impact of the pandemic on the employment rate, many SMEs choose not to register as formal businesses with the Registrar of Business. All records of formal businesses are obtained from the Fiji Revenue and Customs Services since these are registered businesses and taxpayers. These businesses also comply with regulatory requirements such as providing superannuation contributions to their employees. While there is no formal record or a comprehensive list of informal SMEs, various businesses operate within the informal sector [31].

- Shoe repair
- Internet cafe
- Car repair and maintenance
- Construction work
- Cleaning and sanitation services
- Bakery
- Municipal market vendors
- Retailers (corner shops)
- Car wash
- Tire repair

- Amusement parks and outlets
- Home-based cakes and pastry
- Barber shops, hair salons, fashion salons
- Bridal makeovers
- Events planning and management
- IT shops
- Printery
- Graphic designing
- Sweets and confectionery
- Florist
- Flea market
- Road-side food

FIGURE 18**WHEELBARROW OPERATORS IN SUVA.**

Source: The Fiji Times, 2020.

- Wheelbarrow and shoeshine
- Sand mining
- Fleet operation
- Private car rental
- Handicrafts
- Tailoring
- Prostitution

Competitiveness Fundamentals

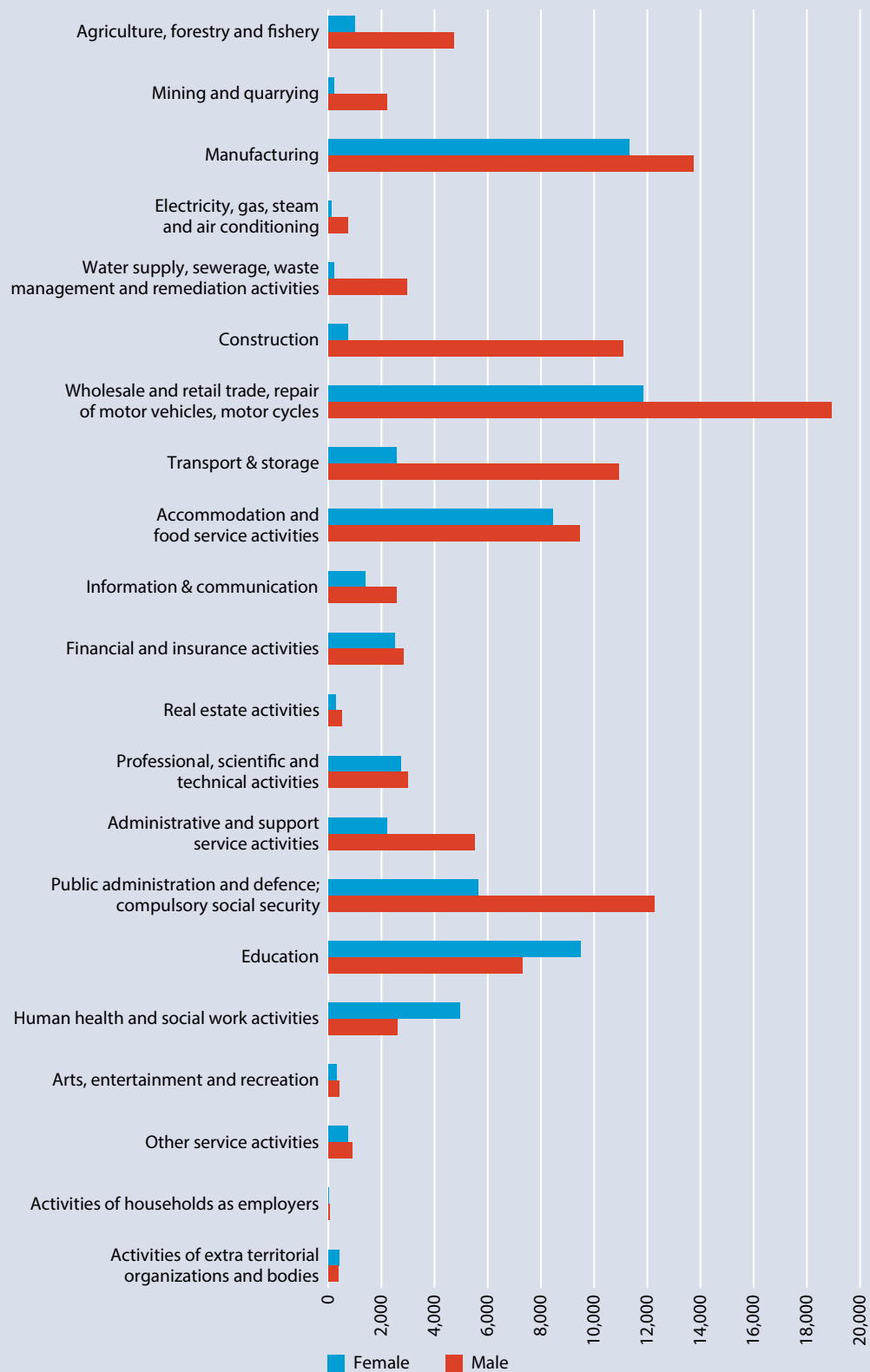
According to the data from a study conducted by the Bureau of Statistics in 2019, a total of 176,781 people had paid employment in major industries. Figure 19 illustrates the distribution of employment across major industries for both men and women [32]. It provides a breakdown of the workforce based on gender and industry.

In 2018, the Fiji National University (FNU), the Fiji Bureau of Statistics, and the Ministry of Employment collaborated to release the Fijian Productivity Report. According to the report [33], the employment rate in the country stood at 4.5% in 2017. However, due to the pandemic and the lockdown that followed, subsequent productivity reports were not published as the economy suffered significant impact and job losses, particularly in the tourism sector. However, with the movement restriction being lifted and businesses resuming operations, the employment rate is gradually returning to normal. The unemployment rate in Fiji until 2016 was 4.3%.

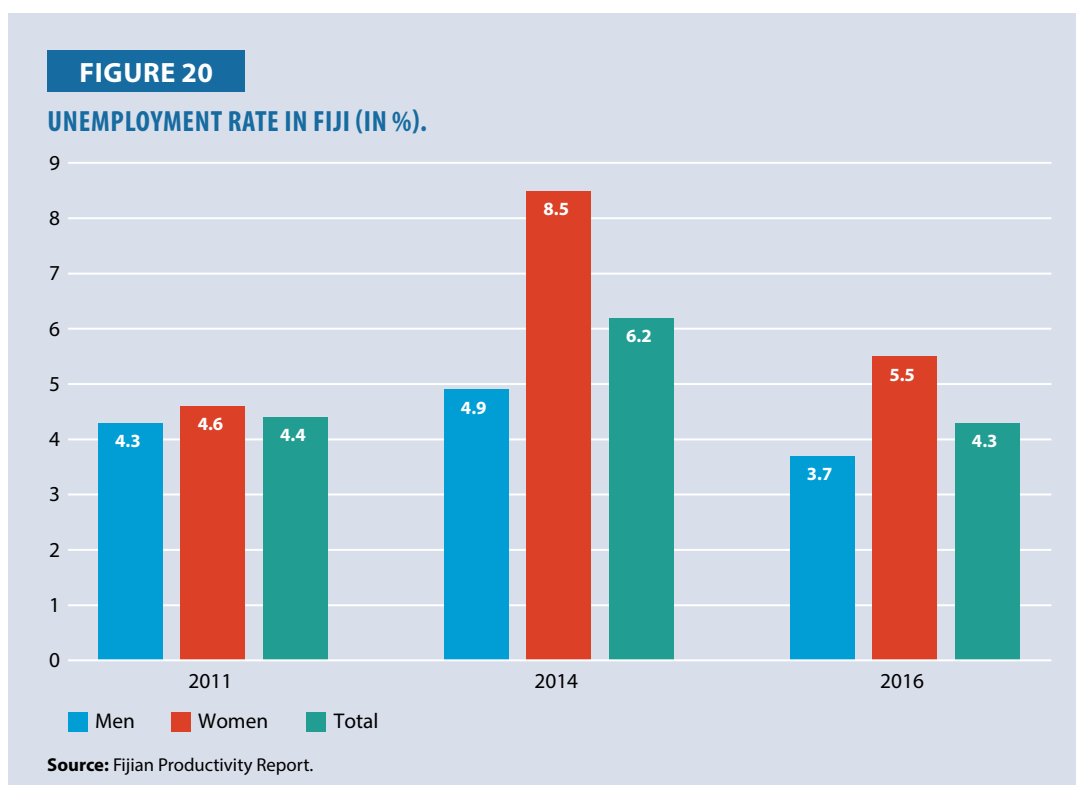
Tourist activity plays a significant role in influencing the employment and unemployment rates in Fiji. There is a direct correlation between the number of visitors arriving in the country and the employment rate. In 1992, the number of visitor arrivals peaked at nearly 900,000. However, the outbreak of COVID-19 led to a drop in the numbers. Fortunately, with the lifting of the travel restrictions, Fiji is witnessing a gradual increase in the number of arrivals.

To mitigate the devastating impact of the pandemic, the Minister for Commerce, Trade, Tourism, and Transport, Faiyaz Koya, launched the “Love Our Locals” (LOL) campaign in June 2020. The LOL campaign aimed to boost consumer confidence and stimulate economic activity within the tourism sector. This initiative allowed many tourism operators to remain in business and continue to employ Fijians [34]. Although the situation is improving with the easing of movement restrictions, the LOL campaign continues to be active for the locals to enjoy the Fijian paradise.

The Fiji Enterprise Engine (FEE) business accelerator program’s latest cohort, FEE-X, was officially launched by the Attorney General and Minister for Economy, Aiyaz Sayed-Khaiyum in Suva on 27 June 2022 [35]. Launched on International MSME Day, business accelerator services like the FEE are proven catalysts that empower MSMEs to become more competitive and dynamic. As the country’s first private sector-led business accelerator program, FEE is managed by the Fiji Commerce and Employer’s Federation in partnership with the Government of Australia’s Market Development Facility.

FIGURE 19**DISTRIBUTION OF PAID EMPLOYMENT FOR MAJOR INDUSTRIES BY GENDER (2019).**

Source: Fiji Bureau of Statistics.

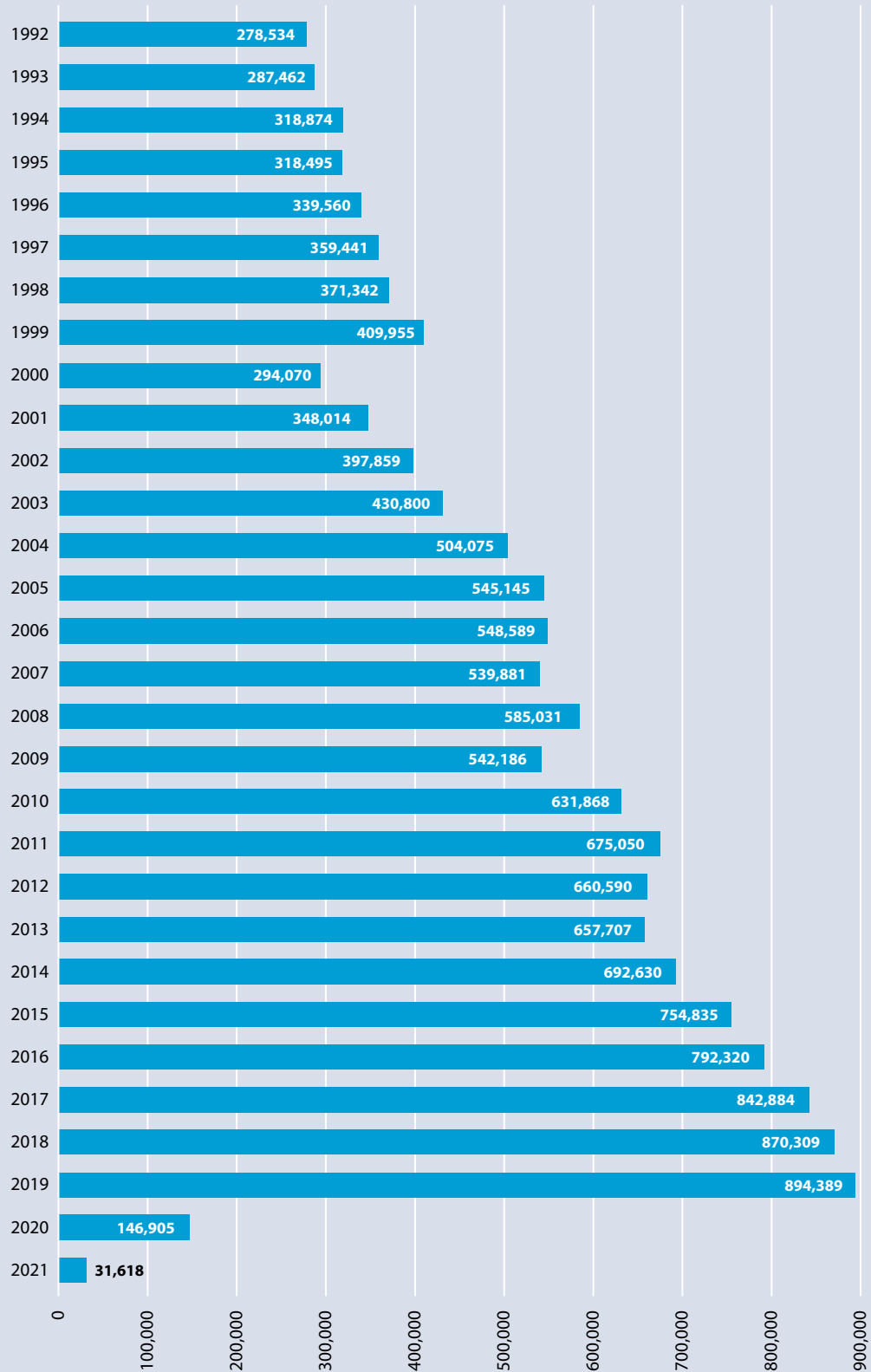


The Fijian government along with some non-governmental organizations in the country has developed training programs and financial support to train SMEs to become more competitive. Thirty-six participants from ten PICs have completed the Pacific Tourism Organization's Small and Medium-Sized Enterprises Recovery training of the trainer's program [36]. The Small and Micro-Enterprise Act 2002 mandates NCSMED to support, promote, and build the capacity of SMEs enabling them to generate income, reduce poverty, improve livelihoods, create employment, and contribute to Fiji's economic growth [37].

NCSMED's business development support initiatives are centered on Business Incubators, Business Training, Business Mentoring, Business Cluster Development, Market Linkage, and providing access to Financial Services. It also manages the Northern Development Program, through which it provides grant equity assistance and training to new and existing enterprises in Vanua Levu. NCSMED's clients range from a variety of sectors, including tourism, agriculture, fishing, manufacturing, handicraft, creative arts, and cultural industry. It also supports SMEs that provide auxiliary services to Fiji's priority sectors such as tourism and export.

NCSMED is a statutory organization established in 2002 to support the creation and development of SMEs in Fiji. It offers the following assistance to small businesses under its business support programs.

- Entrepreneurship training targeted at new business start-ups. The training is conducted in vernacular language throughout the country, including remote rural and maritime areas. It is complemented by short workshops on business improvement techniques.
- A Business Incubation Center (BIC) has been set up in Ra and Suva, designed specifically to help start-ups. The facility provides seed capital, office space, phone, and internet to businesses operating from the BIC. It also provides training and mentoring to these businesses.

FIGURE 21**ARRIVAL OF VISITORS IN FIJI OVER THE YEARS.**

Source: Fiji Bureau of Statistics.

- The northern development program is a grant equity assistance program. It funds up to 60% of the total project cost to selected ventures based on their practicability. The balance must be sourced from a lending institution by way of a loan.
- Linking SMEs to other potential opportunities that offshoot from bigger businesses like tourism, mining, and other industries to enhance their diversification and growth. Several niches have been identified where auxiliary services can be provided by SMEs in the whole supply chain.

Eligible Fijians can undertake a free short course at the FNU as part of the government's reskilling and upskilling initiative. As announced in the 2021 National Budget, the government allocated USD1 million for FNU to assist those who lost their employment due to the economic impact of the COVID-19 pandemic. This would assist eligible Fijians with re-employment and or entrepreneurial ventures given the current global economic situation and labor market adjustments, it is vital that FNU continuously evaluates the learning and teaching and provides Fijians with education for employability. Each of the courses has been designed in partnership with the industry to meet the evolving needs of the labor market. These courses will help meet the demands of the post-pandemic economy [38].

The Fijian Civil Service of the Ministry of Economy developed the Learning and Development Guideline, which is designed to develop core skills of the public and the private sector. The UK Government has recently introduced a policy whereby 25% of the Government's spending through contract opportunities either directly or in supply chains is reserved for SMEs [39].

The Fiji Development Bank (FDB) provides loans up to a maximum of USD500,000 to SMEs engaged in a range of sectors including mining, agricultural products, manufacturing, transport, tourism, wholesale, retail businesses, restaurants, and repair shops among others. Like other lending institutions, its interest rates are commensurate with the type of business activity. The microfinance grant is also disbursed through FDB.

Fiji Revenue and Customs Authority provide the following exemptions and assistance available to SMEs under its incentives package.

- Tax exemption for sole traders whose net annual income does not exceed USD16,000.
- Income tax relief for SMEs engaged in agricultural, fishing, and tourism industries, if their annual income is below USD500,000.
- SMEs with an annual gross income of USD100,000 or less are not required to be registered for VAT.
- Allowance of 40% export income deductions on net profit derived from the export of goods and services.

The Government of Fiji announced the COVID-19 Concessional Finance Support Packages to support the MSMEs in the country. These packages are tailor-made to support existing, majority Fijian-owned MSMEs severely impacted by the global COVID-19 economic fallout. Micro Entrepreneur Packages are also available, on a highly selective basis, for Fijians interested in launching new micro enterprises

in an area of proven expertise. For example, a Fijian trained as a pastry chef and is no longer employed could apply for a concessional loan to launch a micro bakery business. Priority under the Micro Entrepreneur Package will be given to applicants with unique skill sets who demonstrate an ability to create employment within a key economic sector and support the export of Fijian-Made products. The skill sets and professional qualifications of all applicants are determined through a review of training, qualifications, CV, references, and other relevant documentation [40].

The FRCS has set up a Support Center for SMEs at its head office in Nasese, Suva. This center offers assistance to SME operators and taxpayers in need of free advisory services. Tailored specifically for SMEs, the Support Center provides a diverse range of advisory services.

- Business registration
- Lodging of tax returns
- Payments
- VAT registration and filing
- Record keeping
- Customs duty concession available for SMEs
- Tax and customs incentives
- New budget policies and their tax implications
- Registration and use of Electronic Fiscal Devices and VAT Monitoring System

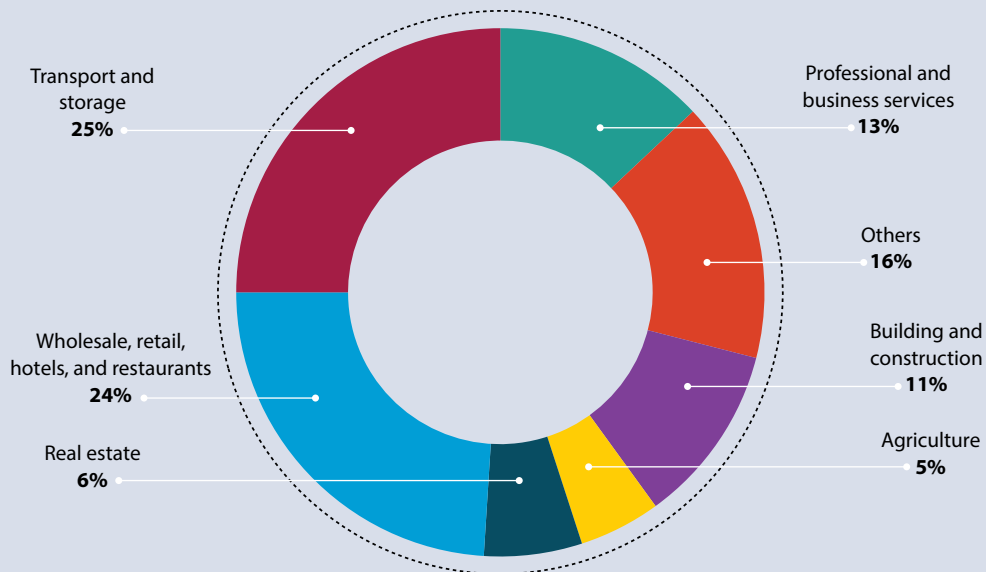
The SME facility offered by the FDB is designed to support aspiring entrepreneurs who aim to establish or expand their businesses. The facility prioritizes sectors such as mining and quarrying, manufacturing, transport, communication and storage, wholesale, retail, hotels, and restaurants, as well as professional and business services. SME loans provided by FDB are available for various purposes, including business acquisitions or start-ups, contractual transport, and plant operations. To be eligible for these loans, an SME must meet the following three criteria:

1. Private individuals and businesses that are 100% locally owned.
2. Joint ventures with a minimum of 51% local shareholding.
3. Overseas joint venture companies that meet the Investment Fiji and Reserve Bank of Fiji requirements.

Data from the Reserve Bank of Fiji shows that as of 2017, SMEs in the transportation and storage sectors have received the maximum loans.

Fiji has adopted several policies and e-government initiatives to drive the usage of ICT services. The 2004 ICT Policy, for example, was established to provide the necessary impetus for the

FIGURE 22
LENDING TO SMEs ACROSS SECTORS (AS ON 2017).



Source: Reserve Bank of Fiji.

development of the information economy in Fiji, by implementing a set of ICT applications and services for government, business, and the community. Following the ICT Policy, the National Broadband Policy was adopted in 2011 to improve the supply and demand for broadband service. The policy introduced a framework for the provision of quality and affordable broadband access in Fiji. The Government of Fiji has implemented several policies to strengthen the country's development scenario, starting with the Twenty-Year Development Plan (2017–2036). The plan harps upon the “Transforming Fiji” approach to drive more progressive, vibrant, and inclusive development of the island nation. Amongst others, the plan aims to achieve universal access to information and competitive telecommunication services delivered on a secure platform for further economic development. It aims to achieve this by taking several steps.

- Improving the existing telecommunications infrastructure by prioritizing Digital Government, specifically online disaster recovery and rehabilitation services by 2020, promoting Public-Private Partnerships in the construction of communications infrastructure, with a focus on telecommunications towers and landing stations to facilitate connection to the Southern Cross Cable fiber optic Network. Furthermore, it aims to fully implement the Fiji Information Technology Development Policy 2004 and National Broadband Policy 2011.
- Providing equal access to ICT services by expanding the outreach of the government's Community Telecentre Project, improving access to computers and assistive devices for community centers, especially for the visually impaired and the hearing impaired, and reviewing the National ICT Policy to incorporate relevant aspects of the National Gender Policy 2014 and the National Disability Policy 2008–2018.

- Strengthening the regulatory framework by evaluating and upgrading the existing legal provisions, developing a cyber-security policy and legal framework, as well as consolidating existing fees and levies.
- Strengthening the capabilities of the workforce, focusing on building the skills and the workforce needed for ICT-based services through incentives and adoption of technologies.

The regulatory and business environment in Fiji is designed to ensure fair trade and efficient competition. Fijian Competition and Consumer Commission (FCCC) is an independent statutory body established under section 7 of the Fijian Competition and Consumer Commission Act 2010. FCCC promotes effective competition and an informed market encourages fair trade while protecting customers and businesses from restrictive practices. FCCC also controls and regulates prices of regulated industries and other markets, where competition is lessened or limited, such as (but not limited to), electricity, telecommunications, ports, maritime, and airport sectors. Their primary responsibility is to ensure compliance with consumer protection laws contained in the Fijian Competition and Consumer Commission Act 2010.

The Registrar of Companies Office registers companies, businesses, credit unions, and moneylenders. The office is responsible for the efficient and effective administration of the Companies Act 2015. After a business has been registered, then the other requirements will follow. The Employment Relations Act 2007 is the single legislation enacted to protect the labor market and employees. Additionally, the Accident Compensation Commission of Fiji (ACCF) ensures compensation to employees for any accidents at the workplace. The ACCF was established by the Fijian Government through the introduction of the Accident Compensation Act 2017.

The Environment Management Act 2005 ensures best practices for environmental management and protection from irreversible harm. The Secretariat of the Pacific Regions Environment Program [41] lists all key environmental legislation. Additionally, there is the Environment Management (Environment Impact Assessment) Regulation 2007 and the Environment Management (Waste Disposal and Recycling) Regulation 2007

The competitiveness fundamentals of the Fijian remain unchanged after the pandemic. However, the new reforms help SMEs in becoming more competitive and expand more in terms of diversity and employee size. Although tax exemptions are in place for SMEs, they are required to comply with other regulatory requirements.

Case Study: Fijian SMEs Contributing to SDG

Eco-tourism

Green Lodge, a winner of the Fiji Development Banks 2019 National SME Awards in the Tourism category, offers green lodging, forest tours, and bird-watching activities for tourists at a sister business Nabogiono Farm, as well as traditional knowledge of medicinal plants as well as other things. It operates under three key pillars of conservation, education, and ecotourism. The 100-acre forestland that houses the lodge is home to various wildlife, flora, fauna, and native species. The business arm operates to generate enough income to maximize biodiversity conservation. The business has promoted conservation for 35 years now. The agroforestry-inspired integrated farming allows 70% of the food served to the tourists to be “farm to table”. The tourists could pick up their food straight from the farm. Other attractions include rainwater harvesting and a 100% solar

energy-powered venture with green waste produced at the lodge being recycled back into the farm as manure. Straws are made from plant stalks and through such practices, the SME promotes wider environmental awareness for sustainable development and ecological stewardship [42].

This case study illustrates that SMEs in Fiji can assist in transforming the tourism industry to reduce its impact on the environment while maintaining employability, thereby contributing to the achievement of the SDGs.

Business Technology and Innovation

Acton (Fiji) Pte Limited, a company that was acquired by KPMG Fiji in March 2023, is a business intelligence and financial solutions provider, focusing on cloud technologies in Fiji and the greater South Pacific island states. Based in Fiji, the company has a unique shared-ownership business model; it is 100% owned and operated by employees. Besides introducing and advocating the benefits of cloud technologies in the region, the company is heavily investing in capacity building to help Fiji become a hub for Knowledge Process Outsourcing (KPO). This is part of Acton's commitment to addressing the critical issue of talent retention, a goal that the company has been pursuing during its five years of service in the region.

The motivation behind Acton was to curb the problem of brain drain that has plagued small developing nations like Fiji for decades. The decision to have shared ownership and build local and international businesses was driven by three specific reasons. Firstly, it aimed to foster a strong incentive for locals to remain in the country by adopting the unique shared ownership business model. This approach encourages a sense of ownership and commitment among the workforce. Secondly, Acton sought to retain top talent by offering competitive remuneration. As the profits of the company are reinvested into its employees, this strategy serves as an additional motivation for skilled individuals to stay with the organization. Lastly, Acton aimed to provide local workers with an opportunity to work on the same technologies as their counterparts around the world. By serving customers in Australia, Europe, New Zealand, and the USA, Acton facilitates the exposure of its employees to global industry practices. Together, these three factors have played a pivotal role in Acton's growth and success, culminating in its recent completion of five years of operation.

From three founders in 2017, Acton now employs 32 of Fiji's finest talents, of which 15 are fresh graduates from local institutes. Over the period, Acton has gained several major customers in Fiji and globally in Australia, Ireland, New Zealand, and the USA. Their revenue has grown tenfold from FJD143,000 in 2017 during the first year of operation to FJD1.7 million in 2022, and close to FJD9 million till early 2023. Leveraging its pool of talented workers, Acton actively contributes to nation-building initiatives by utilizing technology to address issues of sustainable farming, climate change, and financial inclusion. As a result of their efforts, the company has earned commendation both locally and internationally. Notably, in 2019, it became the youngest company in Fiji's history to receive the PM's International Business Award. In 2020, Acton became the first Pacific Islander to be included in the prestigious Forbes 30 Under 30 list.

Acton's Contribution Towards SDG

- Acton demonstrates a commitment to gender diversity, with approximately 21% of its workforce comprising women. Notably, one of the company's co-founders and the managing director are women. Furthermore, Acton's largest practice is led by a woman, showcasing the organization's dedication to promoting gender equality and women's leadership.

- During its 5.5 years of existence, the company recruited 18 fresh graduates to its team by creating 18 new job opportunities, contributing to the growth of the community and the development of local talent.
- Acton has established itself as one of the high-paying employers in the local market. By providing higher wages, the company contributes to increasing the disposable income of its employees, empowering them to overcome financial challenges and alleviate poverty.
- Acton has spearheaded the adoption of cloud business solutions in the South Pacific region, promoting the concept of centralized infrastructure which can be powered by greener energy sources [43].
- This case study demonstrates the ability of SMEs in the business technology sector to drive innovation and successfully enter the global market. By doing so, these SMEs contribute significantly towards the SDGs by generating employment, reducing inequalities, and fostering industry-wide innovation.

Policy Recommendations

Strengthen SME Institutional Framework

Fiji needs to enhance the collaboration and integration among key state institutions responsible for administering the SME sector. The existing institutions, including NCSMED, MSME Fiji, MCTTT, Ministry of Economy, Investment Fiji, and FBOs currently lack a cohesive approach to stimulate the development, support, and growth of SMEs. Moreover, conducting a dedicated survey and measuring the performance of the SME sector, and improvement projections are crucial for future policy decisions by the government and its development partners.

Improve the Productivity of SMEs

Fiji can enhance overall labor productivity through the adoption of technology, automation, and the creation of a pool of skilled laborers. The adoption of technology and investments in research, development, and innovation present significant opportunities for SMEs to improve their productivity levels. Productivity improvement will also assist in the mobilization of current labor to Australia and New Zealand.

Modernize and Diversification of Economic Sectors

Given Fiji's abundant natural resources, pristine environment, and favorable weather conditions, the country possesses significant potential for diversifying SMEs into agriculture and manufacturing sectors. Currently, SMEs are largely concentrated in the tourism industry, and diversification presents an opportunity to address the Balance of the Trade deficit that Fiji has.

Some of the new and emerging sectors that SMEs need to explore include Business Process Outsourcing, renewable energy, and recycling sectors.

Reduce Gender Disparity in Employment

The current employment statistics indicate a workforce that is predominantly male-dominated (over 60%), despite females having slightly higher literacy levels. This presents an opportunity to actively involve and provide more opportunities for women, particularly in the SME sector, where growth is critical.

New Investment Opportunities in SMEs

Fiji's tax policies and labor costs make it an attractive destination for foreign investment in SMEs. To further stimulate and drive new SME investment, it is crucial to focus on improving digital infrastructure, access to finance, and the overall ease of doing business.

The Way Forward

Fiji must consider how the country can provide ongoing support and encouragement to existing SMEs, ensuring that they can weather market failures and manage fixed costs without being unduly burdened. Also, it is important to address the needs of high-growth SMEs and facilitate their successful transition from one stage of development to another: from micro to small, small to medium, medium to large, and even from national to international operations.

While the government's efforts in facilitating an enabling environment for SMEs are commendable, it cannot afford to become complacent. It must vigorously pursue innovative strategies to ensure that the SMEs in Fiji remain competitive. Recognizing that the one-size-fits-all approach is insufficient, the government must review the relevant policy framework and introduce adaptive measures that cater to the specific needs of different sectors.

Finally, the government must ensure that efficient competition exists in the SME market. This will encourage SMEs to create innovative products and services and maintain consumer-friendly practices. SMEs have demonstrated their potential as catalysts for success in many developing countries, and Fiji is no exception. Therefore, it is imperative to make adequate investments and implement necessary reforms to ensure a competitive market environment that accommodates the growth and sustainability of SMEs.

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Introduction

The Micro, MSME sector is an extremely crucial and dynamic segment for a nation's economic and social development. Given the inherent virtues of low capital cost, high employment, operational flexibility, and the potential to utilize local resources, the sector holds significant importance in terms of generating large-scale employment opportunities and taking economic prosperity door-to-door. From a production point of view, the sector makes up a major chunk of a country's domestic supply of goods and services as well as exports. The MSME sector is the perfect example of how micro wins translate to macro achievements. MSMEs are complementary to large industries as ancillary units and contribute enormously to the socioeconomic development of the country.

Furthermore, they do not just help countries prosper industrially, but also fulfill several UN SDGs (2030 Agenda) [1]. Although MSMEs largely benefit efforts towards almost all the 17 SDGs, catering to MSME development can be particularly instrumental in achieving the SDGs as mentioned in Figure 1.



Context for India

India's burgeoning population has now surpassed 1.41 billion, catapulting it to become the world's most populous country, ahead of China according to projections from the World Population Review [2]. Despite transitioning from a low-income country to a lower middle-income country in 2007 [3], India is set to become the world's fastest-growing economy in 2023 [4]. The IMF 2018 report ranks India as the seventh-largest country by geography and the third-largest country by the size of the economy, accounting for a whopping 7% of the world's economy in terms of total GDP based on Purchasing Power Parity [5]. With half of its population under the age of 30 and nearly 12 million individuals entering the job market each year, India stands at the cusp of reaping its demographic dividend [6]. However, sustaining the current economic growth and creating sufficient employment opportunities for this influx of job seekers poses a monumental challenge for the country. It is also crucial to acknowledge that women constitute just slightly more than one-third of the total labor force in the country.

Given India's substantial population and robust economic growth patterns, developing enterprises at a large scale is the only plausible solution to provide meaningful and gainful employment opportunities to the masses along with large-scale infrastructural development. In this demographical context, the MSME sector assumes a pivotal role in driving India's economy. It has emerged as a dynamic and constantly evolving sector, generating livelihoods and employment opportunities across both urban and rural areas of the country. By nurturing and supporting the development of MSMEs, India can effectively expand its economy and absorb the influx of the working population.

Undoubtedly, the SDG targets and their equitable achievements are of utmost importance for India to achieve its envisioned growth. Hence, it is critical to assess the current status of Indian states and Union Territories (UTs) in terms of the five MSME-relevant SDGs. Figure 2 presents a state-wise performance mapping of these SDGs [7].

Currently, India is home to an estimated 63.4 million MSMEs that employ more than 110 million people and contribute around 26% to India's GDP and 49.4% to India's total merchandise exports [8].

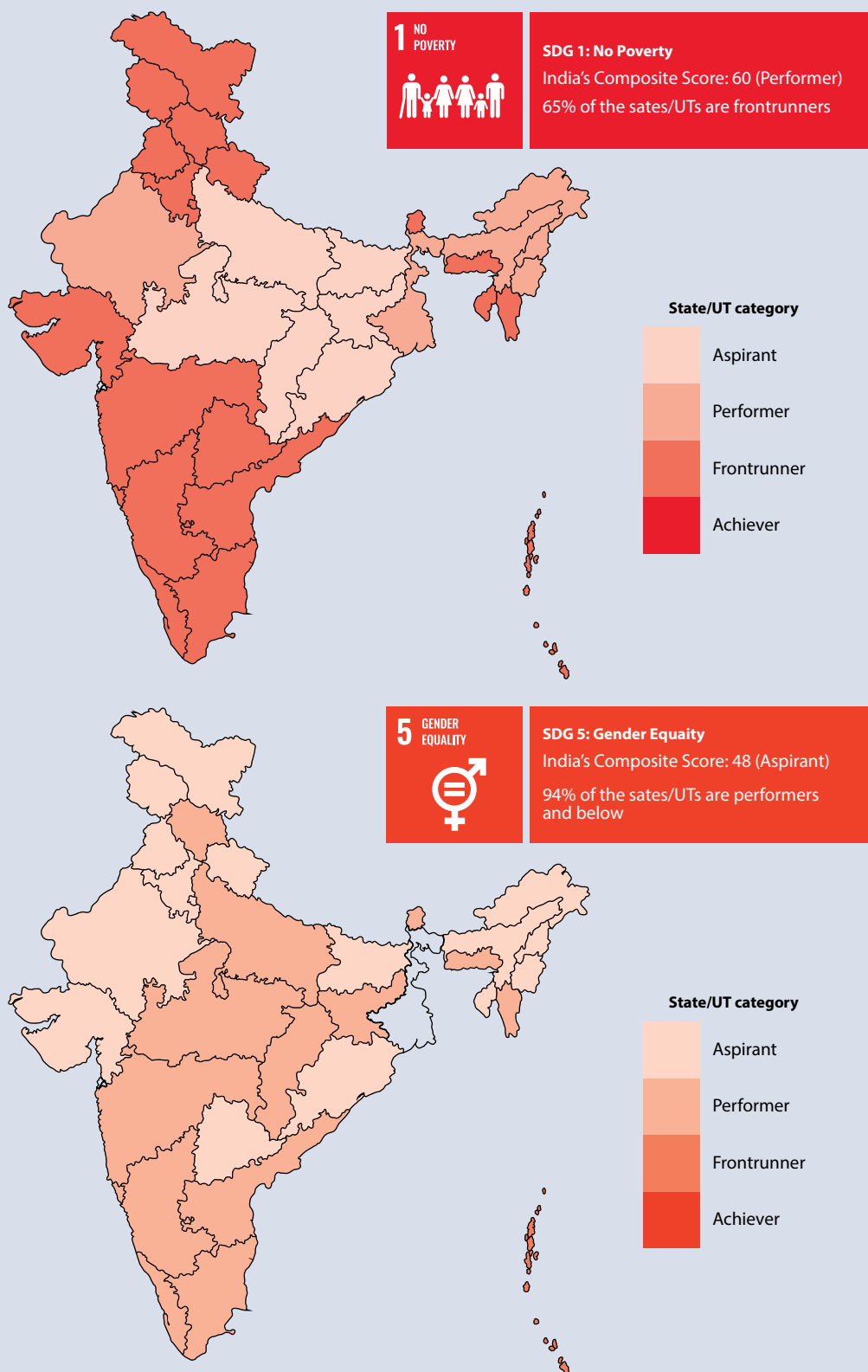
Defining MSMEs in India

The Government of India, under the Micro, Small and Medium Enterprises Development Act 2006, initially classified the country's manufacturing and services enterprises based on their level of investment. However, in response to the COVID-19 Pandemic, the government revised the definition to encompass both manufacturing and services units, considering their investment in machinery and equipment, and turnover collectively. The revision was announced as a part of the government's *AatmaNirbhar Bharat Abhiyaan* (Self Reliant India) program, a comprehensive stimulus package designed to support and strengthen sectors most affected by the pandemic, including the MSMEs [9]. The classification was changed in July 2020, as illustrated in Figure 3.

The rationale behind making the definition of MSMEs more inclusive after 14 years was to assist all enterprises in need of institutional support, beyond these limited to the earlier definition. Through various stakeholder interactions, it was found that the previous definition was restrictive and had not been adjusted for inflation over the last 14 years. Furthermore, the current service industry requires significant investment in equipment, such as ICT systems for delivering consultancy and business processing services. India has witnessed remarkable economic progress, primarily driven by the service sector in recent times. The previous definition of MSMEs, however,

FIGURE 2A

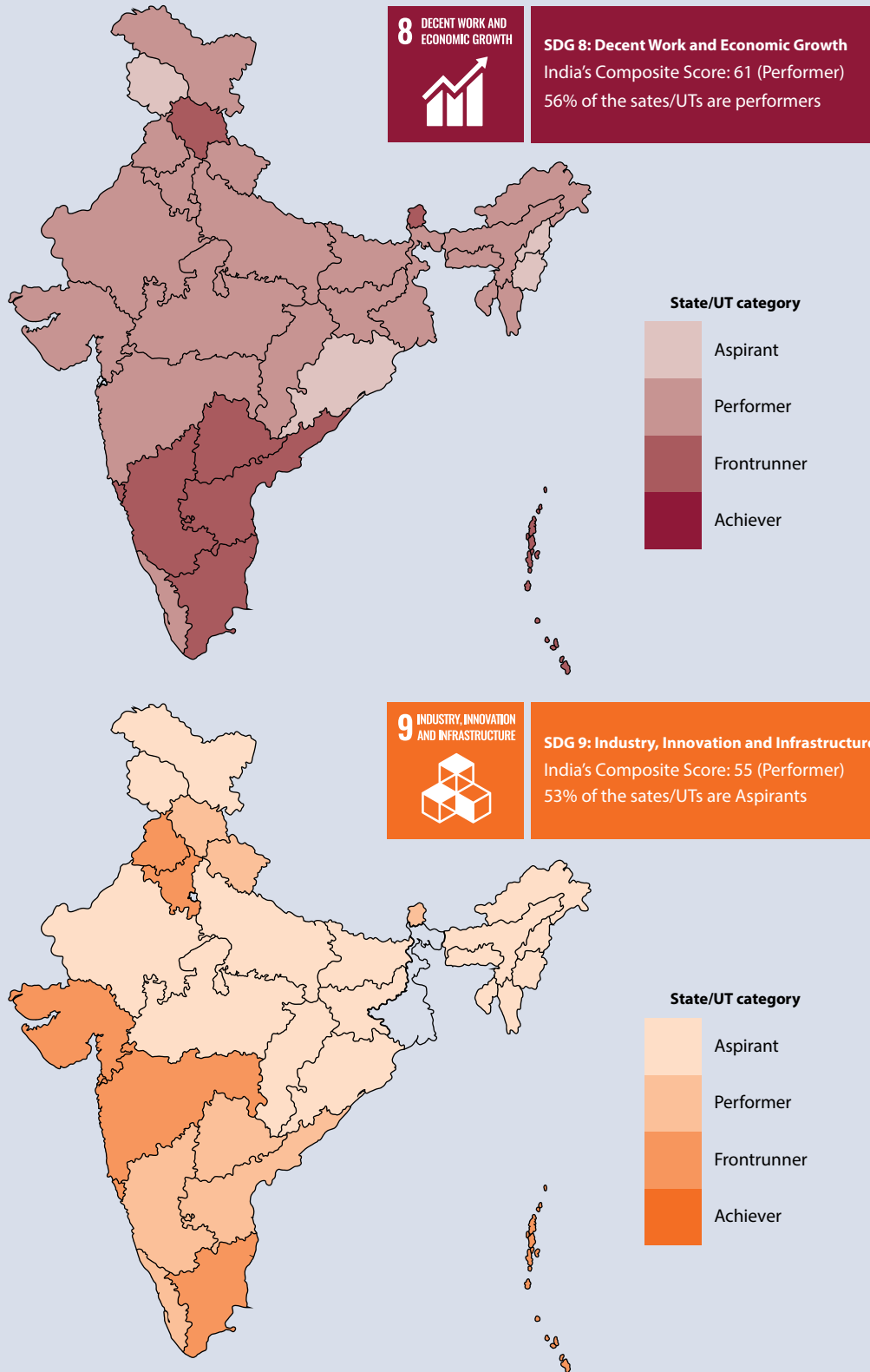
STATE-WISE PERFORMANCE MAPPING OF MSME-RELEVANT SDGs IN INDIA.



Source: NITI Aayog, Government of India. https://sdgindiaindex.niti.gov.in/assets/Files/SDG3.0_Final_04.03.2021_Web_Spreads.pdf.

FIGURE 2B

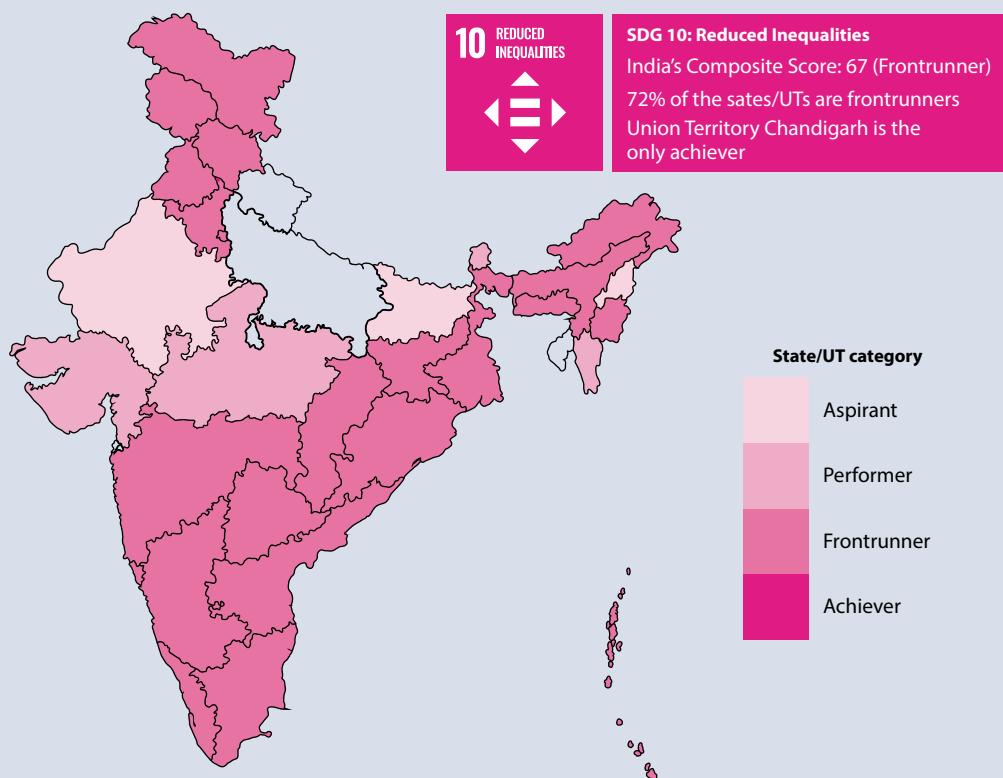
STATE-WISE PERFORMANCE MAPPING OF MSME-RELEVANT SDGs IN INDIA.



Source: NITI Aayog, Government of India. https://sdgindiaindex.niti.gov.in/assets/Files/SDG3.0_Final_04.03.2021_Web_Spreads.pdf.

FIGURE 2C

STATE-WISE PERFORMANCE MAPPING OF MSME-RELEVANT SDGs IN INDIA.



Source: NITI Aayog, Government of India. https://sdgindiaindex.niti.gov.in/assets/Files/SDG3.0_Final_04.03.2021_Web_Spreads.pdf.

FIGURE 3

REVISED MSME CLASSIFICATION IN INDIA (IN INR).

Previous Criteria	Micro	Small	Medium
Manufacturing	2.5 million	50 million	100 million
Services	1 million	20 million	50 million

➤

Modified Criteria	Micro	Small	Medium
Investment	10 million	100 million	500 million
Turnover	50 million	500 million	2500 million

Source: Ministry of Micro, Small & Medium Enterprises, Government of India. <https://msme.gov.in/know-about-msme>.

failed to take into account these sectoral shifts and the substantial equipment investments required by today's service enterprises. Given the context, the change in the definition of MSME has been received positively by all relevant stakeholders in the country.

This critical change in MSME calculations of the country continues to have a significant and direct impact on all standalone and year-on-year statistics related to India's MSME sector. In many cases, the change has made MSME growth data, such as the number of enterprises, employment figures, investment trends, etc. to be positively skewed and kinked from July 2020 onwards.

At the same time, like any other developing country, India also has an enormous number of estimated unincorporated non-agricultural units, which, for all practical purposes, are considered the estimated MSME units of the country [10].

In terms of formal recognition of MSMEs, the Government of India has implemented various registration and filing mechanisms over the years, such as Entrepreneur's Memorandum I and II, *Udyog Aadhar* Memorandum, and others. However, following the change in the MSME definition in July 2020, the Government of India launched a streamlined and unified portal for MSME registration and formalization known as *Udyam* Registration Portal. This portal now serves as the sole country-wide recognized unique identifier for MSMEs [11]. The primary aim behind developing such a platform was to establish a standardized and simplified process for enterprises to identify themselves as MSMEs. By doing so, they can avail policy benefits from both the central and state governments that come with this official recognition. Additionally, the *Udyam* Registration Portal also helps businesses build their reputation and trust within the ecosystem.

Institutional and Legal Framework for MSMEs in India

Recognizing the crucial need for dedicated institutional focus on MSME development and facilitation at the central government level, the Government of India merged the Ministry of Small-Scale Industries and the Ministry of Agro and Rural Industries, to set up the Ministry of MSME at the national level in May 2007. The primary objective of the Ministry of MSME is to holistically address matters related to MSMEs and to design policies and programs, tailored to their specific needs. The Ministry also monitors the implementation of these policies and conducts periodic evaluations to adapt to the changing dynamics of the economic world.

The Ministry oversees several corporation boards, training and development institutes, and other public sector enterprises, all of which cater to specific domains within the MSME space [12]. A snapshot of its constituent bodies is provided in Figure 4.

FIGURE 4

MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISES AND ATTACHED ORGANIZATIONS.

Office of the Development Commissioner	Oversee implementation of policies and schemes through a network of MSME-Development Institutes and other specialized institutes.
Khadi Village Industries Commission	Provide dedicated support for strengthening Khadi industries and generating rural employment.
Coir Board	Promote the overall development of the coir industry and improvement of workers engaged in this traditional industry.
National Small Industries Corporation	Implementing partner for various MSME schemes; provide technical support to MSMEs through NSIC Technical Services Centre.
National Institute for Micro, Small & Medium Enterprises	Provide training to trainers, consultancy and research services to MSMEs.
Mahatma Gandhi Institute of Rural Industrialisation	Accelerate rural industrialization for sustainable village economy and empower traditional artisans.

Source: Ministry of Micro, Small & Medium Enterprises, Government of India. <https://msme.gov.in/about-us/attached-organizations>.

Furthermore, various State and UT governments also have dedicated MSME departments to manage and coordinate operations and development efforts.

To strengthen the legal framework for the development of MSMEs in the country, the Micro, Small and Medium Enterprises Development (MSMED) Act was enacted in 2006 with the broad aim of facilitating, promoting, and enhancing the competitiveness of Indian MSMEs [13]. The Act outlines the following objectives.

- Remove impediments in MSME growth due to multiple laws.
- Introduce statutory consultative and recommendatory bodies on MSME policies.
- Improve registration procedures of MSMEs.
- Provide a statutory basis for purchase preference and credit policies.
- Improve realization of payments of MSMEs.

The Act was a response to the long-outstanding demand of the sector to liberate it from a multitude of laws and regulations prevalent in the ecosystem. Before its implementation, businesses encountered severe difficulties in complying with numerous and often conflicting government regulations and guidelines, all while facing resource and knowledge constraints. Moreover, MSMEs, with limited financial reserves, faced a significant liquidity crunch as compared to other large firms, particularly due to delays in buyer payments. This was a major area of concern.

In addition to introducing MSME definition criteria, the Act mandated the development of a nationwide, digital MSME Samadhaan Portal for Micro and Small Enterprises (MSEs). Using the portal, MSEs can directly register cases regarding delayed payments by central ministries, departments, Central Public Sector Enterprises, state governments, and other buyers. Furthermore, the Act required each state to establish an MSE Facilitation Council responsible for resolving delayed payment disputes through regular meetings and hearings. These measures aimed to streamline payment processes, reduce financial burdens on MSMEs, and provide a platform for the timely resolution of payment-related issues.

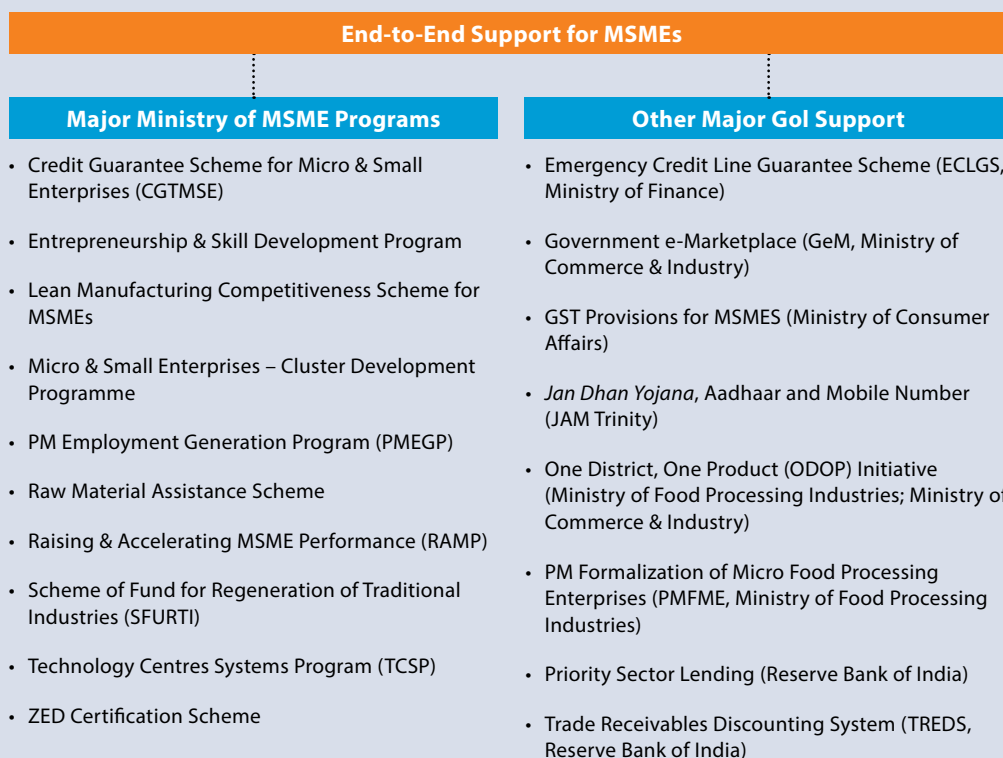
MSME Policy Landscape of India

The development of the MSME sector is one of the core priority sectors for the Government of India. The recent strategic focus of the country on making India the global manufacturing hub through the Make in India campaign sets the center stage for MSMEs to lead this growth. To achieve this, the Ministry of MSME has launched several initiatives and schemes aimed at supporting the sector holistically and comprehensively. Other ministries also support this overarching national goal. Some of the major schemes and initiatives introduced by the country's government at the national level) are listed in Figure 5 [14].

Major Programs of the Ministry of MSME

Credit Guarantee Scheme for Micro and Small Enterprises (CGTMSE)

A flagship scheme of the central government, CGTMSE facilitates MSEs' access to funds by providing credit guarantee funding for third-party collateral-free loans through Member Lending Institutions, including banks and Non-Banking Financial Institutions (NBFCs).

FIGURE 5**NATIONAL LEVEL INSTITUTIONAL SUPPORT FRAMEWORK FOR MSMEs IN INDIA.**

Source: Invest India. <https://www.investindia.gov.in/schemes-msmes-india>.

CGTMSE is one of the most successful programs in India, with a significant impact on enhancing MSME growth in the country. Acknowledging its effectiveness, the central government, in the Union Budget 2023–24 announcement, has revamped the scheme by infusing INR ~1.1 billion in the CGTMSE corpus.

Entrepreneurship and Skill Development Program

The Ministry of MSME endeavors to inculcate entrepreneurial and business management skills among youths in India, particularly from disadvantaged sections of society, through a variety of training and skill development programs across functional domains relevant to setting up a business. The duration of the programs ranges from two days to six weeks. Since its inception, the scheme has successfully conducted over 8,000 programs, providing training to over 280,000 individuals.

Lean Manufacturing Competitiveness Scheme for MSMEs

The objective of the initiative is to enhance MSME competitiveness as per domestic and global quality and productivity standards, through various lean techniques. The scheme provides MSMEs with three-level certifications through the completion of learning modules, along with financial support for implementing lean manufacturing techniques.

Micro and Small Enterprises Cluster Development Program (MSE – CDP)

The initiative adopts a cluster development approach to establish shared infrastructure for similar MSMEs within a geographically-defined area. The initiative focuses on developing Common

Facility Centres and related infrastructure that are equipped with state-of-the-art technology relevant to the domain. The facilities include a quality testing center, process automation facilities, raw material depot, effluent treatment, and more. Since its inception, ~300 clusters have been established across India, with more than 250 clusters currently under implementation.

Prime Minister Employment Generation Program (PMEGP)

One of the flagship initiatives of the government, PMEGP is a bank-financed subsidy program for setting up new micro-enterprises in the non-farm sectors, especially aimed at self-employment of unemployed youth and traditional artisans in both rural and urban areas. The scheme has facilitated the disbursal of loans to around 85,000 micro-enterprises, generating approximately 650,000 jobs. Encouraged by the resounding success of PMEGP, the Government of India launched another scheme for providing a second loan for the upgradation of existing PMEGP units.

Raw Material Assistance Scheme

The initiative aims to help MSEs by providing financing for the purchase of raw materials, both indigenous and imported, to support the production of quality goods and services. Implemented by the National Small Industries Corporation (NSIC), the scheme has been instrumental in supporting MSMEs by distributing raw materials worth more than USD254 million during the financial year (FY) 2021–22.

Raising and Accelerating MSME Performance (RAMP)

To support the overall COVID Resilience and Recovery Program, the Ministry of MSME launched the RAMP program for a period of five years. It is jointly funded by the World Bank and the Government of India and aims to help MSMEs improve their access to market and credit. RAMP also aims to strengthen institutions and governance at the Centre and the state level, address issues of delayed payments, and promote green MSMEs. It is a uniquely designed program to address the generic and COVID-related challenges in the MSME sector through the strengthening of existing MSME initiatives. Currently, states and UTs are in the process of conducting field diagnostic exercises as part of the baseline assessment for revamping interventions.

Scheme of Fund for Regeneration of Traditional Industries (SFURTI)

SFURTI, launched in 2005 by the Ministry of MSME, aims to promote the development of traditional clusters across India. The SFURTI Clusters are categorized into two types, namely regular clusters, comprising about 500 artisans, with government assistance of up to USD301,869, and major clusters, having more than 500 artisans and government assistance of up to USD603,739. Currently, approximately 313 SFURTI clusters, collectively valued at over USD1 billion are functional, providing support to more than 180,000 artisans.

Technology Centres Systems Program (TCSP)

It is a World Bank-funded project to increase the competitiveness of the Indian MSME sector through technological advancement. TCSP is one of the largest transformation programs being undertaken by the Ministry of MSME, with a total budget of USD200 million. Under the project, 15 new Technology Centres (TCs) are being set up across India while 18 existing TCs are being upgraded. The TCs are greenfield projects, typically set up on a land parcel of 20–30 acres in industrial zones with end-to-end technological infrastructure for MSMEs.

Zero Defect Zero Effect (ZED) Certification Scheme

The Ministry of MSME actively promotes the adoption of ZED practices among MSMEs by incentivizing them to obtain Government of India-approved ZED certifications. These three-level

certifications (bronze, silver, and gold) cover a variety of functional areas, including quality, safety, production, cleanliness, energy, and environment. Depending on the level of certification, the Ministry offers a variety of financial incentives to ZED-certified MSMEs, including but not limited to subsidies and direct financial assistance.

The ZED scheme was initially launched in 2016, but it gained significant momentum only after the launch of revised guidelines and the government's strategic focus on implementing the program in 2022. Overall, around 5,000 MSMEs have received various ZED certifications so far.

Other Major Initiatives by the Government of India

Emergency Credit Line Guarantee Scheme (ECLGS)

As part of the Government of India's AatmaNirbhar Bharat package launched in May 2020, the Ministry of Finance introduced the ECLGS to help MSMEs in addressing their operational liabilities and resuming business amidst the distress caused by the COVID-19 crisis. The initiative provides a 100% guarantee coverage to Member Lending Institutions for extending credit to MSMEs and also sets a cap on the interest rates charged by banks and NBFCs. As of January 2023, guarantees amounting to USD43 billion have been issued under the ECLGS, providing support to almost 12 million borrowers.

Government e-Marketplace (GeM)

Set up in August 2016 by the Ministry of Commerce and Industry, GeM is an online procurement platform for ministries and government departments. The portal enables MSMEs and other private companies to register as sellers and directly offer their products and services to government entities. GeM solves the twin purposes of ensuring transparency and efficiency in government procurement processes while also offering market expansion opportunities to MSMEs with access to institutional buyers. The Gross Merchandise Value of GeM transactions was over USD12 billion in FY 2021–22 alone, with over four million registered sellers on the platform.

Provision of Goods and Service Tax (GST) for MSMEs

The Ministry of Consumer Affairs introduced GST as part of the Government of India's 'One Nation One Tax' regime. The new tax regime has replaced a multitude of inconsistent indirect taxes prevalent across different parts of India. The implementation of GST has led to a significant reduction in tax formalities, providing businesses, especially MSMEs, with greater ease and cost benefits in conducting their operations. Under the GST regime, businesses are offered GST exemption as per defined thresholds.

Jan Dhan Yojana, Aadhaar and Mobile Number (JAM Trinity)

One of the biggest challenges for policy implementation in India is the leakages in the welfare delivery chains of various schemes, including but not limited to subsidies and Direct Benefit Transfers. The Government of India has tried to close various leakage points in this system through the JAM trinity. The core components of the JAM architecture are the basic savings bank accounts provided under the Prime Minister's Jan Dhan Yojana, the unique biometric identifier in the form of Aadhaar, and the rapidly increasing mobile penetration in the country. The Aadhaar helps in direct beneficiary identification based on biometric data, whereas Jan Dhan accounts and mobile phones enable the government to transfer cash directly into the bank accounts of the beneficiaries. The drive has improved transparency and ease of availing institutional benefits for both individuals and businesses across the country.

One District, One Product Initiative (ODOP)

A joint initiative of the Ministry of Food Processing Industry and the Ministry of Commerce and Industry, ODOP aims to foster balanced regional development across all districts of the country. The initiatives focus on branding and promoting at least one product from each district, enabling holistic socioeconomic growth across all regions of India. To achieve this, states and UTs identify district-level products based on predefined parameters, following which, holistic institutional support is provided. So far, a total of 1,102 products from 761 districts across the country have been identified under the ODOP scheme.

PM Formalization of Micro Food Processing Enterprises (PMFME)

As part of the AatmaNirbhar Bharat Abhiyan, the Ministry of Food Processing Industries introduced the PMFME initiative to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry. Additionally, it provides support to Farmer Producer Organizations, Self Help Groups (SHGs), and Producers' Cooperatives throughout their entire value chain. It provides support through common infrastructure, credit-linked subsidies, seed capital for SHGs, and marketing and branding support, among others.

Priority Sector Lending

To ensure the effective provision of credit services to sectors crucial for India's socioeconomic development, the Reserve Bank of India (RBI) has laid down yearly credit targets against banks' Adjusted Net Banking Credit (ANBC). These priority sectors include MSMEs, housing, education, social infrastructure, renewable energy, agriculture, exports, and other key functional domains. Within this overall target of 40% covering all priority sectors, banks are required to meet a specific sub-target of ensuring 7.5% of the ANBC pertains to Micro Enterprises.

Trade Receivables Discounting System (TReDS)

Launched by the RBI in 2018 to ensure smooth working capital flows for MSMEs, TReDS is an electronic platform that enables auctioning of trade receivables. This platform facilitates uploading, acceptance, discounting, trading, and settlement of invoices and bills for MSMEs, serving both as a receivables and payables factoring mechanism (reverse factoring). In simple terms, TReDS allows MSME sellers to get credit against bills that are due to them at a later date.

The platform involved direct participation from MSME sellers, buyers such as corporate buyers, government departments and PSUs, and financiers like banks, NBFCs, and other RBI-authorized entities.

Dimensions of Competitiveness Diagnostics

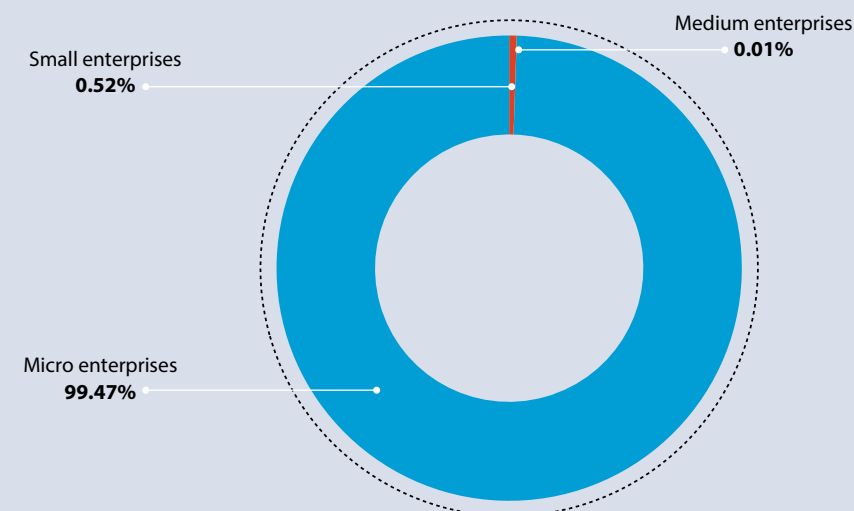
Outcomes

Dynamics of Economic Growth of MSMEs

Being one of the key drivers of economic and social development, MSMEs play a central role in promoting equitable development in the country. As per government estimations, India is home to an estimated 63.4 million MSMEs. These businesses are distributed almost evenly across regions, with 51% of MSMEs located in rural areas and 49% in urban areas. However, the vast majority of the segment comprises micro-enterprises [15].

Furthermore, the prominent products and services within the MSME segment include food products, textiles, apparel, construction activities, and buildings. Currently, MSMEs account for approximately 26% of India's GDP and a significant 49.4% share of India's total merchandise exports [16].

FIGURE 6
BREAK-UP OF MSMEs IN INDIA.



Source: Annual Report 2022–23, Ministry of MSME, Government of India.

Recognizing the ability of MSMEs to generate large-scale employment and contribution to the nation's GDP and exports, the government is encouraging more businesses to register as MSMEs.

As detailed above, MSMEs play a crucial role as a significant growth driver in any economy. Hence, the sector's share in India's Gross VA to All India Gross Domestic Product (at current prices) serves as a direct indicator of the industry's health. Over the last five years ending March 2021, the MSME sector's contribution to All India Gross Domestic Product has increased marginally and has remained relatively stable, largely due to the COVID-19 Pandemic.

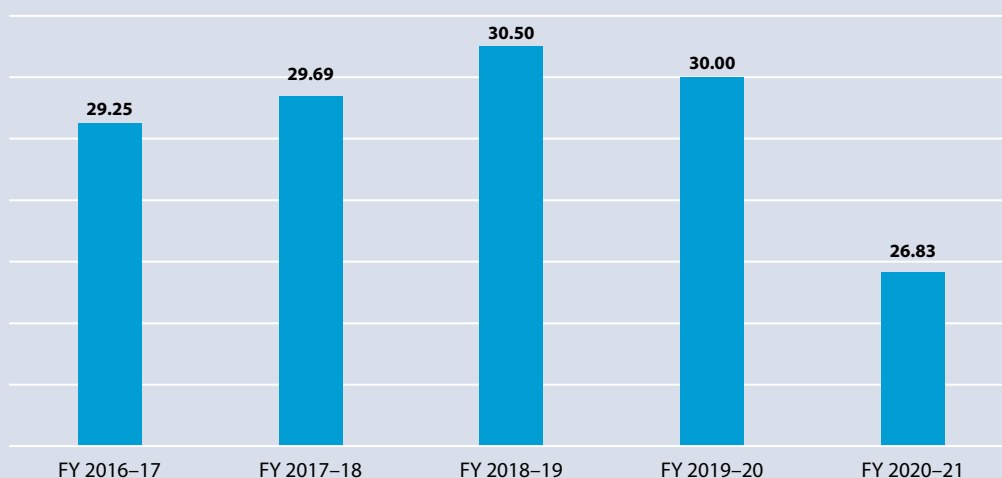
Before the pandemic, the government's efforts to enhance domestic production through MSMEs were yielding slow but steady progress, leading to a rising share of MSMEs in GDP. However, alike other developing countries, the MSME sector was one of the worst-hit sectors during the pandemic, with limited safety nets to fall back on. This inability to grow and more specifically, to survive, is reflected in their dwindling share in the country's GDP during FY 2020–21 [17].

However, despite the setback caused by the global pandemic, the MSMEs continued to contribute significantly to All India Gross Domestic Product, as indicated by the year-on-year analysis in Figure 7.

Labor Productivity of MSMEs

Productivity is a measure of the efficiency with which resources, both human and material, are converted into goods and services. Among the factors that contribute to productivity, labor plays a vital role as the human element in a typical factor input mix, which also includes land and capital. As a critical component of this mix, labor significantly influences an enterprise's capabilities of utilizing the other two factors, making it a key determinant of firm productivity.

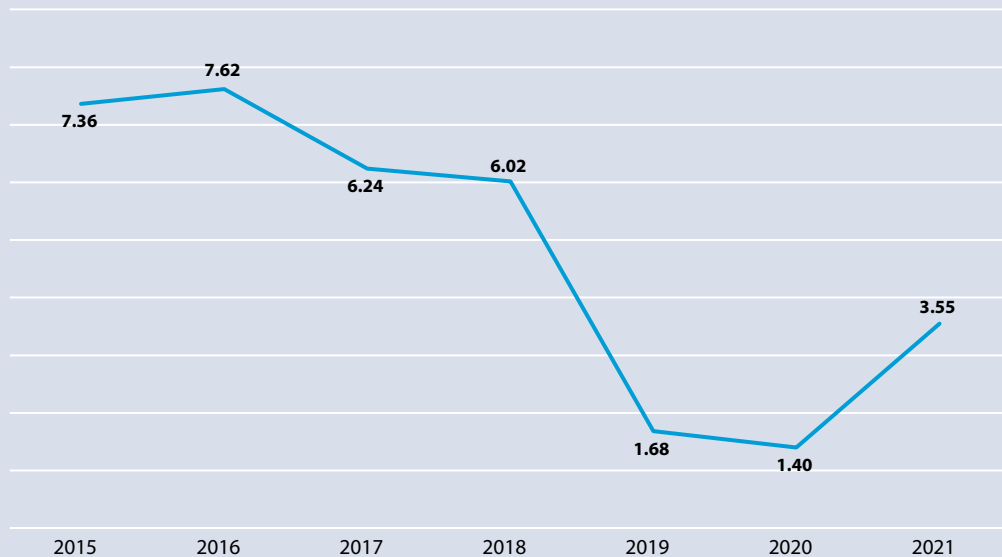
Labor productivity, thus, plays a significant role in determining the overall economic growth of the nation. There can be two approaches to estimating labor productivity, Gross Domestic Product per

FIGURE 7**SHARE OF MSME GROSS VA IN ALL INDIA GDP (IN %).**

Source: MSME as a share of GDP across India from the financial year 2012 to 2021, Statista. <https://www.statista.com/statistics/912576/india-msmes-contribution-share-to-gdp/>.

Worker and Per-Hour Labor Productivity [18]. The level of human skills along with the quantity of raw material and technology employed are responsible for the level of labor productivity.

Labor productivity is also directly linked to improved standards of living in the form of higher consumption. As an economy's labor productivity grows, it produces more goods and services for the same amount of relative work. This increase in output makes it possible to consume more of the goods and services for an increasingly reasonable price.

FIGURE 8**LABOR PRODUCTIVITY GROWTH IN INDIA (IN %).**

Source: APO Productivity Databook 2022, Asian Productivity Organization.

India witnessed an average annual labor productivity growth of 4.9% from 1981–2017, as against average GDP growth of 6.4% during the period [19]. Although this figure ranks second only to China's, there is a huge potential for further improvement in this percentage.

Looking at domestic data, labor productivity growth in India peaked at 7.62% in 2016, after which it rapidly decreased in the following years. Although still well below pre-dip levels, labor productivity rose and grew at 3.55% in the year 2021 [20].

Average labor productivity levels in MSMEs are lower than those in larger companies, which is one of the factors restraining the sector's growth. Several factors contribute to this disparity, with one of the major reasons being higher per-unit production costs. Unlike large enterprises, MSMEs often struggle to achieve economies of scale. Moreover, as a labor-intensive sector in a country like India, MSMEs face challenges in accessing adequately skilled labor, further affecting productivity. These factors, along with several other constraints, result in low labor productivity in MSMEs, leading to higher costs of production.

Labor Mobilization

Labor mobility refers to the ease with which laborers can move within an economy and between different economies. As a crucial factor of production, the level of mobility among labor and employees, both in terms of geographical and occupational mobility, has a significant impact on an enterprise's production and growth, and consequently, on the overall health of the economy.

In 2020, over 67% of the total population, or approximately 900 million people in India were in the working age group of 1–64. Despite a declining trend in the Total Fertility Rate [21], the working age group is expected to expand by another 100 million by 2030, implying that a whopping 25% of the incremental global workforce over the next decade may come from India alone [22]. The MSME sector has been creating 111 million jobs in rural and urban areas across the country [10]. However, despite these positive employment figures, India, being a vast country, grapples with a critical developmental challenge of unequal regional economic growth. Consequently, there is a massive inter-state migration across India, primarily driven by opportunities for work and education.

In this context, it is useful to examine the employment distribution of MSMEs across rural and urban areas of India as illustrated in Table 1.

TABLE 1

RURAL AND URBAN SPREAD OF MSME EMPLOYMENT (IN LAKH*).

	Micro	Small	Medium	Total	Share (%)
Rural	489.3	7.88	0.6	497.78	45
Urban	586.88	24.06	1.16	612.1	55
All	1,076.18	31.94	1.76	1,109.88	100

Note: * 1 lakh = 0.1 million.

Although the employment distribution is not drastically skewed, it is still 10% in favor of urban areas, which logically follows as a result of urban migratory trends in the country [15].

Gender Gap in the Labor Force Participation Rate

Female labor force participation is the key to promoting inclusive growth and achieving the SDGs, particularly SDG 5 (achieve gender equality and empower all women and girls). However,

developing countries like India often have extremely high gender gaps in labor force participation of the working populations. A McKinsey report on gender indicates that advancing women's equality in Asia Pacific countries could add USD4.5 trillion to their collective annual GDP in 2025, a 12% increase over the business-as-usual trajectory [23].

Female participation in India's workforce is typically low, with only 22.8% of the country's women being part of the labor force during 2017–20 [24]. Considering that women constitute 48.4% of the population [25], this share is extremely low and needs urgent policy attention, since female labor supply is both a driver and outcome of development.

India witnessed a decline in the participation of female labor in the agricultural sector during the period between 2011 and 2019, from 62% to 54.7%. The percentage of women employed in industrial work during this period also saw a marginal decline, from 19.9% to 19%. Although the same period also recorded a significant rise in the share of women workers in the services sector, this growth has largely been confined to urban areas. Overall, 30% of rural women are engaged in low-skilled occupations, compared to 19% in urban areas [26].

The occupational structure of women's workforce reveals that a significant number of women are involved in marginal and vulnerable jobs, with over half of them being self-employed. Among those who are engaged in self-employment, the majority work as unpaid helpers or contributing family workers. For urban women, marriage reduces the likelihood of their participation in the workforce by 17%.

The total number of establishments owned by women entrepreneurs was 12.9 million, constituting 20.37% of the total 63.3 million MSMEs in India. Furthermore, about 83.19% of these women-led establishments operated without hired workers. The percentage of establishments without hired workers was 86.85% in rural areas and 76.33% in urban areas [27].

Collectively, these women-owned enterprises contribute 3.09% of industrial output and employ over eight million people. Approximately, 78% of women enterprises belong to the services sector, which is followed by manufacturing. Women entrepreneurship is largely skewed towards smaller-sized firms. As with the broader MSME sector, access to formal finance is a key barrier to the growth of women-owned businesses, leading to over 90% of finance requirements being met through informal sources [28].

Female entrepreneurs with hired workers are most active in the services sector, followed by the manufacturing and trade sectors. A more detailed sectoral breakdown shows that there is a notable difference in the sectoral distribution between men and women entrepreneurs. Apart from retail trade, which is the most important sector for both females and males, nearly half of female entrepreneurs with workers operate in traditionally female-dominated sectors such as apparel and garments, education, health, and other personal services, including beauty treatment, hairdressing, cleaning of textile, household maintenance, etc. In contrast, male entrepreneurs with workers are engaged in a more diverse range of activities.

The WEF Global Gender Gap Report 2022 puts India in the 135th position in terms of women's economic participation and opportunity, educational attainment, health and survival, and political empowerment. Inquiring data purely on the grounds of economic participation and opportunity, India fares poorly, at the 143rd position in a study of 146 countries [29].

The Government of India has taken several, intersectional measures to enhance women's participation in the workspace and ensure their economic liberation. Some of the key laws and government initiatives for facilitating gender-neutral professional opportunities are listed below.

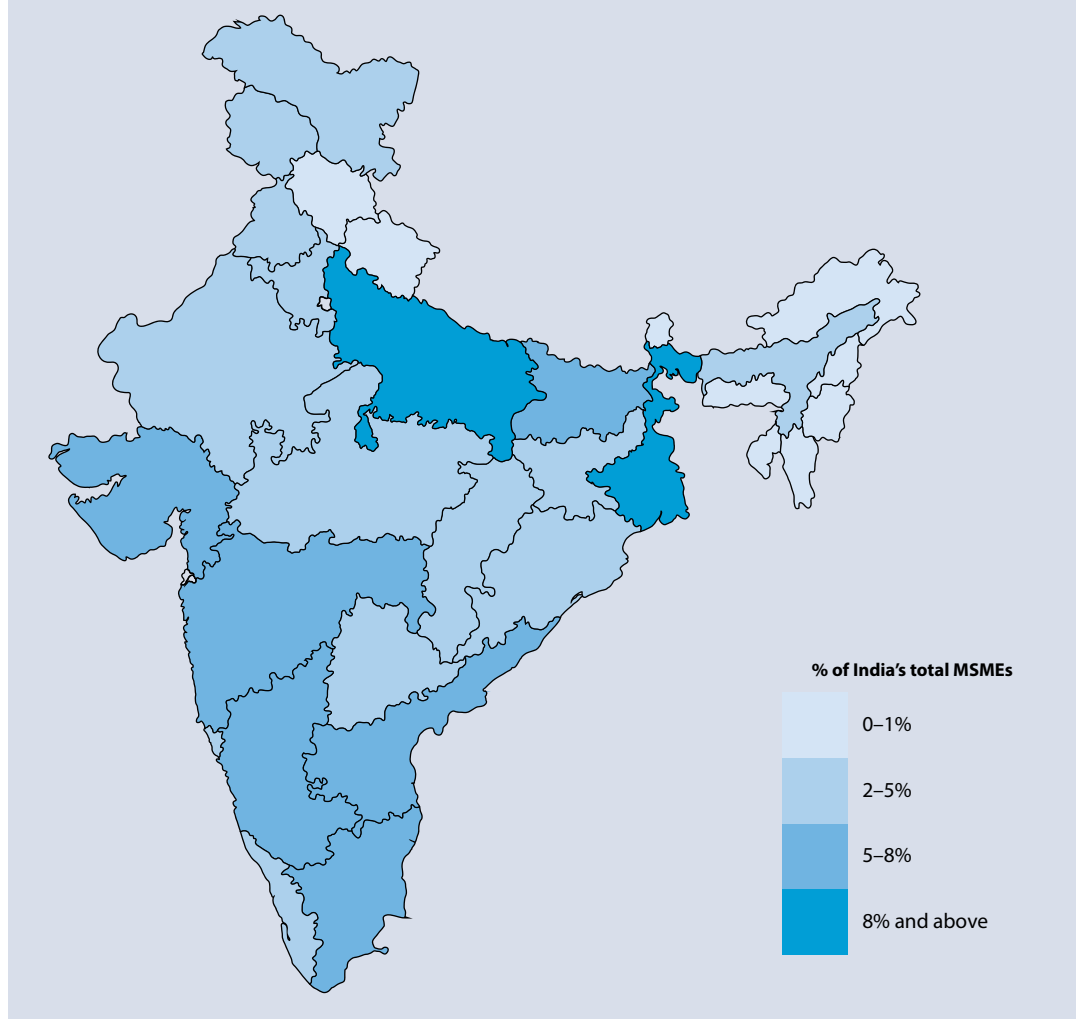
- **Equal Remuneration Act, 1976:** To ensure equal wages for work of similar nature to male and female workers; to penalize discrimination against female employees in matters of transfers, training, promotions, etc. [30].
- **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013:** Enacted to ensure the protection of women from sexual harassment at work, the law clearly defines mandatory mechanisms for enterprises to prevent such incidents and establishes a clear complaint redressal framework through the functioning of Internal Complaints Committee [31].
- **Maternity Benefit (Amendment) Act, 2017:** The law was enacted in 1961 to provide maternity benefits to women workers in certain establishments and regulate their employment for certain periods before and after childbirth. To further enhance the economic security of women, the original law was amended in 2017 to enhance the period of maternity benefits and to make it mandatory to have creche facilities at certain establishments, along with other benefits [32].
- **Other legislations and initiatives:** In addition to specific overarching laws, the Government of India has implemented various other initiatives to promote women's participation and empowerment in the workforce. These initiatives include employer incentives for hiring women and providing them with on-the-job skilling opportunities, preferential treatment in scheme beneficiary selection processes, increased institutional support, and setting up of Women Industrial Training Institutes [33]. Through these measures, the government ensures robust support and opportunities for women, encouraging their active participation in various sectors of the economy and fostering gender-inclusive growth.

Regional Disparities

India, as a vast and diverse country, exhibits significant heterogeneity in its society, customs, regional balances, and traditions every 200 miles across the length and breadth of the nation. Major cities like Bangalore, Chennai, Delhi NCR, Kolkata, and Mumbai stand as the most populated hubs.

Given the enormity of the country, it is natural to have clustered growth around prominent input resources and markets. However, this pattern has led to regional disparities, which are often manifested in terms of income inequality, variation in general price level, difference in infrastructural and social development, etc.

In terms of MSMEs, some states and UTs in India are better placed than others. These disparities can be attributed to a variety of factors, including geographical location, availability of institutional support framework, population demographics, and the level of education. Two critical indicators of regionally balanced growth in the MSME sector include the distribution of MSMEs and employment across states and UTs. These indicators indicate how conducive the environment is for establishing such enterprises and their growth within the local economy and their overall contribution to macro statistics.

FIGURE 9**LABOR PRODUCTIVITY GROWTH IN INDIA (IN %).**

In terms of the number of MSME units among the states and UTs, Uttar Pradesh has the highest number of MSMEs in the country, followed by West Bengal. The employment numbers across states and UTs also reveal a similar pattern, with Gujarat, Karnataka, and Maharashtra employing the highest number of people after Uttar Pradesh and West Bengal respectively [15].

The Ease of Doing Business (EoDB) index is a ranking system established by the World Bank Group. In the EoDB index, higher rankings (a lower numerical value) indicate better, usually simpler, regulations for businesses and stronger protections of property rights. India ranked 63rd in the World Bank EoDB 2020 rankings among 190 countries [34]. In 2014, the Government of India launched an ambitious program of regulatory reforms aimed at making it easier to do business in India. The program represents a great deal of effort to create a more business-friendly environment. India has emerged as one of the most attractive destinations not only for investments but also for doing business.

Table 2 illustrates the performance of the states and UTs in terms of Ease of Doing Business during the last four years ending 2019 [35].

TABLE 2

PERFORMANCE OF STATES AND UTs IN INDIA ON EASE OF DOING BUSINESS.

State/Union Territory	Rank			
	2015	2016	2017	2019
Andhra Pradesh	2	1	1	1
Arunachal Pradesh	32	31	34	29
Assam	22	24	17	20
Bihar	21	16	18	26
Chhattisgarh	4	4	6	6
Goa	19	21	19	24
Gujarat	1	3	5	10
Haryana	14	6	3	16
Himachal Pradesh	17	17	16	7
Jammu and Kashmir	29	31	22	21
Jharkhand	3	7	4	5
Karnataka	9	13	8	17
Kerala	18	20	21	28
Madhya Pradesh	5	5	7	4
Maharashtra	8	10	13	13
Manipur	–	28	32	29
Meghalaya	30	31	34	29
Mizoram	28	29	30	25
Nagaland	31	26	28	29
Odisha	7	11	14	29
Punjab	16	12	20	19
Rajasthan	6	8	9	8
Sikkim	27	30	33	29
Tamil Nadu	12	18	15	14
Tripura	26	22	25	29
Telangana	13	1	2	3
Uttarakhand	23	9	11	11
Uttar Pradesh	10	14	12	2
West Bengal	11	15	10	9
Andaman and Nicobar Islands	25	31	31	22
Chandigarh	24	31	29	29
Dadra and Nagar Haveli	–	25	26	23

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State/Union Territory	Rank			
	2015	2016	2017	2019
Delhi	15	19	23	12
Daman and Diu	–	23	24	18
Lakshadweep	–	31	34	15
Puducherry	20	26	27	27

Note: The Ease of Doing Business Index is based on the implementation of the Business Reform Action Plan (BRAP) recommended by the Department of Industrial Policy and Promotion (DIPP) to all states and UTs in the country.

Source: Handbook of Statistics on Indian States 2021, Reserve Bank of India.

Social and Environmental Outcomes

There is a plethora of evidence indicating India's commendable economic transformation in recent years. However, the statistics are disappointing in terms of the ripple effect of this economic growth on the country's social progress. Despite being an economic giant of the world, India ranked 110th on the global Social Progress Index [36].

Considering the size of India, both in terms of geography and population, it is imperative to examine the country's social progress with a more focused approach. To achieve this, the Social Progress Index for States and Districts in India evaluates the 36 states and UTs along with 707 districts using a variety of indicators across three critical components: basic human needs, foundations of well-being, and opportunity [37]. The findings reveal distinct variations in performance, with some states and UTs excelling in certain aspects of the evaluation, while others lag. However, the majority of the country demonstrates similar levels of social progress, which is not very high.

The MSME sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last several decades. It contributes significantly to the economic and social development of the country by fostering entrepreneurship and generating large employment opportunities at comparatively lower capital costs, next only to agriculture. For businesses and governments to make informed decisions about global socioeconomic and environmental issues, social entrepreneurship is becoming increasingly important. As highlighted earlier, MSMEs not only assist in a country's industrial development but also contribute significantly to the holistic development of society.

On the environmental front, it is estimated that MSMEs in India account for approximately 70% of the total industrial pollution in the country [38]. These sectors typically dominate industries that have relatively high resource consumption and emission intensity. The potential environmental impact of MSMEs can be comparable to that of large companies operating in similar sectors. Growing economic activities, both production, and consumption, require larger energy and material inputs that further generate larger quantities of waste by-products.

The increased extraction of natural resources, along with the accumulation of waste and concentration of pollutants, poses a significant challenge to the carrying capacity of the biosphere. This situation ultimately leads to the degradation of environmental quality and a negative impact on human welfare, despite rising incomes.

In this light, India's recent climate commitment to the 26th Conference of Parties 2021 (CoP26) to achieve Net Zero emissions by 2070 is noteworthy. The government has developed a five-fold strategy to achieve this Nationally Determined Contribution [39]. Since the majority of carbon emissions emerge from manufacturing and production, the strategy is likely to have a major impact on MSMEs. To support this transition, the government has already initiated large-scale schemes to promote clean energy and technology. Additionally, the Ministry of MSME recently launched the RAMP initiative, which emphasizes designing green and environment-friendly interventions for MSME development (see details in the section on MSME Policy Landscape of India on page 89).

Energy Use

The World Bank has highlighted a crucial issue regarding the implementation of recognized environment and energy best in India [40]. Despite the practices being established, they are often perceived as a compliance tool rather than a constructive exercise that can bring significant direct benefits to both industry and society. The result is that very few recommendations from energy audits translate into actual investments.

Several factors contribute to this situation, including the lack of adequate and deep technical know-how, inability to comprehend government schemes and their benefit, lack of ability and/or willingness to pay for technical advice, limited or no access to external finance, and high transaction costs. Additionally, MSMEs face challenges in accessing business-friendly, timely, and adequate finance at competitive rates from financial institutions (FIs). Since Energy Efficiency investments (EE) do not generate additional revenue and the format of energy audit reports does not make EE projects appear bankable, EE initiatives are barely considered traditional financing options by the FIs.

Due to the semi-formal nature of MSMEs, they often fail to meet the credit norms of FIs, further limiting their access to funding. Even when the MSMEs are willing to invest in energy efficiency options, it remains challenging for them to find appropriate and reliable funding sources for these initiatives.

Economic Activity

Growth of Enterprises in the MSME Sector

Recognizing the pivotal role of MSMEs in realizing India's vast demographic dividend, the Government of India has taken proactive measures to foster the growth of MSMEs in the country. These focused and aggressive reforms and initiatives have played a crucial role in incentivizing and strengthening the MSME and startup ecosystem, particularly in recent years.

In terms of the number of MSMEs in India, the sector witnessed an impressive CAGR of 18.5% between 2019 and 2020 [41]. This growth rate not only surpasses India's own MSME growth rate from previous years but also outperforms countries with similar growth trajectories, such as China, whose MSME sector is growing at approximately 10% per year. The scale of this expansion is astounding, with the total number of MSME establishments in India rising from 36.1 million in 2005 [42] to a staggering 63.3 million units in 2016 [10].

Despite the challenges posed by the pandemic and its aftermath, the MSME sector of India demonstrated resilience and continued to grow, albeit at a slower pace. A key factor contributing to this sustained growth was the robust adaptability of India's working population. People responded to the evolving demands using innovative approaches and resilient entrepreneurship.

When examining the size and trends of enterprises within the MSME sector, it becomes evident that nearly all of them comprise micro-enterprises, a trend that has continued for years. While a few micro units have progressed to become small enterprises over time, the medium segment of the MSME sector has a negligible share in country-level aggregate statistics.

Looking at the growth trends of MSMEs in terms of the number of enterprises and their sizes, it becomes evident that there has been exponential growth in the number of MSMEs in the country in recent years. This growth can be attributed to the aggressive government push for strengthening the sector, as outlined in the MSME policy landscape of India, briefly captured later in this report. It is, however, pertinent to note that the majority of India's MSME sector has comprised micro-enterprises, and understanding its implications and indications is essential for informed policymaking. These extremely small-scale sole proprietorship businesses, often operating within the proprietors' residential premises, are prevalent across India but often remain informal. Given that almost all units in the sector fall under the micro-enterprises category, it becomes evident why the formalization of MSMEs is a critical challenge for the economy. Additionally, the share of micro-enterprises in the sector indicates their immense scaling-up potential, which has not been tapped yet.

Micro, small, and medium enterprises operate under a slew of industrial domains, ranging from engineering goods to garments and apparel.

Trade Activities of MSMEs

The MSME Sector, being an extremely crucial segment of the Indian economy, is also a major stakeholder in both internal and international trade of goods and services. A large part of India's internal consumption demands is fulfilled by the MSMEs.

The MSME sector also plays a vital role as one of the country's major exporters. According to analyses conducted by the Ministry of Commerce, Government of India, Indian MSMEs accounted for a substantial share of 48.10% of India's total exports of products in FY 2018–19 [43]. Remarkably, despite the challenges posed by the pandemic, this percentage increased to 49.4% in FY 2020–21 [44]. Among the significant products exported by the Indian MSME sector are textiles, garments, different types of shoes, rice, and castor oil.

India has been dominating the service outsourcing market for the past decade. The country stands out as one of the leading exporters of quality IT and IT-enabled services across the world [45]. Given the volume of service exports and the market share of MSMEs in India, it can be safely assumed that MSMEs hold a significant share in the country's service exports as well. However, there is limited data available at a disaggregated level.

The National Institute for Transforming India or the NITI Aayog, the apex policy think tank of the country, has conducted numerous extensive studies to assess the country's export landscape. One such extremely crucial exercise has been the second edition of the Export Preparedness Index developed by NITI Aayog in 2021. The index is developed based on 11 indicators that span across the domains of export-oriented policies, business and export ecosystem, and export performance.

India has scored an average of 36.52 on this comprehensive index. However, a much more detailed and insightful analysis emerges when the average is broken down into sub-pillars. Notably, India scores highest in terms of export promotion policy and business environment, while it scores the

lowest in the categories of trade support, growth, and orientation. It becomes evident that it is the MSMEs that require maximum support, particularly in areas where India scores the least in terms of trade [46].

Nature of Investments in MSMEs

The predominant sources of business investment in MSMEs are loans from banks and NBFCs, self-owned funds, and institutional support from national and state governments by way of grants-in-aid. Given that a substantial portion of the MSMEs in India operate within the informal domain, it is evident that informal investment in the MSME space is significant and warrants inclusion in sectoral observations.

Only a small proportion of the MSMEs in India utilize formal equity investment mechanisms to inject investments into their businesses. The primary reason for this hesitancy is the concern over diluting business control and decision-making. However, the Indian government, at both central and state levels, has initiated active initiatives to advocate for and incentivize equity financing.

Sectoral Composition

Production Capacity and Share of MSMEs in Value-added and Employment

The share of Indian MSMEs in All India Gross Value Added (GVA) for India's GDP calculations is the most appropriate indicator for estimating the current production levels of MSMEs, for both goods and services. In this regard, it can be observed that MSME's GVA to the national output was significant and steady before the pandemic. As established earlier, MSMEs, being a vulnerable sector with limited capacity to absorb external shocks, weathered the storm by limiting production against rapidly declining demands, which is why its percentage share in GVA fell by almost four percentage points during FY 2020–21 [47].

Most of the micro and small enterprises operate in the food and agriculture sector, while the medium-sized firms cater majorly to the automobile, pharma, textiles, and chemicals sectors.

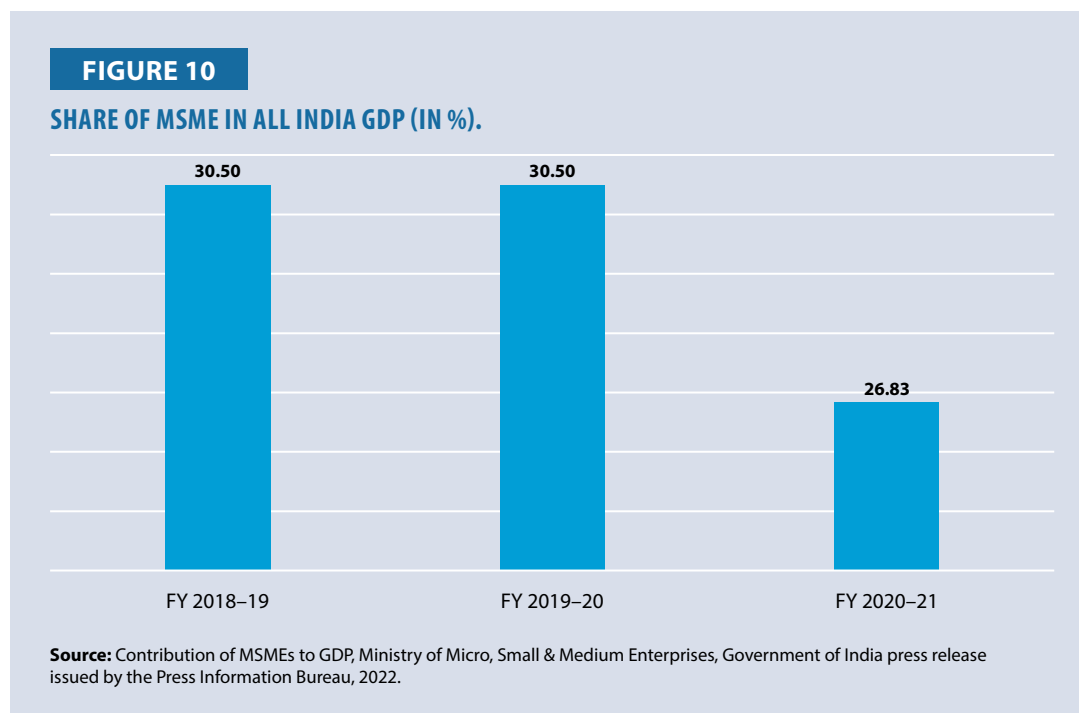
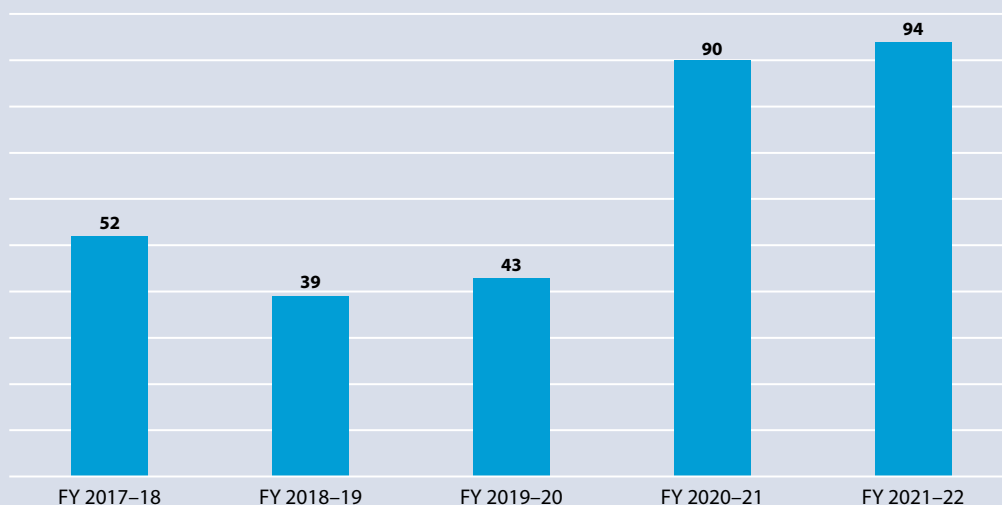


FIGURE 11**NUMBER OF PERSONS FORMALLY EMPLOYED BY MSMEs (IN MILLION).**

The ability of the MSME sector to provide meaningful livelihoods to the masses is one of the primary reasons why governments across the countries prioritize it as a key action area. In India, the MSME sector stands as the second largest employment generator, second only to agriculture [48]. It is estimated that the sector employs over 110 million individuals nationwide, with more than 96% of them engaged in micro-enterprises alone. Despite the setback caused by the pandemic, formalized MSMEs in the country have shown an upward trend in employment over the last four financial years [49].

The employment distribution in the MSME space is slightly skewed towards urban areas (see the section on Labor Mobilization on page 96). Also, there is a significant gender imbalance, with over 75% of the estimated employees being males (see section Gender Gap in Labor Force Participation Rate on page 96).

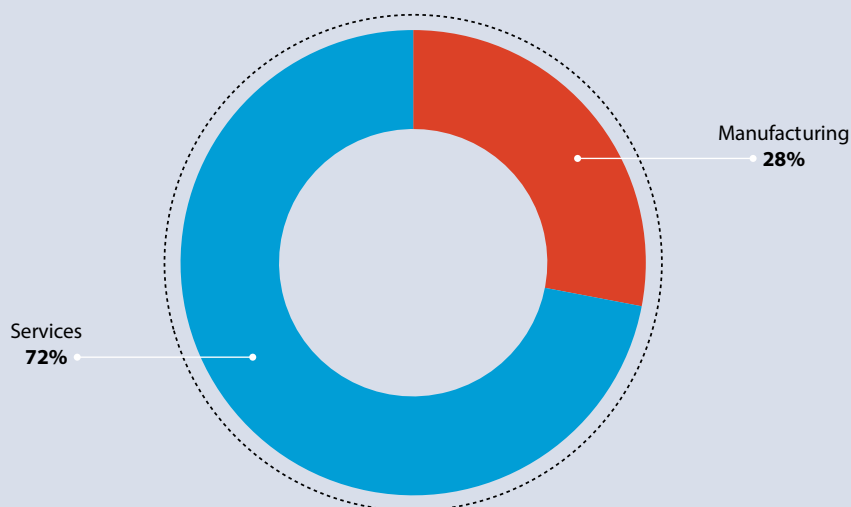
Sectoral Mix: MSMEs in the Manufacturing Sector

India ranks amongst the top quartiles for country rankings based on manufacturing destination preferences in terms of costs and risks [50]. It is transforming into a leading global manufacturing hub, driven by the government's aggressive push for domestic production.

There are about 19.67 million manufacturing MSME units in India, with around 58% of them operating in rural areas. In terms of employment, the manufacturing MSME segment employs about 33% of the 110 million people employed by the sector [15]. Its contribution to All India Manufacturing Output has remained relatively stable during the last few years, with slight fluctuations within a range of ± 1 percentage point. In fiscal year 2020–2021, manufacturing MSMEs recorded a ~36% share of aggregate manufacturing output [51].

Sectoral Mix: MSMEs in the Service Sector

As of 31 December 2022, approximately 72% of the MSMEs registered on the Government of India's Udyam Registration Portal operate in the service sector [15]. However, there is limited data available on the VA by service sector MSMEs to the overall economy.

FIGURE 12**SECTORAL BREAK-UP OF UDYAM REGISTERED MSMEs (AS ON 31 DECEMBER 2022).**

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

MSMEs in the Green Energy Sector

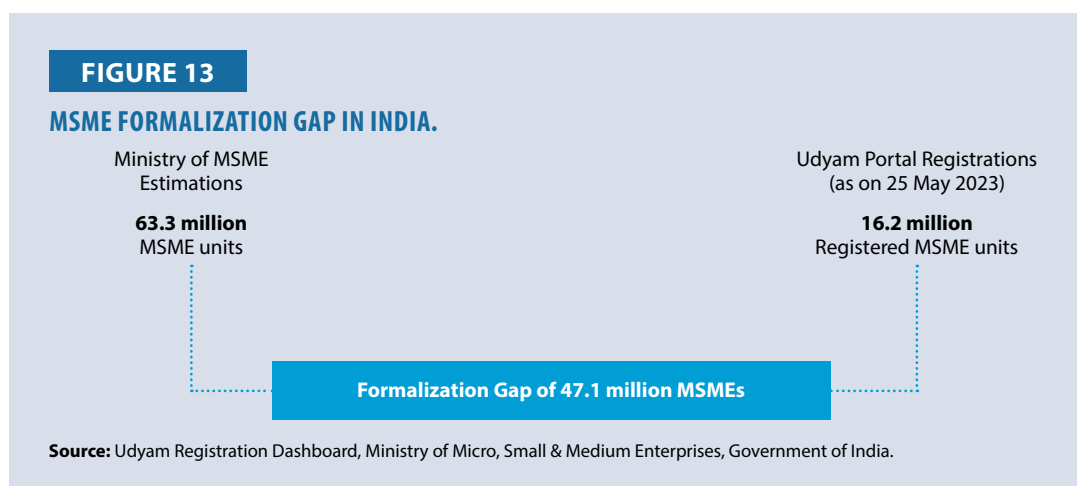
As a highly industrialized and significant sector of the economy, MSMEs' energy consumption pattern is of prime importance in national sustainability discussions. The global push for countries to transition to cleaner energy sources not only implies that MSMEs should make conscious production decisions, but it also presents an entrepreneurship opportunity for the youth to invest their time and resources in developing sustainable business solutions for the industry at large.

At present, although startups and MSMEs are operating in the green energy space, concrete data from reliable sources is lacking. However, the Indian government is aggressively working towards strengthening green initiatives and has taken various measures to support the same. Some of these initiatives are shared in detail in the MSME Policy Landscape section of the report.

Informality in MSMEs

The formalization of MSMEs is crucial for the country's growth, both from the MSME and policymaker's perspective. For MSMEs, obtaining a unique, government-approved identifier enables them to leverage a plethora of policy and scheme incentives, both monetary and non-monetary, offered by national and state governments. Additionally, having a verifiable identity helps build trust and reputation within the ecosystem, whether dealing with banks for funding requirements or engaging with wholesale buyers for large sale-purchase transactions. For the policymaker, formalization allows them to expand their beneficiary base, and build and maintain stronger and more accurate MSME databases. It also enables better outreach to the right stakeholders and facilitates informed policy decisions.

One of the most significant and critical challenges in facilitating and strengthening India's MSME sector is its informality. The appalling mismatch between evidence-based estimations of the total number of MSMEs in India and the relatively low number of MSMEs registered on the Government of India's Udyam Registration Portal underscores the magnitude of the problem.



The abysmally low level of MSME formalization is not just a bottleneck in itself, but it also hinders all other MSME development efforts and hampers their overall efficiency. However, despite aggressive government efforts, MSME registration levels remain low. Several reasons contribute to this persisting issue, including a lack of information, understanding, and know-how among MSMEs about how to self-register and access government benefits. Moreover, there is a reluctance to formalize due to fear of government compliances and regulations, which makes some MSMEs prefer to stay under the radar.

Competitiveness Fundamentals

Human Capital – Workforce Characteristics

Education and Training Level of Employees

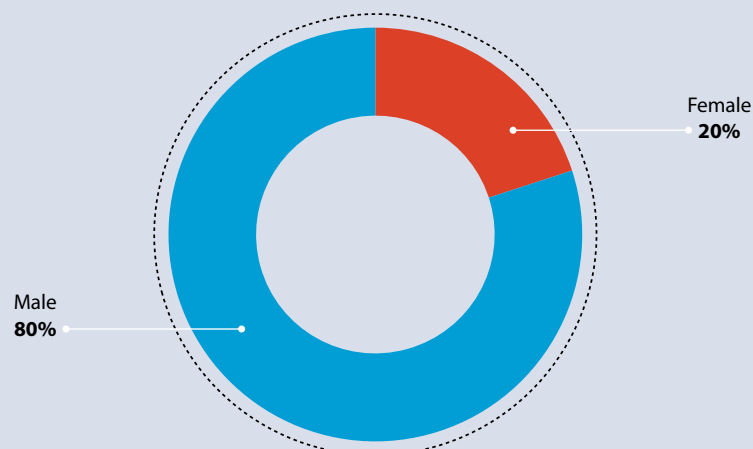
Data published by ILO indicates that around 31% of the working-age population of India did not have a basic level of education in 2020 [52]. Additionally, the Ministry of Labor and Employment reported in 2020–21 that 83.1% of the working-age population have not received any vocational or technical training [53].

Without a doubt, the need for an appropriately trained labor force in MSMEs is paramount. The skillfulness of the workforce plays a crucial role in giving businesses a competitive edge in today's dynamic ecosystem. It is the key to fostering innovation, enhancing productivity, and maximizing profit in enterprises.

Given this statistical backdrop, the Ministry of MSME has launched various schemes and initiatives to upskill and reskill individuals employed by MSMEs and new market entrants. The section MSME Policy Landscape of India provides details on some major initiatives taken up by the government. Overall, nearly 1.5 million individuals have been trained by the Ministry under various programs. Additionally, over 250,000 individuals were trained up to the third fiscal quarter of FY 2019–20 [15].

Entrepreneurship and Employment of Women in the Workforce

The gender-related statistics in MSMEs are far from satisfactory. Out of the estimated 63.3 million MSMEs in India, there is a clear male dominance in business ownership, both in rural and urban areas. However, this dominance is more pronounced in urban areas. It is observed that only 20% of the total estimated MSMEs in the country are owned by women, and the situation is even worse in urban areas.

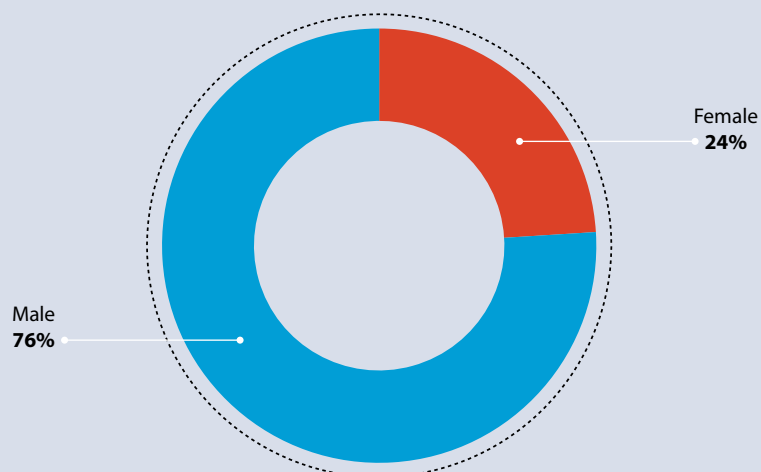
FIGURE 14**OWNERSHIP OF MSMEs IN INDIA BY GENDER.**

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

TABLE 3**OWNERSHIP OF MSME IN INDIA BY GENDER AND AREA.**

Category	Enterprise Ownership (in %)		
	Female	Male	Total
Rural	22.24	77.76	100
Urban	18.42	81.58	100
Total	20.37	79.63	100

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

FIGURE 15**DISTRIBUTION OF MSME WORKERS BY GENDER.**

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

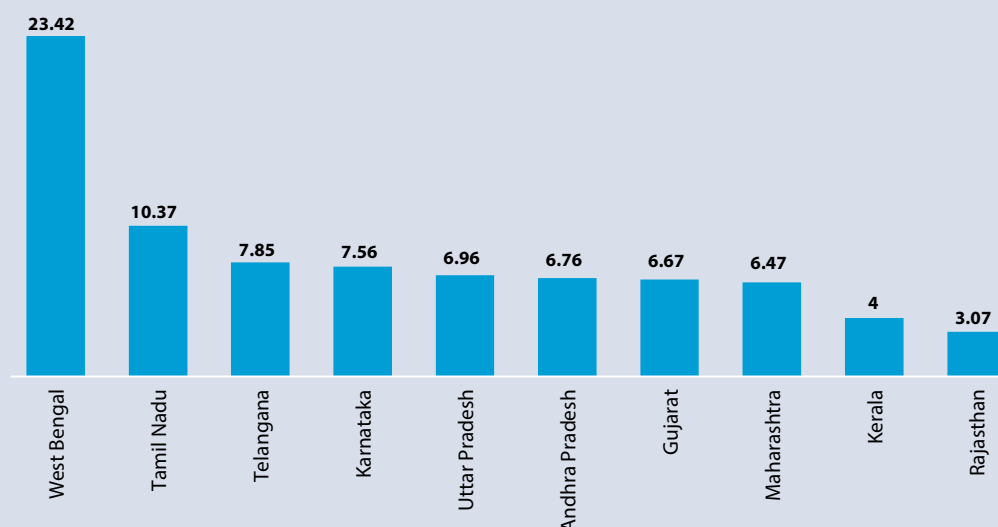
When it comes to employment, women constitute only 24% of the 110.9 million people employed by the MSME sector [15]. The gender disparity in business ownership is even more skewed for urban areas.

TABLE 4**DISTRIBUTION OF WORKERS BY GENDER IN RURAL AND URBAN AREAS OF INDIA.**

Sector	Employment (in million)			Share (in %)
	Female	Male	Total	
Rural	13.75	36.01	49.77	45
Urban	12.74	48.45	61.21	55
Total	26.49	84.46	110.98	100
Share (in %)	24	76	100	

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

A deep dive into state- and UT-level data indicates that West Bengal has the highest share of women-owned MSMEs in absolute terms, followed by Tamil Nadu and Telangana.

FIGURE 16**SHARE OF WOMEN-OWNED MSMEs ACROSS STATES IN INDIA (IN %).**

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

Employment of People from Marginalized Sections

According to the Ministry of MSME, 66.27% of the MSMEs were owned by socially backward groups in the fiscal year 2021–22. Of these, 49.72% of the MSMEs were owned by OBCs. The representation of SC and ST groups was low at 12.45% and 4.1% respectively. In rural areas, almost 73.66% of the enterprises were owned by socially backward groups, of which 51.59% belonged to the OBC category. In urban areas, around 58.68% of the enterprises were owned by socially backward groups, with 47.8% of these businesses belonging to OBCs [15].

TABLE 5

OWNERSHIP OF ENTERPRISES BY SOCIAL GROUP IN RURAL AND URBAN INDIA (IN %).

Sector	SC	ST	OBC	Others	Not Known	All
Rural	15.37	6.7	51.59	25.62	0.72	100
Urban	9.45	1.43	47.8	40.46	0.86	100
All	12.45	4.1	49.72	32.95	0.79	100

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

A similar trend was observed across all three segments of the MSME sector. Among these segments, 66.42% of the enterprises in the Micro sector were owned by socially backward groups, with the majority being OBCs at 49.83%. However, in the small and medium sectors, the majority of the owners belonged to the ‘other’ category, and socially backward groups constituted only 36.79% and 24.94% respectively [15].

TABLE 6

OWNERSHIP OF ENTERPRISES IN THE MSME SECTOR IN INDIA BY SOCIAL CATEGORY (IN %).

Sector	SC	ST	OBC	Others	Not Known	All
Micro	12.48	4.11	49.83	32.79	0.79	100
Small	5.5	1.65	29.64	62.82	0.39	100
Medium	0	1.09	23.85	70.8	4.27	100
All	12.45	4.1	49.72	32.95	0.79	100

Source: Annual Report 2022–23, Ministry of Micro, Small & Medium Enterprises, Government of India.

In addition to the institutional benefits already available to MSMEs, the Government of India and various state and UT governments provide enhanced incentives to entrepreneurs from marginalized sections of society.

Skilling Policies

In its efforts to provide the right stimulus for the growth of the industry in the country, the Ministry of MSME has developed a robust skilling ecosystem. The initiatives aim to meet the demands of a skilled workforce in various emerging and traditional sectors in different segments of enterprises. The Ministry has also been organizing several skill development programs and courses for existing and potential entrepreneurs, to build their capacity for both meaningful employment and entrepreneurship. These training courses are contextually designed, as per the demands of the respective industry.

Skill training Programs are conducted by a network of institutions under the Ministry, including the Khadi and Village Industry Commission (KVIC), Coir Board, NSIC, National Institutes for MSME and MSME TCs. These institutions administer various schemes such as Assistance to Training Institutions (ATI), National SC/ST Hub, Capacity Building, Coir Vikas Yojna, and Mahila Coir Yojna, among others [54].

The training programs cater to a wide range of individuals, from school drop out to those with M.Tech. level of education. These institutions offer courses at various levels, including certificates, diplomas, advanced diplomas, post diplomas, postgraduate diplomas, and postgraduate courses. Additionally, the institutions provide skill upgradation training in traditional sectors such as Khadi and Village Industry and Coir to strengthen these sectors.

The Ministry of MSME's skill development efforts are well aligned with the National Skill Qualification Framework developed by the Ministry of Skill Development and Entrepreneurship, as part of the Skill India Mission convergence. Also, the Government of India has recognized the importance of skill development by incorporating a skilling component in its National Education Policy, 2020. The policy places great emphasis on providing targeted training to ensure the job readiness of students in higher education institutions. This is aimed to be achieved through the integration of institutions offering training with skills and higher education frameworks [55].

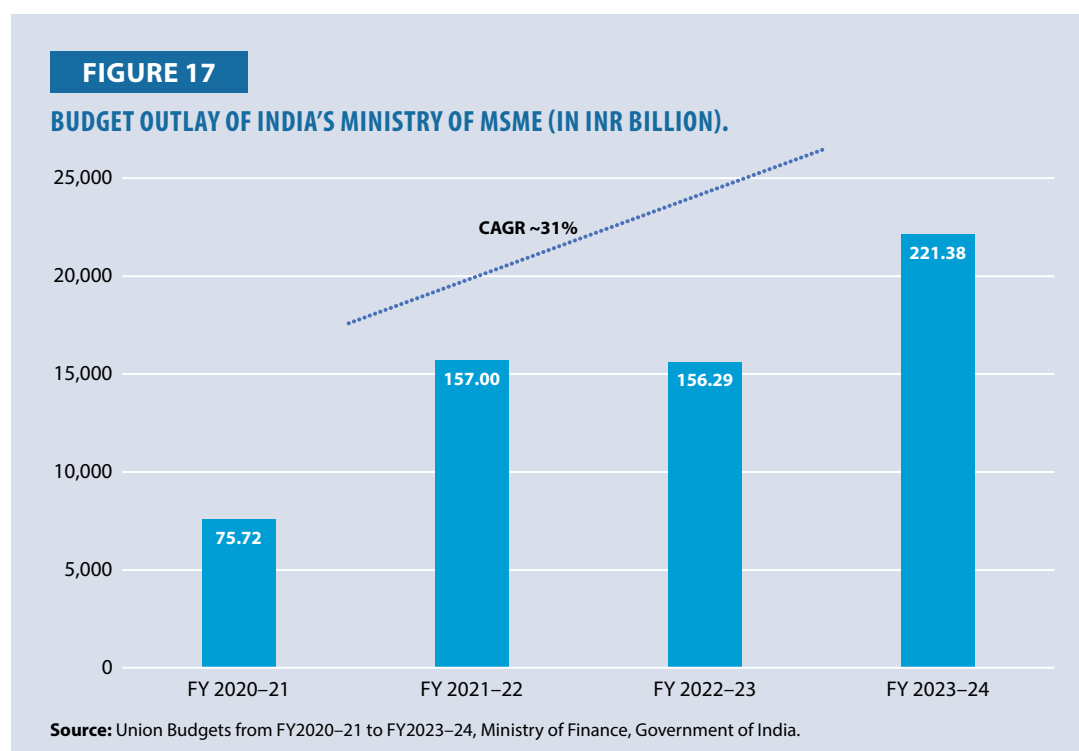
Finance

Funds Allocated and Disbursed for the Development of MSMEs

The Government of India works through an ecosystem of multiple state and central departments and government bodies to provide institutional support to MSMEs. However, the Ministry of MSME serves as the apex executive body responsible for formulating and administering rules, regulations, and laws related to micro, small, and medium enterprises in India.

During the COVID-19 pandemic, the Government of India launched the Aatmanirbhar Bharat stimulus package to provide comprehensive support to the most vulnerable and severely-hit sectors of the economy. As part of this package, significant financial support was announced specifically for MSMEs.

However, in general, budgetary allotments to the Ministry of MSME serve as the closest proxy indicators for estimating nationwide aggregate expenditure on the development of MSMEs.



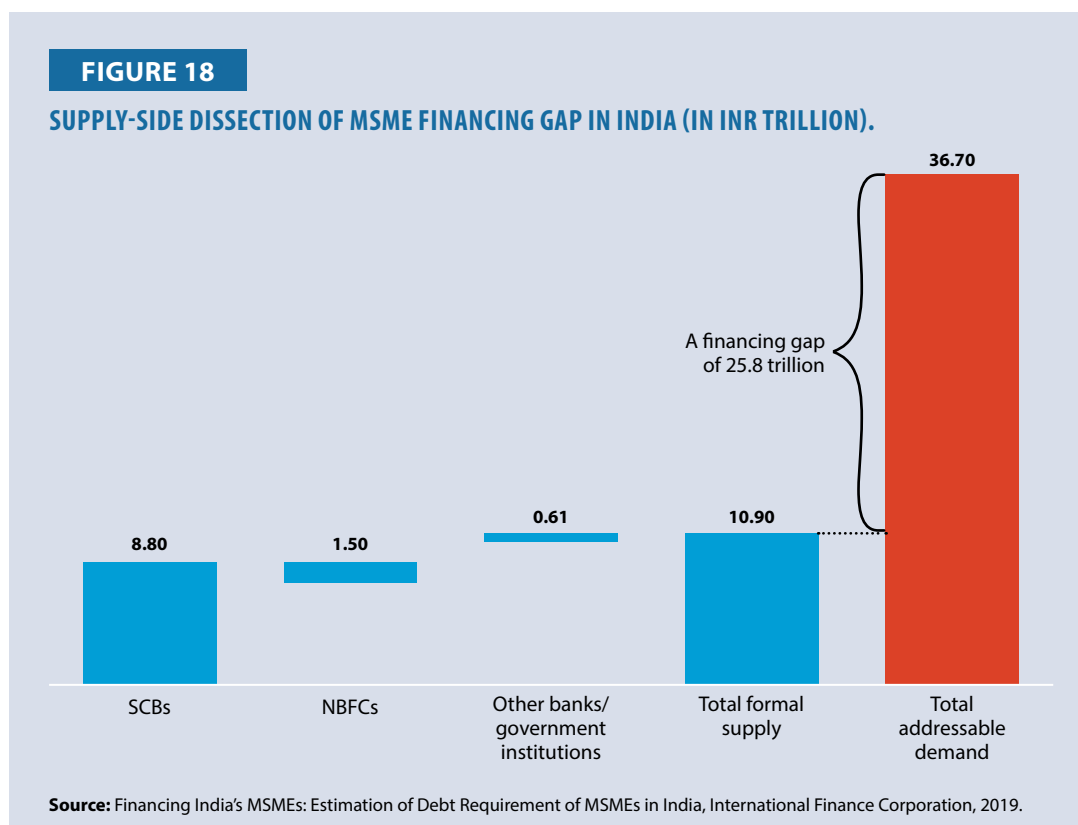
The Ministry's budget allocation pattern for the last four years indicates the government's rapidly increasing focus on MSME development. Major expenditure components under these estimates include the Ministry of MSME's Emergency Credit Line Guarantee Scheme (introduced during the pandemic), the PM's Employment Generation Program, infrastructure development, and MSME capacity building [56, 57].

Loans from the Domestic Banking Sector and Financial Institutions

According to a 2018 report by the International Finance Corporation, 85% of the MSMEs in India remain underserved in terms of credit, with only one-fifth of these financing gaps being fulfilled by formal credit [58]. Access, cost, and underwriting are the contributing factors to this issue. Traditional lenders often require MSME borrowers to provide credit history, formal records, business vintage, and other documentation, which results in the exclusion of a large number of small businesses from the formal lending ecosystem. Moreover, the dispersed nature of MSMEs poses challenges in terms of the reach and penetration of larger lending institutions.

In light of these challenges, it is estimated that the addressable demand for credit by the MSME sector is around INR15.8 trillion (USD397 billion). Additionally, the RBI has also estimated the MSME credit gap in the country to be around INR20–25 trillion (USD302 billion) [59]. These statistics indicate that despite the growing impetus to support the MSMEs in India, there is a vast untapped potential in the sector that is being held back by a lack of funds.

Detailed segmentation of India's formal credit supply from different sources is illustrated in Figure 18.



The pandemic has provided renewed impetus for MSMEs to digitalize and formalize their operations. As a result, proprietors are becoming increasingly comfortable with having their

business needs met digitally. According to the RBI estimates, a significant portion of the credit gap can be bridged through digital lending that relies on data-driven credit models.

In the FY 2021–22, the total credit extended to MSMEs by scheduled commercial banks increased by 24.6%, as compared to FY2019–20 and 12.7% in FY2020–21, indicating the rise in credit demand among small businesses for fast-tracking their recovery from the pandemic. However, it is important to note that the average ticket size of the loans has remained almost the same.

When examining the state-wise MSME credit scenarios, it is evident that MSMEs from Maharashtra received the highest total credit, followed by Tamil Nadu and Gujarat. This state-wise pattern aligns well with several MSME enterprises and total employment patterns [60].

The non-performing assets (NPAs) in the MSME sector increased by 12.59% in Q4 FY2021–22 compared to Q4 FY2020–21, indicating the residual impact of the COVID-19 pandemic. Notably, the micro-segment initially had a lower NPA rate than the small segment until Q3 FY2020–21. However, the analysis reveals a reversal in the trend, showing that the micro-segment was most affected by the pandemic. Among the type of lenders, NPA rates for private banks, NBFCs, and public sector banks (PSBs) all experienced a rise from Q3 FY21 for the following two to three quarters before stabilizing or beginning to fall.

Credit Extended by Microfinance Institutions

The National Bank for Agriculture and Rural Development (NABARD) and Sa-Dhan together collated and analyzed data of 110 million active loans from Microfinance Institutions (MFIs), NBFCs, banks, Small Finance Banks (SFBs), non-profit MFIs and NBFC-MFIs [61]. It was found that the combined microcredit portfolio of 272 lenders in India touched INR2,637.6 billion (USD32 billion) in 2021–22, a 5% increase over the outstanding loans of the previous year. However, the quantum of credit extended to the poor households by MFIs registered a year-on-year growth of 19% to touch INR1,350.99 billion (USD16 billion) during the same period. The average ticket size per loan stood at INR39,903 (USD483) as on March 2022 whereas it was INR36,510 (USD441) on March 2021.

From the lender's point of view, the average ticket size across all categories has increased except for non-profit MFIs.

Ensuring affordable banking and credit delivery services to the geographically and financially disadvantaged poor was a slow process till the conceptualization of the Self-Help Group (SHG) approach for building social capital to deliver savings and credit products. The group approach was dovetailed with the banking operations which gave birth to the concept of the Self-Help Group Bank Linkage Program (SHG-BLP). This savings-led group approach to delivering a bouquet of financial services at the doorstep is one of the most prominent and pioneering financial inclusion initiatives to date.

The SHG movement, now in its 30th year, has emerged as a powerful intervention to cover the small and marginalized sections. With active collaboration of NGOs, banks, government, and of late, the NRLM, the SHG-BLP Program, as on 31 March 2022, covers 142 million families through 11.9 million SHGs (87% of which are women) with savings deposits of INR472.40 billion (USD5.6 billion) and 6.7 million groups with collateral-free loan outstanding of INR1,510.51 billion (USD18.2 billion) [62].

Taxation Policy

The Government of India provides a three consecutive year tax incentive to all eligible start-ups, including MSMEs, during the first ten years of their incorporation. The country also provides sector-specific tax incentives to MSMEs, such as for secondary steel production and other domestic manufacturing businesses.

Any domestic company in India, including MSMEs, can avail of reduced tax rates by calculating their total income without considering various deductions, depreciation, and set-offs. Also, there are several presumptive tax schemes that MSMEs can opt for and reduce their tax liability. All these schemes can be availed subject to the fulfillment of requisite conditions [63].

Goods and Service Tax Provisions for MSMEs in India

Post the introduction of the GST regime in 2017, MSMEs have had a friendlier indirect taxation system to follow, with enhanced exemption and decreased complexity. In terms of the exemption, the government has doubled the initial tax exemption threshold from INR4 million. The Composition Scheme under the regime can also be availed for further simplifying GST filing processes basis the enterprise turnover [64].

Technology and Innovation Capacity

Expenditure Towards R&D

As per World Bank estimates, India spent around 0.66% of its GDP on research and development activities, while the world average was around 2.63%. [65] Additionally, NITI Aayog's India Innovation Index found the country's gross expenditure on R&D to be one of the lowest in the world, with just USD43 per capita [66]. Naturally, this pattern flows into the MSME sector of India as well. However, there is no consistent, reliable, and credible data available on aggregate expenditure incurred toward research and development initiatives, particularly in the MSME sector.

Realizing the due importance of R&D practices for keeping up with the changing technologies and processes of the world, the Government of India runs various schemes to support the R&D efforts of the MSMEs. These include support for setting up a dedicated R&D unit, support for patent protection, technology upgradation assistance, etc.

Technology Imports

Although clear and precise data for technology imports in India is not available, the country's remarkable journey in exports can be attributed to its strategic policies aimed at leveraging the comparative advantages of other economies and bringing in technologies. As a result, India's performance on the manufacturing export scorecard can be partly accredited to technology imports in the country. [67]

Digitalization of Value Chains

In today's globalized world, the adoption of digital technologies by small, vulnerable businesses is extremely critical for their survival and growth, especially in the aftermath of the pandemic.

During the pandemic, digitalization became the crucial coping strategy for MSMEs to overcome the limitations imposed on movement. Adapting their business models and exploring income-generating and value-adding alternatives through digital technology became essential for the survival and expansion of MSMEs amidst the turmoil. While the shift toward digital was already

visible before the pandemic, e-commerce platforms witnessed a significant surge in usage during this period, becoming the primary means of distribution for a lot of Indian MSMEs. The sector quickly adopted digital technologies, leveraging the nation's expanding digital connectivity.

To further encourage and facilitate digital adoption in MSME production and business processes, the Ministry of MSME has proposed to support MSMEs through 'Digital MSME', a component under the flagship MSME Champions Scheme of the central government [68].

Entry into e-Commerce

MSMEs are increasingly adopting digital technologies, as evidenced by a study conducted by ICRIER in 2022. The study revealed that online sales accounted for 27% of the total sales of surveyed MSMEs in 2020–21, as compared to 12% in 2018–19 [69].

According to the study, only 12% of the MSMEs in India have their e-store, indicating that the majority rely on third-party e-commerce platforms for online sales. Of the businesses utilizing both e-commerce platforms and their e-store, about 53% prefer to sell only through third-party platforms. MSMEs that have adopted e-commerce platforms are experiencing positive outcomes as it expands their business opportunities. However, several barriers prevent MSMEs from integrating with e-commerce platforms.

One major obstacle is that businesses linked with e-commerce platforms are required to register for GST, which makes them ineligible for certain tax benefits since e-marketplaces are not excluded from GST threshold requirements. Additionally, vendors need to comply with various regulations and requirements, making it cumbersome for them to maintain a successful digital presence. Despite the country's rapidly developing digital infrastructure, there is still resistance from both producers and consumers due to inadequate understanding and skill shortages.

The Government of India's Open Network for Digital Commerce (ONDC) initiative aims to address these gaps, especially for micro-enterprises [70]. ONDC comprises a set of open protocols designed to enable hyper-localization for small businesses and MSMEs. The platform all participating e-commerce businesses to showcase their products in search results across all networked applications. As a result, MSMEs can promote their goods on the platform at a more affordable cost, leveling the playing field between large and small dealers.

It is anticipated that ONDC would digitize the whole value chain, standardize business processes, promote supplier involvement, boost logistical effectiveness, and raise customer value. Smaller businesses have to pay ONDC a fraction of what Amazon and Flipkart ask for access to their systems and technology. By utilizing an open-source protocol, ONDC transforms the strategy from closed platforms to a network that fosters interoperability amongst all installed apps. Unbundling is made possible by this interoperability, which enables everyone to play to their strengths. Additionally, customers may access a variety of options through their favorite mobile application, and retailers can save time and money by avoiding dealing with several platforms.

Regulatory and Business Environment

Entry Requirements and Industrial Licensing

To be classified as an MSME in India for all official purposes, manufacturing or service enterprise that meet the investment and turnover requirements must register on the Udyam Registration

Portal. The registration process assigns a nationally-recognized unique Udyam number to the enterprise. Udyam registrations also open the gateway for these units to avail benefits of the comprehensive institutional MSME support framework.

To add to the already aggressive MSME formalization efforts, especially for the informal micro-enterprises, the Government of India initiated an Udyam Assist Platform (UAP) project to formalize the MSME units that are not registered with the GST authorities. The process is paperless, and it works through financial organizations (registered as Designated Agencies) sharing information about their unregistered microenterprise clients. After the data is verified, the portal registers the business on the Udyam registration site, creates a registration number, and issues an Udyam Assist Certificate UAC.

The UAP was launched on 11 January 2023, with 800,000 registered informal micro enterprises (IMEs). As of 9 February 2023, the platform has swelled to a total of 1.27 million registered micro units. In less than a month since its inception, the UAP has transformed 470,000 IMEs into registered companies [71].

Intellectual Property Rights Protection

MSMEs have several resources that are crucial to their unique business strategies, such as innovations, brand names, and industrial design. Protecting these assets through intellectual property rights (IPRs) is essential for the security and success of MSMEs. Recognizing the significance of IPR for MSMEs, the Government of India has introduced various schemes that run in this domain, including establishing Intellectual Property Facilitation Centres across the nation. These centers offer legal and intellectual property filing support to MSMEs, along with IP advisory, consultation, patentability searches, technology gap analyses, and IP commercialization support [72]. Table 7 provides a glimpse of the financial assistance that the government provides to aid MSMEs in obtaining IPR protection.

TABLE 7

FINANCIAL ASSISTANCE BY THE GOVERNMENT FOR IP PATENTING AND LICENSING.

IPR Item	Maximum Financial Assistance (in INR)
Foreign Patent	500,000
Domestic Patent	100,000
GI Registration	200,000
Design Registration	15,000
Trademark	10,000

Source: IP Facilitation Centre for MSMEs, Ministry of Micro, Small & Medium Enterprises, Government of India.

Labor Protection Laws and Labor Market Regulations

To encourage the establishment of MSMEs in the country, the Ministry of Labor and Employment has issued an advisory for a compliance regime based on self-certification. This approach aims to streamline and regulate MSME inspections under certain labor laws through an Inspection Scheme. Moreover, the Government of India has taken measures to ease some labor restrictions, making it simpler for MSMEs to comply with the applicable laws. Table 8 provides an overview of the major statutory labor laws applicable to MSMEs of India [73].

TABLE 8

MAJOR INDIAN LABOR LAWS GOVERNING MSMEs.

Labor Laws	Legislation
Laws related to industrial relations	<ul style="list-style-type: none"> • The Industrial Employment (Standing Orders) Act, 1946 • The Industrial Disputes Act, 1947
Laws related to wages	<ul style="list-style-type: none"> • The Payment of Wages Act, 1936 • The Minimum Wages Act, 1948 • The Payment of Bonus Act, 1965
Laws related to equality and empowerment of women	<ul style="list-style-type: none"> • The Maternity Benefit Act, 1961 • The Equal Remuneration Act, 1976
Laws related to deprived and disadvantaged sections of the society	<ul style="list-style-type: none"> • The Child Labor (Prohibition and Regulation) Act, 1986
Laws related to social security	<ul style="list-style-type: none"> • The Employees State Insurance Act, 1948 • The Employees Provident Fund and Miscellaneous Provisions Act, 1952 • The Payment of Gratuity Act, 1972 • The Unorganized Workers Social Security Act 2008
Laws related to employment and training	<ul style="list-style-type: none"> • The Apprentices Act, 1961
Laws related to the safety and security of employees	<ul style="list-style-type: none"> • Factories Act, 1948
Others	<ul style="list-style-type: none"> • The Weekly Holiday Act, 1942 • The Labor Law (exemption from furnishing returns and maintaining registers by certain establishment Acts), 1988

Source: Ministry of Labour & Employment, Government of India.

When comparing the labor law of several countries, especially Asian counterparts, it is evident that at the macro level, the overall magnitude and intent of labor protection are generally similar across most economies. However, the differentiating feature lies in the administrative complexity of the processes of the laws. Indian labor statutes are particularly complex in this regard, often rendering the country's labor market inflexible [74].

Logistics Performance Index

Having a reliable supply chain and logistical infrastructure is critical for business growth and efficiency. The Logistics Performance Indicator (LPI) is a logistics capacity index that examines regional variations in customs practices, logistics costs, and the standard of overland and marine transportation infrastructure. In 2018, high-income nations that have historically dominated the supply chain industry took up eight of the top ten spots, including Japan and Singapore. India was placed 44th in 2018 in the ranking system. The country rose from 54th place in 2014 to 35th place in 2016 as a result of significant capital investments made since 2014 across almost all transportation sectors, significant governmental reforms including the GST, and EoDB assistance measures [75].

In addition, the Government of India, through the Ministry of Commerce and Industry, publishes the Logistics Ease Across Different States report to continuously assess and push individual states and UTs to enhance their infrastructure. The report evaluates each state and UT's progress in building industrial and logistical infrastructure [76].

Grievance Redressal Process

The MSME Development Act 2006 governs all grievance redressal matters related to MSMEs, especially those concerning delayed payments. According to the Act, the buyer has to make payment to the MSE supplier for the goods and services within 45 days of their acceptance or the deemed day of acceptance. Failure to comply with this timeline results in the buyer being liable to pay compound interest every month to the supplier on the amount delayed at three times the bank rate notified by the RBI for the delayed amount. To facilitate the implementation of these regulations, state governments have established the Micro and Small Facilitation Council (MSEFC) to address disputes and provide a platform for references and filing for delayed payments.

The Ministry of MSME created the MSME SAMADHAN online platform to provide MSEs with access to an online dispute settlement system. MSEs can submit an online application for postponed payments through their attorneys or advocates, and the application is instantly transmitted electronically to the relevant MSEFC for processing. Moreover, there are no court fees associated with submitting an online application. The MSEFC convenes monthly meetings to discuss the delayed payments cases received, and the awards issued by the MSEFC are legally enforceable [77].

In 2020, the Government of India launched the MSME Champions Portal, a single-window system designed to support Indian MSMEs in becoming national and global champions by addressing their grievances and providing end-to-end handholding support [78]. The main objective behind the launch of this portal was to provide all kinds of support to MSMEs, especially during the challenges posed by COVID-19, help them seize new prospects, and promote Indian MSMEs to achieve national and international recognition. Almost 99% of the complaints submitted on the Champions portal during 2021–22 were addressed and resolved [15].

Environmental Factors

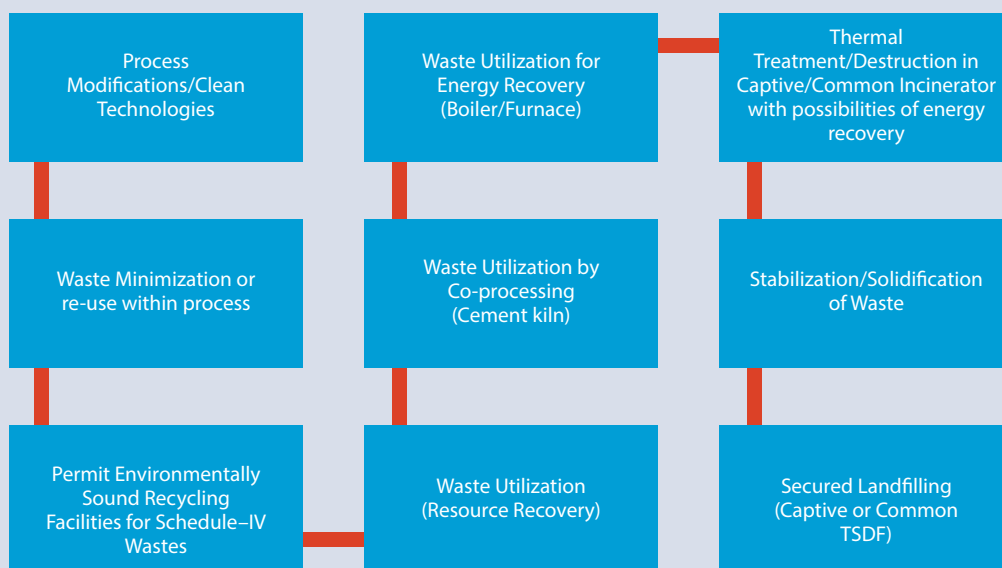
Guidelines for Disposal of Industrial Gases and Waste

The Central Pollution Control Board is responsible for establishing disposal and post-disposal treatment guidelines for all industrial gases and waste generated in the country, including those from MSMEs. The Hazardous Waste Management Rules 2016 are particularly relevant in this context and address several key concepts, as outlined in Figure 19 [79].

The enforcement of these rules is monitored and evaluated via weekly, monthly, and annual inspections by designated inspectors. The rules prescribe a comprehensive checklist and action items that are essential for compliance, covering various aspects such as proper signage, emergency equipment, adequate aisle space, management of empty containers, the establishment of waste staging areas, secure containers, storage, etc.

Environmental Clearances Needed for Businesses

The Environment (Protection) Act, 1986 is the overarching environmental law in India, and it assigns joint responsibility for ensuring the effective implementation of environmental laws and regulations to the Central Pollution Control Board and the Ministry of Environment Forests and Climate Change.

FIGURE 19**KEY AREAS COVERED BY INDIA'S HAZARDOUS WASTE MANAGEMENT RULES, 2016.**

Source: Toolkit for Implementation of Hazardous Waste Management Rules 2016. National Productivity Council, 2019.

The national and state pollution control bodies are given the authority to enforce emission and effluent regulations for companies that discharge pollutants into the air and water under two particular laws, commonly known as the Air Act and the Water Act. Additionally, the implementation of environmental legislation is supported via citizen-led public interest litigation that has its legal foundation in the constitutional right to a healthy environment.

Table 9 provides a list of all major and significant environmental applicable to MSMEs in India [80].

TABLE 9**MAJOR ENVIRONMENT LAWS APPLICABLE TO INDIAN MSMEs.**

Legislation	Details
Environment Protection Act, 1986	Applicable to all projects, especially industrial projects, where any hazardous substances are handled.
The Air (Prevention and Control of Pollution) Act, 1981	Applicable to any building, structure, or property used for industrial or trade purposes where pollution occurs or emitting any air pollutant into the atmosphere takes place.
The Water (Prevention and Control of Pollution) Act, 1974 (amended 1988)	Applicable to every outlet that includes any conduit pipe or channel, open or closed, carrying sewage or trade effluent or any other holding arrangement which causes or is likely to cause pollution.
The Manufacture, Storage, and Import of Hazardous Chemical Rules, 1989	The Rules shall apply to any industrial activity in which either a hazardous chemical, as defined in the Rules, is involved, or there is an isolated storage of a hazardous chemical in a quantity equal to or more than the threshold quantity, or both.

(Continued on next page)

(Continued from the previous page)

Legislation	Details
Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996	The Rules provide for mandatory preparation of On-Site Emergency Plans by the industry and Off-Site Plans by the district collector and the constitution of four-tier crisis groups at the center, district, and local levels for the management of chemical disasters.
Forest (Conservation) Act, 1980	Applicable to any project which requires forest land for construction; legal clearances requirement basis the size of the tract to be cleared.
Wildlife (Protection) Act, 1977	Evaluation of sustainable ecology and disallow any ecologically unsustainable land use.
The Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003	This relates to industry operations that use water or discharge effluent.
Noise Pollution (Regulation and Control) Rules 2000	Relates to acceptable AAQ standards with respective noise levels in industrial areas.
Municipal Solid Wastes (Management and Handling) Rules, 2000	Pertains to bio-medical wastes and industrial wastes (separate from municipal solid wastes).
EIA Notification on Environment Clearances, 2009	Environment Impact Assessment is required for certain industry types mentioned in the law (before setting up the project).
E-waste (Management and Handling) Rules, 2011	Applicable to every producer or consumer involved in the manufacture, sale, purchase, and processing of electrical and electronic equipment or components, collection center, dismantler, and recycler of e-waste.
Coastal Regulatory Notification, 2011	Industries in Coastal Regulation Zones need to follow activities to follow coastal plans and take necessary approvals.

Source: Draft Environment Management Framework. Technology Centres Systems Programme, Ministry of MSME, 2016.

To ensure the implementation of these legislations, the government has appointed nodal environmental officers, who are responsible for guaranteeing adherence to all applicable environmental standards.

The Government of India has implemented various other initiatives beyond these laws to incentivize environmental compliance for MSMEs. One such noteworthy initiative is the National Program on Energy Efficiency and Technology Upgradation of SMEs, an ambitious, pan-India initiative. The program is designed to accelerate and provide holistic support to MSMEs in their energy conservation efforts.

Additionally, the Small Industries Development Bank of India runs the End-to-End Energy Efficiency (4E) Scheme to assist MSMEs in enhancing their bottom line through the adoption of clean and efficient energy measures. The scheme encompasses various activities, including assisted energy audits and financial assistance for adopting energy-efficient technologies in business [81.]

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INDONESIA

Introduction

MSMEs play a dominant role in businesses and enterprises across many economies, particularly in developing countries. They catalyze a country's economic and social growth. The significant contribution of MSMEs to broader development goals positions them as key contributors to the achievement of the SDGs. Recognizing their importance, national governments, private sectors, and other stakeholders must provide support for these MSMEs.

Similar to other developing countries, MSMEs in Indonesia have played a pivotal role in the country's development. These enterprises constitute over 90% of the total business units and contribute to more than 90% of the country's employment. Their substantial contribution to the economy positions MSMEs as a potential engine for achieving Indonesia's agenda for SDGs. The development of MSMEs is directly linked to SDG 8, which focuses on economic growth, employment, and decent work. However, due to their broad impact, particularly in areas such as job creation, income generation, gender equality, sustainable consumption, poverty alleviation, and inequality reduction, MSMEs can also underpin almost all of the SDG objectives.

Unleashing the potential of MSMEs to contribute to the SDG agenda remains a formidable challenge. These enterprises continue to face numerous barriers that impede their inclusive transformation. Factors such as lack of competitiveness, the digital divide, and inadequate financing hinder the active participation of MSMEs. Moreover, the COVID-19 pandemic has inflicted significant losses not only on the health sector but also on the economy as a whole. Indonesian MSMEs have been particularly affected, experiencing disruptions in both the supply and the demand front. On the supply side, MSMEs have experienced a reduction in labor supply, and over 45% of MSMEs have faced shortages of raw materials and intermediate goods due to disrupted supply chains. On the demand side, more than 60% of MSMEs in Indonesia have witnessed a decline in sales and revenue due to business closures enforced by mobility restrictions [1, 2].

Addressing these barriers requires transformative actions. Policymakers must address market conditions, understand the capabilities of MSMEs, and implement policies that harness the potential of MSMEs as effective tools to support the SDG agenda. Given these considerations, this study aims to assess the present state of MSMEs in Indonesia using competitiveness diagnostics tools. The study aims to provide policy recommendations that can bolster the role of MSMEs in the country and expedite the progress toward achieving the SDGs.

Dimensions of Competitiveness Diagnostics

Outcomes

The Definition of MSMEs in Indonesia

MSMEs in Indonesia are generally defined as businesses operated by individuals or business entities that meet the criteria outlined in the new Government Regulation No. 7/2021 regarding the Ease, Protection, and Empowerment of Cooperatives and MSMEs (see Table 1 on page 128). This regulation introduces expanded criteria for MSMEs and emphasizes the partnerships

between MSMEs and large enterprises, the implementation of a unified business permit system, the provision of business locations through public infrastructures, the optimization of the business incubator, and the requirement for 40% of government spending on goods and services to be sourced from MSMEs.

TABLE 1**CRITERIA FOR MSMEs IN INDONESIA AS PER THE NEW GOVERNMENT REGULATION.**

Enterprise Scale	Annual Sales	Initial Capital/Net Worth Excluding Land and Building
Micro	Maximum of USD131,788	Maximum of USD65,894
Small	More than USD131,788 to a maximum of USD988,410	More than USD65,894 to a maximum of USD329,470
Medium	More than USD988,410 to less than USD3,294,698	More than USD329,470 to less than USD658,940

Source: Government Regulation No. 7/2021.

Data on Indonesia's MSMEs have been sourced from three primary sources. Firstly, the Ministry of Cooperatives and SMEs of Indonesia provides data based on estimates and based on the criteria set by Government Regulation No. 7/2021. This dataset includes various aspects, such as the number of MSMEs, labor data, the contribution of MSMEs to GDP, export figures, and the number of investments in MSMEs. It covers both the agricultural sector and the informal sector, which is dominated by the micro-enterprises segment.

The second source of data is derived from the 2016 Indonesian Economic Census conducted by Statistics Indonesia. The census covered all business sectors, excluding the agricultural sector, and employed the International Standard Industrial Classification (ISIC) which was modified to classify sector activities in Indonesia. The data from this census categorized businesses into two sizes: Micro and Small Enterprises (MSEs) and Medium and Large Enterprises (MLEs). Statistics Indonesia also integrated the criteria of MSMEs under Government Regulation No. 7/2021 with additional employment-based criteria for SMEs in industrial sectors, hotel ratings for SMEs in the hotel industry, or the number of tenders for SMEs in the construction sector.

Data was also sourced from the Micro and Small-scale Manufacturing Industries (MSIs) survey conducted by Statistics Indonesia. MSIs survey was a part of a decennial Economic Census, aimed at the coverage of all manufacturing industries with less than 20 workers. Statistics Indonesia used the ISIC by division (2-Digit ISIC) for all economic activities with some modifications that fit the conditions of Indonesia. The rest of the data and information were sourced from previous studies.

Dynamics of the Economic Growth of MSMEs in Indonesia

MSMEs represent the majority of business enterprises in Indonesia. As one of the key drivers of economic growth, MSMEs also play an important role in the economic system of Indonesia. In 2019, Indonesia had around 65 million MSMEs, including the ones in the agricultural sector, which increased from around 39 million in 2000, corresponding to an annual average increase in investment. The trend was in line with the 1.3% increase in Indonesian population growth and the 5.26% increase in Indonesia's economic growth over the same period.

Of the total MSMEs in 2019, 98.67% were micro-enterprises, 1.22% were small enterprises, and 0.1% were medium enterprises (see Table 2). However, there was a transition between 2000–2019 when the proportion of MEs shrunk while the proportion of SMEs increased, indicating the scaling-up of micro-enterprises over the years.

MSMEs also make a significant structural contribution to the economy of Indonesia. According to the data from the Ministry of Cooperatives and SMEs, in 2019, MSMEs accounted for 57.24% of the country's GDP at constant prices, slightly surpassing the 42.76% contribution of large enterprises. Among MSMEs micro enterprises constituted 29.76% of the total GDP contribution, while small and medium enterprises contributed 13.17% and 14.31% to the national GDP, respectively. The contribution of MSMEs to GDP displayed consistent growth between 2016 and 2019, with an average annual increase of 4.68% over the period (see Table 3). Overall, the data indicate that micro-businesses continue to dominate the business landscape in Indonesia. Therefore, it is expected that in the future, MSMEs will become even more productive and serve as a key driver in Indonesia's development, generating better job opportunities and reducing poverty.

TABLE 2**NUMBER OF MSMEs IN INDONESIA BY SIZE.**

Number of MSMEs (Unit)					
Enterprises	2015	2016	2017	2018	2019
A. MSME	59,262,772	61,651,176	62,922,617	64,194,056	65,465,496
• Micro-enterprises	58,521,987	60,863,578	62,106,900	63,350,222	64,601,352
• Small Enterprises	681,522	731,047	757,090	783,132	798,679
• Medium Enterprises	59,263	56,551	58,627	60,702	65,465
B. Large Enterprises	4,987	5,370	5,460	5,550	5,637
Total (A+B)	59,267,759	61,656,546	62,928,077	64,199,606	65,471,133
Share Distribution (in %)					
Enterprises	2015	2016	2017	2018	2019
A. MSME	99.99	99.99	99.99	99.99	99.99
• Micro-enterprises	98.74	98.71	98.70	98.68	98.67
• Small Enterprises	1.15	1.19	1.20	1.22	1.22
• Medium Enterprises	0.10	0.09	0.09	0.09	0.10
B. Large Enterprises	0.01	0.01	0.01	0.01	0.01
Total (A+B)	100.00	100.00	100.00	100.00	100.00

Source: Compiled from The Ministry of Cooperatives and SMEs of Indonesia data, 2015–2019. <https://kemenkopukm.go.id/>.

TABLE 3

CONTRIBUTION OF MSMEs TO INDONESIA'S GDP (AT CONSTANT PRICES) BY SIZE.

MSMEs' Contribution to the GDP (in IDR Billion)				
Enterprises	2016	2017	2018	2019
A. MSME	5,171,064	5,445,564	5,721,148	5,931,690
• Micro-enterprises	2,736,614	2,804,585	2,927,891	3,084,479
• Small Enterprises	1,123,132	1,272,701	1,355,706	1,364,289
• Medium Enterprises	1,311,318	1,368,278	1,437,552	1,482,923
B. Large Enterprises	3,874,676	4,058,584	4,274,158	4,431,247
Total (A+B)	9,045,739	9,504,149	9,995,306	10,362,937
Share Distribution (in %)				
Enterprises	2016	2017	2018	2019
A. MSME	57.17	57.30	57.24	57.24
• Micro-enterprises	30.25	29.51	29.29	29.76
• Small Enterprises	12.42	13.39	13.56	13.17
• Medium Enterprises	14.50	14.40	14.38	14.31
B. Large Enterprises	42.83	42.70	42.76	42.76
Total (A+B)	100.00	100.00	100.00	100.00

Source: Compiled from The Ministry of Cooperatives and SMEs of Indonesia data, 2016–2019. <https://kemenkopukm.go.id/>.

MSMEs are the Leading Employers in Indonesia

In terms of the total number of employees in Indonesia, MSMEs have a significant presence in the private sector workforce. In 2019, according to the data from the Ministry of Cooperatives and SMEs, MSMEs employed around 119 million workers, accounting for about 97% of the total business employment, around 86% of the total labor force, and nearly 45% of the total population of Indonesia. Among all MSMEs, micro-enterprises employed approximately 89% of the total business workforce, while other businesses accounted for only around 3–4% of the total employment. Between 2015–2019, the number of micro-enterprise workers dropped marginally by 0.87%, while the number of small and medium enterprise workers dropped by nearly 19% and 26%, respectively (see Table 4).

TABLE 4

NUMBER OF MSME WORKERS IN INDONESIA BY SIZE.

Total Number of MSME Workers					
Enterprises	2015	2016	2017	2018	2019
A. MSME	123,229,387	112,828,610	116,431,224	116,978,631	119,562,843
• Micro-enterprises	110,807,864	103,839,015	105,509,631	107,376,540	109,842,384
• Small Enterprises	7,307,503	5,402,073	6,546,742	5,831,256	5,930,317

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Total Number of MSME Workers					
Enterprises	2015	2016	2017	2018	2019
• Medium Enterprises	5,114,020	3,587,522	4,374,851	3,770,835	3,790,142
B. Large Enterprises	4,194,051	3,444,746	3,828,953	3,619,507	3,805,829
Total (A+B)	127,423,438	116,273,356	120,260,177	120,598,138	123,368,672
Share Distribution (in %)					
Enterprises	2015	2016	2017	2018	2019
A. MSME	96.71	97.04	96.82	97.00	96.92
• Micro-enterprises	86.96	89.31	87.73	89.04	89.04
• Small Enterprises	5.73	4.65	5.44	4.84	4.81
• Medium Enterprises	4.01	3.09	3.64	3.13	3.07
B. Large Enterprises	3.29	2.96	3.18	3.00	3.08
Total (A+B)	100.00	100.00	100.00	100.00	100.00

Source: Compiled from The Ministry of Cooperatives and SMEs of Indonesia data, 2015–2019. <https://kemenkopukm.go.id/>.

Labor productivity plays a crucial role in driving economic growth, with high-income economies often characterized by substantial productivity gains. While MSMEs are the main source of employment in Indonesia, they lag behind larger companies in terms of labor productivity. The Ministry of Cooperatives and SMEs estimates MSME worker productivity by calculating GDP per worker. In 2019 (at the current price), the productivity of MSME workers stood at approximately USD5,664.00, accounting for only 4.88% of the GDP per worker of large enterprises (USD116,110). Gender inequality is a critical issue among MSMEs in the country, particularly the gap between male and female owners and workers. Despite the World Bank estimating a high national ratio of female to male labor force participation in 2019 (65.31%), the 2016 Indonesian Economic Census data revealed a contrasting trend. According to the census data, there were 11,328,801 MSEs owned by females, or 43.45% of the total MSEs. Further, the number of permanent and contract female workers in MSEs was 17,124,427 or 44.64% of the total MSE workers. However, due to the absence of gender-disaggregated data, limited information is available on women-owned MSMEs and female workers in Indonesia.

Generally, female business owners and female workers in MSMEs in Indonesia often generate additional income to supplement their primary earnings, which are predominantly generated by their husbands. Among female entrepreneurs in Indonesia, 22% had necessity-driven motivations for starting a business because they had limited employment options. Besides, they did not perceive business as an opportunity, compared to 18% of male entrepreneurs [3].

Regional Disparities Influence MSME Activities

Indonesia, with a population of over 270 million people spread across over 17,000 islands as of 2019, ranks among the most populous countries worldwide. The country is divided into 34 provinces, which can be grouped into seven regional units: Sumatera, Java, Bali-Nusa Tenggara,

Kalimantan, Sulawesi, Maluku, and Papua. The Java region, home to over half of Indonesia's overall population (approximately over 146 million people), stands out as the most densely populated area and plays a key role in the country's economy. According to the 2016 Indonesian Economic Census, around 15 million MSEs were primarily concentrated in the Java region. Out of the provinces in Java, East Java, West Java, and Central Java held the highest number of MSEs in the country (see Figure 1).

Economic activity is influenced by the location and geographical conditions of an area. In 2019, the Gross Regional Domestic Product (GRDP) per capita of Indonesia's 34 provinces varied widely, from IDR12,000,000 in East Nusa Tenggara (located in the Bali-Nusa Tenggara region) to IDR174,000,000 in DKI Jakarta (located in the Java region). As the capital city, DKI Jakarta plays multiple roles, serving as a center for national economic and administrative activities and acting as a national business hub, thereby contributing the most to the national economy. Other provinces, such as East Kalimantan, North Kalimantan, Riau, and Kepulauan Riau, also made significant contributions to the GRDP per capita in 2019 due to their abundant natural resource, including oil and gas, palm oil, and gold. Conversely, provinces with low shares of GRDP per capita, such as East Nusa Tenggara, West Nusa Tenggara, and Maluku, are typically remote regions lacking natural resources.

Indonesia exhibits significant regional heterogeneity, which also influences its economic activities. Despite East Java having a high number of MSEs, according to the 2016 Indonesian Economic Census, it was not ranked as the easiest province to start a business in, as indicated by a World Bank report from 2011. The report highlighted that starting a business was comparatively easier in DI Yogyakarta (Yogyakarta), obtaining construction permits was more streamlined in East Kalimantan (Balikpapan), and property registration processes were smoother in West Java (Bandung) and DKI Jakarta. The report found that the quality of the business environment was determined by the effectiveness of local government in delivering public services, such as efficient mechanisms and procedures for issuing business permits.

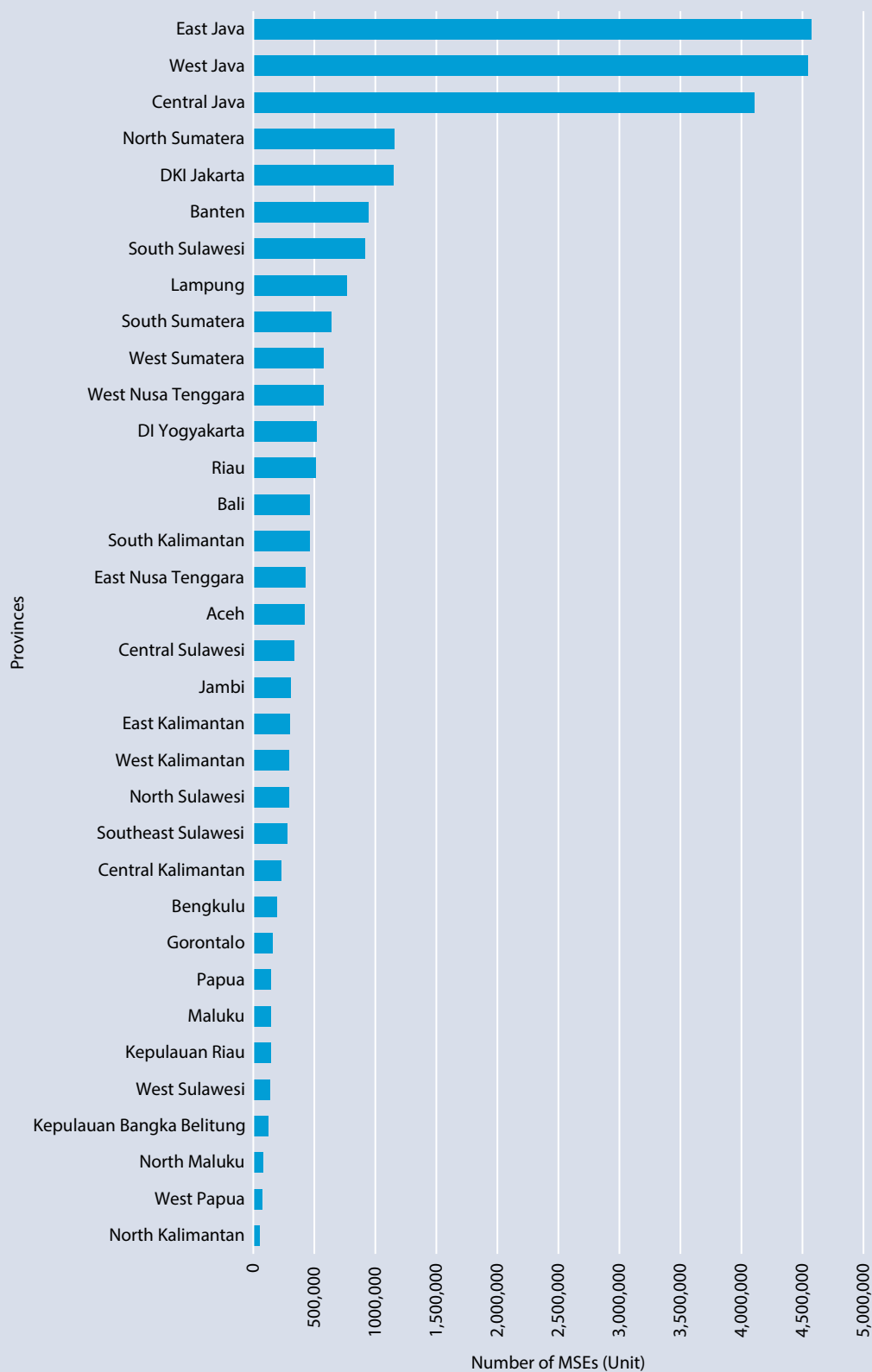
Social and Environmental Outcomes of MSMEs

The initiatives aimed at fostering the impact of Indonesian MSMEs on social outcomes are mainly conditioned by the local culture rather than strict regulations. Social entrepreneurship development in Indonesia has primarily originated from the communities. Realizing the advantages of social entrepreneurship in creating inclusive opportunities for specific target groups, such as women, the poor, and people with disabilities, and ultimately addressing poverty and inequality, the government has paid special attention to social entrepreneurship development in the country. A dedicated chapter on Presidential Regulation No. 2/2022, focusing on National Entrepreneurship Development, has been formulated to facilitate the participation and empowerment of communities through social entrepreneurship activities. The definition of social enterprises under Presidential Regulation No. 2/2022 includes criteria such as having close association with at least one of the SDGs and reinvesting at least 51% of the net profit into social missions.

According to the Global Entrepreneurship Monitor's Special Topic Report on Social Entrepreneurship (2015), the estimated number of social enterprises among Indonesian MSMEs in 2017 was 329,689 [4]. Among the 361 respondents surveyed, more than 50% of social enterprises in Indonesia were led by young people aged 18 to 34, with the majority of them located in DKI Jakarta, West Java, and East Java. The most common sectors for these social enterprises were the creative sector, agriculture and fisheries, and education. Notably, social enterprises in Indonesia incorporated 70% higher employment for women than the mainstream MSMEs.

FIGURE 1

DISTRIBUTION OF MSEs IN INDONESIA BY PROVINCES (2016).



Source: Compiled from the 2016 Indonesian Economic Census by Statistics Indonesia, 2016.

Social enterprises are expected to have a significant positive impact on both the social and economic aspects of Indonesia and contribute to the achievement of SDGs. An example of social enterprise is the Cinderella Indonesia Foundation, which empowers women, particularly single mothers and women prisoners in Indonesia, by helping them set up small businesses through a learning center and shelter. One of the famous products of the Cinderella Indonesia Foundation is the “Batik Girl”, a Barbie-like doll dressed in the traditional batik pattern dress of Indonesia, made by female inmates. The program helps women prisoners and single mothers to enhance their capacity and start anew. Another social enterprise, Javara, assists farmers in increasing productivity and earning income from traditional products.

The Indonesian government is paying special attention to the development of social enterprise as they can accelerate the achievement of SDGs 1 (no poverty), 5 (gender equality), and 8 (decent work and economic growth). Government programs to support social entrepreneurship development in Indonesia include capacity-building initiatives and access to finance programs such as social impact funds or blended finance, which provides guarantees for higher-risk investments in the growth stage of social enterprises. The government is also focused on creating more enablers as catalysts for the growth of social enterprises in the country.

Addressing the environmental impact is also a challenge for the increasing number of MSMEs in Indonesia. Since many initiatives and policies have emerged in response to the concept of the Green Economy which is closely related to a better environment, the government is raising awareness among enterprises, including MSMEs, to implement green and sustainability practices. The data indicates that 31% of social enterprises in Indonesia have environmental missions [4] .

Green business practices for MSMEs in Indonesia often stem from self-initiative. For example, some regional governments have mandated the use of eco-labels by MSMEs for their products, enabling consumers and institutional purchasers to easily identify products that meet specific environmental performance standards. At the national level, the Central Bank of Indonesia initiated a study on business model development in 2022, which could serve as a guide for MSMEs to be actively engaged and adopt green economy practices. The study categorized MSMEs into three roles: eco-adapter, eco-entrepreneur, and eco-innovator. The study mapped the ideal green business chain activities for MSMEs and aspects that need to be fulfilled in each activity. The study recommends making green economy practices mandatory for MSMEs, especially as awareness increases.

Economic Activity

The Growth of MSMEs in Indonesia

Indonesia offers a good opportunity for driving business growth due to its growing population. The 2016 Indonesian Economic Census categorizes MSEs based on the year the business became commercially operational: before 2001, 2001–2005, 2006–2010, and 2011–2015 (see Figure 2). Between 2011 and 2015, the country witnessed a rapid increase in the number of new MSEs, along with the growth of the economy that started to increase gradually in 2015.

The Census report also showed that in 2016, MSEs in Indonesia were dominated by wholesale and retail trade. The sectoral activities were also led by the repair of motor vehicles and motorcycles (46.40%), accommodation and food service activities (16.99%), and manufacturing (16.68%) (see Table 5).

FIGURE 2**NUMBER OF MSEs IN INDONESIA BY YEAR OF ESTABLISHMENT.**

Source: Compiled from The 2016 Indonesian Economic Census by Statistics Indonesia, 2016.

TABLE 5**NUMBER OF MSEs IN INDONESIA BY SECTOR (2016).**

Sectors	MSEs Number (Unit)
Wholesale and retail trade; repair of motor vehicles and, motorcycles	12,097,326
Accommodation and food service	4,431,154
Manufacturing	4,348,459
Transportation and storage	1,281,250
Other service activities	1,148,296
Information and communication	625,772
Education	590,423
Real estate	385,491
Rental and leasing, employment activities, travel agency, and other supporting services	296,348
Construction	225,795
Human health and social work	209,048
Mining and quarrying	170,004
Water supply, sewerage, waste management, and remediation	91,541
Financial and insurance services	86,266
Professional, scientific, and technical services	56,588
Electricity, gas, steam, and air conditioning systems	29,928

Source: Compiled from 2016 Indonesian Economic Census by Statistics Indonesia, 2016.

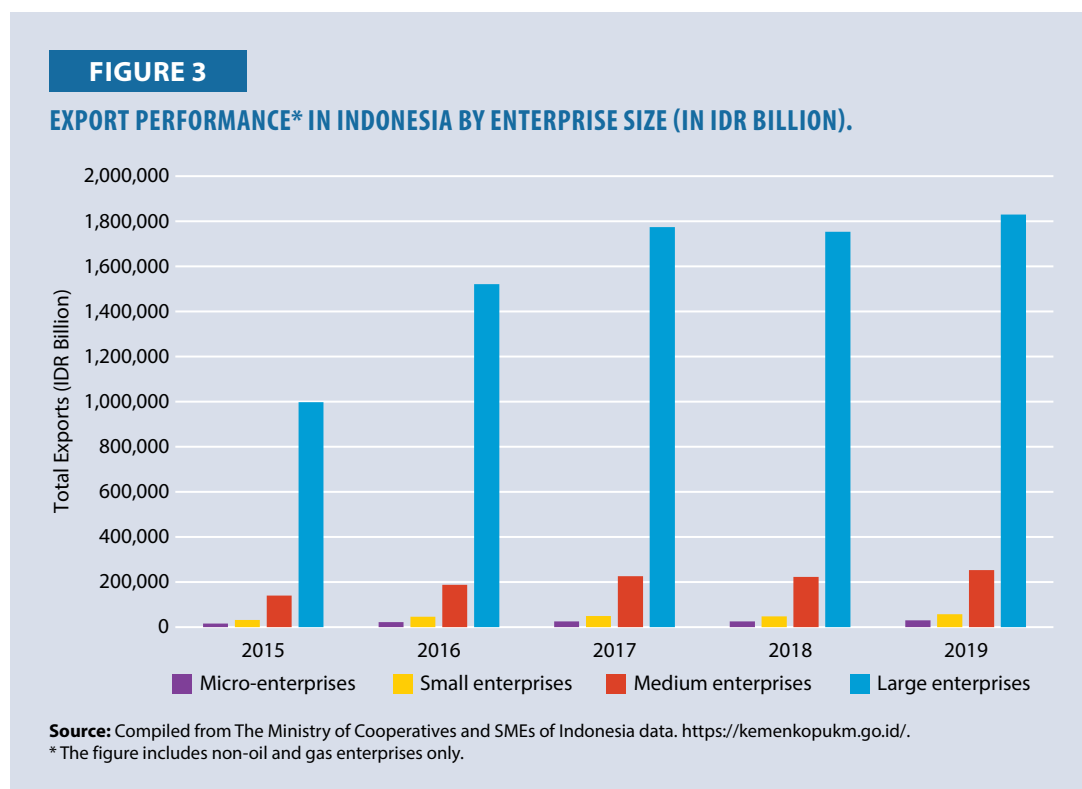
International Trade Activity of MSMEs

The increasing number of Indonesian MSMEs is expected to make a greater impact on the global market through export. However, despite several initiatives and policies implemented by the government to facilitate the global expansion of Indonesian MSMEs, data from the Ministry of Cooperatives and SMEs showed that the contribution of MSMEs to the country's non-oil and gas exports (see Figure 3) is limited. Large enterprises accounted for more than 80% of the country's exports, which tends to increase over time. MSMEs accounted for less than 16% of the total exports.

The 2016 Indonesian Economic Census also provided insights into the distribution of MSEs across various industries and their overseas sales destination in that year. MSEs operating in accommodation and food service activities, wholesale and retail trade, repair of motor vehicles and motorcycles, and manufacturing accounted for more than 50% of the total overseas sales. In terms of geographical distribution, the five provinces with the largest shares of MSE export were Bali (31.61%), East Java (10.59%), West Java (10.50%), Central Java (9.32%), and DI Yogyakarta (7.77%).

The data from the manufacturing sector indicates that MSMEs were far behind the large enterprises in terms of participation ratio in the global value chain (GVC). Only 4.1% of MSMEs were engaged in the GVC as compared to 25.6% of large enterprises [5]. MSMEs in the waste treatment and disposal sector were mostly integrated with GVCs, with a participation rate of 12.7%. The study compared firm characteristics between MSMEs that were involved in GVCs and those that were not involved. The analysis revealed that overall, GVC MSMEs were larger, more productive, more capital-intensive, and more innovative than non-GVC MSMEs.

In comparison to other ASEAN countries, Indonesia demonstrated relatively favorable access to e-commerce and export information for MSMEs. However, Indonesia needs to improve trade facilitation and integrated value chain to access the global market [6].



With limited access and capacity to expand the market, the partnership between MSMEs and large enterprises is crucial to enhance competitiveness and promote equitable growth. The partnership between MSMEs and large enterprises is a mandate of Government Regulation No. 7/2021, which places the obligation on the government to facilitate, support, and encourage partnerships between large enterprises and MSMEs. The goal is to enhance the competence and elevate the business capabilities of MSMEs through these partnerships.

In 2018, the Directorate of Development of Micro, Small, and Medium Enterprises and Cooperatives under the Ministry of National Development Planning, initiated the implementation of the Strategic Partnership program. The program fosters profitable business-to-business cooperation between MSEs and medium to large companies, accompanied by intensive coaching and technical assistance. The program aims to facilitate international market expansion, capacity development, and income enhancement for MSEs. The program has recently developed five agricultural projects based on the commodities in some locations: butternut, vanilla, ginger, beef cattle, and catfish.

The Strategic Partnership program is facilitated by Community Development Officers (CDOs) who play an important role in overseeing the implementation and progress of each project. The CDOs ensure that the MSEs supply products that meet the requirement of medium and big companies, thereby maximizing sales profit for both. The programs offer a range of interventions to MSEs, including technical assistance in areas such as on-farm production, digitalization, product standardization, quality management, product design, and institutional support from CDOs. Additionally, MSEs receive financing support, including funding, production equipment, and financial coaching from various financial and government institutions.

Since the initiation of the project in 2022, MSEs have experienced significant income growth. On average butternut farmers witnessed a 35.8% increase in income, vanilla farmers saw a 37% increase, and beef cattle farmers achieved a 64% increase. The next development will focus on commodities and expansion of location.

Other supports for SMEs' export activities focus on export capacity development and export financing program. During the pandemic, Indonesia Eximbank (LPEI), the export financing agency of Indonesia, worked with several government institutions to provide resources and support for export-oriented SMEs. They provided financial access like credit, insurance, and guarantee, and also conducted training programs for export-oriented firms with international quality standards. A special financing product for export-oriented firms aimed to overcome the barriers experienced by SMEs due to the decline in sales volume during the pandemic, through working capital financing without subsidized guarantee fees or subsidized interest fees. The scheme of the national export financing program is classified by firm size and the amount of financing (see Table 6).

TABLE 6

FINANCING SCHEME OF THE NATIONAL EXPORT FINANCING PROGRAM FOR SMEs.

Enterprises	Amount of Financing (in IDR)	Requirements
Small	500,000,000 to (Max.) 2,000,000,000	<ul style="list-style-type: none"> Run a registered export-oriented business, both direct and indirect (at Tier 1) export, for at least two years of operation. Possess two years' financial statements. Medium enterprises that access credit for more than IDR10,000,000,000 must have audited financial statements.
Medium	2,000,000,000 to 15,000,000,000	

Source: Decision of the Finance Minister of the Republic of Indonesia Number KMK 372/KMK.08/2020 on New Special Assignment Disbursement to Indonesia Eximbank to support the Export-Oriented Small and Medium Enterprise.

The Ministry of Finance also contributes to facilitating export-oriented MSMEs in Indonesia through Import Tax Waivers for Materials for Export Oriented Goods (Kemudahan Impor Tujuan Ekspor or KITE). KITE is an incentive program for MSMEs that aims to reduce the costs of the import of materials used in manufacturing export-oriented products, and making them more productive and competitive in the international market. KITE programs include import duty and import VAT exemptions on imported raw materials that will be processed, assembled, or installed into export goods.

The Central Bank of Indonesia provides incentives for banks disbursing loans or financing the priority sectors and MSMEs. The program aims to increase the contribution of the banking industry to inclusive financing and national economic recovery. The incentives include the provision of relaxing statutory reserve requirements by a maximum of 2% and the expansion of priority subsectors' scope.

Another facilitation, InaExport, a one-stop service platform for non-oil and gas export, has been developed by The Ministry of Trade. InaExport aims to promote and connect potential firms in Indonesia, including MSMEs, to international buyers. It provides updated information regarding training and trade fairs, supports business registration, and provides access to international sales for MSMEs. As of April 2022, the InaExport platform has recorded more than 11,000 suppliers, 6,000 products, 500 market information, and nearly 50 international representatives to help MSMEs in export activities. Other government institutions such as The Ministry of Cooperatives and SMEs, and The Ministry of Investment, also provide facilities to share global market information and to channel potential export-oriented MSEs with international buyers.

Nature of Investment of MSMEs

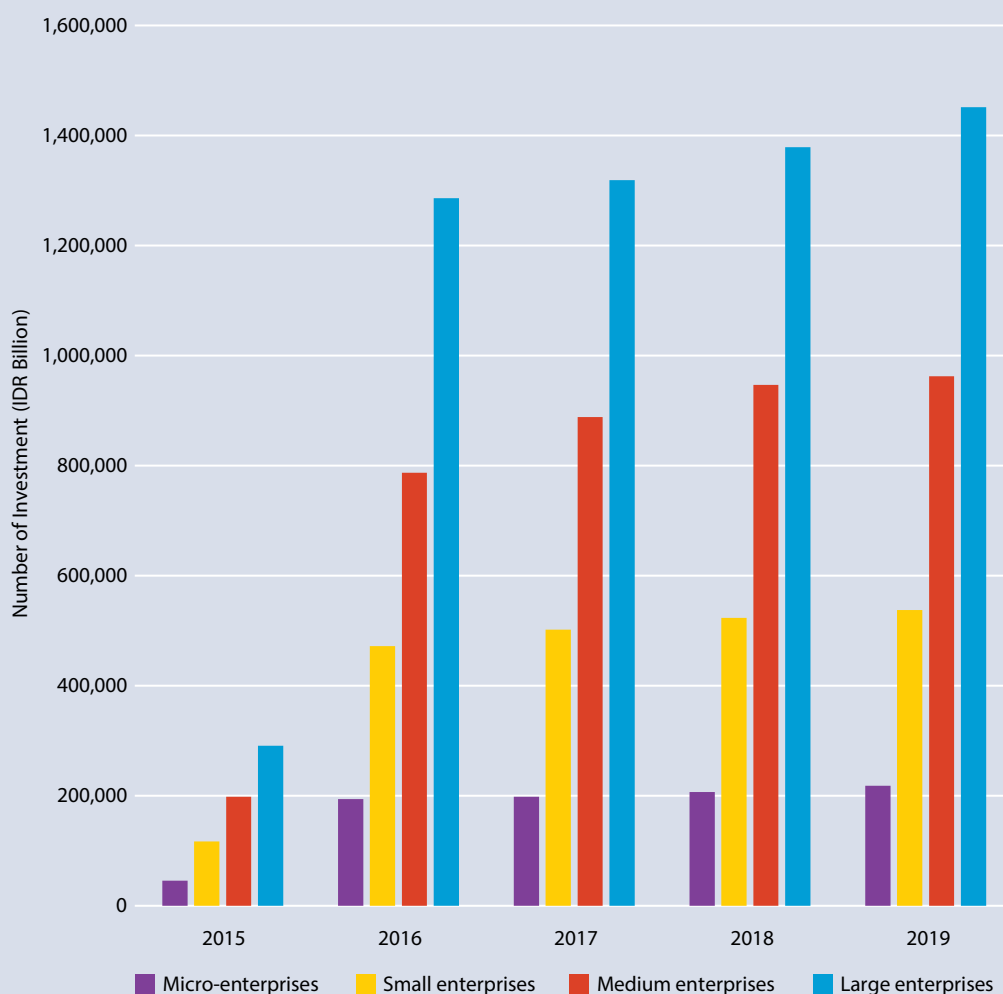
Investment is one of the key drivers for MSMEs to improve competitiveness and achieve better growth in emerging-market economies. In 2016, the government, through Presidential Regulation No. 44/2016, launched the investment priority list, which aimed to open opportunities for foreign investors to invest in Indonesia. This led to a sharp rise in the amount of investment during the period. However, investments in the business sector were still absorbed predominantly by large enterprises, since the number of ready-to-invest MSMEs is still limited (see Figure 4).

One of the primary hurdles faced by MSMEs in accessing investments is their informality status. A considerable number of MSMEs in Indonesia operate without official registration and do not have the necessary business licenses. Another challenge is the regulation of Foreign Direct Investment (FDI). Despite regulations issued by the government to encourage foreign investment in Indonesia, the regulations on FDI are still relatively restricted [6]. Investors point out that the regulations related to investments continue to remain complex and tend to overlap among government institutions.

To overcome these barriers, The Ministry of Investment, as the administrator of business licensing in Indonesia, has provided a simple business registration platform system called the Online Single Submission (OSS). The platform is integrated with other institutions, such as the Directorate General of Taxes, General Legal Administration, and Population Administration, simplifying arrangements of all required business licenses to create an easier process for business owners and investors. Besides the integrated platform, The Ministry of Investment of Indonesia recently launched the Sustainable Investment Guidelines aimed to encourage business actors, investors, and the government to use green business practices.

FIGURE 4

INVESTMENT VOLUMES BY SIZE OF ENTERPRISE IN INDONESIA (IN IDR BILLION).



Source: Compiled from The Ministry of Cooperatives and SMEs of Indonesia data, 2015–2019. <https://kemenkopukm.go.id/>.

Sectoral Composition

MSMEs in Manufacturing Sector

The manufacturing sector is recognized as one of the focuses in driving Indonesia's structural transformation. More than 90% of manufacturing firms in Indonesia are MSMEs [7]. According to the data of the MSIs survey, food, bamboo and rattan, and garments were the most dominating sectors in micro-industries, while tobacco processing, food, and garments were the most dominating sectors in small industries (see Figure 5).

According to Statistics Indonesia, in 2019, micro-industry workers shared 3.50% of the total working-age population and 5.04% of the total labor force, while small industry workers shared 1.23% of the total working-age population and 1.77% of the total labor force (see Table 7). Furthermore, in 2019, labor absorption in micro-industries was dominated by the food sector (39%), while in small industries the tobacco processing sector dominated, with more than 45% of the total workers.

FIGURE 5

TOP-3 SECTORS OF MICRO AND SMALL INDUSTRIES IN INDONESIA.



Source: Compiled from Micro and Small Manufacturing Industries Survey Data by Statistics Indonesia, 2019.

TABLE 7

SHARE OF MICRO AND SMALL INDUSTRIES IN INDONESIA (IN %).

	2015	2017	2018	2019
Micro Industries Share				
To total labor force	5.28	5.98	5.48	5.51
To total working-age population	3.47	3.99	3.69	3.72
Small Industries Share				
To total labor force	1.86	2.44	1.72	1.66
To total working-age population	1.22	1.62	1.16	1.12

Source: Compiled from Data of Micro and Small Industries by Statistics Indonesia, 2019, and The National Labor Force Survey of Statistics Indonesia, 2018–2019.

To maximize the economic contribution of MSMEs, it is important to equip them with the necessary tools to adapt and participate in industrialization. Hence, policies targeting MSMEs in the manufacturing sector are aimed at facilitating their integration into international trade by fostering linkages with the global value chain.

MSMEs and Green Energy Sector

As the number of MSMEs continues to increase and their activities expand, it becomes imperative for them to pay attention to their energy consumption. However, in Indonesia there are a limited number of MSMEs in the green energy sector, leading to less awareness among MSMEs about compliance with environmental issues. Therefore, the government encourages MSMEs to participate in activities such as the adoption of green production practices, the use of eco-friendly materials, and compliance with international environmental standards. By engaging in these activities, MSMEs can contribute to the creation of a sustainable and inclusive world.

To start the initiative, the Government of Indonesia launched the Green Growth Program (GGP) in 2013 as a reference for the country's development. As a part of GGP, green energy development focuses on strengthening energy security, expanding energy infrastructure, increasing the use of renewable energy, and reducing energy subsidies. Through green energy development, the government has set a target of 16% of all energy needs from renewable sources by 2019, and 23% by 2025. The government is also developing a blue economy concept. Similar to the green economy, the transition towards a blue economy is expected to reduce the economy's reliance on harmful activities by providing a sustainable business model. The government of Indonesia has developed some policies which provide the basis for the implementation, including the MSMEs running the concept for their businesses. The policies include Blue Economy Development Framework, Blue Finance Instruments Development Guideline, and Indonesia Blue Economy Roadmap. The government believes that the use of environment-friendly energy sources for business activities, including for MSMEs, can elevate the well-being of the country.

Dealing with the Informality of MSMEs

One of the biggest barriers to MSME development in Indonesia is informality. Most informal MSMEs in Indonesia are sole proprietorships and family-run businesses. Many factors affect the decision of informal MSMEs to formalize. Some MSMEs in Indonesia remain in the informal sector because they try to avoid the consequences of paying taxes [8]. Some others refuse to register the business due to the high registration costs and extensive time to process the license.

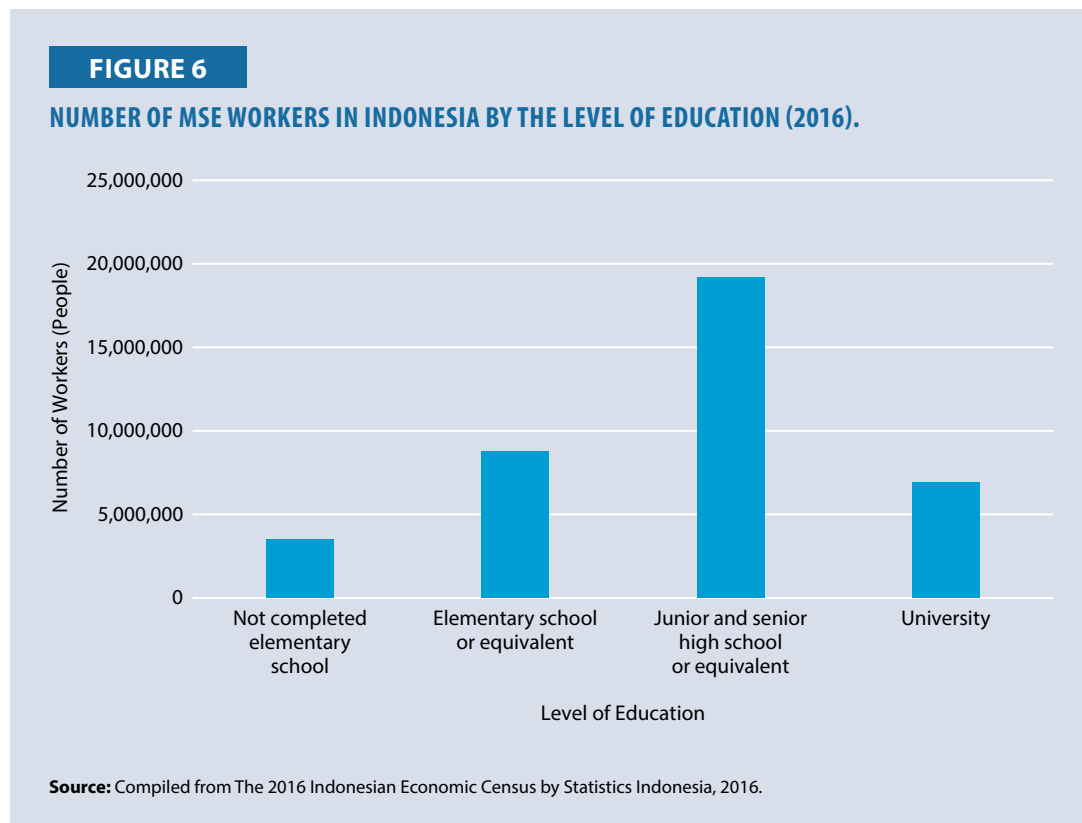
A study using the 2010–2013 Survey of Micro and Small Industries data by Statistics Indonesia, found that 96% of micro-industries and 93.2% of small industries were informal [9]. Most of the informal firms featured a few numbers of workers (less than five workers); were managed by individuals with a low level of education; and were not motivated to expand their businesses. Meanwhile, the OECD Economic Survey of Indonesia in 2021 found that despite the trend decreasing, Indonesia shared a higher level of employment in informal sectors than other emerging economies.

Simplifying the business license regulation becomes one of the key factors to reduce the informality of MSMEs in Indonesia. Recently, the government has introduced policies to fix the constraints and to formalize the informal MSMEs and their employment. For example, the government has introduced a special tax regime of 0.5% of the monthly revenues for MSEs with annual revenue under IDR4,800 million. This effort is aimed to attract MSMEs to register their business formally and not avoid paying taxes. The government has also simplified the process of applying for licenses and made it possible to access them online. As The Ministry of Investment has launched the OSS platform to register the businesses of MSMEs easily, the registration process can be finished faster. Formalizing informal MSMEs is believed to be a step toward achieving SDG 1.

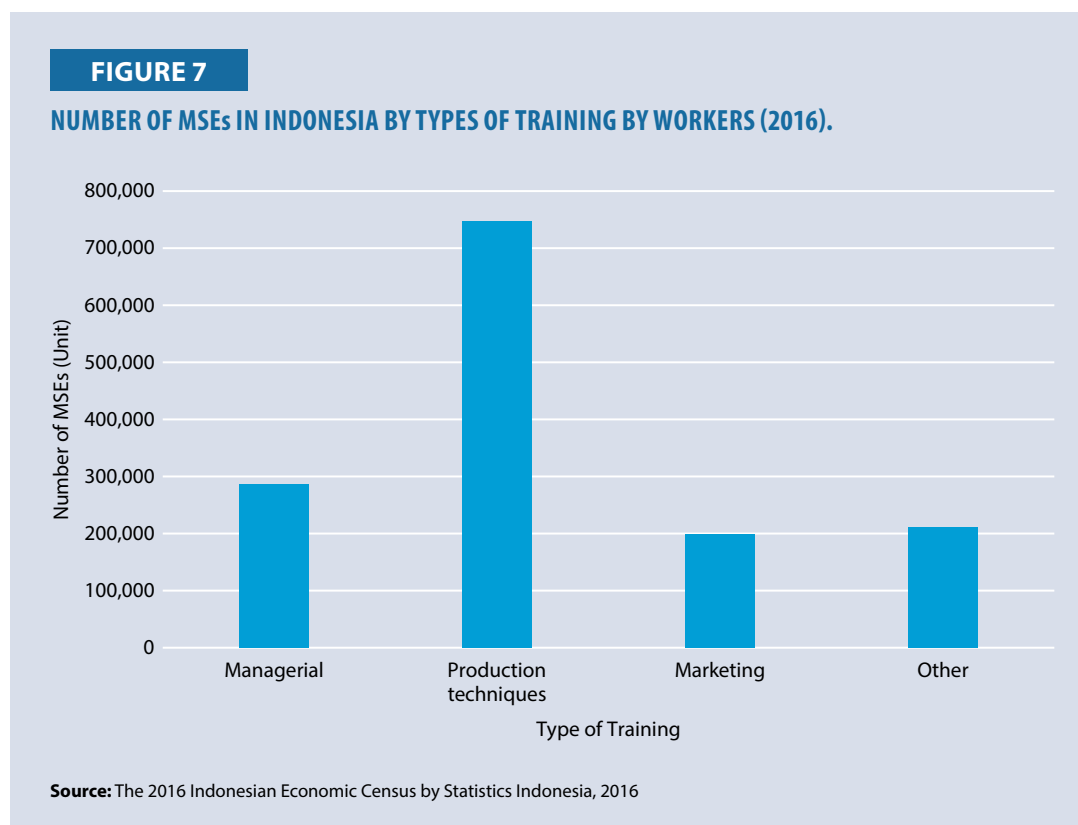
Competitiveness Fundamentals

Human Capital Development of MSMEs in Indonesia

The level of education plays a significant role in improving productivity among the MSMEs. The level of education of MSME workers in Indonesia is still relatively low. Based on the 2016 Indonesian Economic Census, more than 50% of total MSE workers in 2016 had their highest level of education in secondary education: Junior and Senior High School (see Figure 6).



The 2016 Indonesian Economic Census also identified the number of MSEs in which the workers attended the training. Amongst all the surveyed MSEs, only 4.11% of MSEs, or 1,071,074 MSEs had workers who have attended the training. The census also shared the number of workers that have skill/professional certification. The proportion of MSE workers that have skill/professional certification was much fewer than that of the proportion of MLEs. Only 3.64% of MSE workers had skill and professional certification, compared to 30.47% of MLE workers that had skill/professional certification. The capacity development of MSE workers is still concentrated on technical skill (production techniques) development (see Figure 7).



Improving education and workforce skills is crucial for the productive and inclusive growth of MSMEs. Hence, the government is committed to enhancing the capacity and skill of manpower employed in MSMEs through various training and mentoring programs. The 2016 Indonesian Economic Census showed that 50.15% of the training received by MSME workers was conducted by the government. Moreover, based on the mapping of the program and budget allocation in 2022 of the Ministry of National Development Planning, there are 54 training programs for MSMEs held by 13 government institutions that aim to improve the capacity of MSME workers.

Innovation and Technological Capacity of MSMEs

The innovation capacity of Indonesian MSMEs is in an early stage of development. Less than 0.1% of R&D was conducted by MSMEs in Indonesia, far behind the average OECD countries average of 2.3% [6]. According to the data from World Development Indicators, the expenditure on research and development (R&D) in Indonesia is much lower than the average world expenditure. In 2019, the spending on R&D in Indonesia was 0.28% of the GDP, while the world's spending was 2.63% of the GDP. Thus, the government of Indonesia needs to increase spending on innovations that require R&D activities to strengthen the productivity growth of MSMEs.

The pandemic COVID-19 brought not only negative aspects but also positive change, particularly in MSMEs' technological behavior. Due to the mobilization restriction policy, consumers shifted to online channels to purchase goods, making MSMEs start to optimize the use of e-commerce. Around 44% of MSMEs in Indonesia started to join e-commerce platforms during the pandemic [10]. A critical part of being involved in the e-commerce process is the logistics and operations. With limited resources, MSMEs often face challenges in managing their inventory and delivering products across different areas. In addition, since digital technology is a dynamic process, MSMEs should have the resources to use these digital tools and to quickly respond to troubleshooting challenges.

However, for some MSMEs, especially micro-enterprises, adopting new technologies for improving productivity is one of the big challenges. Therefore, the government keeps supporting technology development through various programs and policy interventions. For MSMEs, The National Research and Innovation Agency, The Ministry of Communication and Information Technology, telecommunication companies, and many stakeholders have delivered numerous programs such as Technopreneur Program, the Technology-Based Start-up Company Program, and Technology Business Incubation Center, to encourage the digitalization of MSMEs in Indonesia. The Making Indonesia 4.0 roadmap has also targeted to empower 3,700,000 MSMEs with technologies.

Logistics Performance Index

The infrastructure supports effective connectivity, which can be a key driver of the sustainable economic growth of the country. According to the World Bank's Logistics Performance Index 2018, Indonesia improved its rank. However, Indonesia still ranked below its neighboring countries such as Malaysia, Thailand, and Singapore.

Despite the massive infrastructure development, several factors challenge the logistics and supply chain in Indonesia. The topography of Indonesia varies, and it needs various types of transportation to transport goods. Although the integrated infrastructure is constructed, some rural and remote areas are still isolated, making it costly to deliver goods. Moreover, most of the logistics rely on land transportation, which is more vulnerable to bottlenecks, causing a longer delivery time and a higher logistics cost.

Government Supports for MSMEs Development

The Ministry of National Development Planning has mapped programs for MSMEs across government institutions. In 2022, there are more than 100 programs from 27 government institutions aimed to increase the productivity of MSMEs. The programs include increasing MSMEs' capacity program, financial program, strengthening access to the market program, and regulatory support.

To expand opportunities for the MSMEs to access the government contract, under Government Regulation No. 7/2021 regarding the Ease, Protection, and Empowerment of Cooperatives and MSMEs, the government sets a mandate for the public sector to allocate 40% of their procurement budget for MSME products. According to the Government Spending data in 2021, the allocation of the government's goods and services was around 27% and is expected to be fulfilled by MSMEs. Through this action, the government has opened access for MSMEs to promote their products and services through the Government Procurement e-catalog. Previously, the catalog was dominated by large businesses. Through this policy, there were around 15,000 MSME products that were registered on the e-catalog in August 2022, which was 62% higher than before. By prioritizing MSMEs' products, the government expects to boost MSMEs' productivity and bring a huge impact on national economic growth.

A special program, the National Economic Recovery (PEN), was also launched by the government during the pandemic downturn in 2020. PEN program aimed to recover the negative impact of the pandemic such as the impacts on the health sector, social protection, and fiscal facilities for some sectors, including for MSMEs. In 2020, the allocation of the PEN budget for MSMEs was 16.73% of the total budget, while in 2021 the allocation increased to 21.81% of the total budget. Through the PEN for MSMEs, the government's interventions targeted sustaining the businesses of MSMEs and increasing the purchasing power of the people. In reducing the cost of business operations due to the fall of the purchasing power of the people, the government provided subsidies of credit interest, tax relaxation, and restructured the credit scheme. In providing financial access, the government allocated grants, credit guarantees, and financing investments. Other interventions focused on improving training and assistance for MSMEs' transformation.

Capacity Development Programs

In 2013, The Ministry of Cooperatives and SMEs launched the Integrated Business Services Centers for Cooperatives and MSMEs (PLUT KUMKM). PLUT KUMKM is a one-stop service center for MSMEs, equipped with a standardized level of services in areas such as technical assistance, management advice, legal affairs assistance, human resources development, marketing, institutional development, networking, and adoption of digital technology. As of 2022, 74 PLUT KUMKM have assisted over 30,000 MSMEs in 32 provinces of Indonesia. The next development of PLUT KUMKM will focus on collaboration with experts to create an expert pool platform. The platform is expected to strengthen the role of PLUT KUMKM as a problem solver for MSME development.

Financial Support for MSMEs

The government has paid special attention to financing support for MSMEs. For example, the government has requested the public sector and private sector banks to provide 20% of loan allocation for MSMEs. During the pandemic, the allocation target was raised to 30%. The Financial Services Authority provided the data on credits and the amount of Non-performing Loans (NPL) for MSMEs by group banks (see Table 8). More than 50% of the credit for MSMEs in Indonesia, was sourced from public sector banks.

The government encouraged MSME financing through various credit schemes and programs. The leading government financing program is People's Business Credit (KUR). KUR is a loan program dedicated to MSMEs with a government-backed loan guarantee and an interest rate subsidy. The interest rate in the KUR program is reduced to the lowest point of 6% per year since 2020. During the pandemic, the government added subsidies for KUR, making the interest rate of KUR only 3% until the end of 2021.

The Ministry of Finance provides some financial support for MSMEs, such as a micro-credit program (UMi), especially for micro-enterprises that do not meet the qualification for accessing KUR. Another financing program for export activities is conducted by the Ministry of Finance through LPEI. The National Export Financing program targets ready-to-export MSMEs, not only through financial support but also through export training and assistance programs.

The Ministry of Cooperatives and SMEs, through The Revolving Fund Management Agency, also distributed revolving funds for cooperatives and MSMEs. The agency offers three types of credit: credit to cooperatives, direct loans to MSMEs, and credit to financial intermediaries.

TABLE 8

TOTAL CREDIT AND NON-PERFORMING LOAN FOR MSMEs BY GROUP BANKS (IDR BILLION).

Group Banks	2015	2016	2017	2018	2019
State-owned Banks					
Total credit	383,166	446,774	495,186	551,935	612,748
NPL	13,437	14,668	17,460	13,998	16,836
Regional Development Banks					
Total credit	51,858	60,466	70,366	70,089	75,264
NPL	5,851	6,421	6,636	5,603	5,933
Foreign Exchange Commercial Banks					
Total credit	289,578	280,379	310,222	338,455	347,783
NPL	9,690	9,772	10,570	11,892	12,773
Joint Venture Banks and Foreign-owned Banks					
Total credit	15,199	14,494	7,208	9,493	8,780
NPL	815	873	512	928	677
Total					
Credit	739,801	802,113	882,982	969,972	1,044,576
NPL	29,792	31,734	35,178	32,421	36,219

Source: Compiled from Indonesian Banking Statistics by The Financial Services Authority, 2019

Financial support from the government helps MSMEs to contribute to Goal 8 of SDGs. One of the focuses of Goal 8 highlights the importance of providing financial services for MSMEs and the ability of MSMEs to access the services. With limited collateral assets, MSMEs are considered high-risk borrowers for most formal financial institutions. Therefore, financial support from the government, such as KUR credit, UMi micro-credit program, and revolving funds, helps in accelerating the achievement of SDG 8.

Taxation Policy

Indonesia applies different rates of tax depending on the annual revenues of the business. Businesses with a major tax threshold of IDR4,800 million can opt for a simplified turnover-based tax rate of 0.5%. When businesses have a major tax threshold of above IDR4,800 million, statutory corporate income taxation applies. The regulation of a presumptive tax regime for MSMEs also supports the growth of MSMEs and encourages voluntary tax compliance, making them contribute more to the state revenue.

During the pandemic, the government provided a six-month tax relaxation for MSMEs that were affected by COVID-19. To be eligible, MSMEs needed to be registered with the tax office and have a valid tax number. The policy was taken into consideration when the pandemic continued to affect the business sector and disrupt the national economy.

Entry Requirements and Industrial Licensing

The government has eased the process of business licensing for MSMEs. The process has been simplified, making it possible to access the license online. Under the OSS system, MSMEs are

identified based on the business risk level: low, medium-low, medium-high, and high. MSMEs should register by filling in all the required information in the OSS to obtain a Business Identification Number and access the business licenses and commercial or operational licenses depending on the type of product being commercialized. The OSS system, with a risk-based approach, allows MSMEs to create licenses with ease, simplicity, and transparency.

E-filing system to Facilitate MSMEs Accessing Intellectual Property Rights (IPR)

The value of IPR is often not appreciated by MSMEs. The 2016 Indonesian Economic Census identified that only 0.7% of MSEs have the IPR for their businesses. Having IPR benefits MSMEs by avoiding involvement in activities that border on the illegal and allows MSMEs to enter the global market easily. The government has simplified the IPR registration system in Indonesia by using the ‘first-to-file’ principle. The registration process is under the authority of The Indonesian Directorate General of Intellectual Property using the e-filing system. These online registration services are becoming more efficient and cover almost all aspects of the registration process: searching, filing, and post-filing patents, trademarks, designs, and copyrights.

Labor Protection Laws for MSMEs

The labor protection law in Indonesia is under Law No. 11/2020 concerning Job Creation. As a derivative of the law, the wage is regulated under Government Regulation No. 36/2021 concerning Wages. The minimum wage provisions in Article 23 to Article 35 are exempted for MSMEs under two conditions: at least 50% of the average public consumption is at the provincial level, and the agreed wage value is at least 25% above the provincial poverty line.

The provision regarding working time is regulated under Government Regulation No. 35/2021 regarding Definite Period Employment Agreements, Outsourcing, Working Hours and Breaks, and Employment Terminations. The regulation defined normal working hours that are less than 40 hours per week. The provision of overtime is set to be a maximum of 4 hours per day and a maximum of 18 hours per week.

Environmental Regulation for MSMEs

Firms, including MSMEs, in which the business activity is closely related to the environment should follow Government Regulation No. 27/2012 on Environmental License. Every business activity held by environment-related firms should meet the qualification of Environmental Impact Assessment (AMDAL). After possessing the AMDAL document, firms then can obtain an environmental license as one of the requirements to operate their business.

Policy Recommendations

Digitalization is a Key to MSMEs' Transformation

The rapid development of digitalization forces MSMEs in Indonesia to keep up with the changes. The pandemic also accelerated digital adoption significantly, due to the mobility restriction policy. Despite a great digital shift of MSMEs, there are still plenty of MSMEs, with a lack of capability and digital access that cannot maintain their businesses. Therefore, strengthening the digital ecosystem will be important.

Transition to Formality

The concern to formalize informal MSMEs points at two intentions: first, informal MSMEs have less opportunity to expand their market and access government support, and second, since most

informal MSMEs do not pay tax, it will be unfair business competition, leading to the inefficiency in resource allocations, and restrict the economic growth. Formality offers unprecedented opportunities for MSMEs to increase their level of productivity and competitiveness, access government supports, unlock access to finance, expand the market (both local and global), get legal protection, and possess a better overall business environment reform. The policy action, therefore, should focus on raising public awareness of the business formalization by promoting all the cost benefits of registration, rather than only reducing the costs of registration.

Green MSMEs Transformation

The awareness of MSMEs in Indonesia regarding environmental issues is still minimal. Many MSMEs do not pay attention to the impact of their business activities on the environment. As the world is shifting to a green economy, the concept as well as the guideline for MSMEs to contribute to the green economy is needed. The guideline should cover referrals for MSMEs to implement green practices in their business, such as using sustainable materials, optimizing packaging size, promoting recycling, and reuse of materials, etc. The government should also start providing incentives, as well as mentoring programs for MSMEs to be more involved in the green economy development.

The Way Forward

Building a Better Data

Reliable and timely data on critical issues of MSMEs should be improved to create stronger evidence-based recommendations for MSME policies. First, there should be a policy that governs the integrated national database of MSMEs. Two main sources of MSME data, the Ministry of Cooperatives and SMEs and Statistics Indonesia use different scopes of data regarding MSMEs in the agricultural sector and MSMEs in the non-agriculture sector. Second, the data collection process should consider the international or common standard, to allow better international comparison. Third, a guideline for data management is needed. The guideline can be a referral for stakeholders to easily access and process MSMEs data.

Leading a Collaborative Action for MSMEs' Transformation

Cross-sector actors, including government institutions, private sectors, and international organizations, pay attention to the development of MSMEs through various activities. However, the effectiveness and outcomes of these activities are often not measured and still overlap. Given the cross-cutting nature of MSME policies, which span different policy areas and levels of governance, many of these measures require close coordination among these actors. A collaborative action to strengthen the role of MSMEs for SDGs is a great opportunity to reduce fragmentation, overlap, and duplication of the interventions, and streamline the national budget allocation.

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MONGOLIA

Introduction

SME account for the majority of entrepreneurs in developing countries and contribute significantly to the country's economic development, through job creation and economic cycle. According to World Bank's research, SMEs alone account for about 90% of businesses and more than 50% of employment worldwide [2]. Therefore, supporting and developing the SME sector is the main pillar for creating inclusive economic growth while increasing employment and reducing poverty. Even in Mongolia, the majority of businesses are SMEs.

The government also attaches great importance to supporting SMEs and their business environment and is developing and implementing special policies to do so. As a step forward, the Government of Mongolia passed a law related to 'Supporting Small and Medium-sized Enterprises and Services' in 2019. It also updated the related legal framework and introduced the 'National Program for Supporting Small and Medium-sized Enterprises'. Furthermore, the government created special funds to support SMEs and established agencies and departments in charge of SMEs in government institutions.

In addition, the Bank of Mongolia has taken several measures to support the economy and the business owners by reducing the interest rates, granting concessional loans, creating an accessible financing system, and supporting production, which aims to increase non-mining exports. Overall, the 'Main Direction of the Government's Monetary Policy in 2022' was approved by the Parliament. This document includes several new provisions, such as supporting entrepreneurs based on the stability of the financial sector, creation of a long-term sustainable system of housing financing, implementation of the 'Strategy for Reducing the Interest Rates', and a loan program to support jobs.

This research chapter on Mongolia consists of five sections, where the first section talks about the outcomes, the second gives information on the economic activities of SMEs, and the third is about the sectorial composition. In the fourth section, the competitiveness fundamentals such as the internal operations, human resources, finances, income, and expenditure of SMEs are discussed in detail. The fifth section aims to identify and illustrate the challenges related to financial resources for businesses, the legal environment, government policy, and project programs affecting positively or negatively to the business owners.

The purpose of this research is to study the activities, employment, capacity, financing, business environment, government, and other supports of small and medium enterprises in Mongolia, to identify the challenges, and to develop the associated information for use in policies or programs and decision-making. Therefore, based on this study, the current situation of SMEs in Mongolia can be evaluated, and one can see how they are transforming to achieve the SDG goals.

As part of the survey for this research, the businesses registered under the business registry of the National Statistics Office (NSO) were classified according to their activity and the number of employees. In addition, operations, business financing, support, and government projects, relevant

questionnaires were collected and attached, according to the research indicators. This was done to calculate the impact of the business environment. Overall, 53,931 enterprises out of a total of 93,560 enterprises registered under the NSO till the end of the second quarter of 2021 were selected as the original samples for this research.

Outcomes and General Information

As of 2020, there were 190,830 registered enterprises in Mongolia, of which 94,492 are operational. Among the operational enterprises, 57% or 53,931 are SMEs, employing 52.5% of the total workforce of the country, which is approximately 614,346 people. Together, the SMEs produce 17.8% of the total domestic product and 2.4% of the export product. As for the number of employees, 93.1% of SMEs have 1–9 employees, 6.3% have 10–49 employees, and 0.6% have 50–199 employees [1].

Mongolia is divided into 21 administrative provinces, which are combined into four regions according to their geographical location, except for the UB city. This includes the Western, Khangai, Eastern, and Central regions. The number of SME entrepreneurs in different regions, over the years is shown in Table 1.

TABLE 1

NUMBER OF SMEs IN DIFFERENT REGIONS.

Regions	2017	2018	2019	2020	2021
Western	4,335	4,549	4,408	4,243	3,955
Khangai	4,632	4,929	4,916	4,667	4,672
Central	5,365	5,707	5,674	5,441	5,366
Eastern	1,764	1,767	1,871	1,821	1,855
UB city	28,512	30,911	33,113	35,063	38,083
Total	44,608	47,863	49,982	51,235	53,931

Source: Annual Reports 2020 and 2021, Small, Medium Enterprises Development Agency.

It was difficult to consider both the number of employees and the sales revenue together while classifying enterprises because there was a possibility that some enterprises may get included in either category. Hence, based on the definition in the Law on ‘Supporting Small and Medium-sized Enterprises and Services’, this study classifies enterprises according to the number of employees. They were divided into four categories of micro, small, and medium enterprises (see Table 2) as explained.

- **Micro:** Enterprises with up to 10 employees and annual income of up to MNT300 million or USD105,303 (USD1.00 = MNT2,848.92; 2021 average rate).
- **Small:** Enterprises with 10–50 employees and annual sales income between MNT300 million and MNT1 billion (USD105,303–USD351,010).
- **Medium:** Enterprises with 50–200 employees and annual sales income between MNT1 billion to MNT2.5 billion (USD351,010–USD877,525).

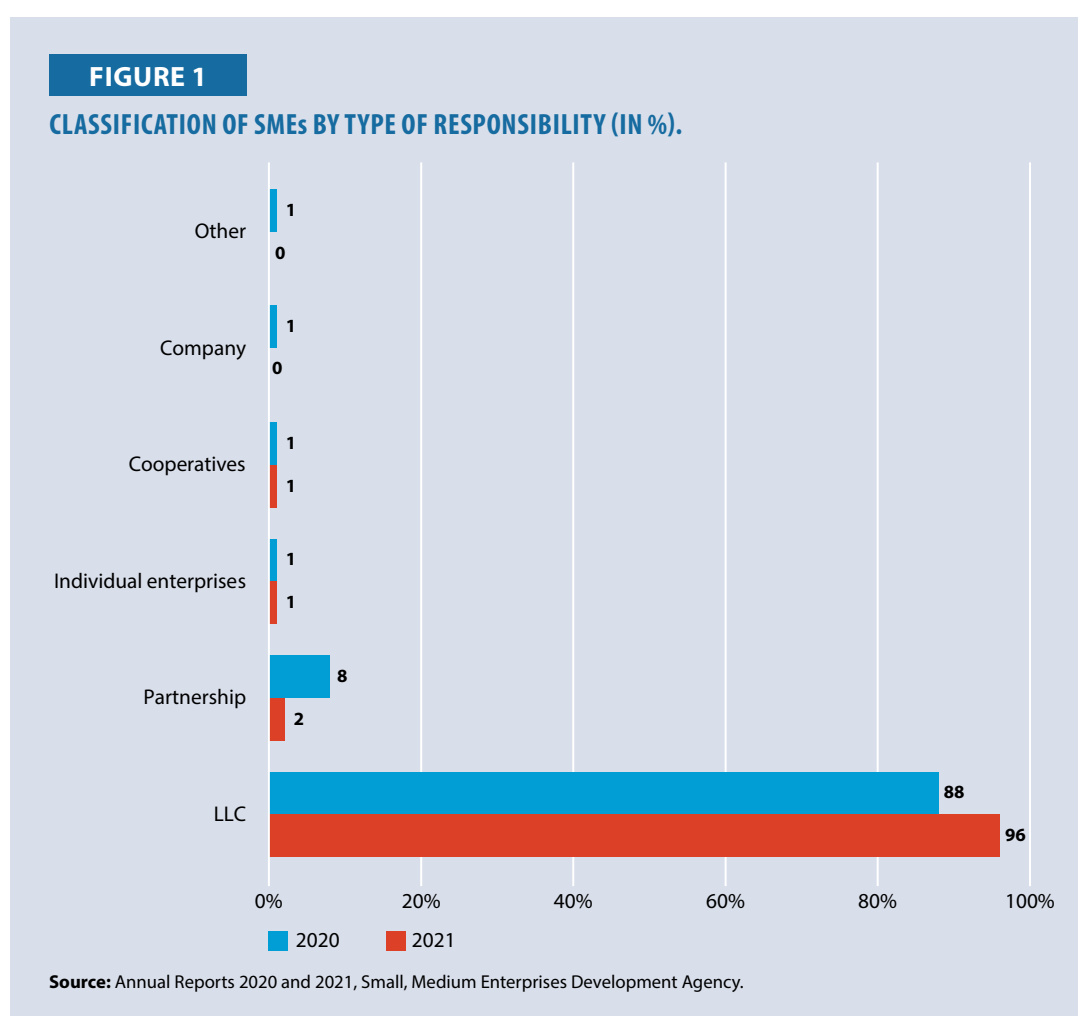
TABLE 2

NUMBER OF OPERATIONAL SMEs BASED ON THE NUMBER OF EMPLOYEES.

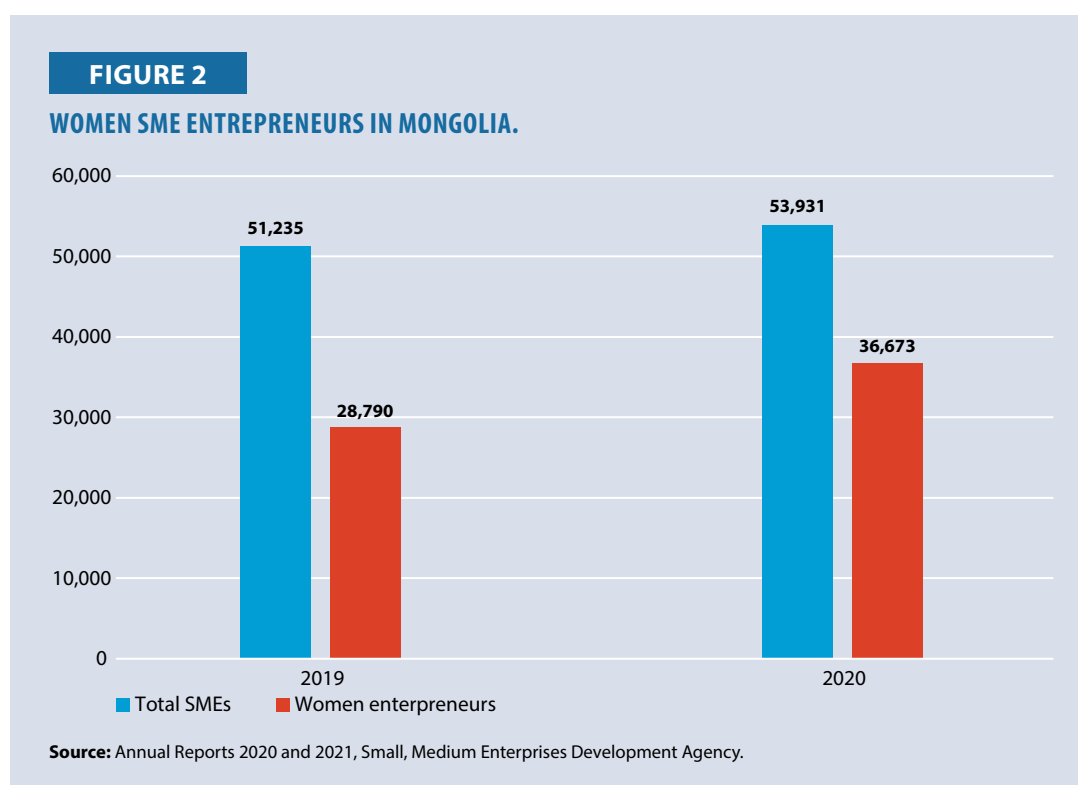
Category-Wise SMEs by Number of Employees	2017	2018	2019	2020	2021
Micro: 1–9 employees	40,897	42,997	44,975	46,230	49,055
Small: 10–49 employees	3,421	4,659	4,801	4,797	4,716
Medium: 50–199 employees	290	207	206	208	160
Total	44,608	47,863	49,982	51,235	53,931

Source: Statistical data and Information from 2020, National Statistics Office of Mongolia.

The majority or 95% of the SMEs are limited liability companies. The rest of the enterprises fall under partnerships (2%), self-employment (1%), and cooperatives (1%). Figure 1 shows the comparison of the type of SMEs in 2020 and 2021 [1]. In terms of gender parity, as of 2020, 68% of SME owners are women [6].



SMEs play an important role in the economic development of Mongolia. It forms the primary economic sector addressing employment issues, poverty, economic diversification, and inequality. The sector employs 52.5% of the total workforce as nearly 80% of businesses in the country are



small and medium-sized enterprises. Besides, the SME sector's value-added or total production share is 17.8% of the total domestic product. It has been increasing incrementally and has almost doubled in the last five years.

Interestingly, however, the labor productivity of this sector is very low, contributing just 5.6% of the overall share of the GDP in 2020. Moreover, the SME sector contributes only 2.3% of the overall exports [6]. Besides, the survival term of SMEs in Mongolia is very short and nearly half of the SMEs stay in business for less than a year [6].

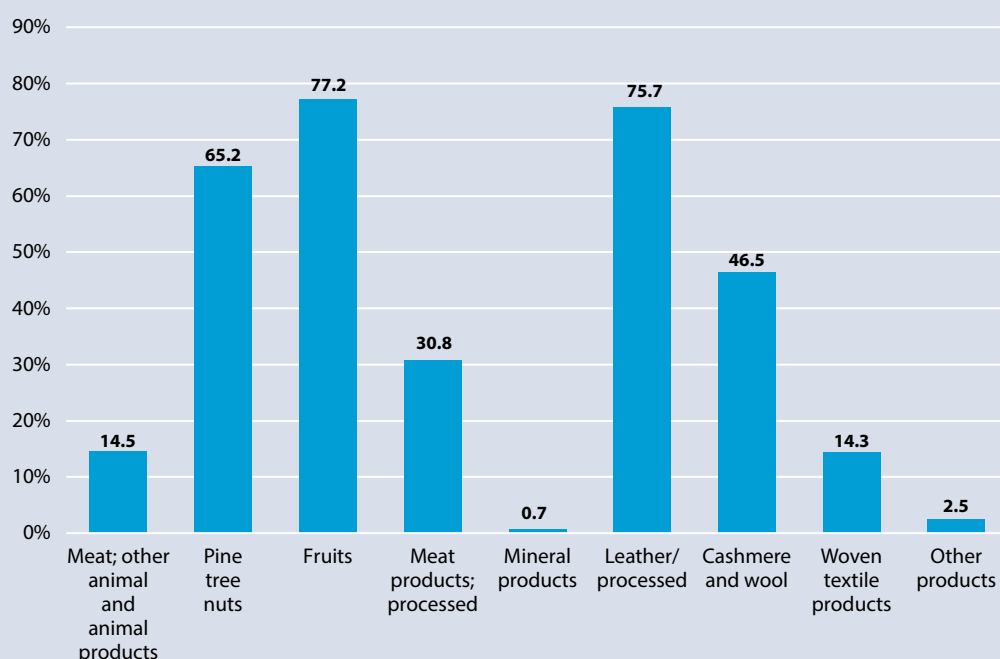
TABLE 3
LABOR PRODUCTIVITY IN MONGOLIA.

Economic Growth	2017	2018	2019	2020	2021
Gross value-added (in million USD)	329.6	401.3	467.1	635.3	727.9
Percent of the Gross Domestic Product	3.9%	4.2%	4.1%	5.6%	5.5%
Long-term growth trends	Not applicable as data is not available				
Factory growth of SMEs	68.0	102.7	116.7	107.7	173.1

Source: Annual Reports 2020 and 2021, Small, Medium Enterprises Development Agency.

Economic Activities

Since 2018, Mongolia has been exporting products such as pine tree nuts and fruits, meat and meat produce, leather, mineral products, cashmere and wool, and some other goods that are being produced by SMEs in Mongolia. Table 4 shows the export percentage of the products from 2018 to 2021 [6].

FIGURE 3**PERCENTAGE OF EXPORT GOODS PRODUCED BY SMEs IN 2018.**

Source: Annual Reports 2020 and 2021, Small, Medium Enterprises Development Agency.

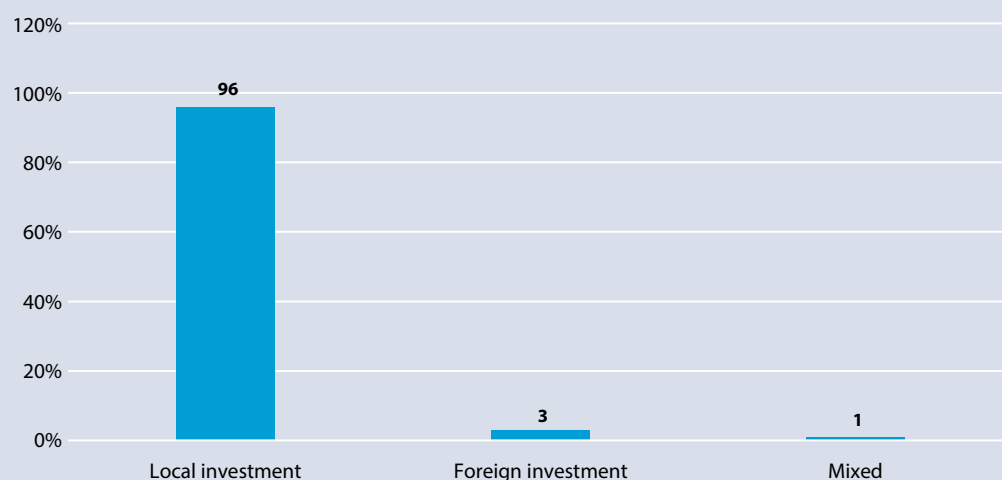
Trade Activity of SMEs

TABLE 4**SHARE OF SME PRODUCTS IN TOTAL EXPORTS (IN %).**

Product Type	2018	2019	2020	2021
Meat; other animal and animal products	14.5	23.2	34.3	27.8
Pine tree nuts	65.2	99	51.1	6.1
Fruits	77.2	86	93.9	94.7
Meat products; processed	30.8	14.5	10.9	9.8
Mineral products	0.7	0.7	1.2	0.9
Leather/ processed	75.7	71.8	74.2	72.6
Cashmere and wool	46.5	29.7	60.1	35.1
Woven textile products	14.3	9.3	10.5	10.5
Other products	2.5	2.1	0.3	0.8
Total	4.1	2.9	3.4	2.4

Source: Statistical data and Information from 2020, National Statistics Office of Mongolia.

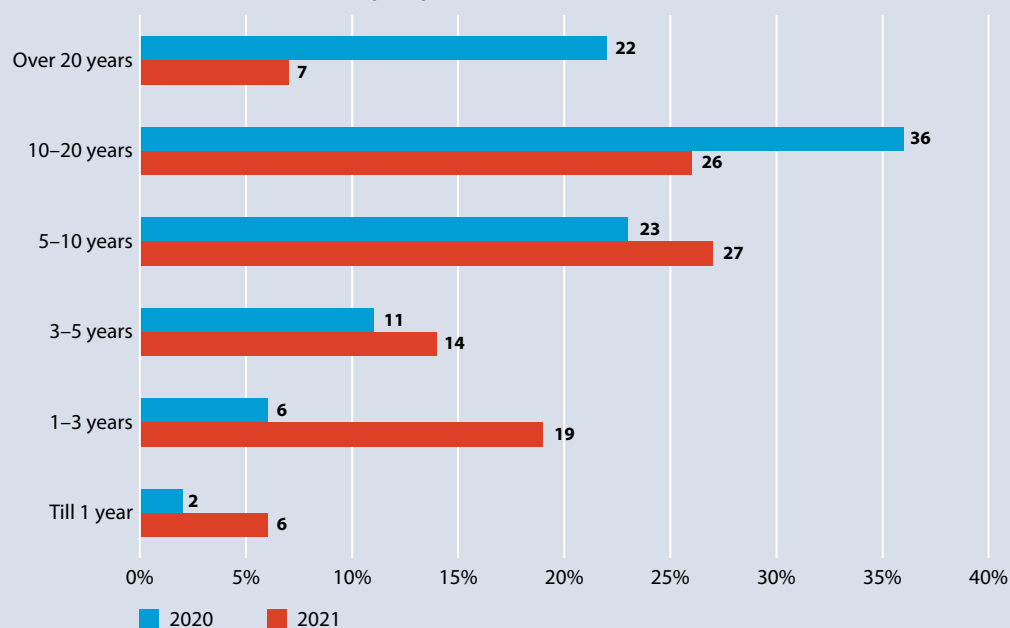
In terms of investment, the majority, or 96% of SMEs have domestic investments, while 3% have foreign investments, and the rest of 1% are businesses with mixed investments.

FIGURE 4**CLASSIFICATION OF SMEs BY INVESTMENT (IN %).**

Source: Small, Medium Enterprises Development Fund, data from 2020 and 2021.

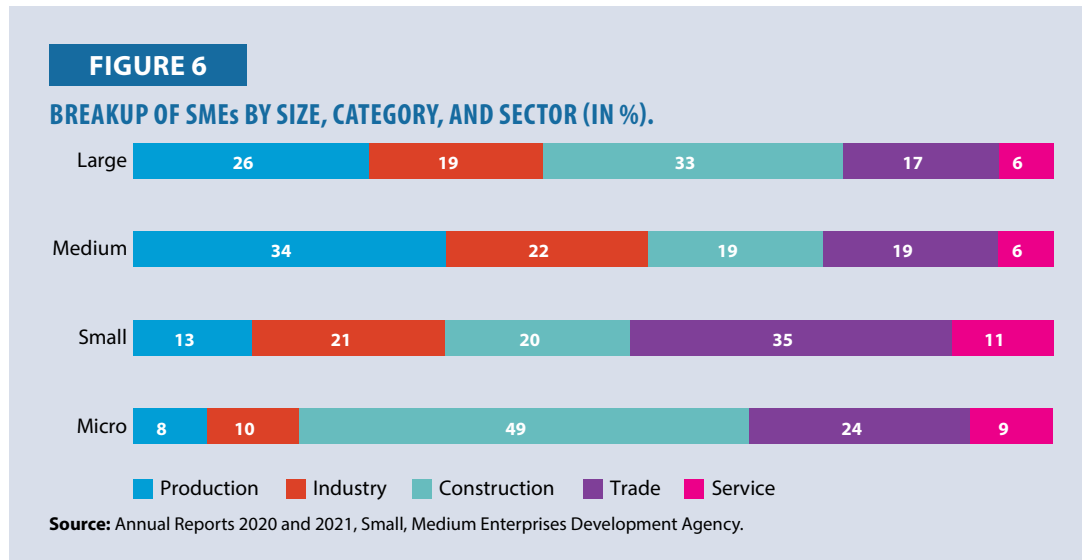
Sectoral Composition

When SMEs are classified by the years that they have been in operation, 6% of them have been operating for less than a year, 19% have been in operation for 1–3 years, 14% for 3–5 years, 27% for 5–10 years, 26% for 10–20 years, and 6% for 20–30 years. Only 1% of SMEs have been in business for more than 30 years [10].

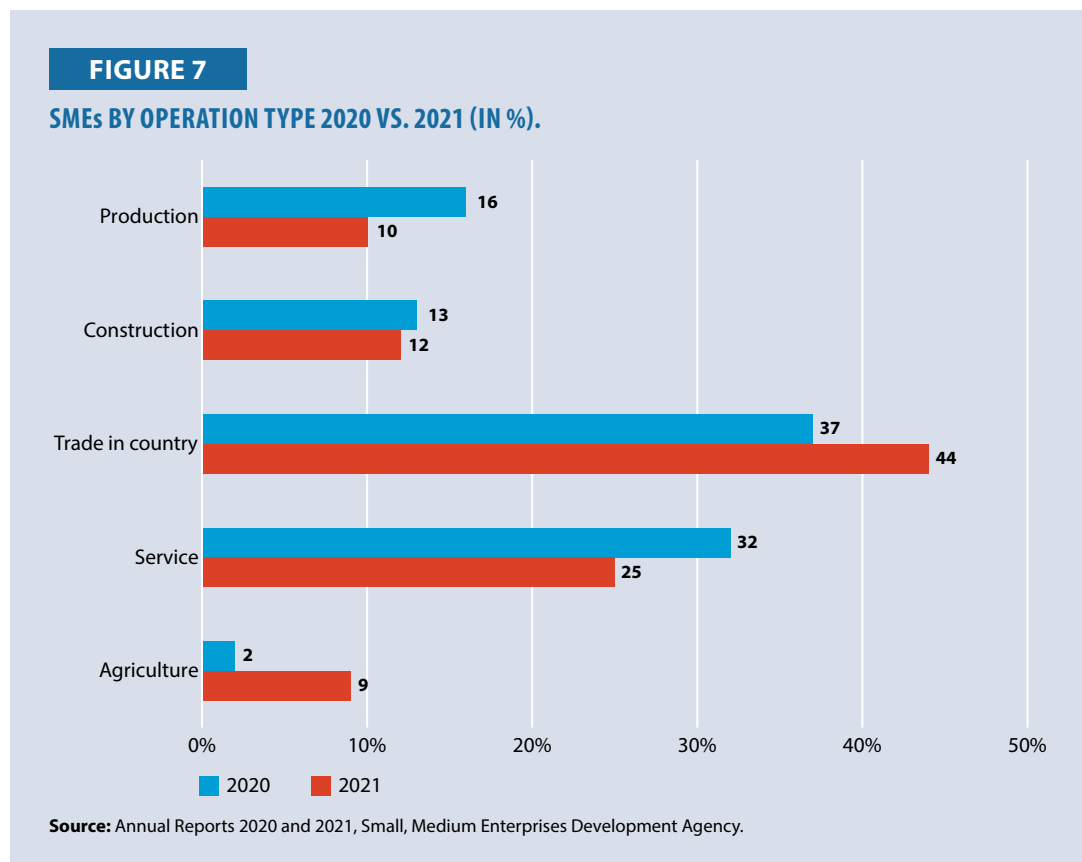
FIGURE 5**DURATION OF OPERATION OF SMEs (in %).**

Source: Report 2020, Mongol Bank.

The type of business activity is shown by the category of industry. Among them, the areas of business activity in micro, small, and medium categories are relatively similar, and domestic trade and service sectors form the main part. However, in addition to trade and services, enterprises in the manufacturing and construction sectors account for the majority of large enterprises.



Overall, as per the 2021 data, 44% of all SMEs in Mongolia are focused on domestic trade, while 25% are in the service sector, 12% in construction, 10% in industry, and 9% in the agriculture sector as evident from Figure 7.



According to the annual sales income (revenue) of SMEs, 71% of entrepreneurs fall under the ‘micro’ category, with an annual sales revenue of up to USD105,300. Business owners with a sales income of USD105,300–351,000 or small business owners are 15% out of all businesses, while medium business owners with a sales income of USD351,000–877,500 are 6% of all SMEs. Lastly, large enterprises with an income of more than USD877,500 consist of 5% of all the SMEs [6, 10].

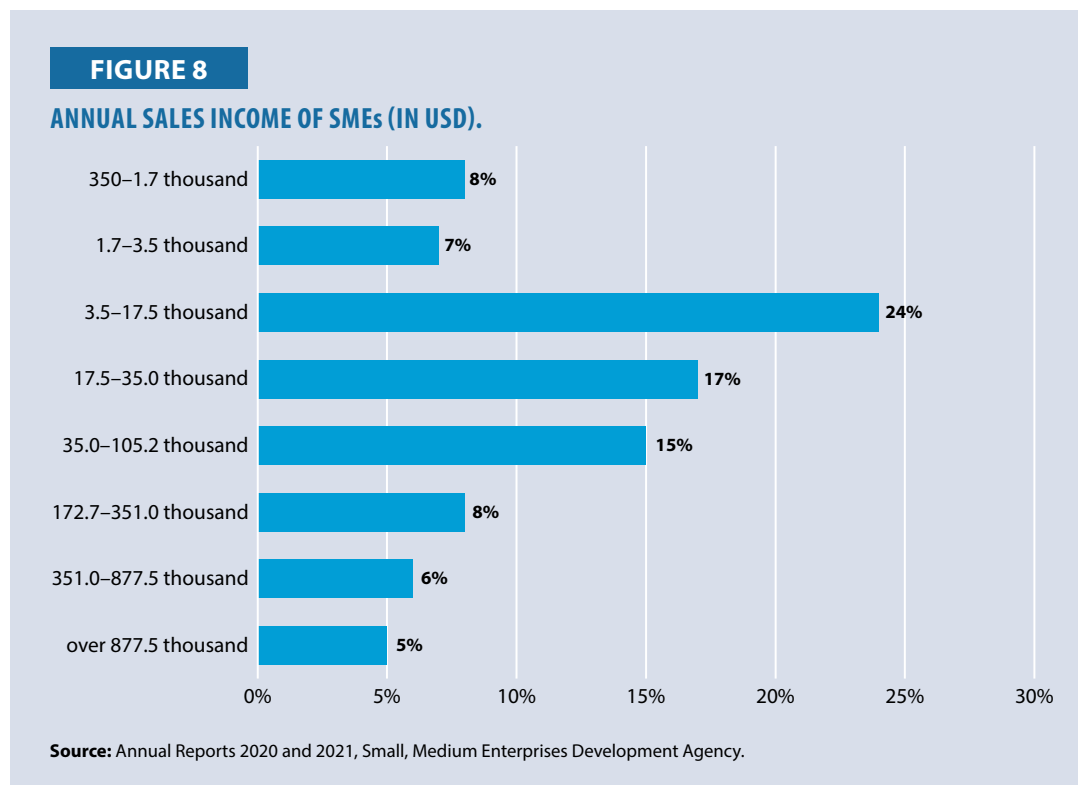


TABLE 5
NUMBER OF SMEs BASED ON PRODUCTION CAPACITY.

Production Capacity	2017	2018	2019	2020	2021
Total number of SMEs by sales income	44,608	47,863	49,982	51,235	53,931
Up to USD105,300	39,626	41,265	42,075	42,304	42,986
USD105,300–351,000	3,602	4,690	5,552	6,304	7,526
USD351,000–877,500	1,380	1,908	2,355	2,627	3,419

Source: Statistical data and Information from 2020 and 2021, National Statistics Office of Mongolia.

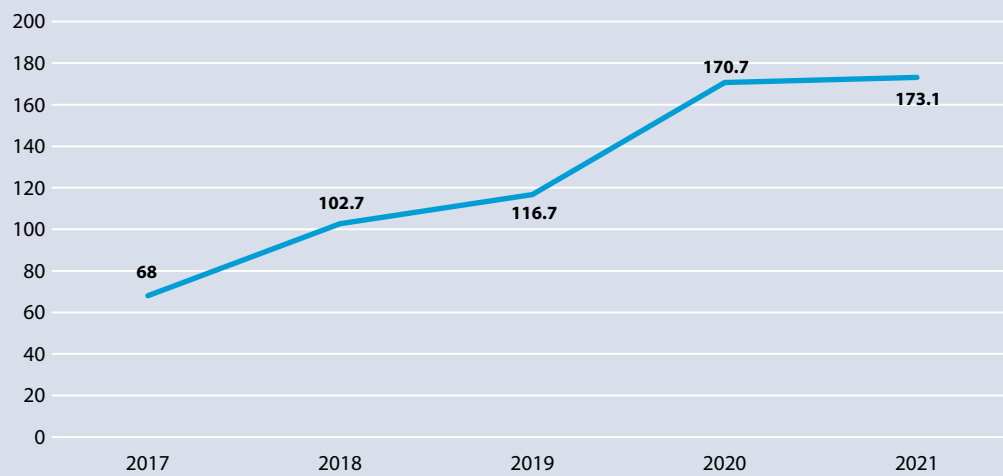
TABLE 6
SME SECTOR PRODUCTION VOLUME (2017–21).

	2017	2018	2019	2020	2021
Total production of SME sector in million USD	68.0	102.7	116.7	170.7	173.1
Contribution of SMEs in the total production of goods and services in the country	1.9%	2.4%	2.3%	3.5%	3.1%

Source: Statistical data and Information from 2020 and 2021, National Statistics Office of Mongolia.

FIGURE 9

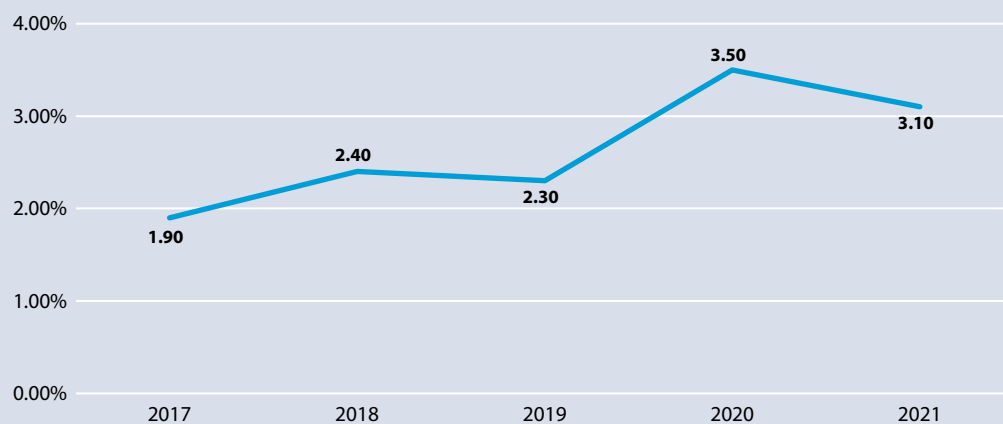
TOTAL PRODUCTION OF SME SECTOR IN MONGOLIA (IN MILLION USD).



Source: Statistical data and Information from 2020 and 2021, National Statistics Office of Mongolia.

FIGURE 10

CONTRIBUTION OF SMEs IN TOTAL PRODUCTION OF GOODS AND SERVICES (IN %).



Source: Statistical data and Information from 2020 and 2021, National Statistics Office of Mongolia.

Competitiveness Fundamentals

Human Resource

There is no information on the education level of employees working in the SME sector. Therefore, the research team analyzed the general information on employment in Mongolia (2016 data) [6, 11].

Considering the working population by their occupation, most of them, or 345,300 (30.5%), are employed in agriculture, forestry, and fishing. In addition, 187,000 (16.5%) are employed in trade and services, 180,400 (15.9%) are specialists, and 109,300 (9.6%) are employed in production, construction, handicraft, and artisan-related work and services. (2016 data)

The number of workers in the country is 1,132,800, of which 327,300 are livestock breeders and herders. Of the remaining 805,500 employees, 40.7% or 327,800 are working in private enterprises.

Employment in the Informal Sector

As of the fourth quarter of 2016, there were 156,500 workers in the informal sector, of which 91,300 (58.4%) were men and 65,200 (41.6%) were women. Also, of all the workers employed in the informal sector, 97.5% depend on it as their main income while the remaining 2.5% have it as a secondary job.

In the informal sector, 73.9% of workers live in cities and towns, and 26.1% live in rural areas. Also, 52.0% of informal workers are based in Ulaanbaatar, 15.8% in the Khangai region, 15.5% in the Central region, 12.9% in the Western region, and 3.8% in the Eastern region.

Of the total population employed in the informal sector, 66,000 (42.2%) are in the wholesale and retail trade, and car and motorcycle maintenance, 35,400 (22.6%) are working in the processing industry, and 29,800 (19.1%) are in the transportation and storage operations sector.

In the informal sector, the majority of workers, or 64,800 (41.4%), are engaged in trade and service, and the majority of women, or 43,300 (66.8%) worked in this sector. The majority of all men, or 31,200 (34.2%), work as operators and assemblers in stationary equipment and machinery.

Unemployment

Among the regions, Ulaanbaatar has the highest number of unemployed at 37.1%. It is followed by the Khangai region at 23.4%, the Central region at 16.0%, the Western region at 13.1%, and the Eastern region at 10.4%. In terms of provinces, 6.4% of all unemployed citizens are in Orkhon province (the highest) while the Govi-Altai province has the lowest unemployment rate at 0.2%.

The national unemployment rate in Mongolia is 8.6%. In terms of gender, the unemployment rate for men is 10.2% and that for women is 6.9%. The unemployment rate of the population in cities is 10.4%, which is 1.8 percentage points higher than the national average. Similarly, the unemployment rate in rural areas is 6.3%, which is 2.3 percentage points lower than the national average and 4.1 percentage points lower than the city average. The difference in the unemployment rate between the urban and the rural population might exist because the population between these groups differs significantly. The rural areas are much less populated as compared to bigger urban locations like the capital city. Also, the majority of the population in rural areas is engaged in livestock husbandry, which is considered self-employment.

The unemployment rate is 12.7% in the Eastern region and 9.1% in the Khangai region, which is 0.5–4.1 points higher than the national average, while it is 8.1% in Ulaanbaatar and 8.0% in the West and Central regions, which is 0.5–0.6 points lower than the national average. In terms of age structure, 61.2% of all unemployed citizens are 15–34 years old, 19.8% are 25–29 years old, 38.1% are 35–49 years old, and 6.7% are 50–59 years old. This difference could also be explained by the fact that the Khangai region's population density is much higher than the Eastern region. Besides, the infrastructure in the Khangai region is more developed than the latter, including more electricity and power coverage, paved roads, forest areas, etc. All this creates better opportunities for SMEs (including agriculture cooperatives) to establish themselves and employ more people.

Considering the age structure and gender of the unemployed citizens, the percentage of unemployed men and women is highest in the age group of 20–24. Also, the unemployment rate of men is higher than women in other age groups.

In terms of the level of education among the unemployed citizens, over 70.2% have a certain level of vocational training like technical, professional, special professional, secondary, or higher education. The remaining 29.8% comprises citizens who have either completed secondary education or have no formal education, as summarized below:

- As of the fourth quarter of 2016, the economically active population reached 1,239,800, of which 1,132,800 (91.4%) are employed.
- Labor force participation rates are lower in cities than in rural areas.
- Over 68.9% of 107,000 unemployed people are between the ages of 20–39.
- A total of 50.4% of the working population is engaged in the service sector, 3.1% in agriculture, and 18.5% in the manufacturing sector.
- Nearly 327,300 of the total employees work in animal husbandry. The remaining 805,500 employees are engaged by different types of organizations. Overall, 40.7% of employees work in private enterprises and organizations, 25.9% in state or public organizations, and 26.1% are individual businessmen or self-employed.
- Over 13.8% or 156,500 people are employed in the informal sector.
- Of the total population employed in the informal sector, 66,000 (42.2%) are in the wholesale and retail trade, and car and motorcycle maintenance.

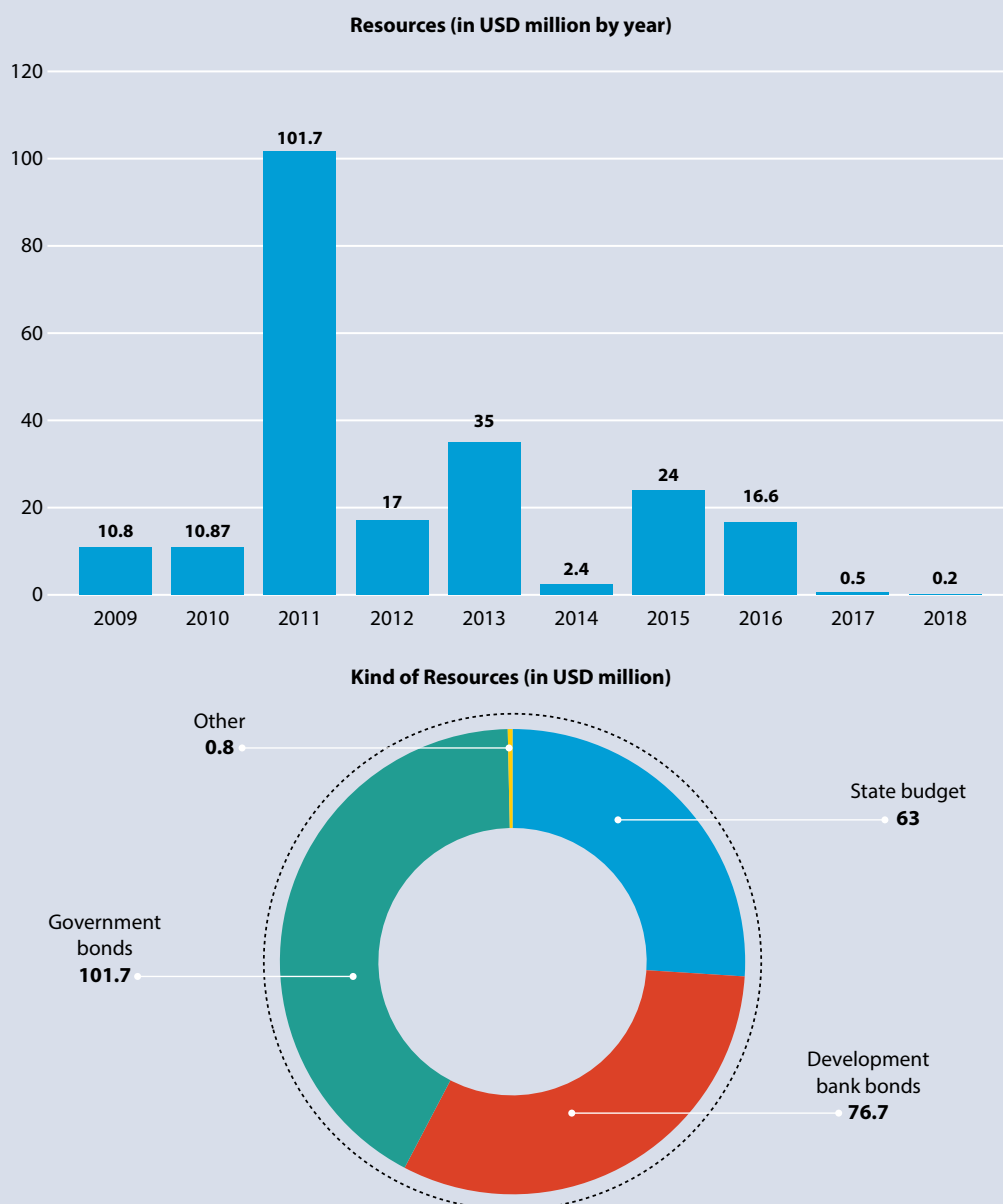
Finance

Between 2009 and 2021, a total of USD348 million was granted to 8,235 SME projects as long-term concessional loans by the Small and Medium Enterprises Development Fund. This resulted in the creation of 51,145 new jobs and the preservation of 37,249 jobs [6, 7].

Following the Resolution No.30 of the National Assembly, dated 3 June 2011, government securities worth USD105,300 was issued to support national production and producers of value-added final products. It also aimed to support small and medium producers of animal husbandry raw materials and products, and increase employment. Subsidized credit worth USD52 million for supporting small and medium enterprises, and USD49 million for the wool and cashmere industry were provided through commercial banks, respectively [6, 7].

From 2009 to 2021, a total of 31,218 SME projects were submitted to the Project Selection Committee and sub-committee requesting funding of USD1.6 billion of which 21.2% of the total demand or 8,235 projects were granted concessional loans of USD348 million [6, 7].

Of the total number of entities and business owners who received the concessional loans, 69.1% were granted to UB citizens and enterprises, and 27% were granted to local or provincial citizens and enterprises.

FIGURE 11**RESOURCES OF SME DEVELOPMENT FUND.**

Source: Annual Reports 2020 and 2021, Small, Medium Enterprises Development Agency.

Between 2009 and 2021, individual businesses and SME enterprises that received concessional loan financing managed to sustain 15,573 jobs while creating 24,134 new ones in UB. Approximately 27,011 new jobs were added in the local and provincial areas, a total of 39,249 jobs were saved, and 51,145 new jobs were created [6, 7].

Similarly, during the period, the number of individual businesses and SMEs that received concessional loans in the sectors jumped to 6,173, including 2,062 newly created factories [6, 7]. These included businesses in sectors like the food industry, light industry, textile, agriculture, animal husbandry, construction industry, cellar, biotechnology, trade services, recycling, and processing.

TABLE 7

FUNDING OF SMEs IN DIFFERENT SECTORS.

No.	Areas	Funding and Number of Projects		Factories		Jobs	
		Number of Projects	Loan Amount (million USD)	Expanded	New	New	Saved
1	Food industry	1,339	59.6	1,037	302	9,523	6,323
2	Light industry	2,290	108.4	1,874	416	13,269	15,325
3	Agriculture	843	25.5	632	211	4,125	2,719
4	Animal husbandry	1,086	29.6	773	313	5,045	2,470
5	Construction	689	50	470	219	7,627	3,791
6	Cellar/ storage/ warehouse	181	15.1	123	58	1,009	616
7	Biotechnology	62	8	43	19	826	547
8	Trade services	948	23.3	653	295	5,175	2,734
9	Processing industry	739	22	519	220	4,050	2,420
10	Recycling	46	5.6	39	7	373	246
11	Other	12	0.65	10	2	123	58
Total		8,235	348	6,173	2,062	51,145	37,249

Source: Data from 2020 and 2021, Small, Medium Enterprises Development Fund.

In 2019, the Great Khural of Mongolia approved the Law on Supporting Small and Medium-sized Enterprises and Services and the Law on Special Government Funds. The regulations related to lending, selection, and monitoring of funds were approved by Government Resolution No.113 in 2020 and are presently being implemented.

SMART PRACTICE 1 [6]

As a part of the capacity building of SMEs, the Government of Mongolia introduced online basic and advanced training (214 different training modules) to the MSMEs. Overall, over 1 million (duplicated number) MSMEs participated in the training which allows most of the MSMEs to obtain and improve their business skills. More than 6,000 of the trained MSMEs obtained soft loans. Those MSMEs expanded their business in terms of installing new equipment, keeping and creating new jobs, and improving technology. This directs MSMEs to sustainable growth and contributes to the local economy. Below is an example of the thousands of such businesses expanding their operations by taking loans in addition to online training.



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The Chuluut Canyon Company is located in Chuluut Soum, Arkhangai province, which is 700 km away from Ulaanbaatar, the capital city of Mongolia. This company was established to process and manufacture dairy products and market them locally and in UB city. To better manage the business, produce quality products, and extend their market, the company employees took online training, which was also convenient because of their distance. In 2019, the company applied for a soft loan and got USD35,089 from the SME development fund for renovating its processing facilities and equipment. As a result, the company created new jobs for the unemployed women in their soum. The company manager said: “The online training was very useful. We are now able to manage our finance according to good financial recordkeeping. When we need the training again, we just go to the appropriate YouTube channel and can have the training. It does not matter where we are. Thanks to the training, we developed a good comprehensive business plan and obtained a soft, low-interest loan.”

Taxation Policy

The revised tax law in Mongolia was implemented in 2020. Later, several amendments were made [6, 14].

- Taxpayers who are not VAT-registered and have annual sales income of up to MNT50 million, are required to submit an annual report and pay tax equivalent to 1% of their taxable income.
- Enterprises with annual sales income of up to USD105,300, must report twice a year and pay tax at 1% of the taxable income.
- Enterprises with annual sales income from USD105,000 to USD351,000 should report twice a year and pay tax at 10% of the taxable income, with a provision to refund 90% of the tax paid.
- The threshold for paying 25% tax was increased from USD1 million to USD2.1 million.
- Tax reporting loss to be transferred during the four years in any sector.
- Special licenses for mineral and oil exploration and exploitations. Companies not owned by an enterprise established under the laws of Mongolia must pay a 5% tax on the interest income of the investor who bought the instrument. It shall be imposed from the domestic and foreign, and primary and secondary market open trading debt.
- Withdrawing from foreign and domestic sources of commercial banks of Mongolia, a 5% tax will be imposed on the interest income of collected loans and debt instruments.
- The enterprise or individual with operations in provinces and districts more than 500 km from Ulaanbaatar will get a rebate of 50% of the tax paid, and 90% of the tax will be discounted if the distance is more than 1,000 km.

The law on ‘Purchasing Goods and Services with State and Local Property Assets’ includes clauses that support the domestic production of small and medium enterprises and services.

- The government approves the list of goods and products locally produced in Mongolia. All domestically produced goods need to be separated from the imported goods and be listed, and a tender and or a bidding process should be organized.
- Participation of foreign parties in the tender selection of domestically produced goods is prohibited. Only domestic manufacturers and SMEs will supply goods included in the list.
- If a small and medium-sized business submits a tender for a bidding process, the price of the goods originating in Mongolia will be reduced by 15%.
- If it is produced by a small and medium-sized business, a contract will be signed directly.

Technology and Innovative Capacity

Technology and Equipment Imports

To support the SMEs, increase the number of jobs, replace the import, and increase the export, the industrial and manufacturing equipment for SMEs and their spare parts were excluded from the VAT. However, the law on the exemption from VAT expired on 31 December 2016. As a result, the issue of tax exemption, after the expiration of the law was discussed at the parliament and it was extended by the Parliament. (February 2017 Exemption from Customs Duty Law)

A total of MNT3.8 billion of tax relief was provided in 2017 and 2018 (MNT2.4 billion in 2017 and MNT1.4 billion MNT in 2018) for the SMEs. 606 small and medium enterprises benefited from this tax relief. [6].

Due to the non-production of machinery and equipment, the SMEs are mostly importing equipment from abroad, which affects the prices of the products produced by the local SMEs.

In 2017, SMEs imported equipment and machinery from 34 countries, of which 428 units were imported from China, 71 from Russia, 34 from Germany, 25 from Korea, 22 from Japan, 21 from Italy, 20 from the USA, and 84 from other countries [6].

The import of equipment and spare parts in Mongolia increased due to the implementation of the ‘Law on the Tax Exemption of Goods from Customs Duties’. The production and export of cashmere, textile products, leather, wool, handmade, and wooden products increased as well. In 2017, non-mining exports reached USD669.9 million, and in the first 10 months of 2018, it touched USD540.3 million. Overall, exports from the manufacturing sector in Mongolia are about 9.0% of the total export.

Digitalization of Value Chains

The research team did not find any information regarding the digitalization process in any value chain in the SME sector. It was also clarified by the SME agency. However, some activities are still conducted in the field of digitalization for SMEs [6] as listed.

- Certified document requests for SMEs are received and distributed online (see <https://burtgel.sme.gov.mn/>).

- SME loan application process is conducted and completed online. The application, related documents submission, and application evaluation process have been digitized and can be done online (see <https://sme.gov.mn/login>).
- Online training for SMEs has been made affordable. There are 214 training tools and materials uploaded on a dedicated YouTube channel (see <https://www.youtube.com/watch?v=X8OC14Vajz8>).
- An information chat channel was launched and is available on Facebook (see <https://www.facebook.com/SMEs.agency?mibextid=LQQJ4d>).
- Many different training sessions were conducted via the Internet for SMEs.

Entry into e-Commerce

SMEs in Mongolia have also ventured into the e-commerce platform as listed.

- SME's product information is uploaded on the online store on the website of the State Procurement Department (see <https://www.tender.gov.mn/mn/eshop/>).
- SME's product information is uploaded on the online store website of the Small Medium Enterprises Agency (see <https://town.mn/sme/>).
- The National Virtual Trade Show for SME products (see <https://www.exportmongolia.org/2022/>).

SMART PRACTICE 2 [6]

The implementing agency of the Government of Mongolia, the Department of Small and Medium Enterprises, and the Mongolian Productivity Organization jointly surveyed the business digital transformation readiness of SMEs under the APO Special Account program in 2022. The survey was conducted with a sample of about 100 SMEs using a questionnaire form. The objective of this project was to define the readiness level of the digitization of the SMEs and develop an appropriate case study for launching the digital transformation.



The study indicates that while organizations are ready for digital transformation, there is a lack of experts to drive it. Besides, there is either no funding or the funding has not been budgeted. There is also a lack of necessary resources for digital transformation like human and financial resources and leadership to initiate digital transformation.

The organizations use data and analysis to measure the importance of financial and business activities which affects the digital business. Based on the findings of the research, the following recommendations were presented: to strengthen SMEs' business continuity, capabilities, and digital transformation, the SME owners shall:

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- Assess their organization's digital readiness for the transformation.
- Implement a project to initiate and introduce digital transformation.
- Evaluate and promote the results of productivity improvements, digital transformation, and other continuous improvement projects and best practices.
- Create the business and risk plans,
- Expand the business cooperation and existing cooperating businesses in terms of purchasing input and raw materials.
- Gain knowledge on Innovation and Know-how

Based on the results of the survey conducted, the MPO developed and introduced an e-SME application, IoT concepts, iBolit, and an appointment system for SMEs, and the selected SMEs showcased digital transformation successfully, launching Industry 4.0. The project team with the selected 8 SME businesses evaluated their existing business models and decided to introduce the Smart scale for 4 businesses and the Smart hospital program for 4 small private hospitals. The decision has been made to develop the e-SME application to create a digital ecosystem for the benefit of a larger number of businesses in the SME sector.

The major outputs of the project were the initiation of an e-SME application, iBolit tool, and appointment scheduling system for SMEs.

1. The e-SME applications' objective is to initiate a digital transformation to increase the competitiveness, productivity, and innovation capacity of SMEs, to create, efficiently use and increase the effectiveness of digital infrastructure to support SMEs, increase the sales of SMEs, and expand the market business model. The user (SME owner) shall register their entity and products as well as the non-SME owner, customers, and suppliers can see the products and services. The SMEs will use this application to increase their product's advertising channels and markets, and on the other hand, they will be able to gather information on raw materials and inventory without any further delay. The Government Implementing Agency and the Department of SMEs will analyze and continuously improve this application to ensure sustainable growth of the SME sector in Mongolia, increase their business profits, become more competitive in the market, increase the number of entrepreneurs in this sector, and increase the amount of value add in this sector.
2. E-hospital digital transformation solution was introduced for four small private hospitals with features of e-appointment and iBolit platform.

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The e-appointment application solution has features to reserve an online appointment and circulate the initial medical records among the medical centers and patients. The iBolit device consists of sensors, transmission devices, and a main program interface. This device measures the following key health indicators. These include body temperature, percentage of oxygen in the blood, and heart rate. The three hospitals recommended implementing QMS to ensure the applicability of this digital system.

3. The SmartChain solution is a comprehensive system of supply chain and it aims to create guaranteed satisfaction to improve the productivity of consumers and industry services using IoT throughout the product and services chain. For business entities and stores that own this smart scale, when they weigh their products, an entry of that amount is made to the registered SME account server. The users of the SME app can check the product balances in the store in real-time and order inventory, plan production, and distribute their deliveries on the correct route.

These three cases are good case studies for the SMEs to launch digitization and increase the number of SMEs who are willing to start their digitization transformation. These are good case studies to promote the SME sector, which will contribute to its development and the MSME will benefit eventually.

Regulatory and Business Environment

Macroeconomic Environment

Inflation and exchange rate are the most difficult factors, and entrepreneurs believe that such situations do not create a favorable economic environment for them, not only to develop their business but also to keep it sustainable.

Social and Political Situation

Poverty and unemployment are the most problematic factors. Poverty is linked with unemployment. There is a tendency that in the regions with more actively operating SMEs or livestock husbandry like in rural areas, the unemployment rate is lower. One of the main reasons for unemployment is also the discrepancy between the labor demand and the labor force's education or skills. For example, in UB there are much more university or college graduates than people who obtained professional certifications from a vocational training center.

The political system in Mongolia does not support continuity or succession in the work of state institutions. When a political party comes to power, it not only changes the government consisting of the Ministers but also the key positions, often the main specialists in the state agencies. This situation often creates difficulties in implementing the programs and projects which have already been initiated during the previous terms.

Law and Legal Environment, Government Regulations

Government services and law enforcement have improved the most in recent years, and government regulations are being implemented to create a favorable business environment. In this regard,

amendments to the provisions of the law and revisions of the relevant laws are being implemented. A brief introduction to legal and policy environment changes in the SME sector is given below:

The Amendments to the Law on SMEs

The need for the Law on SME development has been dictated by the necessity to renew the classification of small and medium-sized enterprises, to reduce the overlapping, to clarify and optimize the support for small and medium-sized enterprises, to incorporate the framework on lowering loan interest rates for SMEs, and to introduce the provision of direct loans to micro entities from SME Development Fund and to small and medium companies through the commercial banks. Approved during the spring session of Parliament in 2019, the law is intended to support the regional development of SMEs through decentralization and assisting local business initiatives. Finally, the law seeks to address the improvement of the institutional and supervisory framework, and the coordination by a separate government body for the implementation of the SME sector policies to avoid redundancy and overlapping among different government organizations [14].

The key support areas under the law are financial and non-financial (based on the presentation from MoFALI as the final version of the Law on SMEs has not been published officially). In addition, SME cluster development remains at the forefront of the policy support by the government.

The Amendments to the SME Development Fund Procedures

The objective of the SME Development Fund is specified as the promotion of the new business, the creation of new jobs, and the increase of exports and substitution of import products (based on Article 14.5.2, 14.6 of the Government Special Fund Law and Article 29.1.1. of the Law on Government Special Funds) [7]. It was approved on 19 April 2019 by Decree #119 of the Minister of Food, Agriculture and Light Industry.

TABLE 8

PRIORITY SECTORS BY REGIONS*.

Western Region	Central Region
1. Leather and tanning	1. Milk and dairy products
2. Wool and cashmere processing	2. Processing of meat products and by-products
3. Processing of meat products and by-products	3. Production of animal feed
4. Milk and dairy products	4. Leather and tanning
5. Processing of potatoes, vegetables, and fruits	5. Waste recycling
6. Production of animal feed	6. Manufacture of wood and timber products
7. Manufacture of construction materials	7. Manufacture of construction materials
8. Manufacture of garments	8. Processing of potatoes, vegetables, and fruits
9. Manufacture of wood and timber products	9. Manufacture of garments
10. Manufacture of packaging	10. Manufacture of packaging

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Khangai Region	Eastern Region
1. Leather and tanning	1. Milk and dairy products
2. Milk and dairy products	2. Processing of meat products and by-products
3. Manufacture of construction materials	3. Production of animal feed
4. Waste and recycling	4. Leather and tanning
5. Production of animal feed	5. Manufacture of wood and timber products
6. Wool and Cashmere Processing	6. Processing of potatoes, vegetables, and fruits
7. Processing of meat products and by-products	7. Manufacture of garments
8. Manufacture of garments	8. Manufacture of construction materials
9. Manufacture of wood and timber products	9. Wool and cashmere processing
10. Manufacture of packaging	10. Manufacture of packaging

Note: * As approved in May 2019 by the Government Decree # 190.

Source: Annual Reports 2020 and 2021, Small, Medium Enterprises Development Agency.

The SME Development Program [6]

The key objectives defined by the SME Development program are to create favorable legal, financial, and tax environment to support the sustainable development of SMEs, define government involvement, and support through state or public procurement of products produced by SMEs. The expected outcomes of the SME development program are to increase the number of small and medium entrepreneurs covered by tax discounts, concessional loans, loan guarantees, leasing and insurance services, improved independence and competitiveness of the participating enterprises, new jobs, and increased production and services. It is also expected that the public procurement of domestically produced goods will increase. Approved in April 2019 by Government Decree #156, it aims to achieve the following objectives.

- Improve the legal environment for small and medium-sized enterprises.
- Improve investment and financing policies, and increase access to finances by reducing interest rates and extension of tenors.
- Develop the capacity of the local consultancy services sector.
- Intensify the introduction of innovation and environmentally friendly technology and increase productivity and competitiveness.
- Expand the market of small and medium-sized enterprises and support their sales.
- Serve as the framework of the ‘One Village-One Product’ campaign to create brand products in rural areas and to increase the independence and creativity of SMEs.

Entry Requirements and Industrial Licensing [6,15,16]

If the individual entrepreneur decides to become a legal entity, he/ she will choose the entity type. Depending on the type of legal entity, such as LLC, Joint Venture, NGO, cooperative, or partnership, the criteria is different. So, the entity type should be chosen based on the purpose, vision and goal, operational characteristics, and number of founders of the business. After that, the application can be submitted to the State Register Department online at <http://les.burtgel.gov.mn/>.

Some procedures are already established, such as selecting and choosing the name of the company, and opening a bank account (MNT or USD or other currency). After 30 days of confirmation for the registration of the legal entity, the company should be registered at the State Registry Department. It then also has to register at the district tax office as a taxpayer. Entrepreneurs should be aware that a certain amount of MNT is required for the registration process. The information on all required documents is available online at <http://les.burtgel.gov.mn/>.

Below is the list of the Laws related to the registration of a company as a legal entity.

1. Civil Code
2. Company Law
3. Cooperative Law
4. The General Law on State Registration (see <https://legalinfo.mn/en>) [15].
5. Law on State Registration of Legal Entities (see <https://legalinfo.mn/en>) [16].
6. Procedures for Maintaining the State Records of Legal Entities (see <https://legalinfo.mn/en>) [17].
7. Procedures for Registration of Industrial Land Owned by Partnerships, Companies, Cooperatives, and State (local) Enterprises in the State Register (see <https://legalinfo.mn/en>) [18].
8. Procedure for Granting and Confirming the Name of the Legal Entity (see <https://legalinfo.mn/en>) [19].
9. Procedures for Monitoring and Issuing Inquiries on the Activities of Citizens and Legal Entities to Make Seals, Signs, And Confirmation Documents.
10. Law on the Legal Status of Foreign Citizens.

Intellectual Property Laws and Labor Market Regulations

The legal regulations are made by the following main laws and international agreements, and the state administrative implementing organization is the Department of Intellectual Property. There are several laws on the protection of intellectual property [23].

1. Patent Law (2020) (see <https://legalinfo.mn/en>) [20].
2. Law on Trademarks and Geographical Indications (see <https://legalinfo.mn/en>) [21].

3. Law on Copyright and Related Rights Law (see <https://legalinfo.mn/en>) [22].
4. Law on Intellectual Property (2020) (see <https://legalinfo.mn/en>) [23].

Intellectual property is divided into industrial property copyright and related rights. The work related to industrial property is inextricably linked to industry and its development, and after entering the state register and protecting the rights, an exclusive right to dispose of it is created. It comprises property creation, invention, useful design, product design, trademarks, and geographical indication.

To obtain copyright protection for these industrial property creations, inventions, utility models, product designs, and trademarks, the rights holders can officially obtain a patent for invention and product designs or certifications for utility designs, trademarks, and geographical indications to become effective. Protected intellectual property is a right that can only be used by the IPR holder within the territory of that country. In other words, it will be a monopoly. The owner of the right can use this privilege to conduct business activities, or use the right to others under license, sell it, etc., and get economic benefits.

To protect intellectual property rights, the applicant himself or through an authorized representative submits an application for protection of rights. Here, in the case of transmission, an authorized representative receives the materials, if necessary, contacts the applicant for clarification, finalizes the materials, and submits the application.

Labor Protection Laws and Labor Market Regulations

The labor law in Mongolia was updated and has been in effect since 1 January 2022 [6, 24]. The law defines new working conditions and relationships in the labor market.

1. The high number of herders and workers in the informal sector requires special regulations for maintaining labor relations. Hence, it includes labor relations such as part-time employment, part-time employment from home, remote employment, apprenticeship and trial work, assistant herders, and domestic servants to ensure that basic rights and obligations of labor relations are at par with other employees.
2. The basic principles of the law, such as non-discrimination, fairness, prohibition of harassment, (violence and sexual harassment), and regulations to ensure social partnership have been clarified. Articles 5,6,7 and 8 of the law prohibit any form of discrimination, violence, or sexual harassment in the workplace, and clearly describes the process for prevention, filing, and resolution of complaints.
3. Article 72, ‘Non-competition Obligation’, was introduced to protect the secrets of production and business by mutual agreement between the employer and the employee who has a labor contract with special conditions. The employee is obliged not to work for a directly competing enterprise, organization, or individual for a period of up to one year after the termination of the employment relationship or the employee himself/herself shall not engage in directly competitive activities.
4. Employers are required to provide monthly information about their wages and deductions made according to the law to the employee, and the upper limit of the employee’s working hours is set in the seventh chapter of the law. In this way, it is believed that the employee will be able to maintain a work-life balance.

5. If the employee who worked at night is not compensated, the law mandated that the salary must be increased from 1.15 times to 1.2.

Prohibition of discriminatory discharge of employees: If an employee, employer, or third party (recruitment agent) feels that the person has been subjected to pressure, violence, or sexual harassment in the course of employment or labor relations, the complaint shall be resolved by the management, high-level officials, trade unions, labor disputes organizations, law enforcement agencies, labor inspection agencies, National Human Rights Commission of Mongolia, and courts, respectively.

Employing disabled people: The employer shall take measures to provide the employees with room for breastfeeding a child at its discretion. The new law includes significant changes in the direction of supporting the employment of people with disabilities. For example, in the previous law, employers with 25 or more employees were obliged to provide jobs for disabled people equal to 4% of all employees, but implementation was insufficient. Therefore, the new law that was implemented in 2022, mandates that if an organization does not implement the provisions of the law, it will have to pay the amount of the minimum wage to the sub-fund for the employment of disabled citizens. Besides, employees and workers taking care of disabled people have to be provided with the opportunity to work from home or remotely.

Environmental Factors

Guidelines for Disposal of Industrial Gases and Waste

Living in a healthy and safe environment without pollution is one of the rights of citizens, as documented in the Constitution of Mongolia. The government has initiated a reform of legislation to keep the environment healthy and safe. As a part of it the ‘Law on Waste’ was approved and introduced in recent years, which provides for the National Program on waste management improvement to be implemented [25].

Both in Ulaanbaatar city and in the provinces, waste management programs started to be implemented, which introduced the requirements and guidelines in this regard. All business entities including the SMEs are supposed to follow them. However, due to a lack of dedicated facilities, both in rural and urban areas, and a lack of proper services, SMEs face difficulties in fully complying with the regulations.

Environmental Clearances Required for Businesses

To assess the impact of the programs, plans, and any project on the environment, make conclusions and decisions about where to implement them, and regulate the relationship between stakeholders, the Law on Environmental Impact Assessment was approved and implemented in 2012.

The law mandates that a general assessment of the environmental impact shall be made before the use of natural resources, acquisition of rights to own and use the land for agricultural purposes, and the implementation of projects such as establishing new factories, buildings, and their expansion. Those implementing such projects are required to prepare a Feasibility Study certified by the relevant authority, a detailed design, a description of the current state of the environment in the area where the project will be implemented, and other relevant documents, by the categories as specified in the appendix to this law. The directive equally applies to SMEs as well; thus, entities whose activities fall under the categories mentioned must also obtain environmental clearance before implementing such projects. It is worth noting that the Environmental Impact Assessment

procedures for SMEs, in comparison to larger mining corporations, generally entail a lesser degree of complexity and resource consumption [12].

The SMEs who are engaged in the export of animals, raw animal products, and natural plant and forest products, are required to obtain a special permit to do so. It is issued by the Ministry of Environment and Tourism. As part of its digitalization initiative, the ministry has made these permits available online from the newly established electronic system. The list of materials required to submit to obtain the permit can be accessed through the link <https://met.gov.mn/tables/b-rd-leh-bichig-barimt/mn>.

Conclusion

The Mongolian Sustainable Development Vision 2030 (MSDV30) [26] was approved by the Resolution 19 of the Great Khural, the Mongolian Parliament in 2016, and by 2030 Mongolia aims to be among the leading ranks of middle-income countries based on per capita income, to be a multi-sector stable economy, and a society dominated by middle and upper-middle income classes, maintain the ecological balance, and have stable and democratic governance. In May 2020, the Parliament approved the long-term development policy of Mongolia ‘Vision-2050’, and the MSDV30 activities were included in its framework and re-approved.

By implementing the Sustainable Development Vision 2030, Mongolia would achieve the following:

1. Increase its GNI per capita to USD17,500 and become an upper middle-income country based on its income per capita.
2. Ensure that the average annual economic growth is not less than 6.6% through 2016–2030.
3. End poverty in all its forms.
4. Reduce income inequality and have 80% of the population in the middle and upper-middle income classes.
5. Increase the enrollment rate in primary and vocational education to 100%, and establish a lifelong learning system.
6. Improve the living environment of the Mongolian people to lead a healthy and long life; increase life expectancy at birth to 78 years.
7. Rank among the first 70 countries on the list of countries by the human development index.
8. Preserve ecological balance and be placed among the first 30 countries on the rankings of the countries by the Green economy index in the world.
9. Rank among the first 40 countries listed in the Doing Business Index and among the first 70 countries by the Global Competitiveness Index in the world.
10. Build professional, stable, and participative governance, free of corruption that is adept at implementing development policies at all levels

An analysis of the current situation of SMEs in Mongolia concerning meeting the Global SDG and the related MSDV30 indicates the following.

Within the framework of Sustainable Development Goal 1 (no poverty), Goal 8 (decent work and economic growth), and Goal 10 (reduced inequality), certain activities and programs have already commenced supporting SMEs. However, there is a need to increase the availability and effectiveness of these programs. Objective 8.5 of MSDV2030 stipulates: "Promote employment, raise the working-age population's economic activeness to 70%, reduce the unemployment rate to 3% in the labor force, and continue increasing the small and medium enterprise support fund to at least MNT300 billion (approximately USD100 million at the time)".

It is necessary to pay more attention to ensure equal coverage of SMEs in urban and rural areas through such programs and projects, to distribute and promote the related information and criteria in an accessible manner, and to ensure equal participation of the SMEs. The measures taken by the Government of Mongolia to support small and medium-sized enterprises are dependent on the state budget, based on planning that tries to meet unlimited needs with insufficient resources, limited coverage and research, and insufficient planning.

It is also believed that political and economic instability hurts the development of the SME sector. Within Goal 8, SMEs and small business loan programs are being implemented to support SMEs financially. However, there is a need to improve the accessibility of these loans, interest rate flexibility, and repayment policies. In doing so, the SMEs will be able to utilize the latest technologies and innovations and perform production in facilities meeting the standards. In turn, it should lead to a sustainable increase in jobs and workers' capacity. All the things mentioned above should be supported by the government policy and efficient implementation of the below goals indicated in the National Program or MSDV2030.

- **Objective 9.3:** Increase access to financial services, including low-interest loans, production, and market access for small-scale manufacturing and other sectors' SMEs.
- **Objective 9.4:** Encourage accessible and sustainable industrialization and significantly increase the share of industrial employment in GDP by 2030 in line with national conditions.
- **Objective 2.3:** To increase the agricultural productivity and income of small-scale food producers by two times by 2030, especially in rural communities, household herders, and fish farmers through providing equal and guaranteed access to land and its resources, information, financial services, markets, and supplies, to create value-added products and non- mining employment.

Within the framework of Goal 9 (industry, innovation, and infrastructure), it is important to introduce innovative technologies and know-how for SMEs and increase their productivity, product quality, and volume to meet international standards. Towards this, the Government of Mongolia included the following clause in the Mongolia SDV2030 to support SMEs through its policy.

- **Objective 8.3:** Formalize micro, small, and medium-sized businesses, and support their growth by promoting development-oriented policies that focus on increasing productivity and creating decent work, entrepreneurship, creativity, and innovation, and making financial services accessible to them.

However, there is a need to develop a detailed program specially dedicated to SMEs in this regard and implement it in real life.

There is, however, no clear policy aimed at achieving Goal 10 (reduced inequality). Also, the violation of labor rights and a favorable working environment, which are the main pillars of decent employment, are not covered. The policy documents state that the equal participation of people with disabilities and women in the labor market, with the provision of appropriate tools and equipment, will be supported by legal regulations. However, the right to work, a favorable working environment, and decent work agenda are not being fulfilled. Conducting work activities in a workplace and meeting the standard is important for sustainable employment and training new labor forces. In all the above context, the Mongolian government should prompt these policies' implementation and monitor them.

As for the rest of the SDGs, such as Goal 11 (sustainable cities and communities), Goal 12 (responsible consumption and production), SDG 13 (climate action), and SDG 15 (protecting terrestrial ecosystems) there is a need to involve SMEs in achieving these goals and implement related programs. Furthermore, it is important to identify the best practices of the SMEs who are actively participating in these activities and create a unified database on them.

Based on the study it can be concluded that the legislative environment to support the small and medium-sized enterprises has been established reasonably. However, some issues need attention and need to be improved.

There is also a need for policy reforms to further improve the environment for small and medium-sized businesses, create a favorable legal, financial, and tax environment, promote the sustainable development of small and medium-sized enterprises, develop the capacity of the emerging in Mongolia clustering approach, strengthen human resources, promote investment in new technologies and innovations, accelerate the digitalization of the manufacturing and service sectors, increase the range and volume of the goods produced by the SMEs to be supplied for the state procurement, and to increase the competitiveness of SMEs.

In addition, policies to promote local development and create new jobs by decentralizing the urban areas, diversifying small and medium enterprises, developing brand products to replace imports, and increasing exports should be formulated and implemented.

The social and political situation, financing, macroeconomic environment, and government regulation group cause the most difficulties for SMEs' business activities. On the other hand, the infrastructure development and internal factors of the SMEs have relatively less negative on their business activities. The market environment and infrastructure development group have improved the most in recent years.

While conducting the research, the experts observed some challenges and limitations of this study.

- Majority of data and information available, like those from the NSC are related to the overall industrial, manufacturing, or agriculture sectors including not only SMEs but also larger enterprises. For such, the intellectual property, labor market, and environmental and waste-related information are more general information rather than related to SMEs alone. The study is also limited by the fact that there are no sex and age-differentiated data on the

people working in the SME sector. Also, the study lacks data on the educational background of the people working in the SME sector.

- Similar limitations exist when identifying the technology and innovation capacity of SMEs since there is no information and data related to the SMEs.
- Considering the above limitations, additional surveys need to be conducted to obtain differentiated and detailed information, particularly about the SME's involvement, capacity, and structure.

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Introduction

A major challenge in Nepal is the quality aspect of employment, which is related to the dominance of employment in the informal segment of the economy where productivity and income are low, and working conditions are poor. Nepal's economy relies heavily on remittances, which account for up to 30% of the GDP. Agriculture is the mainstay of the economy, supporting almost two-thirds of the population but it produces less than one-third of the GDP. In the fiscal year 2011–12, the contribution of the agriculture sector, including agriculture, forestry, and fisheries, to the GDP was 32.68%. Notably, it has been gradually decreasing in recent years and was estimated to be 23.95% in the fiscal year 2020–21 [1, 2]. Overall, agricultural productivity is very low due to the lack of fertilizers, improved seeds, and the use of inefficient technology. Besides, the contribution of the manufacturing sector to Nepal's GDP is also low and steadily declining year by year. In 2010–11, the manufacturing sector's contribution to the country's GDP was just 6.29%, which went down further to 5.65% in 2021–22 [1, 2].

The development of the industrial sector is a key factor in achieving and creating wealth and employment, alleviating poverty, promoting trade, and increasing national income. Industrialization in Nepal started after the launch of the First Five Year Plan in 1956. Despite its slow pace of industrialization, textile factories have become an important part of the economy, particularly driven by the manufacturing of cotton garments. In 1940, tobacco and match factories became a progressively developing industry. Raghupati Jute Mills, established in 1946, is regarded as the first modern industry of Nepal. The country adopted the open economic policy and has been following it since the 1990s. As a result, SMEs' position has gradually changed in numbers. Industrial manufacturing is a small but growing industry. Most of the industries are small, regionally specialized agricultural processing plants. Nepal's financial change pulled in private and financial institutions to open up the monetary segment in the early 1990s. As a result, the line of commercial banks, financial institutions, and cooperatives, contributing to MSMEs was noticeable. MSMEs play a crucial role in driving the country's financial system, generating employment, and alleviating poverty.

The Fifteenth Plan of the National Planning Commission (NPC) for FY 2019–20 to 2023–2024 charts a course toward prosperity and sustainable development, driven by the vision of establishing a socialist-oriented and self-reliant national economy. The plan aims to significantly improve people's well-being by elevating living standards in a manner that addresses both biological and human needs. Emphasizing the long-term commitment to eradicate absolute poverty in the country, the plan sets a target of reducing the number of people living below the poverty line to single digits over the plan duration [3].

In line with the development direction set by the Constitution, the plan outlined strategies for achieving free and sustainable economic growth, stability, better governance, and citizen satisfaction [4]. An integral part of this endeavor is the aspiration to improve the status of Nepal from a Least Developed Country (LDC) to a developing nation and to achieve the SDG targets, eventually elevating Nepal to the status of a Middle-Income Country by 2030 [4]. The vision hinges on generating additional revenue, fostering a skilled human capital base, and mitigating

financial risks. The development of the industrial sector plays a pivotal role in reorienting the economy towards prosperity. To this end, the mobilization of public, private, and cooperative sectors through SMEs is essential to achieve industrial employment and growth.

SMEs are considered to be the economic backbone and engine of development for countries and are critical to the economic and social development of emerging economies like Nepal. SMEs in Nepal share common traits typically observed in SMEs across developing countries and LDCs. Most of the SMEs in Nepal are concerned with the processing and production of food items, household goods, textiles, and related products, catering to both domestic and export markets. MSMEs play a key role in fostering economic growth and generating employment in any nation. Globally, they account for over 50% of total employment and contribute at least 35% to the GDP. In Nepal, however, SMEs currently contribute only around 22% to the country's GDP and create over 1.7 million job opportunities [5].

The Government of Nepal has taken a significant step towards promoting domestic production through the Prime Minister Nepal Production Promotion Program (PMNPPP), a Special Campaign Decade spanning from FY 2022–23 to 2031–32. To kickstart this initiative, the government allocated NPR3.45 billion (around USD26.6 million) for the year 2022–23, which includes the new program and its associated policies [6]. A key aspect of this campaign involves encouraging the use of domestic products within government agencies through a self-consumption drive. By fostering the utilization of locally produced goods, the government aims to boost domestic production and consumption. Additionally, the Government of Nepal will provide necessary assistance to private sector initiatives that enhance domestic production and consumption.

The One Village One Product (OVOP) is a community-centered, demand-driven, rural economic development program that was launched in 2006. The program follows the Public-Private Partnership approach to promote OVOP-branded products in both domestic and international markets. PMNPPP aims to continue and enhance this program by identifying specific products based on their industrial production potential under the concept of 'One Local Level, One Specific Product' [6]. Recognizing the vital role of SMEs, the government is taking various measures to support their growth. Various government policies such as infrastructure support, technology upgrades, preferential access to credit, and preferential policy support have also been put in place to help and encourage SMEs.

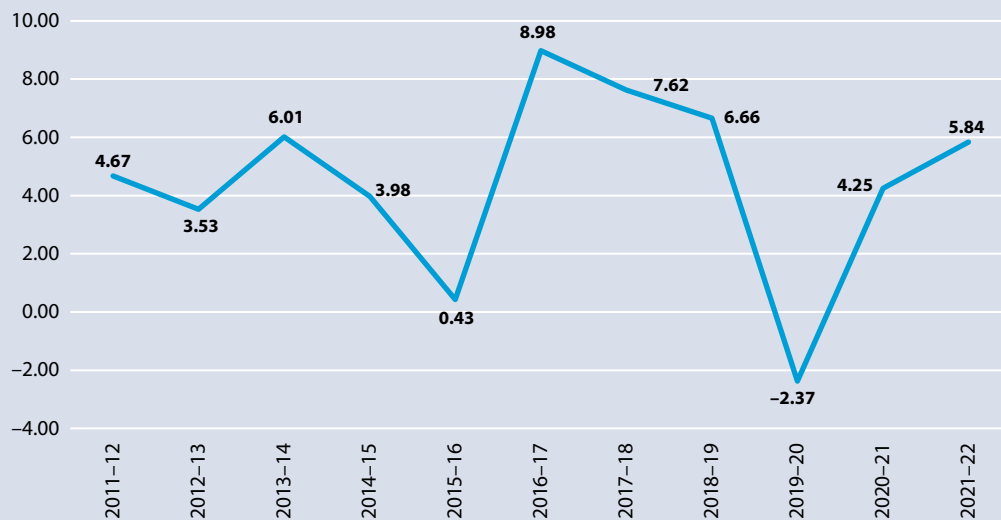
Nepal is one of the early leaders in rolling out a national SDG roadmap. The SDG Status and Roadmap 2016–30, along with the Needs Analysis, and Costs and Financing Strategies, set out goals, targets, indicators, policies, and financing strategies to achieve the SDGs by 2030. As of 2021, Nepal's SDG Index score was 66.2, and the country stood at 98 out of 163 countries in the SDG Index rank [7].

Dimensions of Competitiveness Diagnostics

Outcomes

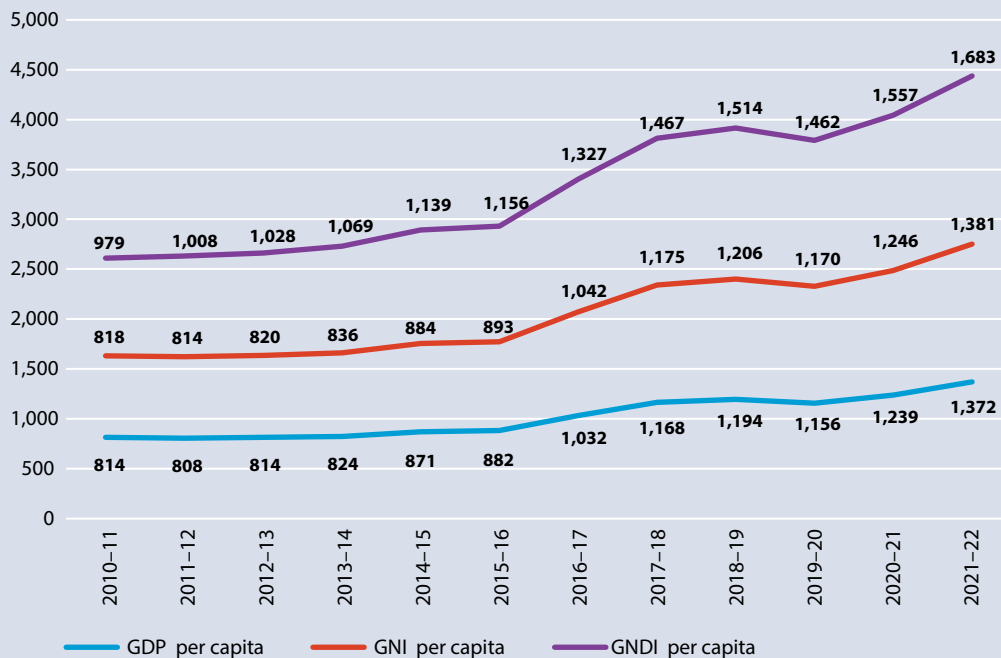
Dynamics of Economic Growth of SMEs

Based on the Central Bureau of Statistics (CBS) annual estimates for 2021–22, Nepal's GDP growth rate at Purchaser's Price is projected to be 5.84%. Notably, in 2019–20, the growth rate recorded a decline of 2.37% but rebounded to 4.25% in 2020–21. The growth rate of Nepal's GDP from FY 2011–12 to 2021–22 is shown in Figure 1.

FIGURE 1**NEPAL'S GDP GROWTH RATE AT PURCHASER'S PRICE (IN USD; FY 2011–12 TO 2021–22).**

Source: National Accounts Statistics of Nepal (2021/22 Annual Estimates). Central Bureau of Statistics, Government of Nepal. [2].

GDP growth trends are uneven, but GDP per capita, Gross National Income (GNI) per capita, and Gross National Disposable Income (GNDI) per capita show uniform growth. Figure 2 shows the growth of GDP, GNI, and GNDI in USDs.

FIGURE 2**PER CAPITA GDP, GNI AND GNDI IN NEPAL (IN USD).**

Source: National Accounts Statistics of Nepal (2021/22 Annual Estimates). Central Bureau of Statistics, Government of Nepal [2].

The Industrial Enterprises Act (IEA) 2020, categorizes enterprises into micro, cottage, small, medium, and large, based on the number of employees and capital [8]. Small firms have a fixed capital of up to NPR150 million (approximately USD1.15 million), medium-sized firms have fixed capital exceeding NPR150 million (approximately USD1.15 million) but less than NPR500 million (approximately USD3.84 million), and large firms have fixed capital exceeding NPR500 million (approximately USD3.84 million). There are also two other types of firms defined in the Act, namely microenterprises and cottage enterprises. The criteria determining microenterprises include fixed capital (excluding land and buildings) of no more than NPR2 million (approximately USD15,500), an annual turnover of no more than NPR10 million (approximately USD77,000), and employment of a maximum of nine workers, including the entrepreneur. Cottage enterprises rely on traditional and local skills, technology, and art and culture, and are labor-intensive. In practice, cottage enterprises are mostly microenterprises or SMEs in terms of size.

TABLE 1**CATEGORY OF ENTERPRISES BASED ON THE INDUSTRIAL ENTERPRISES ACT, 2020 NEPAL.**

Enterprises	Capital
Small firms	An industry with a fixed capital not exceeding NPR150 million rupees (approximately USD1.15 million), other than a microenterprise and cottage industry
Medium-sized firms	An industry with a fixed capital exceeding NPR 150 million (approximately USD1.15 million), but not exceeding NPR500 million rupees (approximately USD3.84 million)
Large firms	Exceeding NPR500 million (approximately USD3.84 million)
Microenterprises	Not more than NPR2 million (approximately USD15,500), an annual turnover of no more than NPR10 million (approximately USD77,000), and employment of no more than nine workers, including the entrepreneur
Cottage enterprises	Traditional and local skills, technology, and art and culture

Source: The Industrial Enterprises Act, 2076 (2020). Ministry of Industry, Commerce and Supplies, Government of Nepal [8].

As per the registration data of micro, cottage, and small industries, a total of 587,802 industries were registered up until mid-2022. Among these, 190,234 companies operate in the service sector, 174,466 in the agriculture and forest sector, and 152,100 in the manufacturing sector. Table 2 provides a more comprehensive breakdown of the registration of the micro, cottage, and small industry based on industry classification.

TABLE 2**MICRO, COTTAGE, AND SMALL INDUSTRY REGISTRATION AS PER INDUSTRY CLASSIFICATION.**

Industry Class	Till 2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Total
Manufacturing	113,694	7,725	8,402	5,895	9,679	6,705	152,100
Energy	1,412	17	18	1	7	6	1,461
Agriculture and forest	33,819	12,256	17,687	22,097	48,852	39,755	174,466
Tourism	30,225	4,135	4,969	1	3	3,855	43,188
Minerals	1,231	40	3	4,997	5,693	3	11,967

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Industry Class	Till 2016–17	2017–18	2018–19	2019–20	2020–21	2021–22	Total
Service sector	110,295	11,717	20,899	14,879	18,218	14,226	190,234
Construction	10,020	1,089	557	903	886	413	13,868
Information and technology	25	164	94	81	48	106	518
Total	300,721	37,143	52,629	48,854	83,386	65,069	587,802

Source: Micro, Cottage and Small Industry Statistics 2022. Department of Industry, Government of Nepal [9].

The National Economic Census (NEC), conducted by CBS in 2018, stands as the primary benchmark for economic statistics, providing crucial data about the structure and functioning of Nepal's national economy, including both the formal and informal sectors. Although the NEC 2018 did not encompass all the information required to classify businesses by size, as defined by IEA 2020, the analysis in Table 3 is based on classifying businesses by the number of employees. Table 3 shows that out of a total of 923,356 establishments in Nepal, micro establishments (with 1–9 employees) account for the majority at 95.4%. Small-scale establishments (with 10–49 employees) account for 4.2%, while medium-scale establishments (with 50–99 employees) and large-scale establishments (with 100 employees or more) each make up 0.2% [10].

TABLE 3**ESTABLISHMENTS IN NEPAL BY NUMBER OF EMPLOYEES.**

Number of Employees	Establishments	Registered	Unregistered	Unregistered/ Total (in %)
Micro establishments (with 1–9 employees)	880,542 (95.37%)	421,996	458,258	52.1
Small-scale establishments (with 10–49 employees)	38,769 (4.20%)	36,705	2,032	5.2
Medium-scale establishments (with 50–99 employees)	2,258 (0.24%)	2,165	88	3.9
Large-scale establishments (with 100 or more employees)	1,787 (0.19%)	1,739	44	2.5
Total	923,356	462,605	460,422	49.9

Source: National Economic Census 2018 Analytical Report No. 2 Comparative Analysis. Central Bureau of Statistics, Government of Nepal [10].

The percentage of unregistered enterprises varies significantly across different enterprise sizes. For micro-enterprises, the percentage of unregistered enterprises is 52.1%. In the case of small enterprises, it is 5.2%, while it stands at 3.9% and 2.5% for medium-sized enterprises and large enterprises, respectively.

SDG Targets and Progress

Nepal's progress in reducing poverty has been remarkable. The percentage of the population living below the USD1.9 poverty line now stands at 15%. Additionally, the per capita GNDI has exceeded expectations, and the Multidimensional Poverty Index (MPI) has declined to 28.6%. Furthermore, the percentage of the population below the national poverty line stands at 16.7%. Table 4 highlights some of the key targets and progress made in relation to poverty indicators for the SDGs.

TABLE 4

NEPAL'S PROGRESS ON SDG POVERTY INDICATORS.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 1. End poverty in all its forms everywhere.	Poverty USD1.9 per day (PPP value)	36	28.5	15
	Per capita GNDI (USD)	766	821	1514
	MPI	44.2	35.1	28.6
	The proportion of the population living below the national poverty line	21.6	17.1	16.7
	Social protection expenditure in the total budget (in %)	11	12.1	12.9

Note: PPP, Purchasing Power Parity.

Source: National Accounts Statistics of Nepal (2021/22 Annual Estimates). CBS [2]; The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

MSMEs play a pivotal role in driving economic growth and job creation in Nepal. Notably, SMEs constitute a significant portion of the job market, generating employment at a relatively lower capital cost compared to larger corporates. Therefore, SME development policies are more credible in developing economic conditions for job creation and poverty alleviation in developing countries. Overall, SMEs dominate the economic landscape in Nepal, accounting for more than 99% of all establishments.

SMEs play a significant role in poverty reduction and are directly related to the following SDGs.

SDG 1 (end poverty): Nepal's progress in poverty reduction has been impressive, with the country meeting the targets related to several indicators.

SDG 2 (end hunger): Grain production per capita in Nepal shows positive progress, yet the food safety index score stands at 46 [11]. Despite agriculture being a high-priority goal, the country's progress on SDG 2 has been sluggish. MSMEs provide a direct link to SDG 2 and facilitate capacity-building measures for smallholder and agriculture-based enterprises. Notably, the majority of farmers in developing countries like Nepal are small producers.

SDG 3 (healthy lives and well-being): Progress on SDG 3 remains much slower than expected, but Nepal is making a lot of efforts in this area, with many indicators showing positive results.

SMEs play an important role in the economic development of the country. Their role in production, creation of jobs, contribution to exports, and promotion of a fair income distribution is crucial. The small business sector provides opportunities for a large number of talented and potential entrepreneurs, who might otherwise lack proper opportunities and hence contributes significantly to manufacturing and the overall GDP growth.

The majority of entrepreneurs are in informal micro and small businesses. Smaller units can use resources more efficiently without wasting their capacity, resulting in higher allocation efficiency. Many workers spend more resources in small businesses because the risk factor is lower. Small, family-owned micro businesses are typically home-based. Micro-enterprises are one of the more viable options for creating jobs and thus alleviating poverty in underdeveloped countries like Nepal.

Labor Productivity

The Nepal Labor Force Survey (NLFS) 2017–18 points out that out of the total population of 29 million, 46.5% or 13.5 million were male and 15.5 million (53.5%) were female. Almost 40% of

the population was below 20 years, which means Nepal had a dominant young population [10]. There were approximately 20.7 million people of working age in 2017–18 [12] compared to 14.5 million workers in 2011, and 11.9 million in 2000 [13].

In Nepal, the GDP data on labor productivity is limited. However, the International Labor Organization (ILO) maintains several econometric models that are used to produce estimates and forecasts of the labor market indicators for countries and years for which country-by-country reporting data is not available. The annual growth rate of different GDPs of ILO modeled estimates is shown in Table 5.

TABLE 5**ANNUAL GROWTH RATE OF DIFFERENT GDP OF ILO MODELED ESTIMATES.**

Year	The Annual Growth Rate of Real GDP per Employed Person (GDP Constant 2017 International USD in PPP) (in %)	Output per Worker (GDP Constant 2015 USD): ILO Modeled Estimates	Output per Worker (GDP Constant 2017 International USD at PPP): ILO Modeled Estimates	Output per Hour Worked (GDP Constant 2017 International USD at PPP): ILO Modeled Estimates
2010	3.6	3,238	11,964.45	2.45
2011	2.8	3,363	12,425.18	2.51
2012	4.0	3,454	12,760.58	2.61
2013	3.0	3,632	13,419.53	2.69
2014	5.4	3,730	13,783.30	2.84
2015	2.8	3,661	13,527.08	2.92
2016	-2.3	3,904	14,426.24	2.87
2017	6.4	4,101	15,151.53	3.08
2018	4.3	4,270	15,776.88	3.24
2019	3.4	4,210	15,557.10	3.39
2020	4.3	4,218	15,586.82	3.86
2021	-3.6	4,198	15,512.71	3.43

Source: ILO modeled estimates (Nov. 2021), ILOSTAT [14].

SDG Targets and Progress

The GDP per capita growth indicator is based on Nepal's real GDP per capita. The growth rate of 5.6% in 2019 is well above the target growth rate. The GDP per worker is around 7%, well above the target of 3.8%. SMEs play an important role in fulfilling these SDG targets. Some of the targets and progress of SDG regarding labor productivity indicators are shown in Table 6.

TABLE 6**NEPAL'S PROGRESS ON SDG INDICATORS FOR LABOR PRODUCTIVITY.**

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.	Per capita GDP growth (in %)	2.3	3.6	5.6
	Annual growth rate of real GDP per employed person	1.6	3.6	7.0

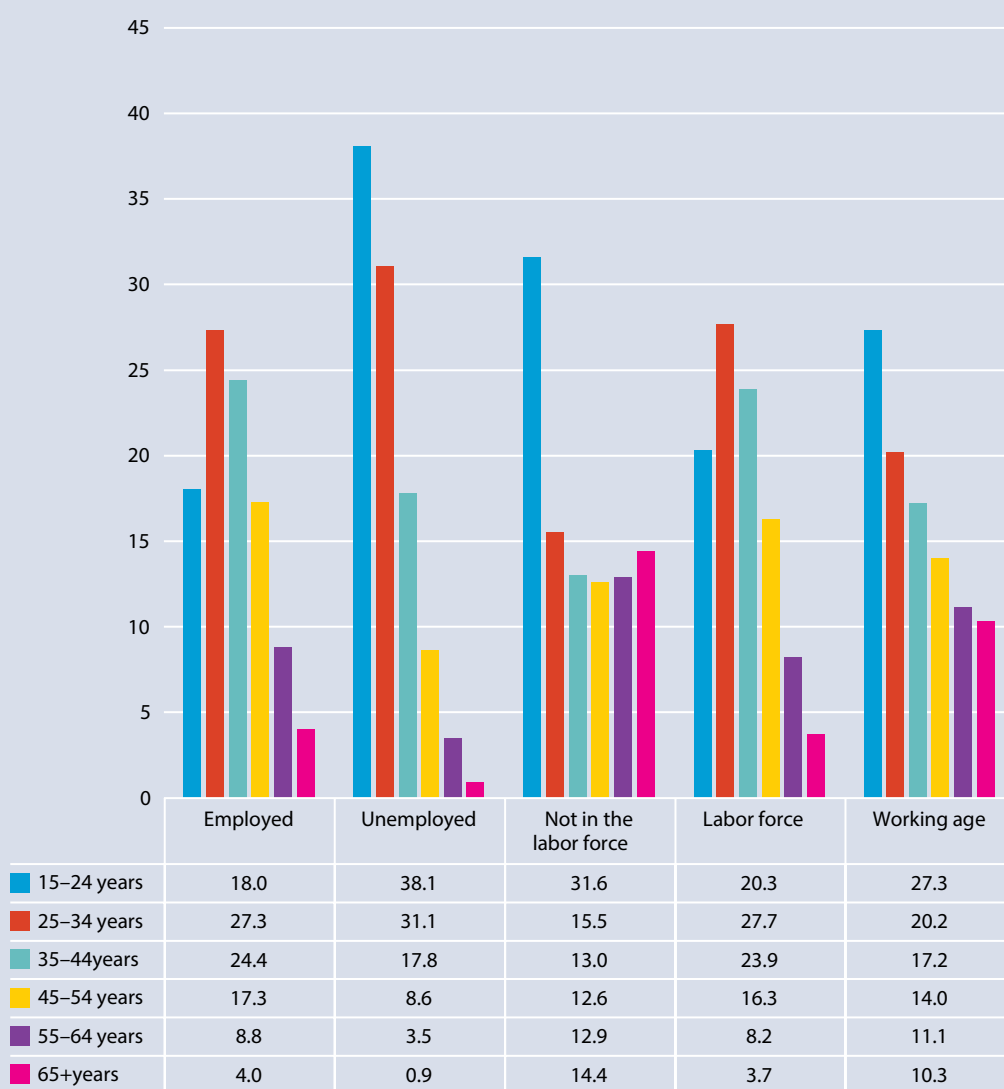
Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

Labor Mobilization

Employment abroad has become a major source of income for many Nepali households. The outmigration trend among Nepalese youth has been increasing year by year. The Nepal Labor Migration Report 2022 reveals that between 2008–09 and 2021–22, more than 4.7 million new work permits were issued to Nepali migrants seeking employment abroad. Additionally, over 1.8 million migrant workers have renewed their work permits since 2011–12. The willingness of Nepalese migrant workers to continue working abroad, even after their contracts have expired, indicates fewer domestic opportunities [15].

Figure 3 shows that more than 40% of the 20.7 million working-age individuals falling within the 15–34 years age group, indicating a predominantly young population. Females accounted for a larger share of the working-age population in the lower age groups (15–44 years), while males

FIGURE 3
DYNAMICS OF THE WORKING-AGE POPULATION IN NEPAL.



Source: Report on the Nepal Labor Force Survey, 2017/18. Central Bureau of Statistics, Government of Nepal [12].

accounted for a larger share of the working-age population among those aged 45 years and older. Nepal may face a shortage of workers by 2030 if people continue to take up jobs in foreign labor markets. This could pose challenges to the nation's aspirations of transforming into a middle-income economy.

SDG Targets and Progress

The indicator for youth underemployment shows that there has been a substantial reduction in youth underemployment from 35.8% in 2015 to 21.4% in 2019. While the target has been achieved, the data needs to be compared to other proxy indicators. The target of the underemployment rate for 2019 was to reduce underemployment from 27.8% in 2015 to 23.1% in 2019. This target seems to have been achieved, as the underemployment rate in 2017–18 was 19.6%. Some of the targets and progress of SDG regarding labor mobilization indicators are shown in Table 7.

TABLE 7

NEPAL'S PROGRESS ON SDG INDICATOR FOR LABOR MOBILIZATION.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.	Unemployment rate (in %)		11.4	11.4
	The youth underemployment rate (in %)	35.8	28.9	21.4
	Underemployment rate (15–59 years) (in %)	27.1	23.1	19.6
	Average hourly earnings of female and male employees (NPR)	32	50.1	NA

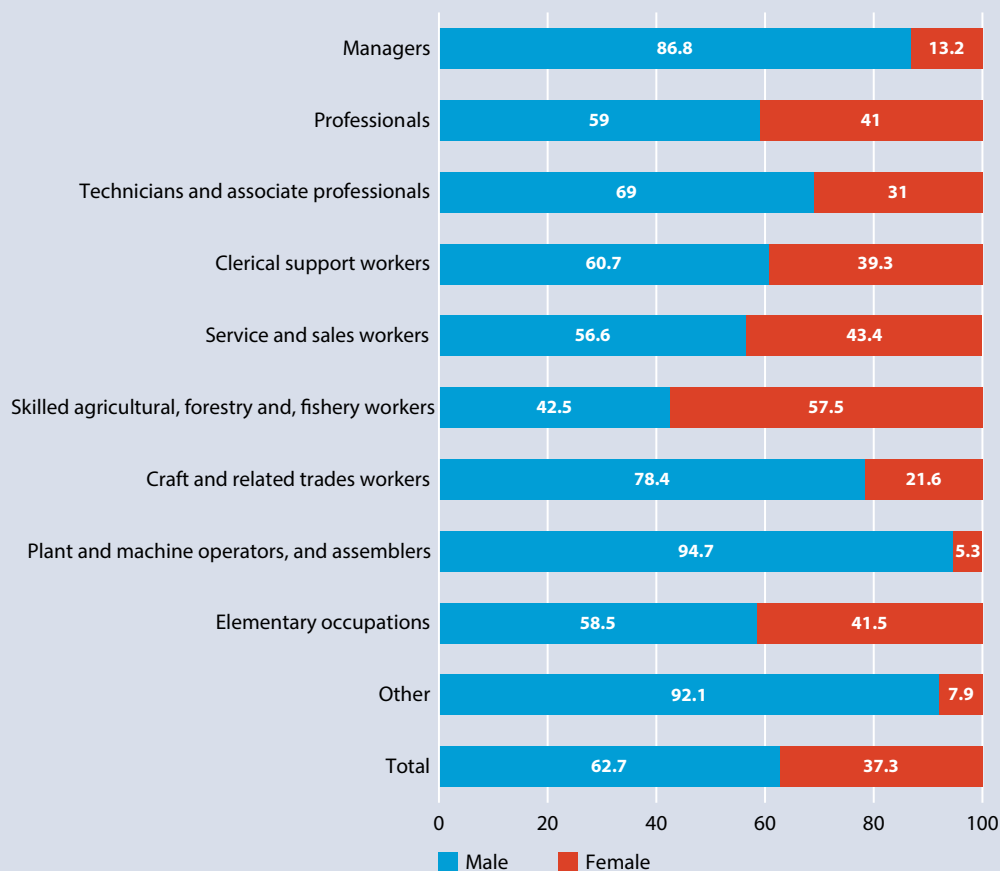
Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

Gender Gap in Labor Force Participation Rate

According to the NLFS 2017–18 [12], for every 100 males in the working-age population, there are 125 females, but for every 100 employed males, there are only 59 employed females. The population of working-aged males stands at 9.2 million while that of working-age females stands at 11.53 million. The survey also showed that males were mostly employed in the construction, manufacturing, and transport industries, while females were employed in the areas of agriculture, wholesale and retail, trading, and education industries. Most of the jobs, according to the survey, have been created in the informal sector where the majority of the people are employed.

Figure 4 shows the share of occupation by gender. About 86.8% of those employed in managerial occupations were male, compared to 13.2% of females. Females were more likely to be employed as skilled agricultural, forestry, and fishery workers as compared to men.

Among all the establishments, 70.2% of businesses are owned by males, while 29.8% are owned by females. This pattern holds true across all industries, with male-owned establishments outnumbering female-owned establishments in each sector. However, the shares of female-owned establishments are relatively high in 18 industries. Notably, women entrepreneurs own a 39% share in the accommodation and food service activities sector, while they account for a 31% share of the wholesale and retail trade; repair of motor vehicles and motorcycles sector [16]. Table 8 shows the number of establishments by gender of the owner and industry.

FIGURE 4**SHARE OF EMPLOYMENT IN NEPAL BY OCCUPATION AND GENDER (IN %).**

Source: Report on the Nepal Labor Force Survey, 2017/18. Central Bureau of Statistics, Government of Nepal [12].

TABLE 8**NUMBER OF ESTABLISHMENTS BY GENDER OF THE OWNER AND INDUSTRY.**

Section of NSIC	Overall	Male	Female	Male (in %)	Female (in %)
Total	830,597	582,717	247,880	70.16	29.84
Agriculture, forestry, and fishing	12,139	10,146	1,993	83.58	16.42
Mining and quarrying	597	468	129	78.39	21.61
Manufacturing	102,993	79,572	2,3421	77.26	22.74
Electricity, gas, steam, and air conditioning supply	302	285	17	94.37	5.63
Water supply, sewerage, waste management, and remediation activities	1,182	1,086	96	91.88	8.12
Construction	1,396	1,313	83	94.05	5.95
Wholesale and retail trade, repair of motor vehicles and motorcycles	495,640	341,841	153,799	68.97	31.03

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Section of NSIC	Overall	Male	Female	Male (in %)	Female (in %)
Transportation and storage	1,439	1,329	110	92.36	7.64
Accommodation and food service activities	130,064	79,333	50,731	61.00	39.00
Information and communication	2,257	2,051	206	90.87	9.13
Financial and insurance activities	4,450	3,583	867	80.52	19.48
Real estate activities	178	170	8	95.51	4.49
Professional, scientific, and technical activities	7,952	7,213	739	90.71	9.29
Administrative and support service activities	6,227	5,680	547	91.22	8.78
Education	12,788	10,584	2,204	82.77	17.23
Human health and social work activities	7,218	5,573	1,645	77.21	22.79
Arts, entertainment, and recreation	2,248	2,100	148	93.42	6.58
Other service activities	41,527	30,390	11,137	73.18	26.82

Source: National Economic Census 2018, National Report No.1–1. Central Bureau of Statistics, Government of Nepal; National Planning Commission [16].

According to the 2018 NEC, there were 923,356 establishments in Nepal, and about half of them were registered. The MSME sector employed 2.74 million people, of which 69.3% were in micro-enterprises, 25.2% in small enterprises, and 5.5% in medium enterprises. The majority of employees were men and the employment ratio is 62:38. However, the gender gap is widening for owners and managers, where the male-to-female ratio is about 70:30 [5].

The Global Gender Gap Index (GGGI)

The GGGI measures the status and development of gender equality in four key dimensions: economic participation and opportunity, education levels, health and survival, and political empowerment. Nepal scored 0.692 on the gender equality parameter and ranked 96th. The country performed best in terms of political empowerment with a score of 58 out of 146. It stood at rank 98 in terms of economic empowerment and opportunity, 125 in terms of education, and 109 out of 146 for health and survival rates [17, 18].

SDG Targets and Progress

The measures to strengthen gender equality have shown some improvement, but wage inequality persists. Participation rates for women are still much lower than those for men. From national parliaments to local governments, and in public sector decision-making, there has been great progress in women's representation in elected offices. Women's participation in private sector decision-making processes has also improved. The number of women entrepreneurs is on the rise, with one-third of women securing property ownership. Legal frameworks for gender equality have worked in favor of women.

Some of the targets and progress of SDGs regarding gender equality and empowering all women and girls indicators are shown in Table 9.

TABLE 9

NEPAL'S PROGRESS ON SDG INDICATOR FOR GENDER EQUALITY AND EMPOWERING WOMEN AND GIRLS.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 5. Achieve gender equality and empower all women and girls.	Wage equality for similar work (ratio of women's wage to that of men)	0.62	0.72	0.66
	Gender Inequality Index	0.49	0.38	0.48
	Gender Empowerment Measurement (Index)	0.57	0.6	0.62
	Ratio of women to men participation in the labor force	0.93	0.95	0.61
	Average hours spent in domestic work by women	14	11.87	6
	The proportion of seats held by women in (a) national parliaments and (b) local governments			
	(a) National parliament (in %)	29.5	33	33.5
	(b) Provincial parliament (in %)		33	34.4
	(c) Local government bodies (in %)		40.5	40.8
	Women's participation in decision-making level in the private sector (in %)	25	30.3	29.61
	Women's participation in the cooperative sector (in %)	50	50	51
	Women in civil service decision-making positions (% of total employees)	11	17	13.6
	Ratio of women to men in professional and technical workers (in %)	24	28	25
	Use of the Internet by women aged 15–24 years (in %)	19.6	40.5	34.97
	Women's ownership of property (land and house)	26	29.7	33.93

Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

Regional Disparities

Geographically, Nepal has three Eco regions. The mountains are covered with snow most of the year, and their population is very low compared to other areas. In terms of geographical distribution, the maximum number of establishments are located in the hill region (49.43%), including Kathmandu. Among others, 44.35% of the establishments are located in the terai and 6.22% of the establishments are located in the mountain region. Table 10 shows the distribution of establishments and the number of people employed, by gender and Eco regions.

TABLE 10

DISTRIBUTION OF ESTABLISHMENTS AND PERSONS ENGAGED BY BROAD GEOGRAPHICAL DIVISION.

Broad Geographical Division	Number of Establishments	In %	Number of People Engaged				
			Total	Male	Male (in %)	Female	Female (in %)
Nepal	923,356		3,228,457	2,012,237	62.33	1,216,220	37.67
Mountain	57,458	6.22	181,807	106,784	58.73	75,023	41.27
Hill	456,428	49.43	1,715,944	1,011,871	58.97	704,073	41.03
Terai	409,470	44.35	1,330,706	893,582	67.15	437,124	32.85

Source: National Economic Census 2018, National Profile 1 by Province. Central Bureau of Statistics, Government of Nepal [19].

Politically, Nepal has seven provinces. Bagmati Province, which includes Kathmandu, has the highest share of all establishments, with 30.6% of total establishments. Meanwhile, Nepal's largest and least populated province, the Karnali Province, has the least number of establishments with only 4.6% of the national total. Table 11 shows the number of establishments and the number of people employed, by gender and province.

TABLE 11

DISTRIBUTION OF ESTABLISHMENTS AND PERSONS ENGAGED BY PROVINCE.

Provinces	Number of Establishments	In %	Number of Persons Engaged				
			Total	Male	Male (in %)	Female	Female (in %)
Nepal	923,356	100.00	3,228,457	2,012,237	62.33	1,216,220	37.67
Province 1	168,518	18.25	544,079	324,037	59.56	220,042	40.44
Madhesh Province	117,670	12.74	354,994	268,279	75.57	86,715	24.43
Bagmati Province	282,920	30.64	1,218,497	731,783	60.06	486,714	39.94
Gandaki Province	100,684	10.90	332,472	185,400	55.76	147,072	44.24
Lumbini Province	147,789	16.01	474,264	306,892	64.71	167,372	35.29
Karnali Province	42,807	4.64	118,951	70,814	59.53	48,137	40.47
Sudurpashchim Province	62,968	6.82	185,200	125,032	67.51	60,168	32.49

Source: National Economic Census 2018, National Profile 1 by Province. Central Bureau of Statistics, Government of Nepal [19].

Social and Environmental Outcomes

Nepal is a landlocked country that depends on agriculture and is prone to natural disasters such as severe thunderstorms, floods, landslides, droughts, and scarcity. Most of Nepal's SMEs are engaged in the processing and manufacturing of food, consumer goods, household goods, textiles, and related products, for export and domestic market. Nepal faces serious environmental challenges. Dependence on agriculture indicates a strong need for environmental protection [20]. SMEs in Nepal suffer from traditional management practices, underdeveloped corporate culture, low capital base, outdated and inefficient production processes and techniques, and inadequate knowledge and information on business opportunities and marketing [21]

Energy Use

Clean energy is a natural priority for Nepal because of the abundance of hydropower resources and the need to reduce the dependence on fossil fuels imported from outside.

SDG Targets and Progress

The energy consumption per capita is now 20gg, as compared to the target of 18.1gg in 2019. Also, electricity consumption per capita is 260 kWh against the target of 235. However, the ratio of commercial energy use (MJ) to GDP and energy efficiency in Industry (MJ per NPR1,000 of product) is not available. But the households using solid fuel for cooking, have remained above the target of 65.5% and households using LPG for cooking also remain higher than expected, at 26.6%.

Some of the targets and progress of SDGs, regarding energy use indicators are shown in Table 12.

TABLE 12

NEPAL'S PROGRESS ON SDG INDICATORS FOR ENERGY USAGE.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 7. Ensure access to affordable, reliable, sustainable, and modern energy for all.	Ratio of commercial energy use (MJ) to GDP	3.2	3.18	NA
	Energy efficiency in Industry (MJ per NPR1,000 of product)	47.2	45.3	NA
	Share of renewable energy in total energy consumption	11.9	22.1	5

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SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 7. Ensure access to affordable, reliable, sustainable, and modern energy for all.	Installed capacity of hydropower (MW)	782	2301	1250
	Electricity consumption (kWh per capita)	80	230	260
	Households using solid fuel as the primary source of energy for cooking (in %)	74.7	65	68.6
	People using liquid petroleum gas (LPG) for cooking and heating (in %)	18	23.6	26.6

Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

Economic Activity

Nepal has shown progress in the socio-demographic indicators over the past decades, but economic growth has been very slow. For SMEs in the industrial sector, the impact of COVID-19 is more pronounced with the sharp fall in outputs, due to the lack of imported raw materials, supply disruptions, lack of labor mobility, and traffic restrictions. Nepal's economic growth turned negative at 2.37% in the fiscal year 2019–2020 for the first time in 20 years. This was due to the effects of the COVID-19 pandemic, which was more severe than the economic losses caused by the devastating earthquake in 2014–15 [1, 2].

The slowing GDP growth rate combined with persistent inequality, high youth unemployment, and gender disparities in most socioeconomic indicators pose challenges for the government [22]. The MSME sector contributes significantly to a country's economic potential and poverty alleviation through employment and income opportunities. However, there are too many small businesses that are taking advantage of market opportunities. Unfortunately, they do not have access to information on market trends, prices, exports, and financial outlook, which impacts their growth potential.

Trade Activity

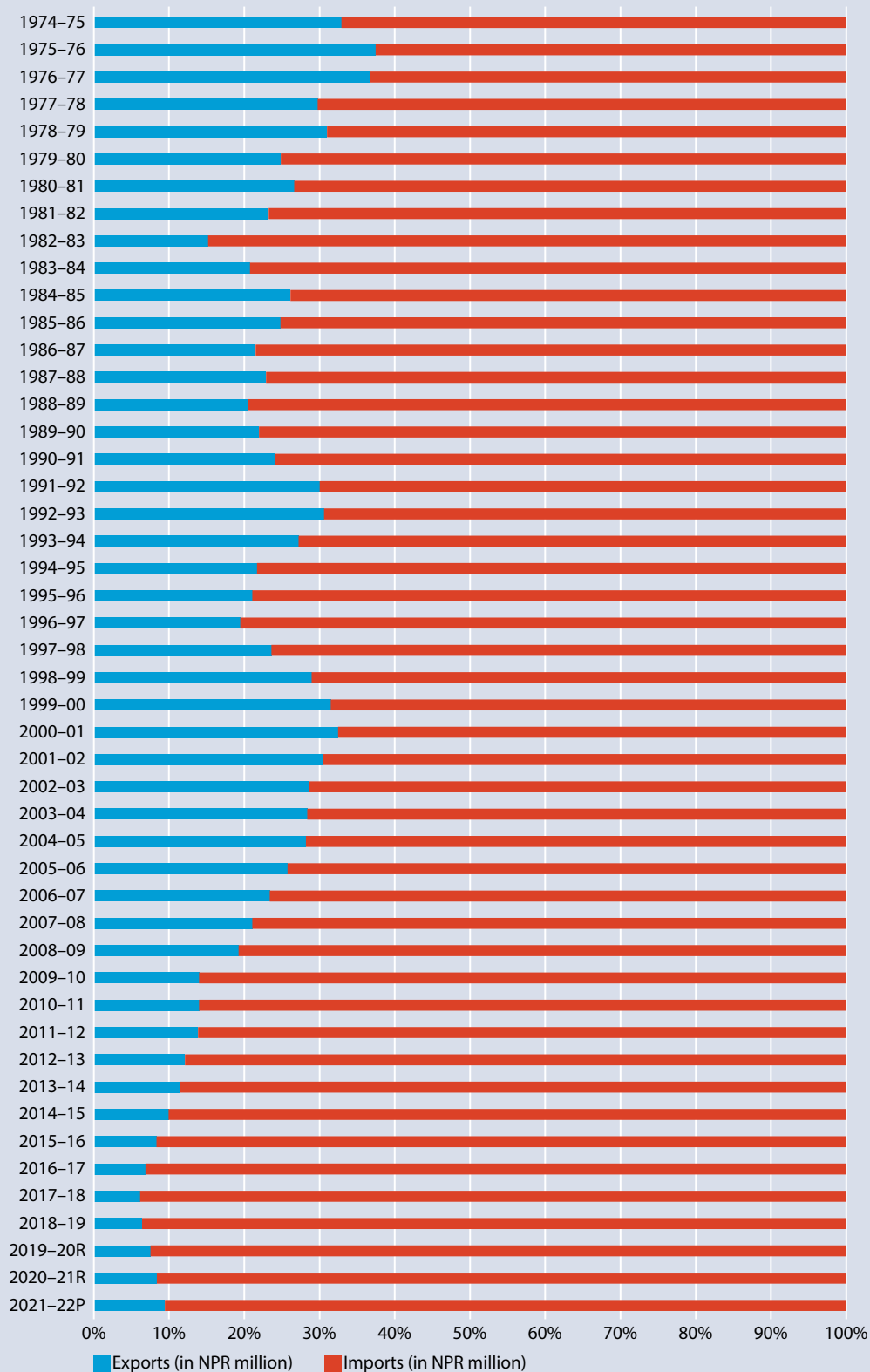
The government has adopted policies that promote an investment-friendly business environment, flexible labor laws, co-investment in infrastructure, and more. Nepal's industrial policy aims to improve the export of industrial products by producing high-quality and competitive products, enhance the contribution of the industrial sector by effectively utilizing local resources, raw materials, and technology, and become an attractive investment destination [23].

In the European Union, United States, Japan, Canada, ROC, and other developed and developing economies, goods manufactured by Nepali SMEs are eligible for preferential market access offered by these countries with various schemes. However, Nepal's foreign trade is characterized by a large trade deficit and an over-reliance on trade with India. The main problems are high transportation costs, lack of supply-side capacity, difficult terrain, inadequate production, over-reliance on imports of consumer goods and petroleum products, inadequate trade infrastructure, and low added value.

Nepal has introduced a liberal trade policy that promises to encourage private entrepreneurs to invest in the growth and expansion of the export sector. Nepal is a member of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, the South Asia Free Trade Agreement, and the World Trade Organization (WTO) to open up a wide international market for domestic products, rather than restricting domestic products to a narrow domestic market. However, the ratio of imports and exports is increasing year by year. The Direction of foreign trade (Annual Series) is shown in Figure 5.

FIGURE 5

DIRECTION OF FOREIGN TRADE (ANNUAL SERIES) OF NEPAL.



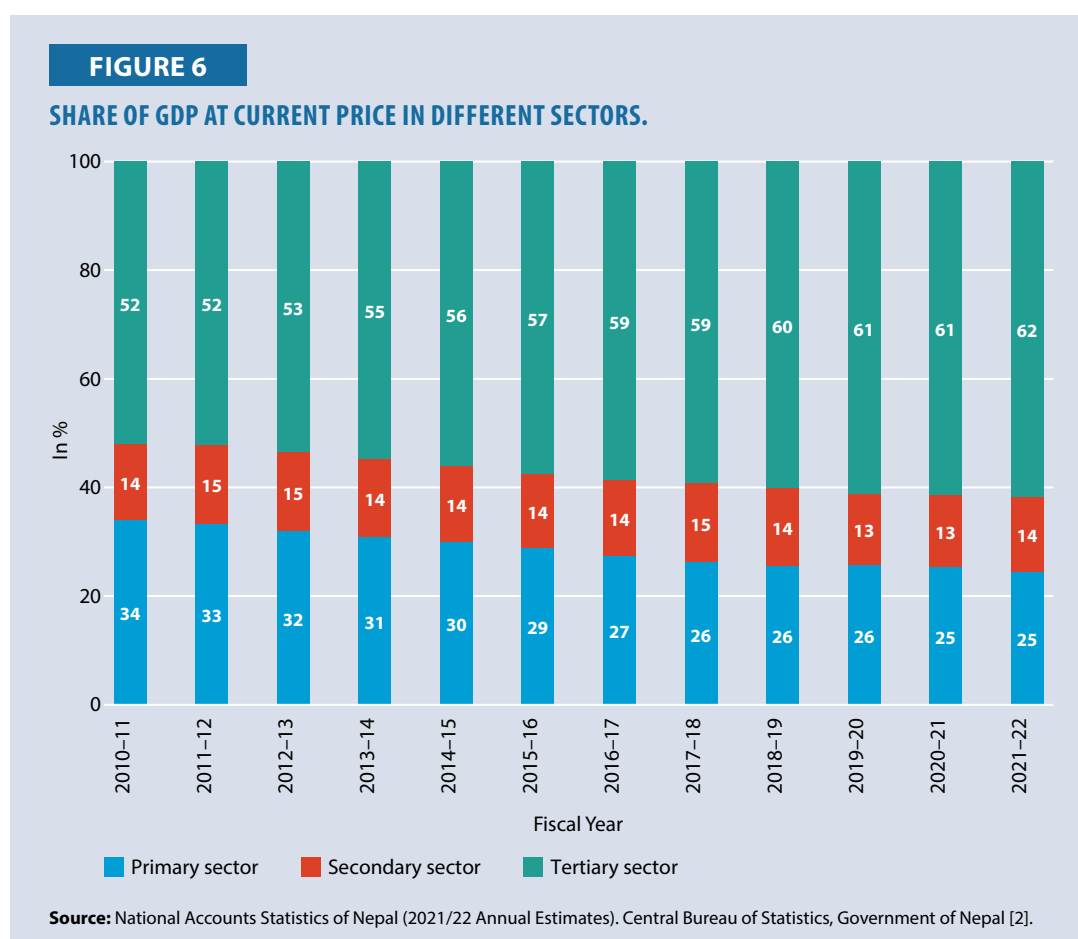
Source: Current Macroeconomic and Financial Situation-Tables (Based on Annual data of 2021/22). Nepal Rastra Bank [24].

The 2016 Nepal Trade Integration Strategy identified priority economic activities with the potential for export, including certain handicrafts and manufacturing industries, fabrics, textiles, yarns, ropes, leather and shoes, changra pashmina, and knotted carpet [23]. Other potential manufacturing export activities included cement, pharmaceuticals, metals and metal products, handmade paper, and paper products.

Nepal has created dedicated institutions such as Nepal Investment Board for mega investments, Special Economic Zones (SEZ) for export-oriented industries, and one-stop services to facilitate Foreign Direct Investment (FDI). The FDI in Nepal is facilitated by the Foreign Investment and Technology Transfer Act, Industrial Enterprises Act, and Investment Board Act.

Sectoral Composition

According to the Central Bureau of Statistics (CBS) 2021–22 annual estimates, Nepal's Gross GDP at the current price has been estimated for different sectors. The percentage of GDP of different sectors from 2011–12 to 2021–22 is shown in Figure 6.



As per the NEC 2018 data, out of the total 923,356 establishments, the wholesale and retail trade; repair of motor vehicles, and motorcycles industry emerges as the primary industry in the country, constituting 53.9% of all establishments. Following closely is the accommodation and food service activities industry, accounting for 14.1% of all establishments. The manufacturing sector is the third largest industry comprising 11.3% of all establishments [25]. The break up of establishments by industry type is shown in Table 13.

TABLE 13
SHARE OF ESTABLISHMENTS BY INDUSTRY TYPE.

Classification of Industry	Total	Micro Establishments (with 1–9 Employees)	Small-Scale Establishments (with 10–49 Employees)	Medium-Scale Establishments (with 50–99 Employees)	Large-Scale Establishments (100 or More People are Engaged)
Agriculture, forestry fishing	24,229	21,972	2,112	74	71
In %	2.62	2.38	0.23	0.01	0.01
Mining, quarrying	663	394	255	8	6
In %	0.07	0.04	0.03	0.00	0.00
Manufacturing	104,058	98,983	3,884	459	732
In %	11.27	10.72	0.42	0.05	0.08
Electricity, gas	1,242	898	263	57	24
In %	0.13	0.10	0.03	0.01	0.00
Water supply	2,525	2,129	383	11	2
In %	0.27	0.23	0.04	0.00	0.00
Construction	1,608	1,285	282	21	20
In %	0.17	0.14	0.03	0.00	0.00
Wholesale, retail trade	498,069	494,623	3,275	108	63
In %	53.94	53.57	0.35	0.01	0.01
Transportation, storage	3182	2920	217	27	18
In %	0.34	0.32	0.02	0.00	0.00
Accommodation, food	130,540	127,768	2,636	97	39
In %	14.14	13.84	0.29	0.01	0.00
Information, communication	2,796	1,969	686	84	57
In %	0.30	0.21	0.07	0.01	0.01
Financial, insurance	17,996	14,106	3631	93	166
In %	1.95	1.53	0.39	0.01	0.02
Real estate	207	163	34	10	0
In %	0.02	0.02	0.00	0.00	0.00
Professional, scientific, technical	8,204	7,844	321	24	15
In %	0.89	0.85	0.03	0.00	0.00
Administrative, support service	6,873	6,197	630	27	19
In %	0.74	0.67	0.07	0.00	0.00

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Classification of Industry	Total	Micro Establishments (with 1–9 Employees)	Small-Scale Establishments (with 10–49 Employees)	Medium-Scale Establishments (with 50–99 Employees)	Large-Scale Establishments (100 or More People are Engaged)
Education	40,839	24,314	15,414	845	266
In %	4.42	2.63	1.67	0.09	0.03
Human health, social work	19,990	17,570	2,069	160	191
In %	2.16	1.90	0.22	0.02	0.02
Arts, entertainment, recreation	2,821	2,527	273	11	10
In %	0.31	0.27	0.03	0.00	0.00
Other service activities	57,514	54,880	2,404	142	88
In %	6.23	5.94	0.26	0.02	0.01
Total	923,356	880,542	38,769	2,258	1,787
In %	100.00	95.36	4.20	0.24	0.19

Source: National Economic Census 2018, National Report No 1–3. Central Bureau of Statistics, Government of Nepal [25].

Informality in SMEs

In Nepal, over 70% of the working population works in the informal sector. The informal sector is expanding rapidly due to changing employment patterns. However, the workers in this sector face many challenges and constraints that the governments cannot regulate. As a result, workers are exploited and deprived of many basic rights at work.

Out of the 923,027 establishments in Nepal (except 329 not stated establishments), 462,605 are Registered Establishments, accounting for 50.1% of all establishments. Overall, there are 460,422 unregistered establishments. The number of establishments by registered status and industry is shown in Table 14.

TABLE 14
NUMBER OF ESTABLISHMENTS BY REGISTRATION STATUS AND INDUSTRY IN NEPAL.

Section of NSIC	Total	Total (in %)	Registered (in %)	Not Registered (in %)
Agriculture, forestry, and fishing	24,229	2.62	2.62	0.00
Mining and quarrying	663	0.07	0.05	0.02
Manufacturing	104,058	11.27	5.48	5.79
Electricity, gas, steam, and air conditioning supply	1,242	0.13	0.13	0.00
Water supply, sewerage, waste management, and remediation activities	2,525	0.27	0.21	0.06
Construction	1,608	0.17	0.14	0.03

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Section of NSIC	Total	Total (in %)	Registered (in %)	Not Registered (in %)
Wholesale and retail trade; repair of motor vehicles and motorcycles	498,069	53.94	23.75	30.19
Transportation and storage	3,182	0.34	0.31	0.03
Accommodation and food service activities	130,540	14.14	5.19	8.95
Information and communication	2,796	0.30	0.27	0.03
Financial and insurance activities	17,996	1.95	1.79	0.16
Real estate activities	207	0.02	0.02	0.00
Professional, scientific, and technical activities	8,204	0.89	0.61	0.28
Administrative and support service activities	6,873	0.74	0.53	0.21
Education	40,839	4.42	4.24	0.18
Human health and social work activities	19,990	2.16	1.62	0.54
Arts, entertainment, and recreation	2,821	0.31	0.19	0.12
Other service activities	57,514	6.23	2.94	3.29
Total	923,356	100.00	50.10	49.90

Source: National Economic Census 2018, National Report No.1-1. Central Bureau of Statistics, Government of Nepal; National Planning Commission [26].

According to the NEC 2018, [29] among the 460,422 unregistered establishments, the share of micro establishments is 99.5% of all unregistered establishments, the share of small establishments is 0.4%, the share of medium establishments is 0.02%, and the share of large establishments is 0.01%.

Among the 832,187 people engaged in unregistered establishments, 93.7% are engaged in micro establishments, 4.2% in small establishments, 0.7% in medium establishments, and 1.5% in large establishments [27]. The detail of the establishments and the number of people, by size of people engaged with registered and unregistered establishments, are shown in Table 15.

TABLE 15
NUMBER OF ESTABLISHMENTS AND PERSONS ENGAGED.

Type of Establishments	Number of People Engaged	Registered		Unregistered	
		Establishment	Number of Persons Engaged	Establishment	Number of Persons Engaged
Micro establishments (1-9 people engaged)	880,542	421,996 (91.2%)	1,116,415 (46.6%)	458,258 (99.5%)	779,913 (93.7%)
Small-scale establishments (10-49 people are engaged)	38,769	36,705 (7.9%),	653,532 (27.3%)	2,032 (0.4%)	34,586 (4.2%)
Medium-scale establishments (50-99 people are engaged)	2,258	2,165 (0.5%)	144,137 (6.0%)	88 (0.02%)	5,565 (0.7%)
Large-scale establishments (100 or more people are engaged)	1,787	1,739 (0.4%)	480,013 (20.0%)	44 (0.01%)	12,123 (1.5%)
Total	923,356	462,605	2,394,097	460,422	832,187

Source: National Economic Census 2018, Analytical Report Informal Sector. Central Bureau of Statistics, Government of Nepal; National Planning Commission [27].

SDG Targets and Progress

Manufacturing VA as a percentage of GDP (5.65% compared to 6.6% in the base year) and industry as a percentage of GDP (14.47% compared to 15% in the base year) declined rather than set records. At 15.1%, the ratio of manufacturing employment to total employment is well above the target of 8.3%. There may be some definitional issues here, as the share of employment in manufacturing appears to be increasing even though the share of manufacturing in GDP remains the same. Tourism's contribution to GDP, tourist arrivals, and annual employment in the tourism industry has not met expectations due to a lack of progress.

Some of the targets and progress of SDG regarding sectoral mix indicators are shown in Table 16.

TABLE 16
NEPAL'S PROGRESS ON SDG INDICATOR FOR SECTORAL MIX.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.	Manufacturing VA as a proportion of GDP and per capita	6.6	8.8	5.65
	Industry's share in GDP (in %)	15	17.7	14.47
	Manufacturing employment as a proportion of total employment	6.6	8.3	15.1
SDG 8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.	Tourism direct GDP as a proportion of total GDP and in growth rate	2.6	4	2.7
	Tourist arrival (in million)	0.8	1.6	1.2
	Foreign exchange earnings from tourism (as % of GDP)			2.2
	Annual number of jobs in tourism industries ('000)	90	332.7	200

Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

Competitiveness Fundamentals

In the 2019 World Economic Forum (WEF) Global Competitiveness Index, Nepal stood at 108 out of 141 countries, with a score of 51.6, improving its rank over that of 2018. The WEF defines competitiveness as “the collection of institutions, policies, and factors that determine a country's level of productivity.” It measures the competitiveness between countries through the Global Competitiveness Index 4.0, which consists of 12 different pillars [28].

Human Capital

Human resource departments are established in most Nepalese organizations, recognizing the need and importance of effective human resource management. However, implementing the best human resource practices to provide the link between Human Resource strategy and business initiation is treated as a management entity rather than a strategic partner. The demand for qualified workers in Nepal is determined by national priorities for work, recent development initiatives (e.g., development projects, construction, new industries, new areas of physical development, mechanization and modernization, and growth of new sectors like the ICT sector in Nepal), and technological changes. However, while Nepali industries and employers regularly seek skilled and experienced workers, skilled and trained youths are scattered and compelled to leave the country because of the lack of information about locally available employment opportunities. A mechanism such as an updated and reliable labor market information system, which will serve as a link between skilled human resources and industries with available jobs, is urgently needed [13].

Workforce Characteristics

In 2017–18, the working-age population was approximately 20.7 million. In 2011, the labor force was 14.5 million workers, compared to 11.9 million in 2000 [10]. Migration for foreign employment is an important source of income for many Nepalese households. The number of young Nepalese who go abroad is increasing year by year.

Figure 7 shows that the national Labor Force Participation Rate (LFPR) and Employment-to-Population Ratio (EPR) were 38.5% and 34.2% respectively. However, there are gender disparities as the male LFPR and EPR were higher than that for females. The male LFPR was 53.8% compared to 26.3% for females, and 48.3% of males of working age were in employment compared to 22.9% of females. The unemployment rate was higher among females than among males (13.1% and 10.3% respectively).

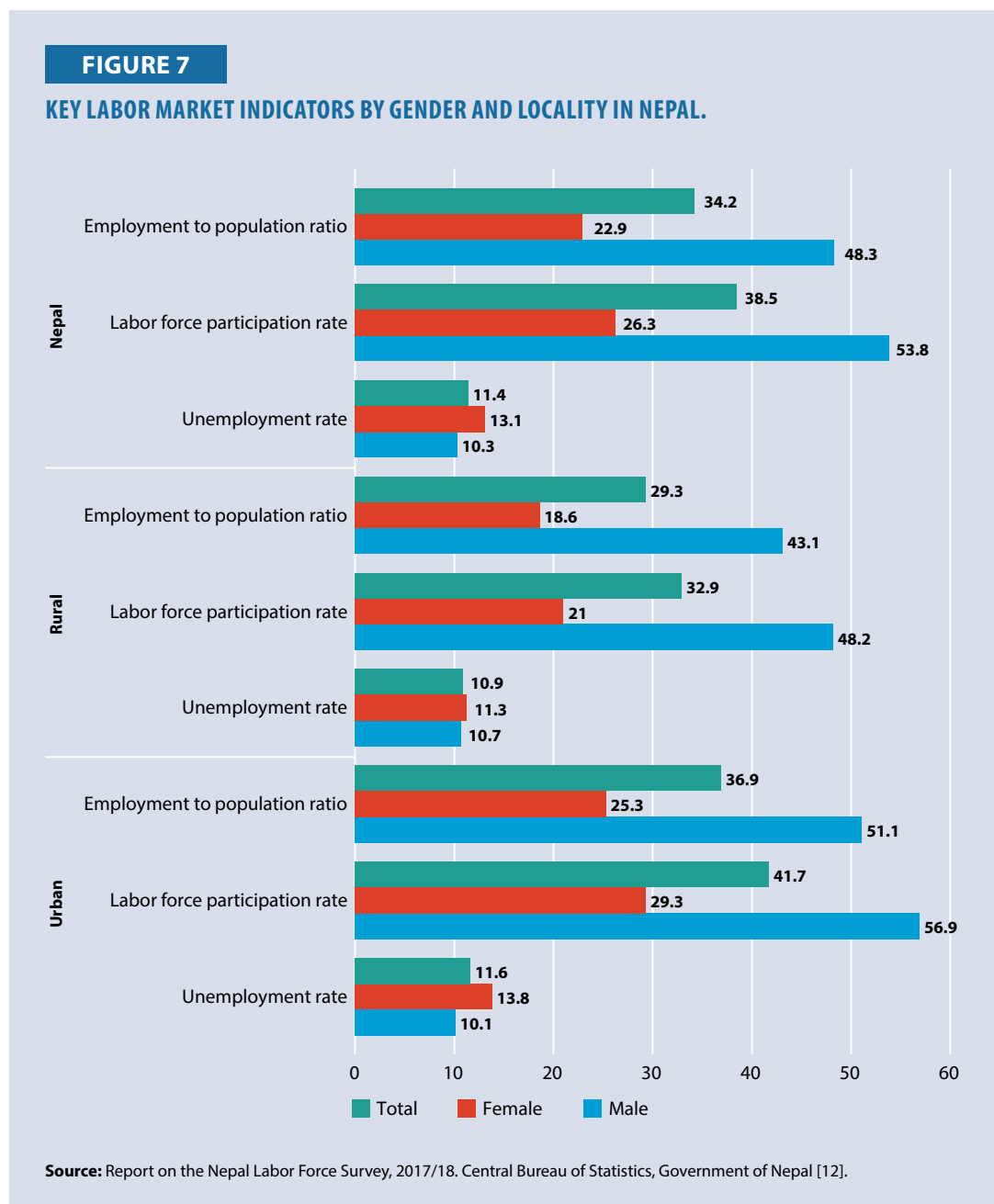


Table 17 shows that the proportion of those who are employed among the working-age population (EPR), increases with the level of education irrespective of gender. For example, the proportion of those who are employed with no secondary education is 31.5% compared to 61.8% having a tertiary education.

TABLE 17**KEY LABOR MARKET INDICATORS BY EDUCATION LEVEL AND GENDER.**

Education Level	Employment Population Ratio			Labor Force Participation Rate			Unemployment Rate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	48.3	22.9	34.2	53.8	26.3	38.5	10.3	13.1	11.4
No secondary education	46.4	20.6	31.5	51.6	23.7	35.5	10.0	13.0	11.1
Secondary education	49.0	36.3	43.1	57.0	43.8	50.9	14.0	17.1	15.3
Tertiary	67.4	52.1	61.8	73.9	56.4	67.5	8.7	7.7	8.4

Source: Report on the Nepal Labor Force Survey, 2017/18. Central Bureau of Statistics, Government of Nepal [12].

Disparities in the labor market, between males and females remained, irrespective of the education level. However, it should be noted that the gap between male and female unemployment rates declined among those with tertiary education to 1%.

Women workers in the agricultural sector are broadly divided into self-employed and wage-employed workers. Self-employed woman workers are mainly unpaid family workers. Agriculture is the major employment sector, covering 76% of the employed labor force in Nepal. The available statistics show that 85.19% of the total female workforce compared to 67.06% of the total male workforce is engaged in this sector [12, 15].

Skilling the Workforce

Currently, many institutions are involved in vocational training in Nepal. Some of them are operated under the direct control of government agencies while others are assisted by donor agencies to implement various vocational training programs. Additionally, some have made their programs financially sustainable by charging a fixed fee from their trainees. The Industrial Enterprise Development Institute, a national-level organization, dedicated to entrepreneurship development, has been active since 1996. In line with the long-term vision of providing decent and productive employment opportunities to all citizens, Prime Minister's Employment Program has been launched at all local levels to guarantee minimum employment to all citizens. Skill-based and vocational training is being carried out at federal, provincial, and local levels on a cost-sharing basis, for the development of skilled, qualitative human resources, to balance the supply and demand. Labor-intensive technology has been promoted in the public development works carried out at the federal, provincial, and local levels [29].

In the fiscal year 2077–78 (2020–21), the government has allocated a budget and planned for On the Job Training (OJT) of 50,000 youths with the cooperation of the private sector. However, due to the lack of standards and guidelines, the program was not implemented. In the fiscal year 2078–79 (2021–22), the Ministry of Industry, Commerce, and Supplies (MoICS) developed a standard for training delivery. However, this draft standard is in the approval process, and if the standard is

approved by the government, training will be conducted in collaboration with the enterprises [30]. Workplace training in Nepal lacks a well-developed training infrastructure at the institutional level.

SDG Targets and progress

In terms of school-level enrollment, gender parity indicators in primary education, retention, and dropout rates, the achievements have been impressive. The enrollment rate in primary school (grades 1–5) increased from 96.9% to 97.2%, and in secondary school (grades 9–12) increased from 38.9% to 43.9%. These statistics clearly show that the expansion phase of basic education in Nepal is almost complete. However, scholarship rates have declined from the base year.

Some of the targets and progress of SDGs regarding human capital indicators are shown in Table 18.

TABLE 18
NEPAL'S PROGRESS ON SDG INDICATOR FOR ENERGY USE.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	Net enrolment rate in primary education (in %)	96.6	98.5	97.2
	Gross Enrollment rate in secondary education (grade 9 to 12) (in %)	56.7	72	71.6
	Literacy rate of 15–24 years old (in %)	88.6	91.4	92
	Ratio of enrollment of girls in tertiary education (graduate level)	0.88	0.91	0.9
	Scholarship coverage (% of total students)	37	38.3	36
	Youth and adults with technical and vocational training (number in '000, annual)	50	165	NA
	Working age population with technical and vocational training (in %)	25	38	31
	Human assets index	66.6	68.9	72
	Gender development index	0.53	0.58	0.897

Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

The majority of people working in the industry have learned their skills at work from their seniors and gained some level of experience over time. If this trend continues, the industry is bound to suffer on several fronts. The cost associated to train a worker at the ongoing project site or industries is significantly high in terms of delays, rework, loss of productivity, and inferior quality of the output.

The market-based curriculum and courses are not developed properly to address the current need of the industry. The main gap is that the necessity of the industry and education of the TVET graduates doesn't match. TVET system is not sufficiently market-based. The limited access and equity of the needed people as per the industry requirement is not addressed by the TVET.

Finance

The PMNPPP was launched to increase domestic production by promoting export-oriented industries. A budget of NPR3.45 billion (USD28.2 million) has been allocated for 'Own Production, Own Consumption' programs and other private sector initiatives including, Make in Nepal and Made in Nepal. The Government of Nepal has increased export subsidies from 5% to 8%, to double the exports next year. The program aims to restore the trade balance within five years. In addition, a budget of

NPR3.79 billion (USD31 million) has been allocated for industrial infrastructure development. Many programs are currently being launched to develop the MSME sector [6]. The government has allocated a budget for 2022–23 for demand-based technology transfer programs for the promotion of micro, cottage, and small-scale industries, and the managerial reform of industries established via investment and initiatives by the local levels, supply of technical human capital, packaging, branding, as well as marketing. It has also arranged to carry out a workplace-based employment generation program for the ultra-poor and marginalized class citizens, along with the participation of the private sector [6].

Micro Enterprise Development for Poverty Alleviation (MEDPA)

The Government of Nepal launched the Micro Enterprise Development Program, with financial and technical support from the United Nations Development Program (UNDP) in 1998, to create employment opportunities at the local level through the mobilization of local resources for rural communities. After the success and effectiveness of this program, the government decided to internalize the Micro Enterprise Development Model developed by this program and implemented it from its resources as the Micro Enterprise Development Program for Poverty Alleviation (MEDPA). MoICS has promoted policy reforms to foster entrepreneurship development and support existing entrepreneurs. MoICS has now expanded MEDPA to all 77 districts and 753 local bodies. Moreover, efforts are underway at the provincial and local government levels to promote entrepreneurship development at a wider scale [31].

The Rural Enterprises and Remittances Project ‘SAMRIDDHI’

This is a seven-year project jointly initiated by the Government of Nepal, the Ministry of Industry, Commerce and Supplies, and the International Fund for Agricultural Development. The Government of Nepal is the agency that leads the implementation of the RER project, which supports a range of credible economic opportunities, including decent employment, and fostering local micro-enterprises and micro-enterprises linked to quality agricultural and non-agricultural supply chains. The project will help poor household immigrants [32].

Small Enterprise Development Program

The policy of the Government of Nepal is to gradually expand the Small Enterprise Development Program to all districts, to internalize the Small Enterprise Development Project model. Currently, this program has been implemented in all the districts under the Government of Nepal [8].

Micro, Cottage, and Small Industries Development Fund

With Nepal's entry into the WTO, more opportunities and challenges have been created in the field of micro, cottage, and small-scale industries. For the development and promotion of industries, the government has arranged funds to assist with infrastructure construction, capacity development, technology transfer, and marketing [8].

Micro, Domestic, and Small Industry Credit Disbursement Principal Fund

This program aims for skill development, by providing entrepreneurship development training. The raw materials, machinery, equipment, and tools needed to establish and operate the industry are also provided [8].

Business Promotion Program

The business development program aims to transform new ideas and thoughts into viable and competitive businesses. Its main objective is to help create creative, competitive, and capable businesses that produce high-value goods and services, using the latest technology [8].

Credit Extended by Microfinance Institutions

In line with the national goal of poverty alleviation, Nepal Rastra Bank (NRB) has undertaken various development functions, expanding beyond its core role as a central bank. The NRB actively supports the development of the rural financial system by implementing institutional development programs and various rural financial systems aimed at raising the living standards of those living below the poverty line. It also seeks to reduce regional disparities and encourage private sector engagement in the local financial system. The NRB inspects and supervises all financial institutions, including local microfinance institutions, and issues necessary guidelines. Nepal's apex bank has also played an important role in the design and execution of policy for financial institutions. The main policies issued by the Monetary Policy for 2021–22 [33] to microfinance institutions are listed herewith.

- Commercial banks have to allocate at least 11% of the total loans to the small, micro, cottage, and medium industries by mid-July 2022. The requirement increases to 12% by mid-July 2023, 13% by mid-July 2024, and 15% by mid-July 2025.
- Development banks have to disburse 17% of the total credit to agriculture, micro, cottage, and small enterprises or businesses, energy, and tourism sectors by mid-July 2022, 19% by mid-July 2023, and 20% by mid-July 2024.

Microfinance Related Provisions. As per the budget statement of 2022–23, the monetary policy for 2022–23 of NRB [33] encouraged the provision of financial services in remote and backward areas, per the social banking concept. Some of the provisions are listed herewith.

- Provisions will be made for the Banking and Financial Institutions to charge no more than a 2% point premium on the base rate while determining the interest rate on wholesale loans to the Micro Finance Institutions (MFIs) under the deprived sector lending.
- Arrangements will be made for the MFIs to mobilize resources by issuing debentures equal to their capital fund.
- Necessary facilitation will be provided for the capital restructuring and institutional capacity improvement of 'Rural Development Microfinance Financial Institution', which has government investment too, after its restructuring, as stated in the budget 2022–23.
- NRB will facilitate the implementation of the 'Microfinance Fund' to be established as stated in the budget 2022–23, to expand credit outreach to the agriculture sector as per its legal, institutional, as well as operational structure.

Refinance and Concessional Loan. The government in its fiscal year budget, and the central bank in its monetary policy, announced SME refinance for specific sectors, such as tourism and agriculture [6, 33].

- Prioritizing MSMEs and the productive sector which were hit hard by the COVID-19 pandemic, the bank will provide refinancing facilities.
- To support the business continuity of the tourism, cottage, small, and medium enterprises, a business continuity loan was arranged for the payment of wages of workers and employees of the sectors affected by the COVID-19 pandemic.

SDG Targets and Progress

There are many initiatives and funding programs in the MSME sector. Commercial banks have reached all over the country. By mid-July 2022, commercial banks had been established in 752 out of the 753 local levels. However, data on SMEs' access to credit and integration into value chains and markets, is not available for monitoring the SDG indicators. Access to cooperatives (within a 30-minute walk) was another indicator of access to financial services. The current level is 60%, which is close to the target of 60.9%. Additionally, more relevant data on access to financial services shows that 60.9% of households had access to financial services in 2019 [11].

Taxation Policy

Nepal does not have policies for SMEs, let alone strategies for SMEs' internationalization and participation in global value chains. However, industrial policy and relevant IEA categorizes enterprises into micro, cottage, small, medium, and large enterprises. Small business owners/managers should be aware of available tax exemptions and refunds, other incentives, and regulations. Even to a limited extent, these can help small businesses reduce their production and trade costs. Disseminating such information could be a joint effort between the government and business organizations such as the Nepal Cottage and Small Industries Federation [34].

The budget for the fiscal year 2022–23 [6] has a provision to provide relief to the small entrepreneurs affected by the pandemic of COVID 19. An arrangement has been made to provide a 75% income tax exemption to taxpayers with an annual turnover of up to NPR3 million (approximately USD23,000) and a 50% income tax exemption to taxpayers with an annual turnover of NPR3 million (approximately USD23,000) to NPR10 million (approximately USD77,000). Arrangements have been made to allow a 50% tax exemption on taxable income of the tourism industry such as hotels, travel, trekking, and film, the industries that were hit hardest by COVID-19. Women-owned enterprises are entitled to a 35% discount on company registration and 20% on industrial property registration. They are given priority for establishing their business inside industrial zones and are also provided with an export loan if needed.

The federal government has launched SEZ for all aspects of imports and exports, which are authorized and controlled for SEZ investors under a strictly simplified 'One Window Policy' or a One Stop Service. They have a liberal tax system with varying degrees of exemption from income tax, excise tax, value-added tax, and other taxes and duties. There are facilities for reinvestment, immigration, banking, import and export facilities, employment of foreign workers, etc. Related services such as customs, banking, and insurance are provided. The special economic zones are governed by liberal and production-oriented labor laws, with hiring and firing policies that prohibit unions and strikes. Instead, workers have far higher wages, fixed hours, and generous benefits compared to those outside of the special economic zone [35].

Technology and Innovative Capacity

As a least-developed country, Nepal has limited access to finance, a lack of databases, low R&D spending, underdeveloped distribution channels, and low levels of financial inclusion. These are some of the reasons why its small businesses grow slowly. Currently, Nepal has witnessed rapid growth in Information Technology, leading to increased ownership of mobile phones, smartphones, and tablets in households. Also, there is a growing trend among consumers for online purchases over traditional over-the-counter transactions, contributing to the expansion of the e-commerce market. However, SMEs have not been able to take full advantage of these opportunities. Also, most SMEs do not have their website. The 15th Plan envisages the establishment of Business

Incubation Centers (BICs) at all the 753 local levels, to transform innovative ideas into dynamic enterprises with national and global competitiveness [4]. However, despite being part of the plan, the government is yet to establish BICs in the country.

Global Innovation Index (GII)

The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation. In 2021, Nepal ranked 99th for innovation inputs and 116th for innovation outputs [36, 37].

SDG Targets and Progress

R&D accounts for only 0.3% of GDP and the level of innovation is very low. However, enrollment in science and technology is increasing. Data is not available for many important indicators such as industrial infrastructure and clean technology. Of the three indicators, R&D expenditure as a percentage of GDP, enrolment in science and technology in total enrolment, and number of patents registered, only the enrolment target has been achieved in 2019. Some of the targets and progress of the SDG regarding technology and innovation are shown in Table 19.

TABLE 19

NEPAL'S PROGRESS ON SDG INDICATOR FOR TECHNOLOGY AND INNOVATION.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.	Enrollment in Science and Technology in proportion to total enrollment (above grade 10 level) (in %)	6.8	9	10.6
	Number of patents registered	75	322	2
	R&D expenditure as a proportion of GDP	0.3	0.62	0.3

Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

E-Commerce

E-commerce is increasing in Nepal and stems from the motivation to promote and conduct commerce or business online to meet the needs of customers, sellers, and businesses, and provide goods and services at low cost, in a short amount of time. The government has launched a nationwide e-commerce strategy. This is an important first step to encourage industry and businesses to adopt e-commerce before drafting laws to regulate the industry. This strategy includes taking legal action if e-commerce companies are found selling inferior products, charging high fees, or failing to deliver goods on time [38].

Regulatory and Business Environment

The one-stop service center which was set up at the Department of Industry (DoI), offers a variety of services in one place to avoid the hassle of going to different authorities to complete necessary paperwork. However, not every company, enterprise, or industry can benefit from the services of a one-stop service center. According to the DoI, enterprises or industries with capital above NPR100 million (approximately USD77,000.00) and foreign direct investments up to NPR6 billion (approximately USD46,400,000) can avail services from this center [39].

Nepal ranked 94th, with a score of 63.2 in the World Bank's Doing Business Index out of 190 countries across the world in 2020. In 2019, the country scored 59.7 and was placed in 110th

position [40]. The ranking and score have both seen an improvement. The country is also trying to attract foreign investors and create an ideal business environment for locals. This shows that the environment for addressing many SDG concerns is slowly but steadily improving.

Among the 167 countries surveyed by the multilateral credit agencies, Nepal's position in the Logistics Performance Index (LPI) improved with better customs clearance, quality of trade logistics, tracking system, and timeliness of delivery. LPI for the country in 2018 was 2.51, compared to 2.38 in 2016 [41].

Nepal aims to achieve economic prosperity by protecting all aspects of intellectual property and labor law documents, which are in force. The government will provide security to all the industries and also provide seed capital to the cooperatives, micro-industries, cottage, and small industries, to establish industries in remote areas. If requested, the government will also provide the land necessary for industries by holding or leasing publicly owned properties.

SDG Targets and Progress

Nepal's ranking has improved in all three indicators for which comparable data is available. The number of farmers eligible for microfinance, the international competitiveness index, and the business activity index have all seen improvements. Notably, 29% of households are now covered by microfinance, surpassing the target of 28.3%. Nepal's ranking in the Global Competitiveness Index stands at 5.1, better than the target of 4.1. Similarly, in the Doing Business Index, Nepal achieved a ranking of 94, a notch higher than the expected 95.

TABLE 20

NEPAL'S PROGRESS ON SDG INDICATORS FOR REGULATORY AND BUSINESS ENVIRONMENT.

SDG	Indicators	2015	Targets 2019	Progress in 2019
SDG 10. Reduce inequality within and among countries.	Proportion of farm households covered by microfinance (in %)	24	28.3	31.5
	Financial Risk Index	27	25.6	11.3
	Global Competitive Index (score)	3.9	4.1	4.9
	Doing Business Index (country ranking)	105	95	94

Source: The Fifteenth Plan (Fiscal Year 2019/20–2023/24) Sustainable Development Goals, Progress Assessment Report 2016–2019. NPC [11].

Environmental Factors

Environment Protection Act and Environment Protection Regulation obliges the proponent to prepare Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) report. An IEE is done for a project that has less environmental impact whereas an EIA is done for a project that has substantial environmental impact. It is mandatory for projects which can cause high environmental pollution, which include mining, thermal power plant, infrastructure, etc. Environmental law requires a comprehensive EIA or IEE to be carried out, depending on the type of business activity. This applies to all businesses, including micro businesses.

Policy Recommendations

Although the Industrial Enterprises Act of 2020 categorizes enterprises into micro, cottage, small, medium, and large, based on the number of employees and capital, and provides services to SMEs,

there are no separate acts and rules for SMEs. Therefore, separate policies, acts, and regulations need to be developed and enacted urgently to develop SMEs for the 2030 agenda.

Nepal has set up a one-stop service center to provide a single point of contact for registration, operation, and exit from the industry, saving investors the hassle of having to move from pillar to pillar to start, operate and close their business. The challenge is the lack of coordination between authorities and investors. Entrepreneurs and investors looking to start a new business face many hurdles. One of them is the very high cost and time required to register a business [42]. One-stop service center capabilities also help in doing business in Nepal easier. In this regard, the government needs to be more resourceful and run actively.

Small businesses face a shortage of workers with the necessary skills in some sectors. There may be room for cooperation between the authorities and special programs of the industry, such as the Prime Minister's Employment Program (PMEP), to develop the capabilities of the workforce based on the demand of the labor market, and provide necessary arrangements for migrant workers. Coordination with national technical training institutions should be maintained, to provide skills to those seeking employment to meet market needs and to enroll with the institutions.

It is necessary to work with businesses and industries to develop policies that include vocational-based learning, to enhance the skills of human resources. Universities should be encouraged to award degrees in vocational education and training, and institutional capacity should be improved to produce quality human resources. The government should also allocate a budget for OJT in partnership with the private sector. All levels of government and the private sector should be involved to develop a comprehensive human resource development plan for proper research.

The Way Forward

Nepal's admirable achievements in eradicating poverty could easily be overwhelmed by the impact of COVID-19. Poverty reduction must remain vigilant, and this can be achieved by focusing on the development and empowerment of SMEs. Resources and assets need to be provided to reach the SDG 2030 target.

The quality of the supporting data is critical for assessing progress on the SDGs. The lack of relevant data is a major obstacle to monitoring the SDG progress. Basic data on different indicators of different sectors such as SMEs are not available. Institutional mechanisms should be implemented and strengthened for regular and timely monitoring of the SDG progress.

It is important for SMEs in Nepal to recognize the benefits and added value of digital platforms in their enterprise. Most SMEs are unaware of the programs put in place by governments and central banks. The result is lower access to subsidies and concessional financing. Given this situation, it is clear that the lack of awareness of SMEs limits the impact of government incentives. Therefore, an awareness campaign should be carried out.

The growth of SMEs in the private and cooperative sectors should be encouraged through appropriate strategies and incentives for job creation, combined with the expansion of skill development programs at various levels of basic and technical educational institutions. Such programs should be linked to the labor market demand for skills, to achieve the 2030 SDG goals.

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PAKISTAN

Introduction

The SME sector plays a crucial role in the global economy [1], including Pakistan. The country is striving to promote the sector, which comprises a total of 5.2 million enterprises [2] employing 30.49 million people, accounting for 45.3% of Pakistan's total employed workforce [3]. The sector contributes a substantial 40% of the country's GDP, with 8% from manufacturing and 32% from services. Notably, 72% of the manufacturing sector's GDP and 44% of industrial output are generated by SMEs. Moreover, manufacturing SMEs hold a substantial 30% share of Pakistan's overall exports [4].

In Pakistan, the government defines SMEs solely based on the Annual Sales Turnover. Enterprises with an annual sales turnover of less than PKR800 million fall into this category. This standard definition of SMEs is accepted across all departments, agencies, ministries, institutions, and organizations throughout the country. Moreover, SMEs in Pakistan are categorized into three types: Small Enterprise, Medium Enterprise (ME), and Startup. Small enterprises are those with annual turnover below PKR1.5 million (USD6,526.07), while MEs are organizations with sales turnover exceeding PKR1.5 million (USD6,526.07) but not surpassing PKR800 million (USD3,480,713.60). Additionally, Startups are either SEs or MEs that are up to five years old.

According to the Census of Manufacturing Industries 2015–16 conducted by the Government of Pakistan, Ministry of Planning, Development and Special Initiatives, and Pakistan Bureau of Statistics, industries with less than 10 employees are classified as Small and Household Manufacturing Industries and are considered as part of the SMEs [5].

National Institutions Supporting SMEs

The Government of Pakistan is working very hard to develop and promote the SME sector in the country. They started many programs and schemes for the said purpose. Small and Medium Enterprise Development Authority (SMEDA) is a key player in promoting SMEs in Pakistan. Pakistan's SME sector needs institutional and regulatory attention to compete in global markets. SMEs can then help the country to achieve the various items on the agenda like job creation, new enterprise development, greater exports, and enhanced GDP contribution. An important step in reviving the SME sector and achieving the goal of equitable economic growth was the approval and release of the National SME Policy 2021.

Institutions, agencies, and programs working towards promoting SMEs in Pakistan are as follows.

- Federal Board of Revenue (FBR)
- Intellectual Property Office (IPO)
- Islamabad Chamber of Commerce & Industry (ICCI)

- Ministry of Commerce (MOC)
- Ministry of Industries & Production (MOIP)
- Ministry of Planning, Development & Reform (MOPDR)
- National Business Development Programs (NBDP) For SMEs
- National Productivity Organization (NPO)
- Pakistan Standard Industrial Classification (PSIC)
- Punjab Small Industries Corporation (PSIC)
- Securities & Exchange Commission of Pakistan (SECP)
- Small and Medium Enterprise (SME) Bank
- Small and Medium Enterprise Development Authority (SMEDA)
- State Bank of Pakistan (SBP)
- Sindh Small Industries Corporation (SSIC)
- Trade Development Authority of Pakistan (TDAP)
- Youth Entrepreneurship Scheme (YES)

Most of the contents in this report have been prepared using data from these sources.

Dimensions of Competitiveness Diagnostics

Conducting competitiveness diagnostics of SMEs in Pakistan is a challenging task due to the lack of data on specified dimensions. Throughout the country, Pakistan faces issues with undocumented small-scale businesses [6]. As a result, data for certain dimensions was unavailable and the report only provides a description based on the limited data available. Despite these challenges, the following sections present the status of SMEs in Pakistan.

Outcomes

SMEs are globally acknowledged for their significant contribution to economic development and their role in fostering substantial growth. In emerging economies, higher labor productivity, lower resource requirements, and reduced managerial expenses have rendered them increasingly valuable compared to large enterprises. The high growth of SMEs plays a critical role in the ongoing process of economic development in many countries. A study conducted from 1990 to 2019 in Pakistan examined the relationship between SMEs and economic growth and concluded that they have positively influenced the country's economic growth [6]. More insights on the outcomes are presented in upcoming sections.

Dynamics of Economic Growth of SMEs

Small and medium-sized enterprises play a pivotal role in fostering the economic growth of Pakistan. These enterprises not only generate employment opportunities but also boost local economies, and drive innovation. Over the past few decades, SMEs have emerged as a major contributor to the growth of Pakistan's economy. However, their growth trajectory in the country has faced several challenges in recent years.

Access to financing stands out as one of the biggest hurdles for SMEs in Pakistan. Most of these enterprises struggle to secure loans from banks due to a lack of collateral, perceived high risk, and limited ability to invest in their business and expand operations. Consequently, their potential for growth and market penetration remains constrained. Another pressing challenge faced by SMEs in Pakistan is the lack of modern technology and infrastructure. The dearth of resources makes it difficult for SMEs to compete with larger enterprises, impeding their ability to expand into new markets.

To deal with the challenges faced by the SMEs in Pakistan, the government has taken several steps to support their growth in the country. The government has launched several programs and initiatives to provide SMEs with access to finance and enhance the overall business environment. Noteworthy examples include the Prime Minister's Youth Business Loan Scheme, which offers financing opportunities to young entrepreneurs, and the Small Business Loan Scheme which caters to SMEs in rural areas. The government has also established several training and development programs to build SMEs' capacity.

Moreover, the dynamics of economic growth for SMEs in Pakistan are complex and influenced by various factors. Given the critical role SMEs play in the economy, the government must continue investing in programs and initiatives that foster their growth and success.

Gross Value-Added

According to the Pakistan Economic Survey for the fiscal year 2020–2021, the country's real GDP increased by 5.74%, and in the next fiscal year 2021–2022, it increased by 5.97% [7].

Contribution of Small-Scale Manufacturing to GDP

In small-scale manufacturing, sectoral shares in GDP, at current prices, over the decade are presented in Table 1. The table illustrates that the percentage share has declined over time, starting at 16% in 2011–12, and decreasing to 9% by 2019–20. Besides, the GDP data is converted to USD based on the prevailing exchange rates as provided by the State Bank of Pakistan. The data in Table 1 indicates a decreasing trend over the decade, signifying a decline in the real contribution of small-scale manufacturing to GDP in Pakistan.

TABLE 1

CONTRIBUTION OF SMALL-SCALE MANUFACTURING TO THE GDP OF PAKISTAN.*

Year	GDP (PKR million)	Nominal Growth Rate Based on PKR (in %)	Exchange Rate	GDP (USD million)	Real Growth Rate based on USD (in %)
2010–11	208,611	–	94.66	2,203.76	–
2011–12	241,951	15.98%	102.58	2,358.76	7.03%
2012–13	283,107	17.01%	106.23	2,664.99	12.98%

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Year	GDP (PKR million)	Nominal Growth Rate Based on PKR (in %)	Exchange Rate	GDP (USD million)	Real Growth Rate based on USD (in %)
2013–14	327,030	15.51%	104.96	3,115.70	16.91%
2014–15	373,595	14.24%	106.58	3,505.20	12.50%
2015–16	406,648	8.85%	109.41	3,716.78	6.04%
2016–17	457,088	12.40%	107.35	4,258.07	14.56%
2017–18	506,839	10.88%	124.15	4,082.59	–4.12%
2018–19 (F)	572,034.2	12.86%	170.20	3,360.96	–17.68%
2019–20 (R)	624,546.24	9.18%	176.34	3,541.63	5.38%

Note: *The contribution of small-scale manufacturing to the GDP of Pakistan has been calculated at the current prices.

Source: Pakistan Statistic Yearbook 2020.

Figure 1 shows the GDP of small-scale manufacturing at current prices. It is observed that the GDP has increased in the absolute term. However, when considering the data in percentages, it reveals a declining trend over time.

Growth Rate of Capital Formation by Small-Scale Sectors

Table 2 presents the growth rate of capital formation of the small-scale sector by economic activity at current market prices. The capital formation increased from USD191.91 million in 2011–12, to USD 350.42 million in 2020–21. In 2019–20, there was a significant jump of 16.89%, indicating the growth of the small-scale sector in the country in terms of the formation of capital¹.

TABLE 2

GROWTH RATE OF CAPITAL FORMATION BY SMALL-SCALE SECTORS IN PAKISTAN.

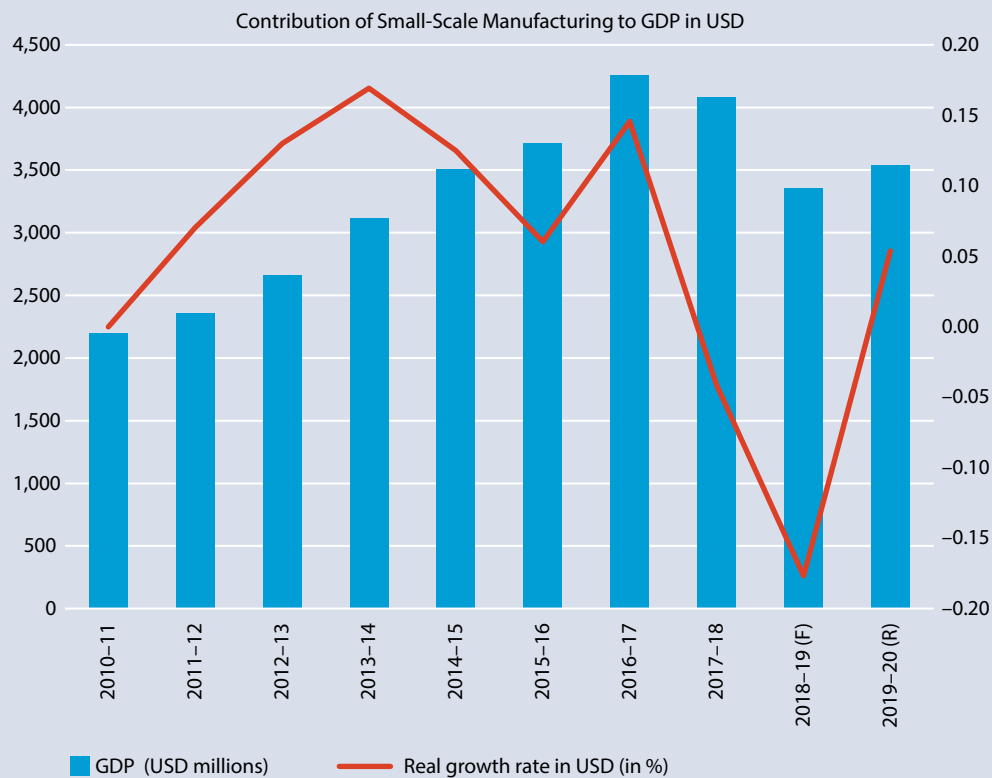
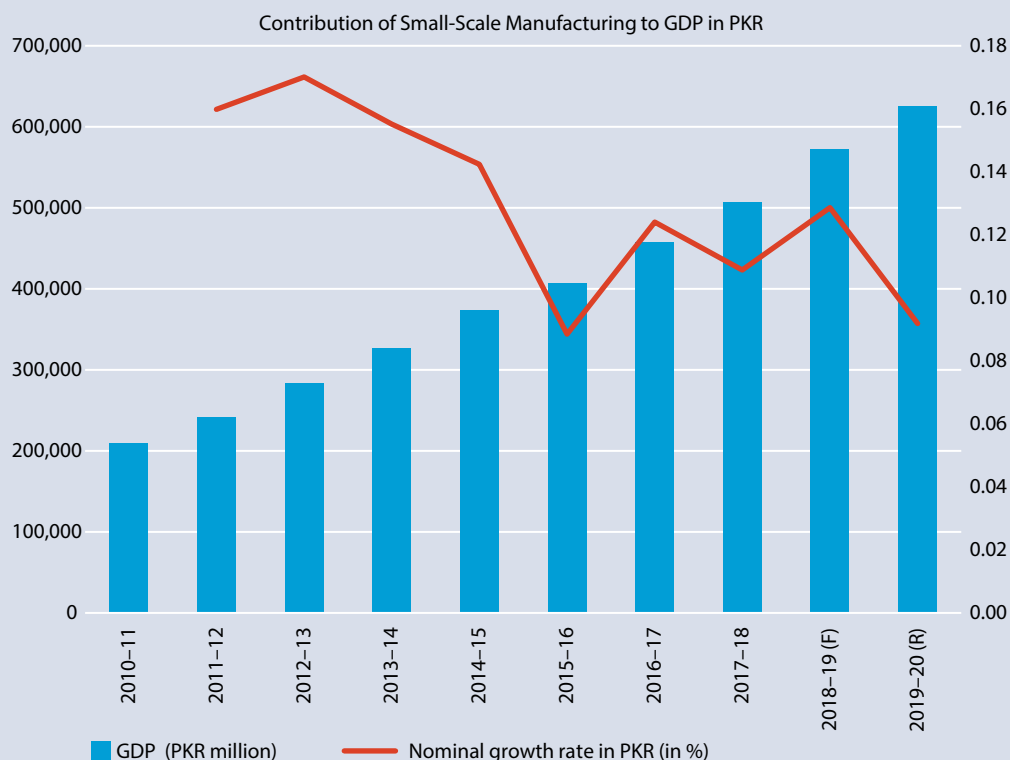
Year	Capital Formation (PKR million)	Nominal Growth Rate based on PKR (in %)	Exchange Rate	Capital Formation (USD million)	Real Growth Rate based on USD (in %)
2010–11	18,166	–	94.66	191.91	–
2011–12	20,867	14.87%	102.58	203.43	6.01%
2012–13	23,865	14.37%	106.23	224.65	10.43%
2013–14	26,397	10.61%	104.96	251.49	11.95%
2014–15	29,273	10.90%	106.58	274.65	9.21%
2015–16	33,195	13.40%	109.41	303.40	10.47%
2016–17	36,322	9.42%	107.35	338.36	11.52%
2017–18	43,215	18.98%	124.15	348.10	2.88%
2018–19 (F)	51,024	18.07%	170.20	299.79	–13.88%
2019–20 (R)	61,795	21.11%	176.34	350.42	16.89%

Source: Pakistan Statistic Yearbook 2020.

¹ Based on the exchange rates data from the State Bank of Pakistan. <https://www.sbp.org.pk/dfmd/fem.asp>.

FIGURE 1

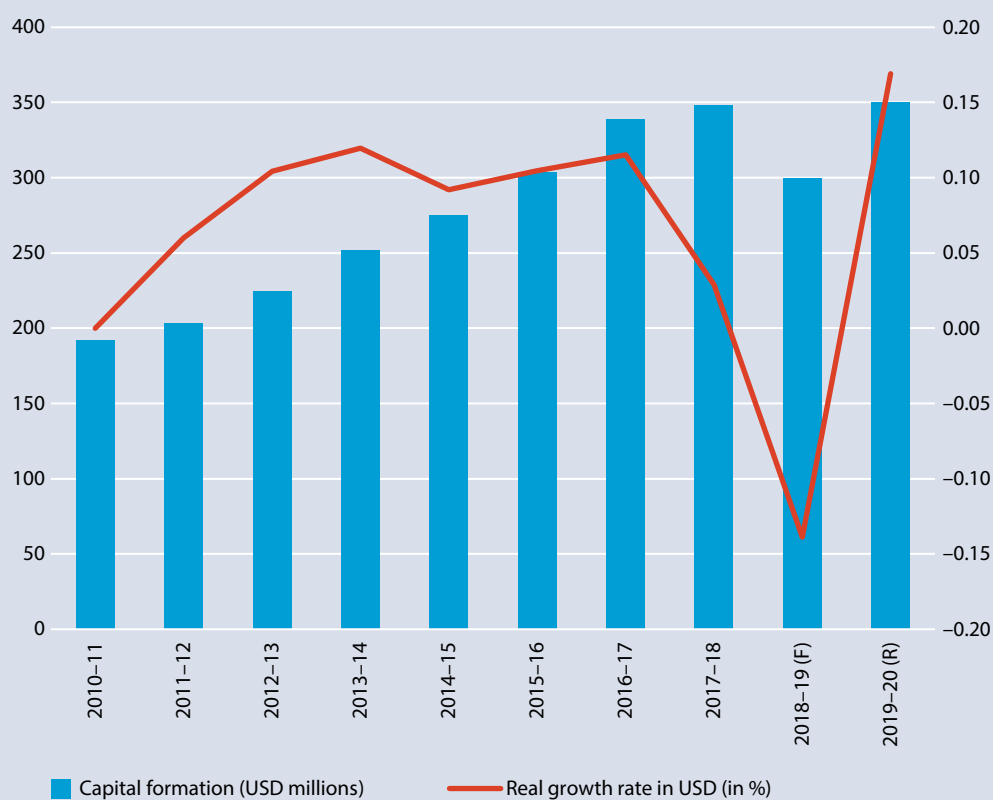
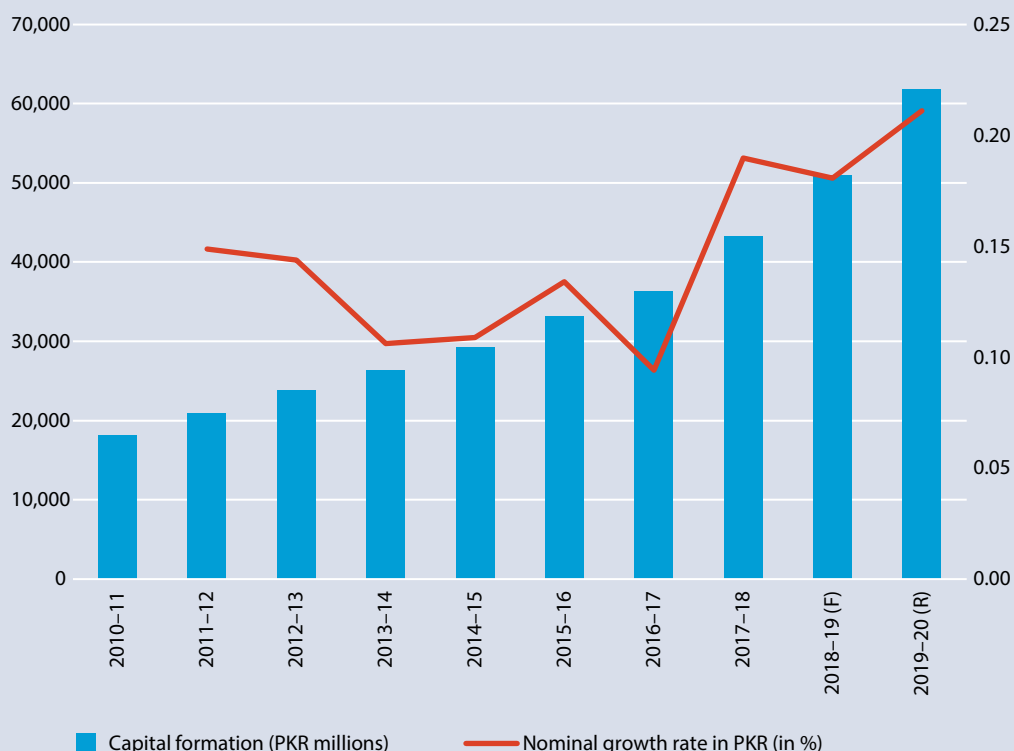
CONTRIBUTION OF SMALL-SCALE MANUFACTURING TO THE GDP OF PAKISTAN.



Source: Pakistan Statistic Yearbook 2020.

FIGURE 2

GROWTH RATE OF CAPITAL FORMATION BY SMALL-SCALE SECTORS IN PAKISTAN.



Source: Pakistan Statistic Yearbook 2020.

The nominal and real growth rate of capital formation by small-scale sectors over the decade is illustrated in Figure 2. It also indicates an upward trend in the country's growth rate.

Working Age Population by Gender

According to the labor force survey report of 2020–21, Pakistan's total working-age population is 159.83 million, comprising individuals over 10 years. Among them, 80.92 million are males, and 78.91 million are females. The population has increased by nearly six million from 153.5 million in 2018–19. Table 3 highlights that the majority of the working population falls in the age group of 10 to 44 years, indicating that Pakistan has a young working population [3].

TABLE 3

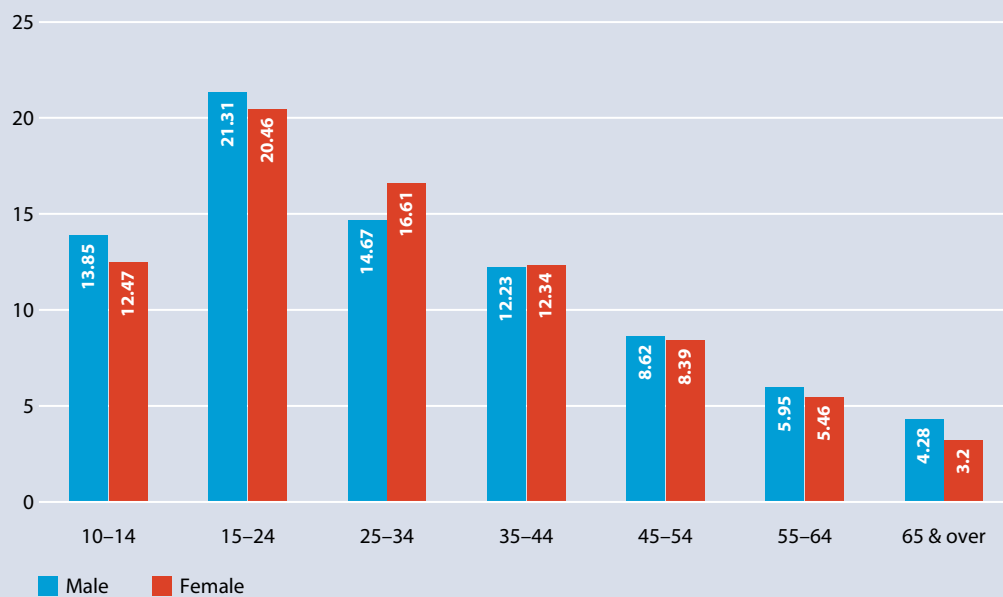
WORKING AGE POPULATION BY GENDER IN PAKISTAN (IN MILLION).

Age Group	2018–19			2020–21		
	Male	Female	Total	Male	Female	Total
10–14	14.17	12.42	26.59	13.85	12.47	26.32
15–24	20.96	20.29	41.26	21.31	20.46	41.77
25–34	13.43	15.98	29.41	14.67	16.61	31.28
35–44	11.35	11.77	23.12	12.23	12.34	24.57
45–54	8.29	7.92	16.21	8.62	8.39	17
55–64	5.3	4.66	9.96	5.95	5.46	11.41
65 & over	3.92	3.02	6.94	4.28	3.2	7.48
Total	77.42	76.06	153.49	80.91	78.93	159.83

Source: Labor Force Survey 2020–21 [3], Pakistan Bureau of Statistics.

FIGURE 3

WORKING AGE POPULATION (IN MILLION) BY GENDER IN PAKISTAN (2020–21).



Source: Labor Force Survey 2020–21 [3], Pakistan Bureau of Statistics.

Figure 3 shows the frequency of the working-age population by gender in 2020–21. Most of the working population is aged between 15–24 years, comprising over 21.31 million males and 20.46 million females. It is therefore evident, that Pakistan has a young working population.

Labor Market Status by Education Level

According to the labor force survey report of 2020–21, a significant percentage of the labor force (87%) possesses very low levels of education, below Intermediate (high school). Overall, 74% of the laborers have an education level below matriculation (10th grade), and 34% have either no formal education or are illiterate. Additionally, the report indicates that there are 4.5 million unemployed individuals in the country, presenting an opportunity to utilize this workforce potential in small and medium enterprises.

TABLE 4

STATUS OF THE LABOR MARKET IN PAKISTAN BY EDUCATION LEVEL.

Education Level	Employed		Unemployed		Out of Labor Force		Labor Force		Working Age Population		Total		
	Million	In %	Million	In %	Million	In %	Million	In %	Million	In %	Million	In %	Cum (in %)
Illiterate	26.1	38.84	0.8	17.78	32.6	37.00	26.9	21.16	59.5	37.26	145.9	32.67	33
No formal education	0.8	1.19	0.1	2.22	0.7	0.79	1.5	1.18	1.5	0.94	4.6	1.03	34
Below matriculation	21.3	31.70	1.1	24.44	38.1	43.25	60.5	47.60	60.5	37.88	181.5	40.64	74
Matriculate but below intermediate	9	13.39	0.8	17.78	8.9	10.10	18.8	14.79	18.8	11.77	56.3	12.61	87
Intermediate but below undergrad degree	4.5	6.70	0.6	13.33	4.6	5.22	9.7	7.63	9.7	6.07	29.1	6.52	93
Undergrad degree and above	5.5	8.18	1.1	24.44	3.2	3.63	9.7	7.63	9.7	6.07	29.2	6.54	100
Total	67.2	100	4.5	100	88.1	100	127.1	100	159.7	100	446.6	100	

Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

From this data, it is evident that 87% of the labor workforce in Pakistan has an education qualification equivalent to matriculation or below, and nearly 2.8 million people are unemployed. These people can be engaged in SMEs by giving technical education or training.

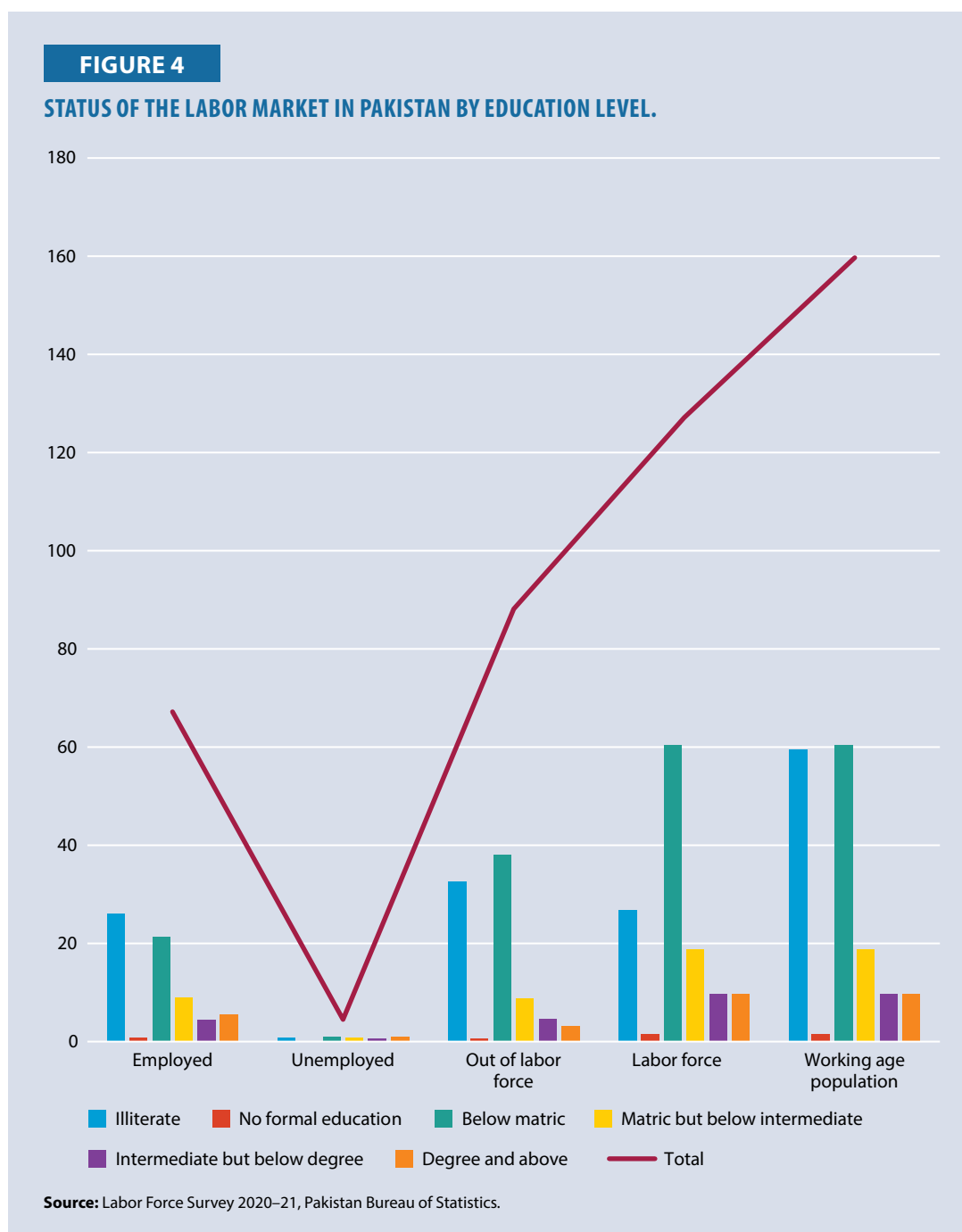


Figure 4 illustrates the labor market status by the level of education. It is observed that the unemployed population tends to have a very low level of education, while the working-age population generally exhibits a higher level of education in the country.

Employment by Sector and Gender

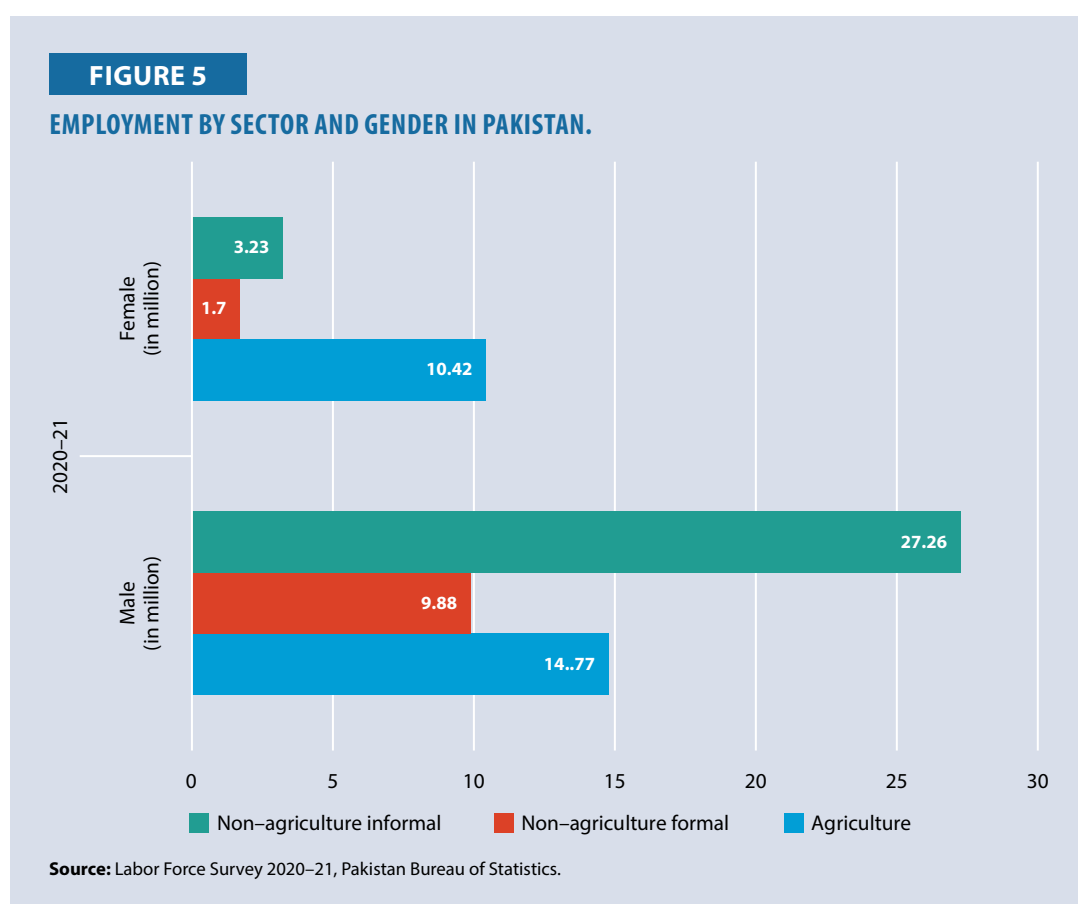
Table 5 presents the data on labor force employment by sector and gender. According to the Pakistan Bureau of Statistics' labor force survey of 2020–21, the non-agriculture informal sector, particularly the SMEs employs 42.07 million people, which represents 63% of the total employed population in the country. Among these, 27.26 million, or 53% are males and 3.23 million are females, making up 21% of the workforce [3].

TABLE 5

EMPLOYMENT BY SECTOR AND GENDER IN PAKISTAN.

Sector of Employment		2020–21							
		Male				Female		Total	
		Million	In %	Million	In %	Million	In %	Million	In %
Agriculture			14.77	28%		10.42	68%	25.19	37%
Non-agriculture	Formal	9.88	37.14	19%	1.7	4.93	11%	42.07	63%
	Informal	27.26		53%	3.23		21%		
Total			51.91	100%		15.35	100%	67.26	100%

Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

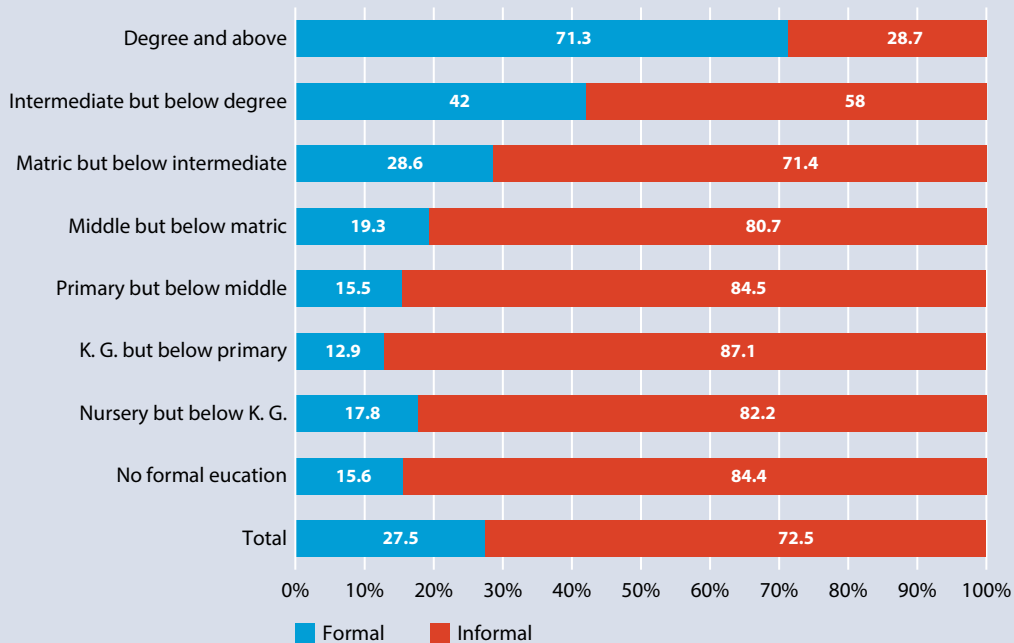


Employment in Formal and Informal Sector by Education

According to the labor force survey report of 2020–21, the distribution of employment across formal and informal sectors based on education is presented in Figure 6. The data indicates a significant trend: those with a degree (equivalent to 14 years of education) or higher are predominantly engaged in the formal sector. The informal sector, specifically SMEs, accommodates 28.7% of individuals possessing a degree or higher, whereas the formal sector employs 71.3% of this demographic. Moreover, among the individuals with qualifications below the degree level, the share of those employed in the informal sector is higher as compared to the formal sector.

FIGURE 6

EMPLOYMENT IN FORMAL AND INFORMAL SECTOR BY EDUCATION IN PAKISTAN (IN %).



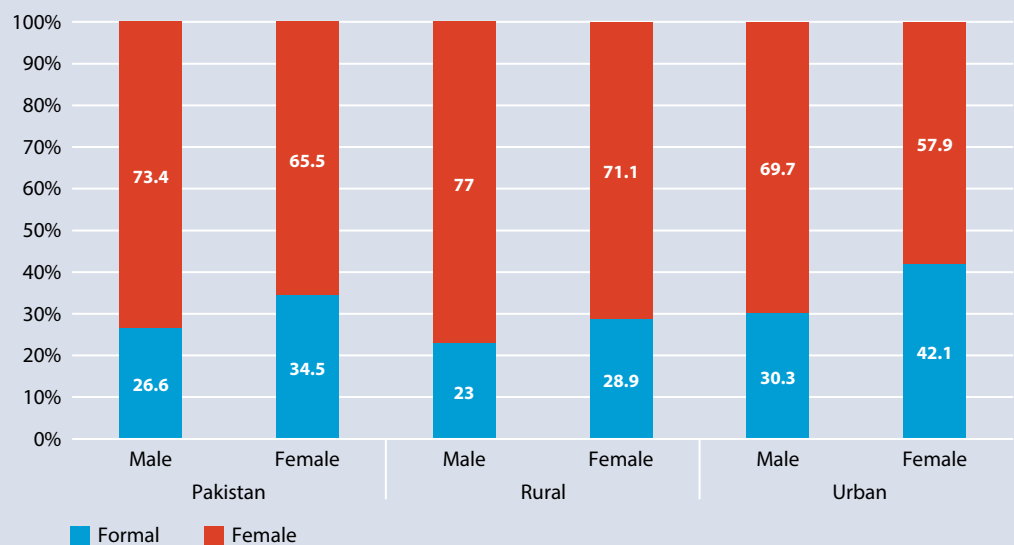
Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

Employment in Formal and Informal Sectors by Gender and Area

According to the labor force survey report of 2020–21, employment in the informal sector, particularly in the SMEs surpasses the formal sector, both in rural as well as urban areas [3].

FIGURE 7

EMPLOYMENT IN FORMAL AND INFORMAL SECTOR BY GENDER AND AREA IN PAKISTAN (IN %).



Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

Labor Force Participation Rate

Pakistan Bureau of Statistics conducted a labor force survey in 2020–21. This survey report calculated the labor force participation rate (LFPR), a ratio of the number of individuals in the labor force (employed + unemployed), as a percentage of the total population.

The survey indicates that in rural areas, LFPR is 48% for males, 19.9% for females, and 67.9% in total. In urban areas, it is 49% for males, 7.5% for females, and 56.5% in total. Therefore, it is observed that Pakistan has a high labor force participation rate in rural areas [3].

TABLE 6

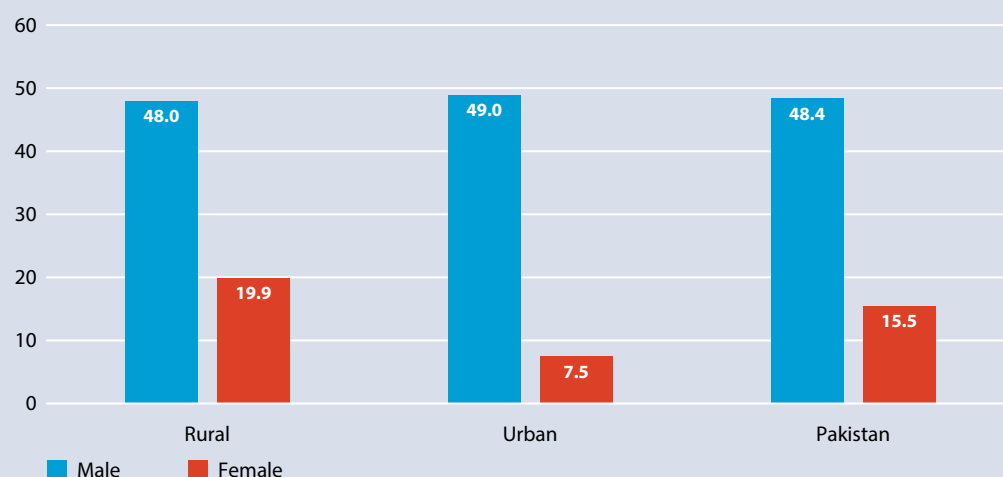
LABOR FORCE PARTICIPATION RATES (CRUDE) IN PAKISTAN (IN %).

Area	Labor Force Participation Rates (in %)		
	Male	Female	Total
Rural	48.0	19.9	67.9
Urban	49.0	7.5	56.5
Pakistan	48.4	15.5	63.9

Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

FIGURE 8

LABOR FORCE PARTICIPATION RATE IN PAKISTAN (IN %).



Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

Gender Gap in Labor Force Participation Rate

In Pakistan, the overall labor force participation rate is increasing. In a report of the Labor Force Survey (LFS) 2020–2021, published by the Pakistan Bureau of Statistics, it was found that the overall labor force participation rate nominally increased to 44.9%, up from 44.8% in 2018–19 [3].

Employment Trends in the Informal Economy

Employment in the informal economy in Pakistan has not increased much over the years. Table 7 and Figure 9 indicate that the overall employment in 2006–07 was 71.5, which dropped marginally

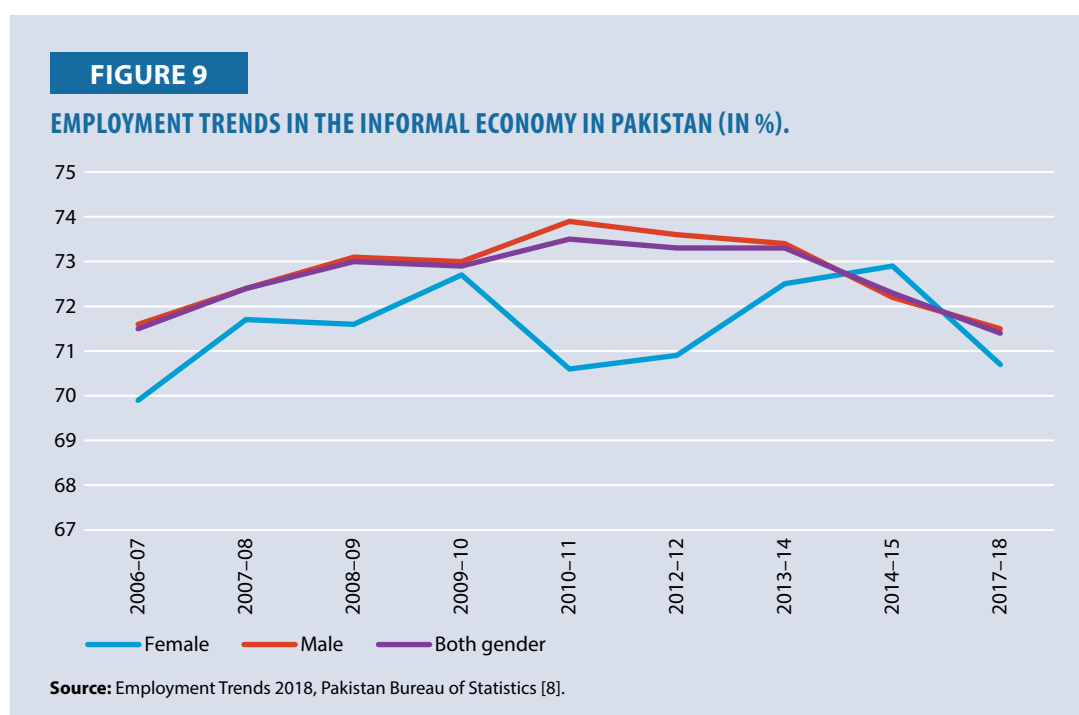
during the decade to 71.4 in 2017–18. Even though the 71.4% employment in the informal sector is significant, it is a matter of concern that the employment rate is declining over time.

TABLE 7

EMPLOYMENT TRENDS IN THE INFORMAL ECONOMY IN PAKISTAN (IN %).

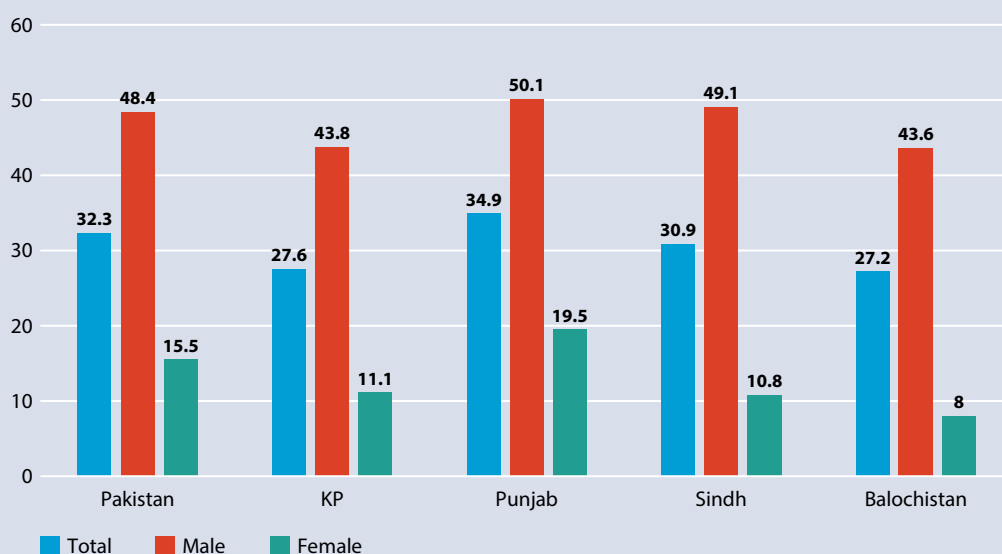
Year	Female	Male	Both Genders
2006–07	69.9	71.6	71.5
2007–08	71.7	72.4	72.4
2008–09	71.6	73.1	73.0
2009–10	72.7	73.0	72.9
2010–11	70.6	73.9	73.5
2012–12	70.9	73.6	73.3
2013–14	72.5	73.4	73.3
2014–15	72.9	72.2	72.3
2017–18	70.7	71.5	71.4

Source: Employment Trends 2018, Pakistan Bureau of Statistics [8].



Labor Force Participation Rates by Gender and Province

The labor force participation rate by gender and province is presented in Figure 10, which is taken from the LFS 2020–2021, published by the Pakistan Bureau of Statistics [3]. In Figure 10 it is observed that the participation rate of females in Balochistan, Sindh, and KPK is only 8%, 10.8%, and 11.1% of the total labor force respectively, which is very low and needs government attention. Moreover, across the country, the female labor force participation rate stands at 15.5%, which is also very low.

FIGURE 10**LFPR BY GENDER AND PROVINCE IN PAKISTAN IN 2020–21 (IN %).**

Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

Labor Mobilization

Individuals often relocate from one place to another in search of new jobs or opportunities. Data from the Labor Force Survey 2020–21 shows that 6.5% of the workforce in Pakistan migrated to other locations in pursuit of employment, with 4.3% of laborers succeeding in getting jobs. This mobilization and shift of the labor force leads to a spurt in the urban population and challenges. SMEs can play a major role in mitigating this situation if they get an opportunity and conducive environment to set up operations in rural areas. To make this possible, the Government of Pakistan should provide the training and necessary skills to the rural population, enabling them to take initiative or start small enterprises.

National Skill Strategy (NSS)

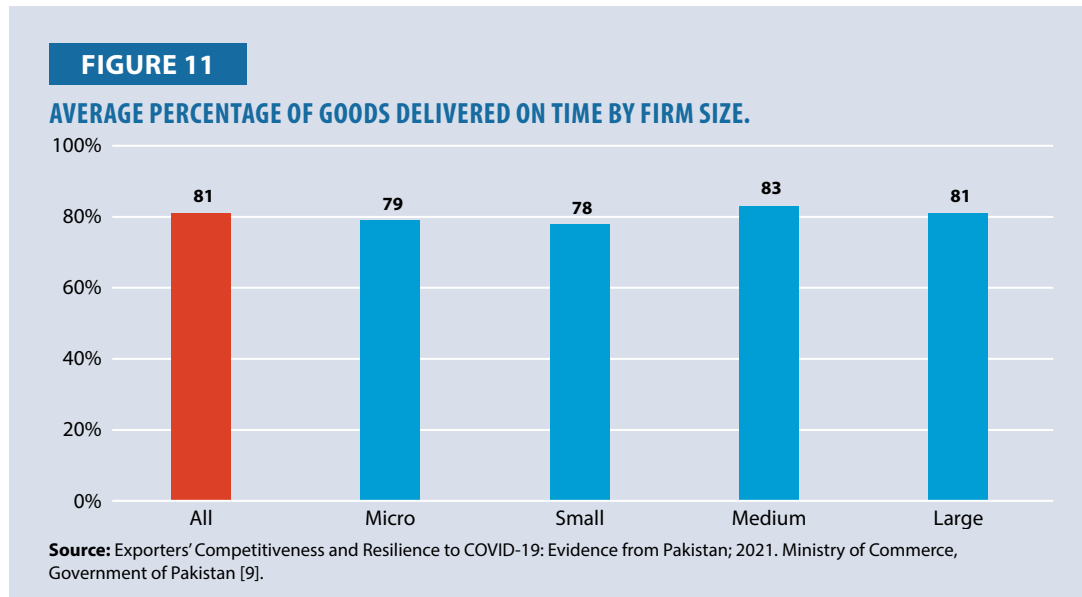
The Government of Pakistan has created a more comprehensive roadmap for the development of youth under the National Skill Strategy (NSS), which emphasizes improving governance, exploring multi-source funding, capacity enhancement through employable skills, quality assurance, access and equity, and industry ownership. It also includes skill development for the international market to increase foreign remittances, aimed at meeting SDG 8, and providing decent work and economic growth. Additionally, there is a lot of emphasis on retraining current employees through Recognition of Prior Learning (RPL), and offering subsidized loans to the young unemployed population. Besides, the NSS and the foundation of the ongoing TVET sector reform in Pakistan lay strong emphasis on the adoption of Competency-based Training and Assessment.

The TVET sector reform in Pakistan is based on the NSS, which serves as the foundation for implementing the National Vocational Qualifications Framework. The agenda also encourages public-private partnerships, a more private sector engagement in TVET governance, and RPL connections with the unofficial economy. In addition, the National Youth Development Framework places a high premium on the National Youth Development Framework [7].

Competitiveness Fundamentals

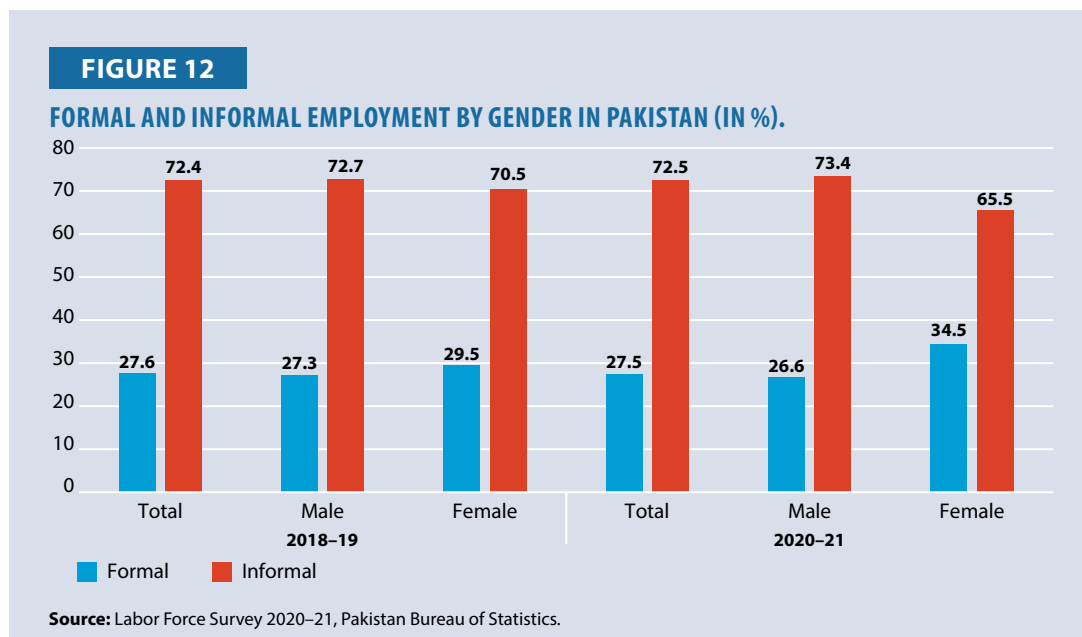
Average Percentage of Goods Delivered on Time

The SME sector in Pakistan faces challenges in terms of its performance related to the average percentage of goods delivered on time. Figure 11 shows the average percentage of goods delivered on time, by the size of the firm. It is observed that the instances of goods being delivered on time by micro, small, and medium organizations are less than 83%. It means that 17% and above goods are not delivered on time. Therefore, there is a need to increase the efficiency of SMEs to meet customer demands.



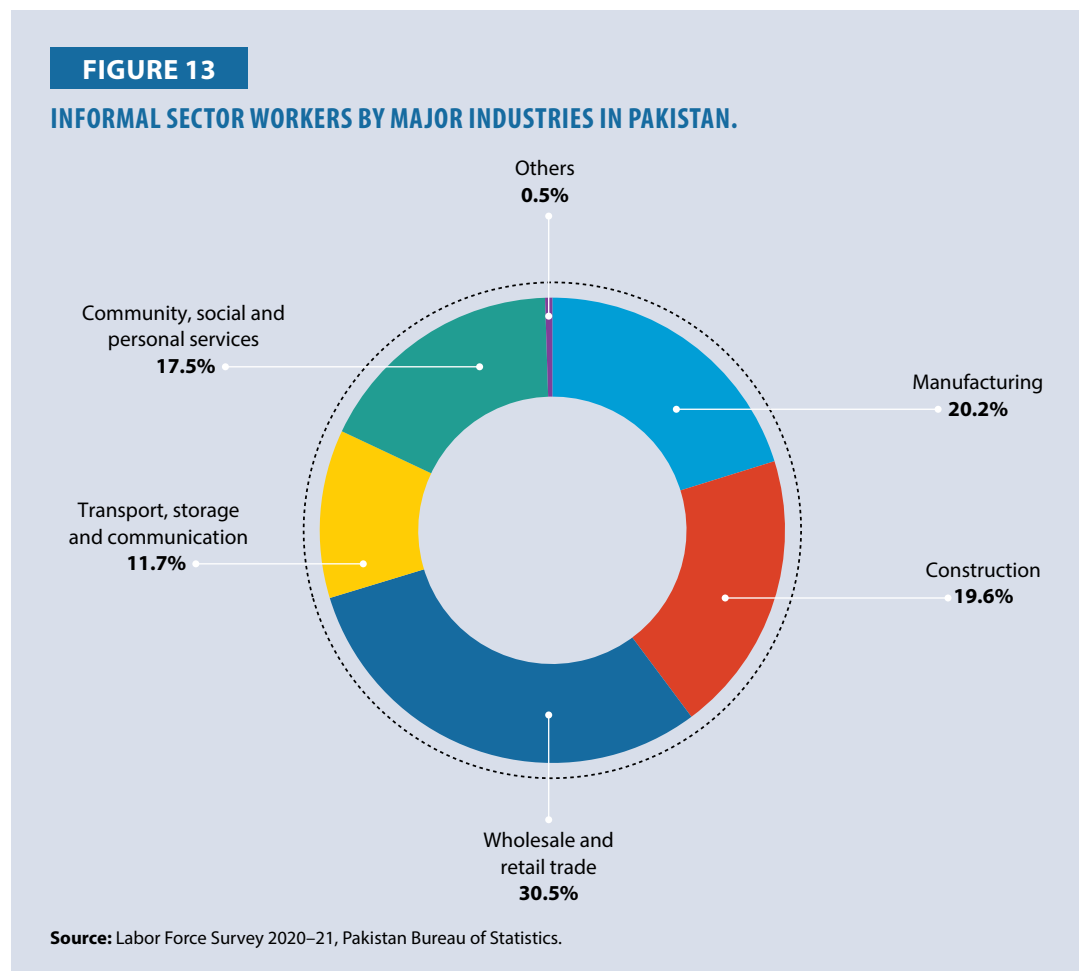
Formal and Informal Employment by Gender

The employment status of formal and informal sectors is illustrated in Figure 12. It is evident that in 2018–19 and 2020–21, the total share of the informal sector was higher than the formal sector. Hence, it can be inferred that the informal sectors, particularly the SMEs employ more people compared to the formal sector.



Workers in the Informal Sector by Major Industries

The percentage workers of in the informal sector, in different industries, is shown in Figure 13. Most workers are from manufacturing and construction and wholesale and retail trade. The Government of Pakistan needs to focus on high-tech industries and SMEs should be promoted in technology-based work.



Education and Training Level of Employees

Figure 14 shows the literacy rate for 10 years and above in Pakistan and its provinces. According to the data, 62.4% population in the country is literate, and overall, males are more literate than females. Educated females have the potential to do business and can contribute to the economy. The government should focus on these educated females and start programs to drive women's entrepreneurship. These women can start many small organizations related to garments, IT, agriculture-related products, and much more.

Employed Person by Technical and Vocational Training

Figure 15 shows the percentage distribution of employed people by technical and vocational training. It is observed that the people having technical and vocational training are less employed compared to those who do not have the training. This is due to a lack of opportunities for people with technical skills. The country should start some initiatives for these people, providing incentives to encourage them to start businesses or startups, so that they can generate employment and contribute to the economy.

FIGURE 14

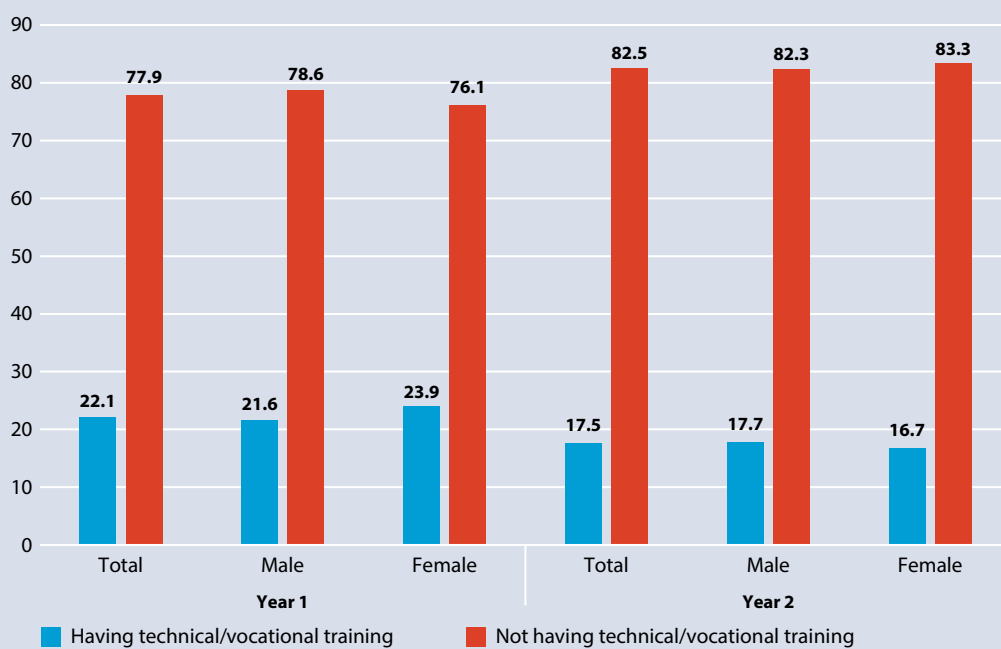
LITERACY RATE AMONG 10 YEARS AND ABOVE IN PAKISTAN AND PROVINCES (2018–19).



Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

FIGURE 15

EMPLOYED PERSON BY TECHNICAL AND VOCATIONAL TRAINING IN PAKISTAN (IN %).



Source: Labor Force Survey 2020–21, Pakistan Bureau of Statistics.

Driving SMEs to Achieve SDGs

The UN SDGs have 17 global goals to end poverty, protect the planet, and ensure prosperity for all. The role of SMEs in achieving these goals is crucial, especially in developing countries like Pakistan. SMEs make up a significant portion of the economy and have the potential to create jobs, drive innovation, and contribute to sustainable development.

In Pakistan, SMEs can potentially impact several of the SDGs significantly. For example, by creating jobs, SMEs can help to reduce poverty and improve access to essential services such as healthcare and education. They can also contribute to environmental sustainability by promoting environment-friendly business practices and adopting renewable energy sources. Additionally, SMEs can help build more resilient communities by supporting local economies and promoting economic growth.

However, SMEs need support and resources to achieve the SDGs. The Government of Pakistan has a vital role to play, and it can provide SMEs with access to finance, modern technology, and infrastructure. The government can also create a favorable business environment by reducing bureaucracy and making it easier for SMEs to access markets. Additionally, the government can provide training and development programs to help SMEs build the skills they need to grow and succeed.

The role of SMEs in achieving the SDGs in Pakistan is significant. By creating jobs, promoting sustainable practices, and supporting local economies, SMEs have the potential to make a significant impact on sustainable development. The Government of Pakistan needs to provide the necessary support and resources to help SMEs succeed and contribute to achieving the SDGs.

The Sustainable Development Report 2022, published by Cambridge University, ranked Pakistan 125 out of 163 countries, and it scored 59.3 compared to the regional average score of 65.9. So, it can be said that Pakistan has a below-average score in the region. Although, the country scored 99.4 out of 100 on the international spillover index, and the statistical performance index was 60.7/100. Moreover, Pakistan's score on the index of Governments' commitment and efforts for the SDGs is about 60 in the G20 countries² group [10]. From the figures mentioned earlier, it can be observed that the country's overall performance is below the average, and the government needs to make more endeavors to implement the SDGs.

The SMEs have a great potential to assist the government in achieving the UN SDGs for 2030. This task can be accomplished efficiently and effectively by adopting and practicing the ISO standards. If the country uses SMEs as a tool for achieving the SDGs with the help of ISO standards, the country can have more success in the achievement of these goals. In the following few sections, there are some facts and suggestions for Pakistan to meet the SDGs with the help of SMEs by adopting certain ISO standards.

SDG 1 (no poverty)

According to the 2022 sustainable development report's country profile of Pakistan, the poverty headcount ratio at USD1.90 per day is 4.8%, and the poverty headcount at USD3.20 per day is 37% [10]. Therefore, it is evident that many people are living in poverty. The country needs more efforts to improve these ratios, and SMEs are the only tools to achieve the No Poverty goal. Most of the country's population lives in rural areas, and the government should promote an entrepreneurial

² The Group of Twenty (G20) is a forum for international economic cooperation, which includes 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Russia, Saudi Arabia, South Africa, Türkiye, United Kingdom and United States of America) and the European Union. <https://www.g20.org/en/>.

culture there. If people in rural areas start doing startups, their income will increase, and the employment opportunities generated will help decrease poverty.

One of the most essential ways SMEs can help reduce poverty is by creating employment opportunities. By providing jobs, SMEs can help reduce poverty and improve the standard of living for people in the communities where they operate. In addition, SMEs can help to build more resilient communities by supporting local economies and promoting economic growth. These endeavors will help reduce poverty by giving people more opportunities to improve their lives.

SDG 2 (zero hunger)

In the UN Sustainable Development Report 2022, Pakistan's performance on the indicators of zero hunger is deficient, and it is observed that the country is lagging in achieving this goal. These indicators include the following eight dimensions: Prevalence of undernourishment; Prevalence of stunting in children under five years of age; Prevalence of wasting in children under five years of age; Prevalence of obesity, BMI ≥ 30 (% of adult population); Human Trophic Level (best 2–3 worst); Cereal yield (tonne per hectare of harvested land); Sustainable Nitrogen Management Index (best 0–1.41 worst); and Exports of hazardous pesticides (tonne per million population).

Pakistan's performance across these eight indicators is notably modest. For instance, the country's score for the initial indicator, the Prevalence of Undernourishment, stood at 12.9 in 2019. In the case of the second indicator, the Prevalence of Stunting in Children Under Five Years of Age, the figure reached 37.6% in 2018. Regarding the third indicator, the Prevalence of Wasting in Children Under Five Years of Age, the value recorded was 7.1 in 2018.

Regarding the fourth indicator, which is the Prevalence of Obesity, the BMI $\geq 30\%$ of the Adult Population reached 8.6% in 2016. On the fifth indicator, the Human Trophic Level, Pakistan scored 2.5 in 2017. On the sixth indicator, The Cereal Yield (tonne per hectare of harvested land) was 3.1 in 2018. Furthermore, on the seventh indicator of zero poverty, the Sustainable Nitrogen Management Index (Best 0–1.41 Worst), the country scored 0.9 in 2015. Finally, the eighth indicator of Exports of Hazardous Pesticides (tonne per million population) in 2019 stood at zero [10]. These indicators collectively underscore Pakistan's stagnation in advancing toward the goal of zero hunger.

SMEs can play a crucial role in attaining this goal, including achieving food security, improving nutrition, and promoting sustainable agriculture. Here are a few ways in which SMEs in Pakistan can help achieve this goal.

Pakistan is an agricultural country, and the government should focus on agriculture to increase the human trophic level and improve the cereal yield. The agriculture-related small and medium enterprises should be incentivized to do so. The government should promote SMEs in agricultural areas to decrease the country's hunger. SMEs involved in agriculture and food production can contribute to food security by increasing the supply of nutritious and affordable food. They can also adopt sustainable agricultural practices that protect the environment and conserve natural resources.

Moreover, SMEs involved in food processing and distribution can help improve food security by reducing food waste and increasing the availability of nutritious food, especially in rural areas. Additionally, SMEs have the potential to drive innovation in the agriculture and food sectors, which can help in improving food security by increasing productivity and reducing the cost of food production.

In conclusion, SMEs have the potential to make significant contributions to achieving SDG 2 and ending hunger in Pakistan. By increasing food production, improving food security, and driving innovation, SMEs can play a key role in addressing one of the world's most pressing challenges.

SDG 3 (good health and well-being)

Overall, Pakistan scores very low on SDG 3. The age-standardized death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30–70 was 29.4%. Further, the age-standardized death rate attributable to household air and ambient air pollution is 174 per 100,000 people. Additionally, Pakistan's score on the universal health coverage index of service coverage (worst 0–100 best) was 45 in 2019 [10]. Hence, it is evident that the country must take many measures to increase the good health and well-being of its population.

In providing a healthy and safe environment to the people, the government should get help from the Occupational Health and Safety ISO 45001 standard. If the SMEs adopt the standard, it can help in achieving this goal of good health and well-being for their employees.

This goal of the nation's good health and well-being can also be achieved by promoting the SME sector. The government should promote SMEs working in the pharmaceutical industry to play a role in helping the health and well-being of the nation. Typically, chemicals, pharmaceutical products, surgical goods, and medical instruments can be produced by the SMEs at very cheap and affordable rates, if the government provides incentives to the SMEs for adopting renewable energy. SMEs can also play a role in reducing pollution in the air by using renewable energy sources if they get subsidies for using renewable energy.

SDG 4 (quality education)

The literacy rate of the population aged 15 to 24 in Pakistan was 72.7%, and the rate of completion of lower secondary education was 49.0% in 2019 [10].

SMEs in Pakistan can play a crucial role in achieving SDG 4, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. SMEs should invest in the education and training of their employees, which can help in improving the quality of the workforce and its productivity. These endeavors will also help in promoting lifelong learning opportunities and foster a culture of continuous improvement.

Moreover, SMEs can help in achieving the goal of quality education if innovative products can be designed for distance learning, for students and professionals all over the country, by educational institutions and universities, in collaboration with small and medium industries. This academia-industry collaboration can provide quality education for the nation. Moreover, if the government enforces the education, implementation, and adoption of ISO 9000 standards for quality management systems in their SMEs, it can enhance the quality of education.

SDG 5 (gender equality)

According to the 2022 sustainable development report's country profile of Pakistan [10], the country has also stagnated in achieving this goal. SMEs can play a crucial role in achieving this goal, which aims to achieve gender equality and empower all women and girls. The government should promote gender equality by enforcing gender-sensitive policies and practices within the SMEs, such as equal pay for equal work and non-discrimination policies.

Additionally, the government should develop laws and policy frameworks by which SMEs will be required to hire women. Likewise, the government should incentivize women for entrepreneurial activities and startups. The government should also design programs for SME establishment and easy startup for educated females, typically in rural areas.

SMEs can contribute to women's empowerment by providing women with equal access to employment opportunities, skills training, and career advancement. This will fulfill the gender pay gap and increase the participation of women in the workforce.

SMEs can also help in promoting gender equality by providing flexible work arrangements, such as part-time and remote work options, which can help in accommodating the caregiving responsibilities of women. They can support gender equality by providing mentorship and support to women-owned businesses and promoting their products and services. These endeavors will help to reduce the gender gap in entrepreneurship and increase the economic empowerment of women.

In conclusion, SMEs have the potential to play a critical role in achieving SDG 5 and promoting gender equality in Pakistan. By adopting gender-sensitive policies and practices, empowering women, promoting flexible work arrangements, and supporting women-owned businesses, SMEs can help to create a more inclusive and equitable society for all.

SDG 6 (quality water and sanitation)

In Pakistan, the proportion of the population accessing basic drinking water services reached a minimum of 90.1%, while the percentage utilizing basic sanitation services stood at 68.4% in 2020 [10].

SMEs in Pakistan play a vital role in contributing to water conservation and management to achieve these targets. To this end, SMEs should formulate and implement practices centered around water conservation and management, including strategies like water recycling and rainwater harvesting. Furthermore, SMEs are encouraged to manufacture and distribute cost-effective sanitation and hygiene products like toilets, hand pumps, and water filters. This concerted effort aids in enhancing accessibility to safe water and sanitation, especially within rural areas.

Moreover, SMEs should play a role in developing and operating wastewater treatment plants, which can help in reducing water pollution and improve water quality. Similarly, SMEs should also play an important role in raising awareness about the importance of water conservation and sanitation, by educating the communities on best water and waste management practices. SMEs should also collaborate with government agencies and non-government organizations, to design and implement water and sanitation projects. These public-private partnerships can help leverage resources and expertise and provide a platform for private sector engagement in water and sanitation initiatives.

By taking these steps, SMEs in Pakistan can play a critical role in helping to achieve SDG 6, quality water and sanitation, and creating a more sustainable and equitable future for communities across the country.

SDG 7 (affordable and clean energy)

Pakistan's performance on the indicators aligned with this goal remains notably deficient. For instance, only 73.9% of the population had access to electricity, while a mere 49.1% had access to clean fuels and advanced cooking technologies. In terms of CO₂ emissions stemming from fuel combustion per total electricity output (measured in MtCO₂/TWh), the figure stood at 1.9.

Moreover, the contribution of renewable energy to the overall primary energy supply was a mere 35.7% in 2019 [10]. The data underscores that Pakistan lacks policies and actions to achieve this goal. It is, therefore, imperative for Pakistan to establish comprehensive policies aimed at providing industries, particularly SMEs, with access to clean and renewable energy alternatives.

The government should promote SMEs that provide solar, wind, and hydropower energy-producing equipment. Moreover, the government should enforce the implementation of ISO 50001:2018 energy management systems [11], so that enterprises can use energy affordably and cleanly.

Likewise, the government should incentivize SMEs to produce and import renewable and clean energy-related equipment. This way, they can implement energy-efficient technologies in their operations, such as energy-efficient lighting, heating and cooling systems, and efficient industrial processes. These technologies can help in reducing energy consumption and lower energy costs.

SMEs should be encouraged to invest in and adopt renewable energy technologies like solar, wind, and hydropower. These technologies can help in reducing dependence on fossil fuels and contribute to a cleaner energy mix. SMEs should also be motivated to invest in energy storage technologies, such as batteries, to store excess renewable energy generated during periods of low demand. These technologies will ensure a consistent and reliable supply of energy.

Additionally, SMEs should be encouraged to expand access to energy in rural and underserved communities by developing and deploying decentralized energy solutions, such as microgrids, which can provide reliable and affordable energy to these areas. Furthermore, SMEs should collaborate with government agencies and other organizations to develop and implement energy projects to help in achieving SDG 7. Public-private partnerships can help leverage resources, knowledge, and expertise to address energy challenges more effectively and sustainably.

By taking these steps, SMEs in Pakistan can play a critical role in achieving SDG 7, a goal for affordable and clean energy, and creating a more sustainable and equitable future for communities across the country.

SDG 8 (decent work and economic growth)

Pakistan's performance on the indicators linked to this goal is notably deficient as well. Merely 21.3% of adults aged 15 or above had an account with a bank, financial institution, or mobile money service provider in 2017. Additionally, the unemployment rate stood at 4.2% of the total labor force in 2022. In this context, SMEs assume a pivotal role in ameliorating these standings.

To achieve this objective, the government must bolster entrepreneurs through initiatives like business incubators, mentorship programs, and avenues for networking. These measures aim to foster an environment conducive to SME growth, subsequently leading to an upsurge in their numbers, thereby contributing to unemployment reduction. Furthermore, stimulating and simplifying exports by SMEs can catalyze access to novel markets and generate augmented revenue. This, in turn, culminates in the creation of quality employment opportunities and contributes substantively to overall economic growth.

On SDG 8, Pakistan scored just 0.3 on the indicator of guarantee of fundamental labor rights in 2020, and fatal work-related accidents embodied in imports per 100,000 people were 0.0 in 2015

[10]. To improve these scores, the government should develop detailed HR policies for informal sectors. Detailed laws of fundamental labor rights, health, and safety should be developed for SMEs and implemented in their true spirit. The government can encourage SMEs to adopt ISO 45001, a health and safety management standard.

Furthermore, for economic growth in the country, government agencies, institutions, and ministries need to procure goods and services from local SMEs. This growth will provide a significant boost to economic growth and the creation of more jobs.

SDG 9 (industry, innovation, and infrastructure)

In the current era of globalization, Pakistan's performance on the indicators associated with this goal remained notably inadequate, as evidenced by the Sustainable Development Report 2022. Notably, Pakistan's overall internet penetration reached a mere 25.0% in 2020, while mobile broadband subscriptions per 100 people stood at a meager 35.1% in 2019. Additionally, the Logistics Performance Index, specifically concerning the Quality of Trade and Transport-related Infrastructure, received a score of 2.2 out of 5 in 2018, a figure indicative of significant deficiency.

SMEs can play a pivotal role in fortifying the nation's infrastructure by actively engaging in public-private partnerships and investing in vital infrastructure projects encompassing areas like roads, bridges, and power plants. However, a primary challenge for SMEs in Pakistan lies in accessing financial resources. In light of this, both the government and the private sector hold a responsibility to support SMEs by facilitating access to finance through various avenues, such as microfinance, loans, and grants.

The government should encourage SMEs to adopt digital technologies to improve their operations, increase their competitiveness, and expand their market reach. They should also adopt e-commerce platforms, digital marketing, and cloud-based services. SMEs need to use digital technologies to improve their operations, increase their competitiveness, and expand their market reach. Moreover, SMEs should adopt e-commerce platforms, digital marketing, and cloud-based services.

Furthermore, in the Times Higher Education Universities Ranking, the average score of the top three universities in Pakistan was 36.5/100, and the articles published in academic journals per 1,000 people were only 0.1 in 2020. Finally, the country's expenditure on research and development was only 0.2% of the GDP in 2017 [10].

SMEs can play a key role in improving the country's scores by investing in research and development activities, adopting new technologies, and collaborating with universities and research institutions. Moreover, SMEs can play a major role by providing on-the-job training and encouraging their employees to pursue further education and training. All these skill developments of employees in the SME sector should be in collaboration with the country's universities.

SDG 10 (reduced inequalities)

Pakistan displays a poor score on SDG 10 as well. In 2018, the Gini coefficient and Palma ratio registered scores of 31.6 and 1.4, respectively, [10] signifying a marked deficiency. SMEs in Pakistan are poised to exert a significant influence in diminishing inequalities and contributing to the enhancement of these metrics. SMEs in Pakistan can play a significant role in reducing inequalities and contributing towards improving these scores. SMEs should promote equal pay for equal work by ensuring that all employees, regardless of gender, race, or religion, receive fair and

equal compensation. Moreover, SMEs should provide job opportunities and training to marginalized groups, such as women and people with disabilities, to help reduce income disparities and improve access to economic opportunities.

Likewise, SMEs should invest in local communities through initiatives such as building schools and supporting healthcare facilities, reducing the disparities between rural and urban areas. Furthermore, SMEs should encourage diversity and inclusivity in the workplace, by promoting a culture of respect and tolerance and implementing policies and practices that ensure equal treatment for all employees.

SDG 11 (sustainable cities and communities)

In Pakistan, the urban population residing in slums accounted for 38.0% in 2018, access to improved water sources within urban areas reached 45.0% in 2020, and the level of contentment with public transportation stood at 64.0% in 2021 [10].

SMEs in Pakistan hold a pivotal role in enhancing the achievements of this goal, which strives for inclusive, secure, resilient, and sustainable cities and human settlements. SMEs can bolster the cause of sustainable urban development by investing in environment-friendly technologies and construction materials, thereby reducing their carbon footprint and promoting energy efficiency. By generating job opportunities, championing local enterprises, and supporting community initiatives that enhance the quality of life, SMEs can substantially contribute to local communities.

Moreover, SMEs can implement green business practices encompassing waste reduction, energy conservation, and the endorsement of renewable energy sources, effectively curtailing the environmental impact of their operations. Encouraging the adoption of sustainable transportation modes such as cycling, walking, and public transit to help reduce city congestion and air pollution. Furthermore, SMEs have the potential to promote green spaces by supporting initiatives dedicated to crafting parks, gardens, and open areas within urban landscapes, thereby enhancing the living standards of urban dwellers.

SDG 12 (responsible consumption and production)

In Pakistan, the municipal solid waste generated per kg per capita per day was 0.4 in 2017, with electronic waste amounting to 2.1 kg per capita in 2019. Production-based SO₂ emissions reached 4.9 kg per capita in 2018, while SO₂ emissions embodied in imports were 0.2 kg per capita in the same year. Furthermore, production-based nitrogen emissions stood at 11.2 kg per capita in 2015, with nitrogen emissions embodied in imports at 0.1 kg per capita in the same year. Lastly, exports of plastic waste totaled 0.1 kg per capita in 2021 [10].

SMEs can play an important role in improving scores across the mentioned dimensions of SDG 12. By incorporating eco-friendly practices like waste reduction, energy conservation, and the promotion of renewable energy sources, SMEs can effectively curtail their carbon footprint and overall environmental impact. In addition, SMEs can advocate for sustainable materials such as recycled goods, biodegradable packaging, and environmentally-conscious production techniques, thereby reducing their ecological footprint and fostering responsible consumption practices.

SMEs should encourage sustainable procurement by sourcing products and services from suppliers that adopt sustainable practices and reducing the use of single-use plastics. Additionally, SMEs should implement a closed-loop supply chain by reusing and recycling materials, therefore reducing

waste and conserving natural resources. Furthermore, SMEs should educate their consumers about responsible consumption and production, and promote sustainable lifestyles through their marketing and communications activities.

SDG 13 (climate action)

Pakistan's climate action score remains notably low. In 2020, CO₂ emissions stemming from fossil fuel combustion and cement production stood at 1.1 tCO₂ per capita. Additionally, CO₂ emissions embodied in imports recorded 0.1 tCO₂ per capita in 2018, with CO₂ emissions linked to fossil fuel exports amounting to 5.6 kg per capita in 2021 [10].

SMEs in Pakistan hold a pivotal role in driving climate action and advancing progress toward this objective. By incorporating energy-efficient technologies, embracing renewable energy sources, and endorsing sustainable transportation methods, SMEs can effectively curtail their greenhouse gas emissions. Furthermore, SMEs should actively prepare for the ramifications of climate change by integrating climate risk considerations into their business strategies. Investing in resilient infrastructure and technologies capable of withstanding extreme weather events is pivotal for their adaptive response.

Additionally, SMEs in Pakistan should support climate-friendly initiatives such as reforestation and carbon sequestration, and invest in clean energy technologies that reduce greenhouse gas emissions. The SMEs can also promote sustainability in their supply chain by sourcing products and services from suppliers that adopt environmentally friendly practices and reducing the use of single-use plastics.

SMEs can educate their employees and consumers about the impacts of climate change and the importance of taking action to combat it and encourage them to adopt sustainable practices in their personal lives. Also, If the government enforces the implementation and adoption of ISO 14001;2004 standards for environmental management systems in SMEs, carbon emissions can be controlled, and the country's scores on this goal will improve.

SDG 14 (life below water)

Pakistan's score on SDG 14 is a cause for concern. The average protected area within marine sites of significant biodiversity stood at a mere 14.6%. Furthermore, the Ocean Health Index, specifically concerning Clean Waters, received a score of 45.6% in 2020. Adding to this, the proportion of fish sourced from overexploited or collapsed stocks constituted 30.1% of the total catch in 2018 [10]. These figures present a considerable cause for concern, but SMEs have the potential to effect positive change.

SMEs in Pakistan should reduce marine pollution by implementing environmentally friendly production processes and reducing the use of single-use plastics, which are a major source of marine pollution. SMEs should also promote sustainable fishing practices, by sourcing seafood only from suppliers that adhere to sustainable fishing practices, which will reduce their impact on marine ecosystems.

Additionally, SMEs should support marine conservation initiatives by investing in projects that protect and conserve marine ecosystems and promote awareness about the importance of conserving ocean resources. SMEs should also encourage sustainable tourism, by promoting environmentally friendly practices, such as responsible waste management, reducing energy use, and promoting public transportation.

SMEs should implement sustainable business practices by reducing their carbon footprint, conserving energy and water, and promoting renewable energy sources. By implementing these strategies, SMEs in Pakistan can play an important role in saving lives below water and contribute towards achieving SDG 14. These endeavors will help create a more sustainable future for the ocean and the people who depend on it.

SDG 15 (life on land)

Pakistan's performance on the indicators linked to this goal also exhibited marked deficiencies. The average protected area within terrestrial sites crucial for biodiversity preservation was just 34.8%. Similarly, for freshwater sites essential to biodiversity, the coverage reached only 35.9% in 2020. Furthermore, the Red List Index assessing species survival stood at 0.9 out of 1 in 2021 [10]. These scores underscore the need for intervention, where SMEs in Pakistan can play a constructive role.

SMEs in Pakistan can reduce deforestation by sourcing materials from suppliers that adopt sustainable forest management practices, and by investing in reforestation projects. SMEs should also promote sustainable agriculture, by using environmentally friendly production methods, reducing their use of pesticides and fertilizers, and promoting agroforestry practices that conserve biodiversity.

Additionally, SMEs should support conservation initiatives by investing in projects that protect and conserve terrestrial ecosystems, and promote awareness about the importance of conserving land-based resources.

SDG 16 (peace, justice, and strong institutions)

In Pakistan, the homicide rate stood at 3.8 incidents per 100,000 individuals in 2019. Notably, in 2016, 65.7% of the prison population consisted of detainees awaiting sentencing. Furthermore, the proportion of the population who felt secure when walking alone at night in their city or locality reached only 63% in 2021. The registration of births with civil authorities encompassed 42.2% of children under the age of five in 2020 [10]. These scores are very low, and SMEs can promote peace and security by creating jobs and providing economic opportunities, which can help reduce poverty and address the issue's root causes.

The other indicator of this goal was the Corruption Perception Index, and the country's score was 28/100 in 2021 [10]. SMEs can actively contribute to anti-corruption efforts by adopting transparent and accountable business practices, along with promptly reporting instances of corruption whenever identified. In 2019, children engaged in child labor constituted 11.4% of the population aged 5 to 14 years. To address this concern, the Government of Pakistan must take measures to ensure that SMEs refrain from employing child labor.

The country's score for the Freedom of Press Index was 46.9/100 in 2021, and the score for access to and affordability of justice was 0.4/100 in 2020 [10]. SMEs can advocate for human rights by promoting equality, non-discrimination, and fair treatment for all employees, including working with suppliers who uphold human rights.

Moreover, SMEs should encourage inclusive business practices by promoting diversity and inclusiveness in the workplace, and also provide opportunities for marginalized groups to participate in the economy.

SDG 17 (partnership for the goals)

Pakistan's performance on the indicators associated with this goal is notably inadequate and demands focused attention. Notably, government expenditure on health and education amounted to a mere 3.6% of the GDP in 2019. Furthermore, Pakistan's statistical performance index reached 60.7 out of 100 in 2019 [10].

Improving scores on these indicators can also be facilitated through the involvement of SMEs. Serving as the backbone of the economy, SMEs in Pakistan play a pivotal role in generating employment, fostering economic growth, and reducing poverty. By collaborating with diverse stakeholders, including government agencies, NGOs, civil societies, the private sector, academia, and international organizations, SMEs can significantly contribute to enhancing the country's performance on the SDG front.

The Partnership for the Goals (P4G)³ is a global initiative that brings together governments, businesses, civil societies, and international organizations, to accelerate the progress towards the SDGs. In Pakistan, P4G can provide a platform for SMEs to collaborate with other stakeholders and contribute to the attainment of the SDGs in the country. For example, through P4G, SMEs can access resources and support from larger companies and international organizations, to help them become more sustainable and socially responsible. Therefore, the SMEs in Pakistan need to collaborate with P4G.

Policy Recommendations

Attaining the UN SDGs demands a collective global endeavor, involving participation from all societal sectors, including SMEs. Below are policy recommendations tailored for SMEs in Pakistan, enabling them to effectively contribute to the realization of the SDGs:

Promoting Entrepreneurship

Encouraging entrepreneurship and innovation can empower SMEs to make substantial contributions towards achieving the SDGs, by creating new businesses and generating employment opportunities. To achieve this, the country should promote rural, women, and export-oriented entrepreneurship. Moreover, the government should play an active role by providing mentorship, instituting incubation programs, and imparting education on entrepreneurship.

Women Entrepreneurship

Promoting the engagement of educated women in initiating startups holds the potential to alleviate inequalities within the country. Establishing programs dedicated to supporting entrepreneurship among women can help foster the growth of the nation's SMEs.

Rural Entrepreneurship

The government currently grapples with labor mobility challenges toward urban centers, while simultaneously recognizing the untapped potential of rural SMEs. By collaborating with entities like SMEDA, the government should strategically establish incubation centers within rural areas. This proactive step can stimulate the rise of entrepreneurial startups in rural locales, consequently contributing to the realization of SDG 1 (no poverty), SDG 2 (zero hunger), and SDG 3 (good health and well-being). As underdeveloped rural regions are characterized by a low-income population, bolstering SMEs within these areas has the potential to enhance the overall well-being of the populace.

³ <https://p4gpartnerships.org/>

Export-Oriented Entrepreneurship Development

Building upon the insights outlined in the Ministry of Commerce's Strategic Trade Policy Framework (STPF) 2020–25 report, Pakistan stands to benefit from a focus on export-oriented entrepreneurship development. Encouraging technical and vocational institutions as well as universities to offer courses in export-oriented entrepreneurship can equip students and professionals with the necessary skills. This initiative aligns with the report's recommendation to adopt international standards, such as ISO, IEC, OIML, SMIIC, and SARSO, within the realm of small and medium enterprises [12].

Industry-Academia Collaboration

A report titled, Framework for SME Sector Development in Pakistan [13], prepared by the Planning Commission of Pakistan under the Ministry of Planning, Development, and Reforms, underscores a critical concern. It highlights that even though the SME sector's workforce largely emanates from educational institutions, both vocational and higher education, these institutions are not aligned with the industry. Consequently, the labor force within SMEs struggles to cultivate innovative ideas, leading to diminished productivity [13]. This underscores the pressing necessity to forge a connection between academia and the SME sector. Such a synergy aims to furnish the SMEs with a skilled and adept workforce. To this end, institutions providing concise, skill-focused courses should be actively linked with the industry.

Business Angels and Mentors Network

For SMEs to flourish, particularly in the country's rural areas, the government, its agencies, and policymakers must extend support encompassing managerial, technical, financial, technological, and infrastructural dimensions. The government needs to make it easier for SMEs to invest and expand their ability to take advantage of business possibilities.

The robustness of SMEs' economic performance can significantly bolster a nation's economic development. This, in turn, positions SMEs to make substantial contributions to the economy, assisting the government in combatting unemployment and poverty [6]. Moreover, this concerted effort aligns with the pursuit of SDG 1 (no poverty), SDG 2 (zero hunger), and SDG 9 (industry, innovation, and infrastructure).

Technical and Vocational Skill Development

Despite efforts by entities such as the Ministry of Federal Education and Professional Training and the Punjab Skill Development Fund to bolster technical and vocational training through public-private collaborations, there is still a gap in market-based, technical, and vocational training. To address this, the government should prioritize the promotion of contemporary technology-driven technical and vocational training, to improve the quality of education. In doing so, the government will get help for achieving SDGs such as SDG 4 (quality education), and SDG 7 (affordable and clean energy).

To achieve SDG 7, the government should promote technical and vocational training focused on renewable, clean, and sustainable energy technologies.

Sustainable Business Practices

The Government of Pakistan should ensure that SMEs adopt sustainable business practices. To facilitate this, the government should offer subsidies for importing renewable, sustainable, clean, and alternative energy-related technologies, as well as various equipment required for wind, solar, and hydro-based energy production. These conscientious practices within SMEs will significantly help the government achieve SDG 11 (sustainable cities and communities) and SDG 13 (climate action).

Legal Framework

The report titled Framework for SME Sector Development in Pakistan, published by the Planning Commission of Pakistan under the Ministry of Planning, Development, and Reform, and the Government of Pakistan [13], highlighted several concerns pertinent to SMEs while also offering recommendations. The report identified a critical deficiency in Pakistan's SME sector: the absence of a comprehensive legal framework encompassing labor, fiscal, and enterprise regulations. To address this gap, the development of detailed regulations specifically tailored to SMEs is imperative. Such regulations would play a pivotal role in advancing the country's progress toward SDG 16, which underscores the attainment of peace, justice, and robust institutions.

Promotion of High-tech SME development

The Government of Pakistan ought to formulate policies and interventions aimed at fostering the growth of medium and resource-based tech as well as high-tech SMEs. In Pakistan's export landscape, the share of high-tech SMEs' exports is remarkably low (10%), while medium and resource-based tech contributions also stand at 10%. This is in stark contrast to the 80% share held by low-tech SMEs [4]. Moreover, the nation possesses a pool of technically skilled labor that could be harnessed for these SMEs. Such initiatives would significantly propel the government's strides toward achieving SDG 9, focused on industry, innovation, and infrastructure.

Integration of International Standards in SMEs

The report Framework for SME Sector Development in Pakistan published by the Planning Commission of Pakistan [13], along with insights from the STPF 2020–25 [12], underscores the importance of government support for the adoption of international standards within small and medium enterprises. Standards such as ISO, IEC, OIML, SMIIC, and SARSO should be actively encouraged. [12].

Enhanced Provision of Finances

Banks in Pakistan currently provide fewer incentives and funding opportunities for SMEs in comparison to larger enterprises. A significant number of SMEs still rely on internal resources or financial assistance from acquaintances and family. The State Bank of Pakistan should establish a mechanism that enables banks to present an array of options to SMEs. Specifically, in rural areas, encouraging educated women to initiate startups through financial support can drive the promotion of SMEs. This approach holds the potential to facilitate the achievement of multiple SDGs, including SDG 1 (no poverty), SDG 2 (zero hunger), SDG 3 (good health and well-being), SDG 10 (reduce inequalities), and SDG 15 (life on land).

The Way Forward

Pakistan's trajectory towards promoting and nurturing SMEs can be guided by focusing on two distinct demographic groups. Firstly, there is untapped potential in educated rural females who can be encouraged to establish startups. Collaborative efforts with technical institutions and universities can facilitate the provision of essential export-oriented skills and knowledge. Secondly, attention can be directed towards the segment of uneducated individuals in rural areas or those with limited education. This demographic can also be encouraged to initiate startups.

To actualize this vision, academic institutions need to play a pivotal role. The establishment of technical degree or diploma programs centered around export-oriented products, bolstered by robust industry partnerships, particularly with SMEs, can significantly propel these initiatives forward. Such endeavors can stimulate the growth of SMEs, and in turn, these very SMEs can play a pivotal role in steering the economic development of the nation.

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PHILIPPINES

Introduction

The 1987 Constitution of the Philippines recognizes entrepreneurship as a driver of the country's economic growth, fostering the promotion of employment and industries. Furthermore, the Constitution incorporates specific measures aimed at providing opportunities and facilitating the growth of local private enterprises while protecting them from unfair and anti-competitive business practices. This foundation has enabled MSMEs to play a critical role in the Philippines' growth narrative, a role that the government has always promoted by pushing forward MSME-focused policies within the country's development agenda.

The Philippines categorizes MSMEs based on their asset size and the number of employees they have [1]. The classification is illustrated in Table 1.

TABLE 1

CLASSIFICATION OF MSMEs IN THE PHILIPPINES.

Enterprise	Category	
	By Asset Size (in PHP)	By Number of Employees
Micro	Up to 3,000,000	1–9 employees
Small	3,000,001–15,000,000	10–99 employees
Medium	15,000,001–100,000,000	100–199 employees

Source: Resolution No. 1, series of 2003 of the Small and Medium Enterprises Development Council of 2003.

Over the years, the country has implemented several laws to scale up entrepreneurship in the Philippines, with at least eight of them specifically targeting the growth and development of MSMEs. However, the primary legal framework governing these entities is Republic Act No. 9501 (RA 9501), the Magna Carta for Micro, Small and Medium Enterprises, which was enacted on 23 May 2008. RA 9501 defines MSMEs as “any business activity or enterprise engaged in industry, agribusiness, and/or services, whether single proprietorship, cooperative, partnership, or corporation.” The law also outlines the criteria for determining MSMEs, considering their total assets, including those arising from loans but excluding the value of the land where their office, plant, and equipment are located [2].

According to the 2021 List of Establishments published by the Philippine Statistics Authority (PSA), there are a total of 1,080,810 operating business enterprises in the country. Out of these, the majority of 1,076,279 (99.58%) are classified as MSMEs. Among the MSMEs in the Philippines, micro-enterprises make up the largest share, accounting for 90.54% (978,612) of the total establishments, followed by small enterprises at 8.63% (93,230) and medium enterprises at 0.41% (4,437) [3].

MSMEs play a crucial role in driving the country's economic growth. They account for 25% of the country's total export revenue. It is also estimated that a substantial portion of the country's

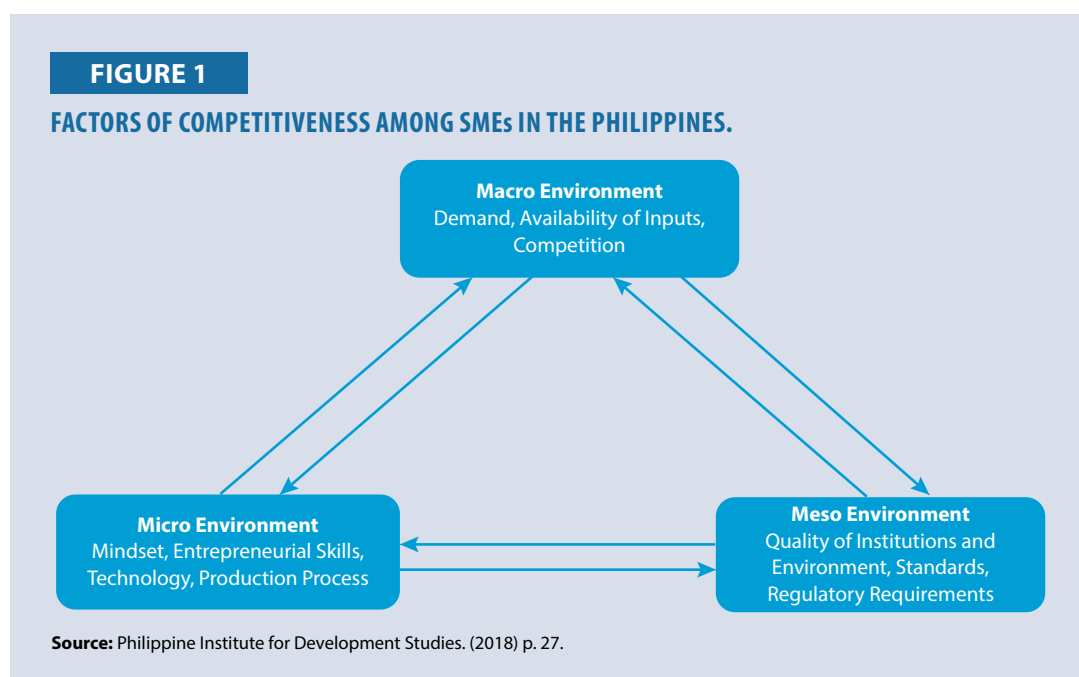
exporters, approximately 60% belong to the MSME category. This sector contributes approximately 33% of the country's economic growth and employs about 67% of the labor force.

MSMEs are instrumental in fostering new industries in rural areas, providing employment opportunities for the local population. Since most MSMEs are labor intensive, they generate jobs wherever they are set up, leading to a more balanced agro-industrial growth and equitable distribution of income [4]. As a result, these enterprises help reduce poverty by creating employment opportunities for the country's growing labor force. Notably, MSMEs act as a catalyst for economic development in rural and remote areas. They serve as valuable partners of large enterprises, serving as suppliers and providers of support services. MSMEs also serve as fertile breeding grounds for nurturing new entrepreneurs and large corporations. A vibrant MSME sector is thus an indication of a thriving and growing economy [5].

Recognizing the significant contributions of MSMEs in propelling economic growth and driving the Philippines' economy forward, the government continues its efforts to create an enabling environment for these enterprises to thrive. This commitment is part of the efforts to create objective conditions that align MSMEs to achieve the UN SDGs.

This is a heavy task considering the challenges faced by MSMEs in the country. Three factors present critical challenges impacting the sector's competitiveness, namely, macro, meso, and micro [6]. The macro environment of the enterprise refers to factors like international market demand, competition, and availability of inputs. It leans more towards the general aspects of the business, which continues to influence the status and inclination of the business. In contrast, the meso environment relates to governance and institutional quality, regulatory, and standards requirements. This factor bridges the ground between international dynamics and factors directly related to business operations, encompassing the national context in which the firm operates.

Lastly, the micro-level factors are those that are internal to the firm, such as the entrepreneurial skills and mindset of the owner, the employed technology, and the process of production.



It is noteworthy that microenvironment factors hold preeminence and exert significant influence on the macro and meso levels, given that everything originates at the micro level. The micro level serves as a crucial indicator and fundamental factor for both meso and macro factors. Corruption, which often starts at the micro level, is one of the most impactful obstacles for SMEs, hindering their participation in global value chains [7]. This is corroborated by the 2021 Corruption Perception Index, which indicates that the Philippines is ranked 117 out of 180 in the list of the most corrupt economies in the world [8], reflecting a six-notch drop from its 2017 position (111 out of 180) [9]. Furthermore, this indicates how the informality aspect of MSMEs poses a primary barrier to their internationalization as businesses in the Philippines tend to operate in the underground economy or informal sector due to several hurdles like high electricity costs, heavy regulations, high tax rates, and access to finance when attempting to formalize and grow their operations [10].

An unfriendly business environment often discourages MSMEs from formally registering their operations as they often encounter prolonged processing times, burdensome documentary requirements, costly fees, or simply a lack of awareness regarding the bureaucratic procedure involved in starting a formal business [11]. The Barangay Micro Business Enterprises Act of 2002 [2] was enacted with the specific aim of encouraging MSMEs to register formally and enhance their competitiveness for international trade. However, like other laws, its actual impact has yet to be fully realized, and objective evaluations are yet to be conducted.

Undoubtedly, MSMEs play a critical role in enabling the country to achieve its development goals, and they also hold significant importance in meeting the SDGs, being recognized as a key focus area in achieving the Global Goals [12]. The critical contribution of MSMEs to the general social and economic agenda makes them a key proponent towards attaining sustainable development as they can potentially create a widespread impact on SDGs 1 (poverty alleviation), 2 (zero hunger), 3 (good health and well-being), 5 (gender equality), 8 (promotion of inclusive and sustainable economic growth, decent work and employment), and 9 (building resilient and sustainable industrialization and fostering innovation). Hence, it is important that stakeholders, particularly policymakers, prioritize the development of MSMEs, considering their integral role within a larger, global ecosystem. The success or disruption of economic recovery, as seen during the recent COVID-19 pandemic, can be significantly influenced by the state of MSMEs.

The lockdowns following the pandemic caused major disruptions to global value chains which significantly hindered worldwide production and distribution processes. These obstacles include inadequate business operations, human resource constraints, and difficulties complying with international standards and government regulations. Most MSMEs also faced financial problems and were unable to maintain and sustain their businesses [13]. Overall, 44.8% of the total MSMEs lacked any kind of savings, while 61.4% of medium-sized enterprises ran out of financial means within a month after the lockdown. Overall, 28.7% of medium-sized enterprises, that comprised the highest percentage out of the three sectors, barely had enough financial capacity to sustain their business after a month. In short, during the peak of the pandemic, MSMEs across the sectors experienced a massive shortage of funds that was essential to keep them operational.

While there is a continuous need to evaluate the status of MSMEs, the two years following the pandemic have emphasized the necessity for more timely assessments of how these enterprises are adapting to the post-pandemic environment. While addressing new challenges, it is important to acknowledge that existing problems persist and often occur alongside emerging issues, further complicating their situation. For instance, the COVID-19 pandemic has had a profound impact on

various aspects, and extreme poverty rates are projected to rise by 44 million in 2030 [14]. This highlights the urgency of addressing the multifaceted challenges faced by MSMEs, as the ramifications of unresolved issues can intensify with the addition of new hurdles.

In light of this, the Philippines must embark on a specific program of action for growing its MSMEs, tailored to align with the nation's commitment to the UN SDGs. These goals address urgent environmental, economic, and political challenges, with a focus on making contributions not only at the national level but also on a global scale. Consequently, MSMEs must proactively pursue their development to achieve the SDGs, as these objectives call for businesses to harness their collective innovation and creativity for the universal common good.

Dimensions of Competitiveness Diagnostics

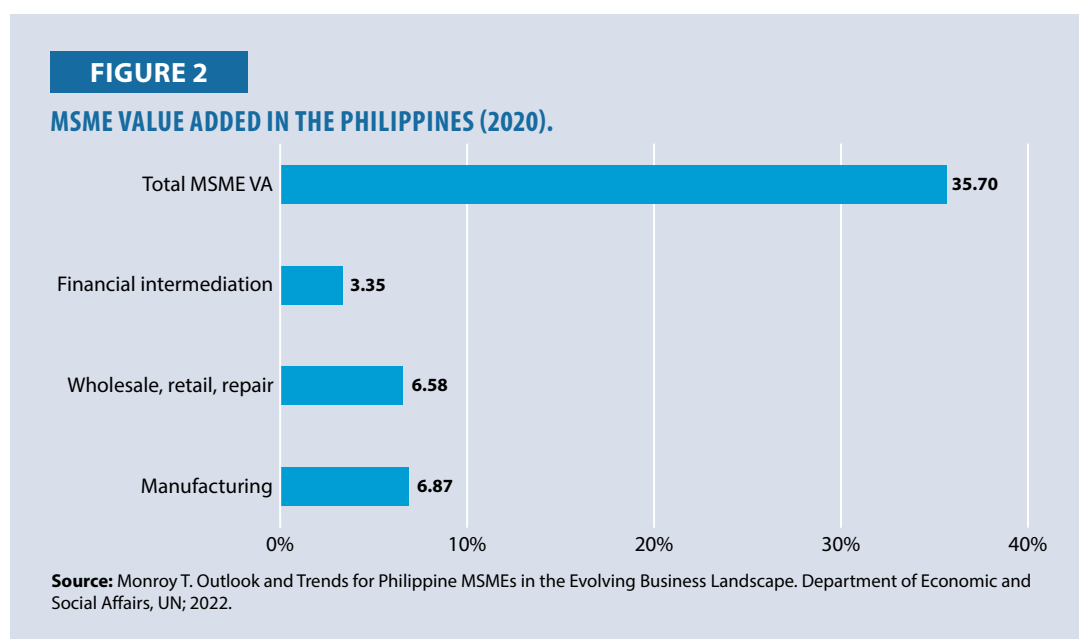
Outcomes

Dynamics of Economic Growth of MSMEs

MSMEs in the Philippines contributed 35.7% of total value-added in 2020 [15].

In the current environment, MSMEs are expected to regain growth momentum as conditions for business operations are beginning to stabilize, especially in the new normal. The following key areas are likely to affect the growth of the sector shortly.

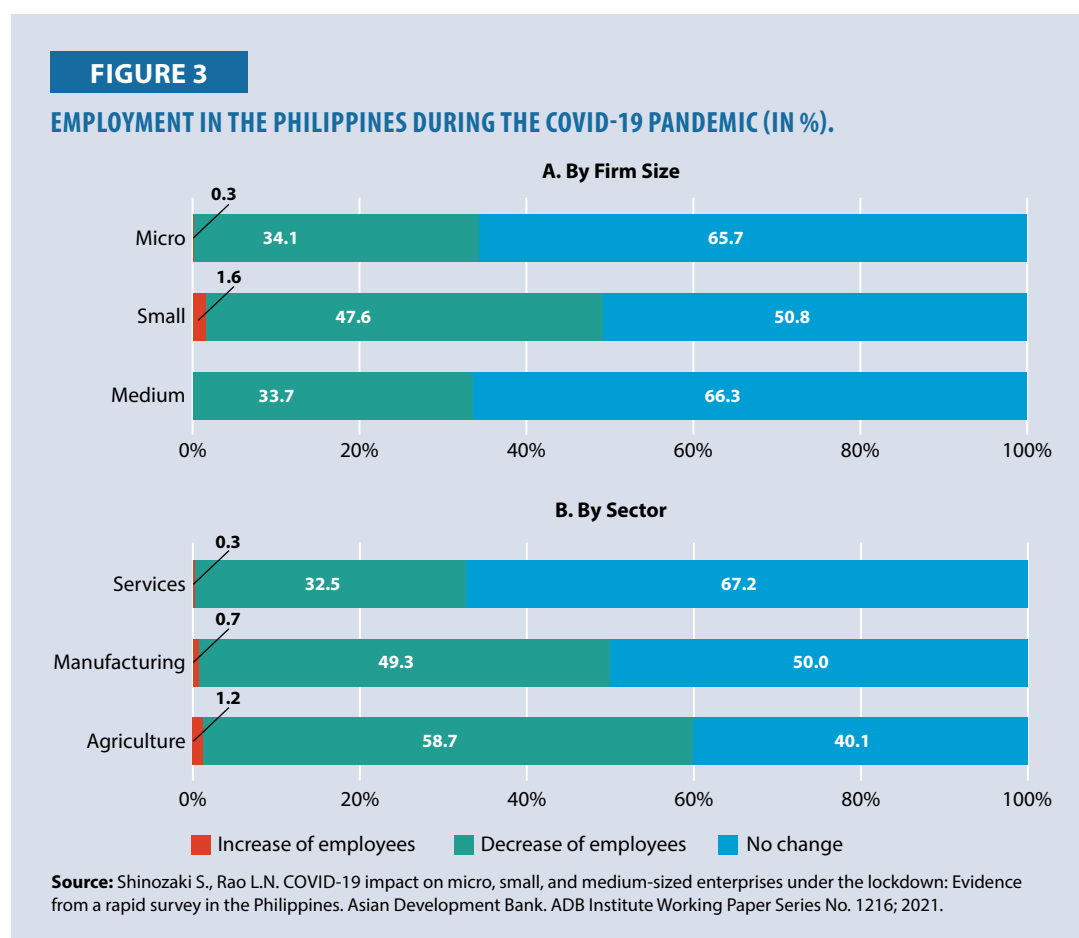
1. The ongoing shift of SMEs toward adopting digital technology.
2. Pandemic-induced alterations in purchasing behavior.
3. Rebalance and changes in supply chains.
4. Early arrival of Industry 4.0 and the Future of Work.
5. Acceleration in the pace of medical innovation.
6. Industries and businesses becoming greener [15].



These emerging trends and radical changes brought about by the new normal are likely to impact the growth of MSMEs in the days to come.

Labor Productivity

Despite the stagnant employment rates during the first month after the lockdown, SMEs had to let go of their employees for survival, with the manufacturing and services industries experiencing significant lay-offs in the early days of the pandemic, at 69.4% and 67.3% respectively. Larger businesses, however, managed to continue operating, as they leveraged their size and available resources, and even disaster preparedness, to offer alternative work arrangements for their employees. This is supported by the fact that medium-sized firms had a 41.1% reduction in their employee working hours, 34.8% for small establishments, and 26.5% for microenterprises.



Gender Gap in Labor Force Participation Rate

Labor force participation is just one of several identified gender gaps in the Philippines. There seems to be progress in the reduction of the gender gap between men and women workers in this category, which now stands at 29 percentage points of the significant gender gap in the country's labor force participation rate. This signifies an underutilization of women in the paid labor market. This may stem from sub-standard employment or decent work opportunities, differences in human capital, unpaid domestic labor, and constraints on care [16]. Progress in the overall labor market ultimately extends to the sector of SMEs. However, despite the various initiatives on gender-responsiveness, some reports show the poor work conditions that women still have to work under, as an adverse effect of gender inequality [16].

Regional Disparities

SMEs in the Philippines are mostly concentrated in the National Capital Region or NCR. This region accounts for 24.4% of all establishments and covers 40.1% of all employees [17]. Statistics show that NCR, Regions 3 (Central Luzon), 4 (Southern Luzon), 7 (Central Visayas), and 11 (Davao Region) have a combined portion of 64.5% of all establishments in the NCR [17]. These regions account for 72.1% of the total number of the employed population vis-a-vis SMEs. In summary, two-thirds of SMEs are concentrated in the five regions mentioned above [17]. All of these regions are heavily urbanized.

This is complemented by the data of 2018 that states that almost half of all the registered SMEs are located in only three of the nation's 18 regions, namely: National Capital Region (20.4%), Southern Tagalog Mainland which is comprised of five provinces (Cavite, Laguna, Batangas, Rizal, and Quezon) collectively labeled as CALABARZON (15.1%), and Central Luzon (11.3%) [18]. It is no surprise that the same regions are also the three wealthiest (as per GDP) and most populated [18]. It is also worth noting that both CALABARZON and Central Luzon are geographically more linked to the NCR, where the capital of the Philippines is also located [18].

Social and Environmental Outcomes

SMEs in the Philippines have also contributed to social progress and the empowerment of its people. For example, one study suggests that SMEs' organizational variables, including ownership structure, policies, leadership, systems, procedures, and membership, were noted to have positive implications for the level of empowerment of rural communities where SMEs were prevalent [4]. Specifically, rural communities with SMEs experienced favorable conditions in the areas of perceptual, material, and relational shifts. Subsequently, a marked improvement was noted in communities where SMEs were thriving as the rural population experienced positive changes in their environment. For instance, on the material component, SMEs provided employment opportunities that supported rural dwellers in increasing and maintaining their income [18]. This enabled them to gain better chances at buying assets, prioritize their budget for nutritional and educational needs, and avail proper healthcare. With regards to the perceptual aspect, SMEs helped the rural population discover their self-esteem, foster perception of their respective individualities, values, and interests, develop acknowledgment and respect for their contribution and values and increase their capacity to think ahead [4]. Lastly, on the relational factor, rural folk appreciated the role of SMEs in helping them leverage their bargaining power, decision-making, and involvement in local political processes [18]. This proved that SMEs are indeed integral in empowering local organizations and leadership, as well as increasing the morale of people living in rural areas towards attaining self-reliance.

MSMEs' operations also significantly impact the natural environment, which is why the Philippines has taken certain initiatives to guide its MSMEs towards a green pathway. The MSME Development (MSMED) plan of 2017-2022 was created for the advancement and growth of the MSME sector [19]. To foster "*Trabaho* (jobs), *Negosyo* (enterprise), and *Kabuhayan* (livelihood)", this plan stems from traditional common Filipino values such as "*Malasakit* (care)", "*Pagbabago* (reform)", and "*Patuloy na Pag-unlad* (sustained development)" under the more over-arching Philippines Development Plan 2017-2022.

Under the MSMED plan, the operationalization of the Green Economic Development Program was put into effect. Its main objective was to address the pressing MSME concerns about their relevance to climate change and vice versa. The program was enacted through the introduction of a framework for

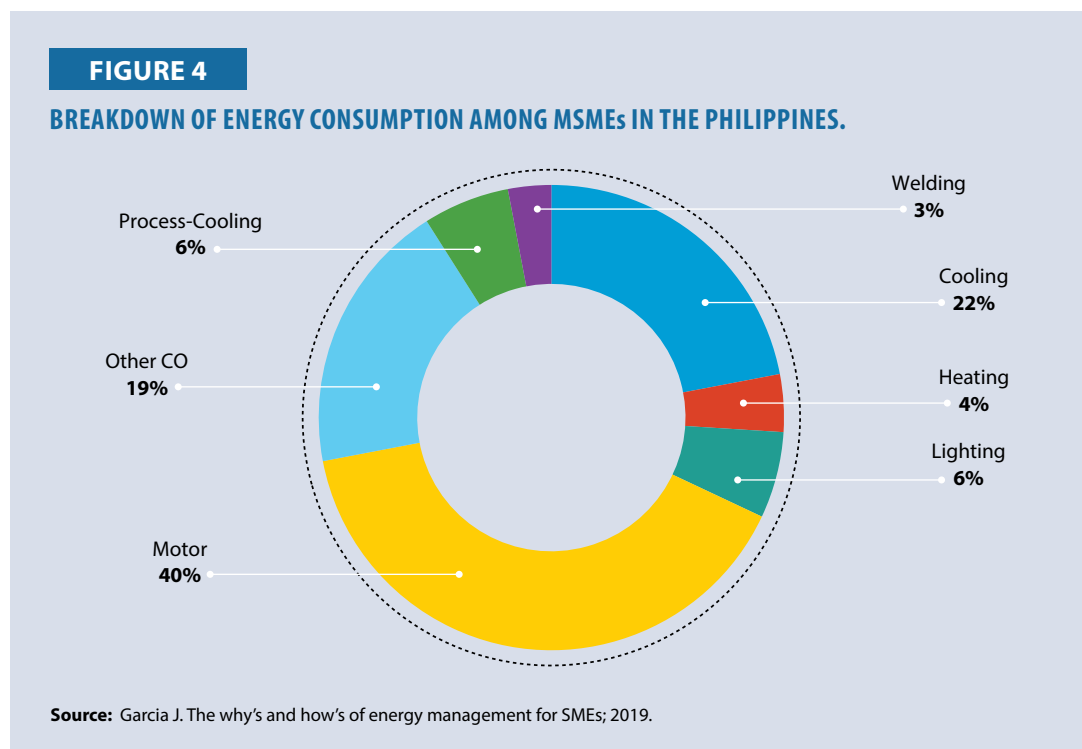
a “green economy,” which advocates for economic development and growth, through the use of environment-friendly strategies and methods. This is an active response against the adverse effects of climate change while sustainably regulating the use of natural resources. Moreover, this program under the MSMED plan is aligned with several SDGs, namely SDGs 8 (decent work and economic growth), 12 (responsible consumption and production), and 13 (climate action) [20].

Over the past few years, the MSMED plan has been implemented continuously and resources are constantly being allocated for building the establishments, and to further increase the number of its beneficiaries [21].

Energy Usage

The Philippines has one of the highest power rates in Asia and is always a major concern for businesses, as it takes a big chunk of their operating costs [22]. Current electricity rates make it more challenging for MSMEs, because the local power industry favors large companies that consume way bigger amounts of electricity, and therefore, can leverage their usage to enter bilateral contracts in spot markets to access cheaper rates [22].

Figure 4 gives a breakdown of the energy consumption as gathered from the participants in a government workshop on energy efficiency. It shows power usage on motors consumes the largest amount of energy, followed by processes and cooling [22].



Economic Activity

SMEs are responsible for 25% of the revenues coming from exports and 60% of SMEs are estimated to be in the exporting business. This is determined through the contribution to overseas sales via subcontracting arrangements with large firms. Another way is through SMEs being suppliers to exporting companies [18]. The types of goods exported by SMEs in the Philippines are also directly associated with the type of sectors that are prevalent in the country [18].

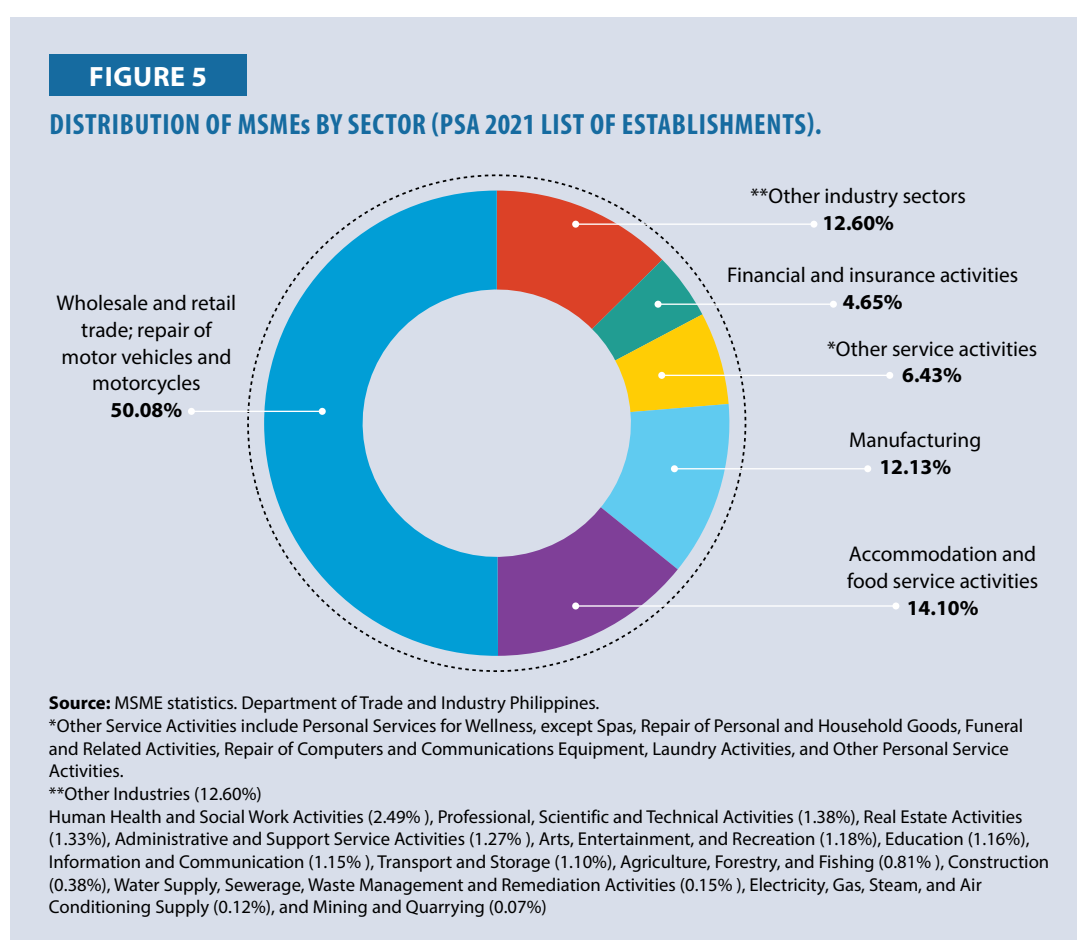
Sectoral Composition

Production Capacity

The top five sectors of the industry in the Philippines in 2021, according to the number of MSMEs in each sector as listed.

1. Wholesale and retail trade; repair of motor vehicles and motorcycles (539,006)
2. Accommodation and food service activities (151,748)
3. Manufacturing (130,573)
4. Other service activities (69,254)
5. Financial and insurance activities (50,089) [3]

These sectors accounted for about 87.40% of the total number of MSMEs in the country.

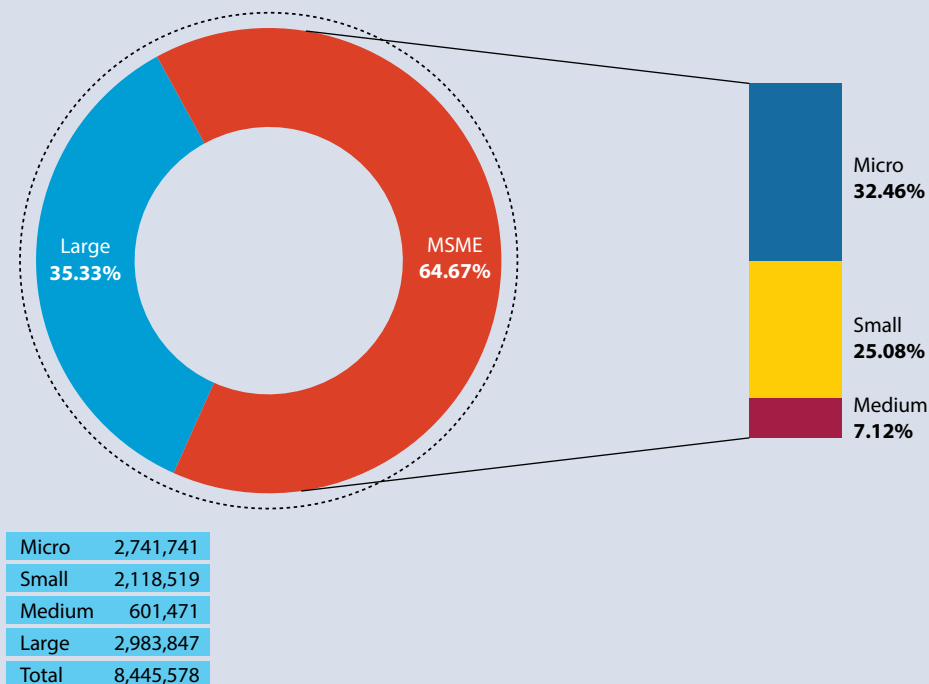


Share of MSMEs in VA and Employment

MSMEs generated a total of 5,461,731 jobs or 64.67% of the country's total employment in 2021. Micro enterprises produced the biggest share (32.46%), closely followed by small enterprises at 25.08%, while medium enterprises were far behind at 7.12% [3]. In comparison, large enterprises generated a total of 2,983,847 jobs, or 35.33% of the country's overall employment [3].

FIGURE 6**CONTRIBUTION OF ESTABLISHMENTS TO TOTAL EMPLOYMENT (PSA 2021 LIST OF ESTABLISHMENTS).**

64.67% of total employment are from MSMEs



Source: MSME statistics. Department of Trade and Industry Philippines.

In terms of regional distribution, the majority of the jobs were generated by MSMEs in the NCR, accounting for 1,372,407 jobs. The region with the next highest job generation was Region 4-A (CALABARZON) with 792,068 jobs, followed by Region 3 (Central Luzon) with 625,619 jobs, Region 7 (Central Visayas) with 433,068 jobs, and Region 6 (Western Visayas) with 347,488 jobs [3].

In terms of the industry sector, MSMEs in the wholesale and retail trade; repair of motor vehicles, and motorcycles sector generated the maximum number of jobs, employing 2,174,916 individuals. It was followed by the manufacturing sector, which generated 761,250 jobs, and the accommodation and food service sector which generated 670,040 jobs. The financial and insurance activities generated 326,481 jobs, while the education sector generated 223,675 jobs.

Sectoral Mix (VA and Employment)

Based on the current trends in VA by SMEs in a country, their sales data demonstrates the growing share [3]. Over the years, SMEs have shown steady evolution, closely aligned with the overall industrial growth as indicated by the number of employees and number of establishments [3]. However, when comparing their value-added and sales figures to the total number of establishments and employment, SMEs account for a relatively small share. VA and sales account for approximately 30% vis-à-vis the number of employees and establishments [3]. This indicates that SMEs in the Philippines are still at a developmental stage within the overall economic landscape, despite the presence of diverse industries and their ability to generate employment opportunities. In comparison to other Asian economies, such as Indonesia (53.28%), Vietnam (39%), and Thailand (37.8%),

SMEs in the Philippines contributed only 35.7% to the overall value-added in 2012 [10]. Recent studies suggest that this percentage might be experiencing a decline.

Informality in MSMEs

This report aims to highlight the significance of the macro and meso factors that affect an MSME's competitiveness and also to underscore the crucial role played by the micro aspect. Arguably, the most important aspect of all, the micro aspect, is still continually a subject that is under the influence of the macro and meso aspects, at least in the context of the Philippines.

This is illustrated by the prevalence of a colonial mentality among most Filipinos. Embracing a functionally resistant or insubordinate mindset, Filipinos would rather suffer with the detrimental effects of moving with heavily foreign-influenced thinking, than evolve in their unique indigenous ways. A related study shows that this mindset has a significant impact on Filipino self-esteem [23].

Another adverse impact of the colonial mindset on the Filipino MSME culture is the tendency to favor informality. Westernized thinking has influenced the MSME industry, leading to the belief that informality has no place in business, as professionalism is innate with a foreign mindset [24]. This is evident in the challenges MSME owners face when trying to comply with international standards and government policies which are often more aligned with formal business practices.

Western thinking often clashes with Filipino values, resulting in dissonance in the mental models of small business owners. However, it is essential to acknowledge that informality remains an integral part of the micro-level; it forms the general, fundamental, and essential framework that contributes to the competitiveness of MSMEs. This, along with other micro aspects, such as intellectual capital and corruption, play significant roles, either positively or negatively impacting businesses and influencing the success of Philippine SMEs' market access.

To achieve success and effectively navigate global markets, it is imperative to strike a balance between preserving genuinely indigenous Filipino culture and embracing frameworks that aid in the development and realization of the true potential of Philippine enterprises. This approach allows businesses to adapt while meeting internationally established standards, ensuring that they remain competitive on the global stage.

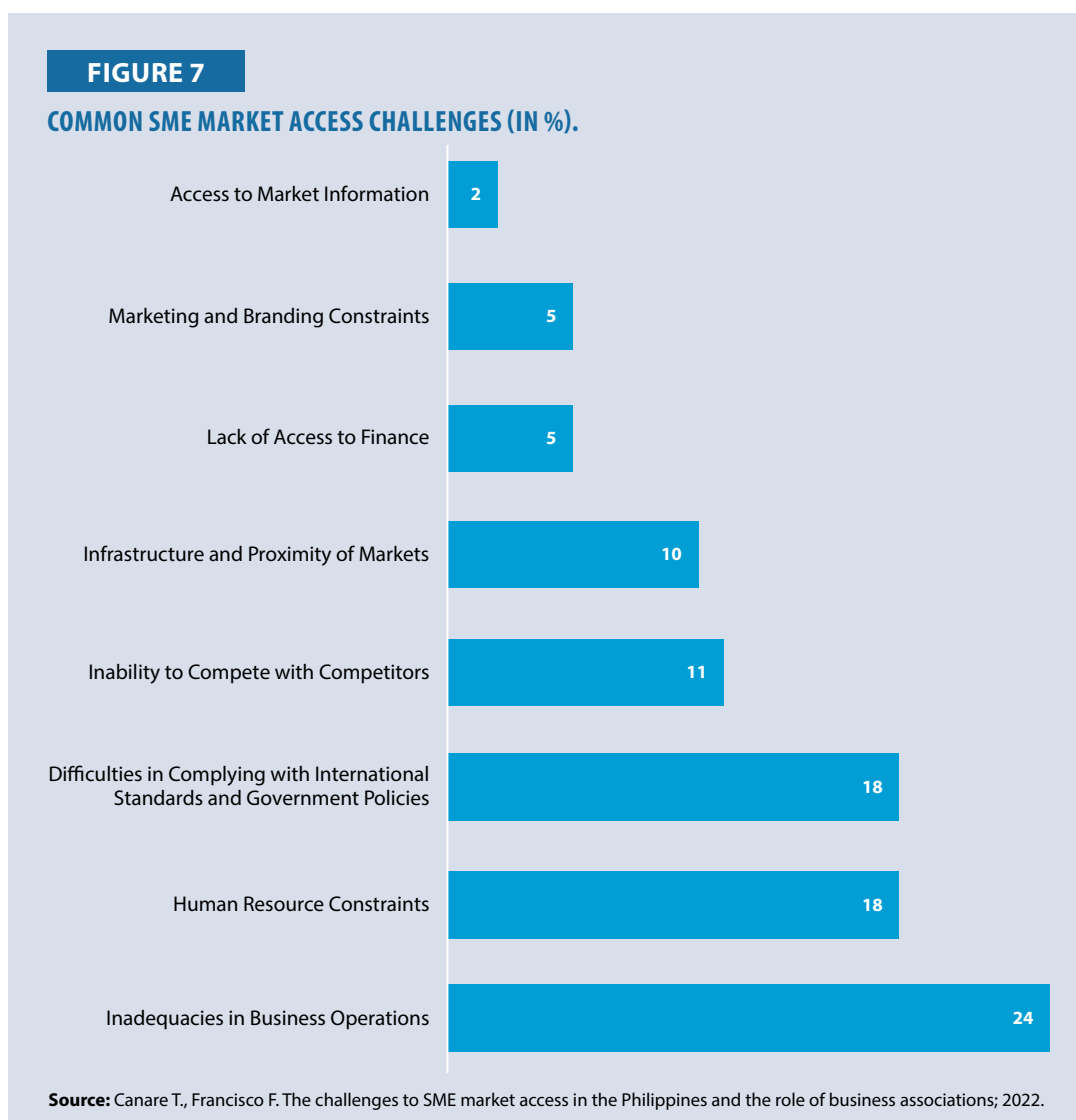
Competitiveness Fundamentals

Human Capital

Workforce Characteristics

Entrepreneurship and employment of women in the workforce: A 2015 report on the employment of women in the workforce showed that women-owned businesses in the SME category were responsible for providing 32% of the total jobs, and accounted for 51% of these positions [25]. Additionally, 20% of businesses had women holding major leadership positions, and over 30% of the boards were headed by women [25]. The study estimated that nearly 28,000 SMEs in the Philippines were led by women in 2015 [25]. This represents almost one in every four of all the SMEs in the country during the time of the study [25]. The report also highlighted that women-led SMEs were more likely to employ other women, which could lead to an increase in the percentage of paid employment among women.

Employment of people from marginalized sections: Ultimately, the government's policies on SMEs are skewed toward achieving a more inclusive level of development [26]. This includes



creating job opportunities for marginalized sectors. To achieve, this the government has adopted a two-way approach. Firstly, it focuses on fostering the growth and improvement of local industries, to ensure employment opportunities as a means to uphold anti-poverty measures. Secondly, is dedicated to enabling social development.

The Philippines is also a member of the Asia-Pacific Economic Cooperation (APEC) [27] community and aligns certain policies it may have for its SMEs with that of the APEC's initiatives. Some of these strategies are included in the 1998 Integrated Plan of Action for SME Development, the 2005 Daegu Initiative, and the 2007 Private Sector Development Agenda, among others [26].

Skilling the Workforce

Skilling policies: In 2019, the Technical Education and Skills Development Authority (TESDA), the primary agency mandated to provide direction, policies, programs, and standards towards quality education and skills development, was allocated a budget of USD270 million for the promotion of skills-based education [28]. This is in line with the government's commitment to foster human capital. This budget was twice the allocated amount of USD135 million in the previous year [28].

This increase was meant to create a more specialized labor market. With the nation's young population at a median of 24 years old, it was deemed best to equip them with greater access to education, leaning more towards skills-based training, to enable Filipino workers to be more competitive, versatile [28], and ultimately lead to more employment opportunities for Filipinos.

TABLE 2

TESDA APPROPRIATIONS (2016–19).

	2016 Actual	2017 Actual	2018 Estimate	2019 Proposed
TESDA budget (GAA)	7,561,299	8,183,280	7,560,385	14,830,090
Budget for major programs				
Training for Work Scholarship Program	2,206,000	2,415,000	2,784,887	2,273,961
Private Education Student Financial Assistance	200,000	200,000	200,000	200,000
Special Training for Employment Program	566,245	908,873	933,053	1,725,099

Source: Department of Budget and Management, Government of the Philippines. P14.8 billion TESDA budget for 2019 aims to promote skills-based education; 2019.

Finance

Funds Allocated and Disbursed for the Development of SMEs

Among the few countries that implemented various subsidy schemes to support employers in paying wages, the Philippines stands out by providing funds also for the promotion of SMEs [13]. The government has made arrangements to provide assistance in terms of cash transfers for displaced workers, which also includes allotments for qualified SMEs and priority sectors [13]. The Philippine government also introduced a one-off financial assistance scheme for distressed workers and facilitated alternative working arrangements for those impacted by the COVID-19 pandemic [13]. Small businesses facing temporary closures were also eligible for assistance under the COVID-19 Adjustment Measures Program, with financial aid amounting to USD100 [13].

Along with other Asian countries, the government also offered cash transfers to support the workers from the informal sector, the self-employed, and displaced workers [13].

Availability of Loans from the Domestic Banking Sector and Financial Institutions

Recognizing the fact that MSMEs usually face constraints in accessing finances, data shows the portion of MSME loans on the overall outstanding bank loans in 2019 was 6.1%. Research also reveals that bank loans to MSMEs only amount to 3.2% of the country's GDP within the same period [13]. This suggests that very few MSMEs have access to bank credit.

Despite this, the government, through the *Bangko Sentral ng Pilipinas* (Philippine Central Bank), still deployed several liquidity support measures to boost banks' lending to MSMEs. This includes reduced base rates for lending, less strict capital requirements for banks, and relevant flexible regulatory measures to mobilize MSME finance [13]. The government also permitted the deferral of loan repayments and allowed for restructuring of loans. Moreover, a 30-day grace period for the repayment of loans was also ordered.

Credit Extended by Microfinance Institutions

A 2012 report cited the availability of credit extended by microfinance institutions to MSMEs in the Philippines. This includes credit extended by the ADB, Department of Agriculture- Agricultural

Credit Policy Council, Department of Social Welfare and Development, Development Bank of the Philippines, and other financial institutions [29]. Although, there are conditions to such arrangements, and despite the absence of relevant data (vis-a-vis the actual expenditure on loans), the available data shows that there are several facilities wherein credit was extended by microfinance institutions to the MSMEs.

Taxation Policy

Tax relief is an instrumental component within the packages of economic stimulus deployed for countries, including the Philippines, to stave off the detrimental effects of the pandemic on livelihoods. It is one of the preferred policy measures for MSMEs, to help them deal with the shocks of the COVID-19 pandemic [13].

Specifically, deferred payments and corporate tax reductions are one of the key supports that MSMEs in the manufacturing and tourism sectors can hope to avail [13]. Tax relief is also one of the widely utilized policy instruments to support SMEs [13].

However, when it comes to the indicators for tax relief, such as corporate tax reduction, expedited tax refunds, incentives for investors, payroll, social security, VAT, and land taxes, the Philippines does not adopt any of these measures [13].

TABLE 3

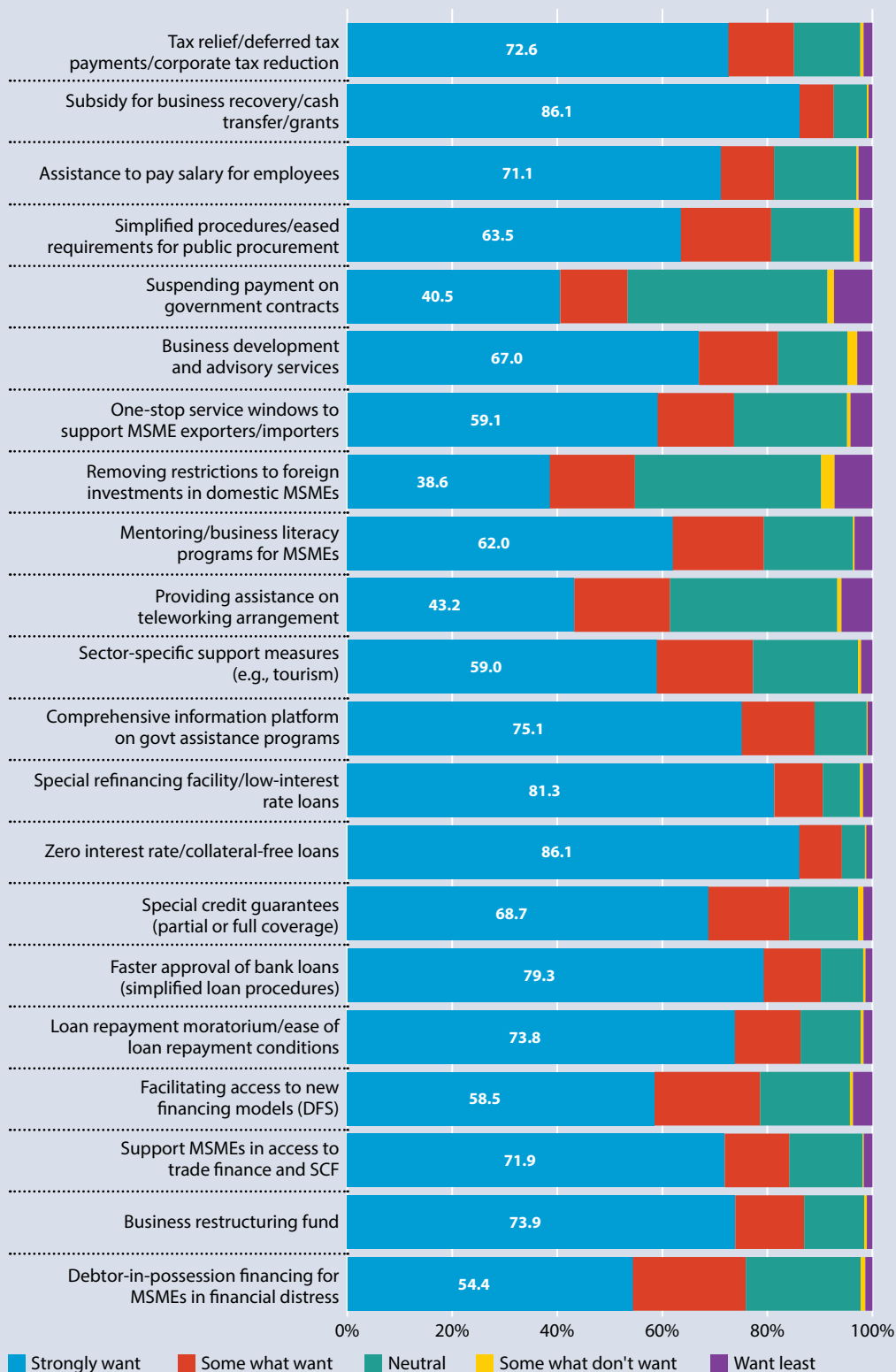
CHECKLIST OF TAX RELIEF COMPONENTS PER COUNTRY [13].

Item		Tax Relief			
		Corporate Tax Reduction	Expedited Tax Refunds	Incentives for Investors	Payroll, Social Security, VAT, and Land Taxes
Lower-middle income economies	Cambodia				
	Lao PDR				
	Myanmar				
	Philippines				
	Vietnam				
Upper-middle income economies	Indonesia				
	Malaysia				
	ROC				
	Thailand				
High-income economies	Brunei Darussalam				
	Japan				
	ROK				
	Singapore				

Source: Shinozaki S., Rao L.N. COVID-19 impact on micro, small, and medium-sized enterprises under the lockdown: Evidence from a rapid survey in the Philippines. Asian Development Bank. ADB Institute Working Paper Series No. 1216; 2021.

FIGURE 8

POLICY MEASURES DESIRED BY MSMEs IN THE PHILIPPINES.



Source: Shinozaki S., Rao L.N. COVID-19 impact on micro, small, and medium-sized enterprises under the lockdown: Evidence from a rapid survey in the Philippines. Asian Development Bank. ADB Institute Working Paper Series No. 1216; 2021.

Table 3 shows that the Philippines, like Brunei Darussalam and Laos, is not adopting tax relief measures for SMEs, while other countries such as Vietnam, Malaysia, and the People's Republic of China have already provided several measures to boost SME development.

Technology and Innovative Capacity

Digitalization of Value Chains

According to a 2020 PriceWaterhouseCoopers report that assessed innovation and digital information practices among Philippine MSMEs, 56% of them were rated at the beginner level [30]. These MSMEs exhibited minimal digital adoption, primarily utilizing digital tools for assisting operations and communications purposes. In line with this, the report highlighted that while Philippine MSMEs are part of the digitalized landscape, they have yet to fully harness the potential of such advancements [30]. Beyond the need to utilize technologies, there is also the need to foster innovation through these digital advancements to achieve meaningful change, drive positive business outcomes, and promote sustainability [30].

Regulatory and Business Environment

Entry Requirements and Industrial Licensing

With all the required steps, registering for a business in the Philippines can be a very burdensome process. The process includes an eight-step procedure.

1. Securing a business name with the Securities and Exchange Commission, SEC.
2. Opening a corporate bank account.
3. Registering with the SEC.
4. Registering with the Bureau of Internal Revenue, BIR.
5. Registering with the Social Security System (SSS).
6. Registering with PhilHealth.
7. Registering with the Pag-IbIG Fund (Home Development Mutual Fund).
8. Obtaining a Mayor's or business permit [31].

Together with more than ten necessary documents under each respective step, these steps can make the registration process very tedious for businesses.

Intellectual Property Rights Protection

There are existing Philippine laws to protect intellectual property. These include Republic Act No. 8293 (on the prescription of the Intellectual Property Code), Republic Act No. 165 (creation of a patent office), Republic Act No. 166 (provision for registration and protection), and Presidential Decree No. 49 (decree on the protection of intellectual property) [32]. Registering for intellectual property rights in the Philippines can take up to 18 to 24 months. This is due to the five-step process, namely – filing, examination, publication in the e-gazette, (possible) opposition, and registration [33]. This covers different intellectual property rights, including patent rights, trademarks, and copyrights [34].

Labor Protection Laws and Labor Market Regulations

The Labor Code of the Philippines [35] outlines the labor protection laws and labor market regulations of the country. It is the legal code that regulates employment practices and governs labor relations in the Philippines. The labor codes bestow certain key rights to laborers.

1. Equal work opportunities for all
2. Security of tenure
3. Work days and work hours
4. Weekly rest day
5. Wage and wage-related benefits
6. Payment of wages
7. Regard for female employees
8. Restriction of labor for children aged 15 and below
9. Safe working conditions
10. Rights to self-organization and collective bargaining [36]

Environmental Factors

Environmental Clearances Required for Businesses

Environmental rules for MSMEs follow general existing environmental laws. Table 4 includes the relevant environmental laws as well as their objectives [37]. These laws are required to be followed by all businesses operating in the Philippines.

TABLE 4

LIST OF MAJOR ENVIRONMENTAL REGULATIONS IN THE PHILIPPINES.

Republic Act (RA)	Short Title	Objective
RA 6969	Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990	This legislation aims to track and regulate the usage and entry of nuclear and other toxic substances in the Philippines.
RA 7942	Philippine Mining Act of 1995	This legislation details how the country's natural resources will be extracted and utilized while respecting the rights of different stakeholders, including that of indigenous peoples.
RA 8749	Philippine Clean Air Act of 1999	This legislation aims at affirming the right of people to clean air and implement policies to make that right attainable by, among others, limiting or eliminating toxic pollutants from vehicles and industrial complexes.

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Republic Act (RA)	Short Title	Objective
RA 9003	Ecological Solid Waste Management Act of 2000	This legislation aims to, among others, ensure the protection of the environment and public health by setting guidelines on recycling, ensuring the observance of proper waste segregation and minimizing solid waste.
RA 9275	Philippine Clean Water Act of 2004	The legislation aims at ensuring the protection of the country's water resources from pollutants and the establishment of sewerage systems across the country, among others.

Source: Caboverde C. Effect of Environmental Regulations on the Profitability of Philippine SMEs. Asia-Pacific Social Science Review; 17 August 2020.

Policy Recommendations

All of the above-mentioned current research has a bearing on the status of MSMEs today. With a developmental mindset, it is assumed that their state today can still evolve, considering innovations or interventions that will be implemented. Listed below are some of the recommended policies put forth by this report.

Encourage Collaboration [38]

Service providers, small businesses, and the government should all work together not just for the survival of SMEs, but to make them thrive. As these are separate and unique entities, there must be a focus on basic to major aspects for development like communication and relay of information. There is a need to ease the formal processes for MSMEs, namely business registration and related transactions. This is only possible if effective internal and external education and engagement are constantly provided. What can also be recommended is that such transactions, both local and international (for exportation), are made more favorable to MSMEs to lighten the burden for them [7]. This is because most MSME owners are not inclined or literate to adopt the formality that comes along with such transactions.

Seek External Support and Intervention [7]

As MSMEs present potential for mutually beneficial opportunities that they can explore with other stakeholders and external parties, such as the government and multinational companies that can help foster innovations, it could help the MSME sector succeed. Regulatory agencies and large multinational foreign companies can help in the dispersion of MSMEs so their regional concentration is more widespread. This intervention can also bring about efficiencies in energy utilization and even nudge MSMEs to move out of the informal space.

The regional concentration of MSMEs is an area of concern because it limits their operations to certain geographical areas only. If MSMEs are to be tapped to become real drivers of the local economy, they must be given the right conditions to set up their businesses in their area with ample incentives and enabling mechanisms e.g., tax relief, investment of information capital, ease of imports and exports, etc. Large businesses should also be continuously motivated to set up more

businesses outside the cities to link their value chains with local MSMEs. The government can then assist with an integrated program and proactive policies, to enable the sustainability of the symbiotic relationship between large companies and MSMEs across the different regions.

The Philippines is known to have one of the most expensive power rates in Asia [39]. A part of supporting sustainability is being mindful of energy consumption. MSMEs need to be more educated about their impact on the environment, to uphold the social and environmental part of owning a business. MSMEs should take on the responsibility to spearhead change in the communities, as they are innately wired to serve the community. As most MSMEs are trained to drive profit objectives rather than sustainability goals, it is up to external stakeholders like the government to regulate their behavior and practices. The implementation of laws and dissemination of information about the Green Jobs Act, Clean Air Act, and Solid Waste Management Act, etc. can enable them to take the right step in that direction.

Informality and the value given to interpersonal relationships in businesses are inherent in Philippine culture. It somehow makes the general politics of the nation. Thus, it is a phenomenon worth integrating and even normalizing, in the Philippine business environment. This is true if it promotes the nation's culture and is within ethical boundaries.

Create Internal Capacity [7]

There are aspects of Philippine society that need to be continually addressed. As MSMEs are immersed in society, they should be the drivers of change, specifically in terms of observing gender rights and driving equality in the workforce. The principles programmed in every business owner and employee regarding women's rights in the workforce need to be tackled. There should be a healthy discussion of gender equality in the workplace to avoid discrimination and inequality.

In this day and age, being literate in the digital and financial aspects can make or break MSMEs in the market. There is a need to keep up with the modern world and to meet their needs in ways that are unique to them. Skill upgrading for the sake of market demands is encouraged.

Create Realistic Vision

Sustainability is now embedded in the development plans of most nations and is more aggressively pushed as a strategy for long-term growth by more progressive economies. It is important to upscale knowledge and awareness of MSMEs in green and sustainable business strategies toward attaining the broader SDG goals. Specifically, the main objective of this is to encourage business continuity for MSMEs in the Philippines, there needs to be action and not just the casting of a lofty feel-good vision.

The Way Forward

MSMEs which play a significant role in the global value chain, often struggle to comply with established regulations and standards that they have to meet to sustain their operations. Thus, there is a need for engaging MSMEs at the nascent stage, to strengthen their capacities, meet business requirements, and contribute to a more sustainable business environment [40]. Enterprises that meet emerging ESG standards are also becoming the preferred choice in the market and this might bode well for MSMEs that can pivot their businesses towards meeting these emerging standards to access new market opportunities.

A couple of examples of MSMEs being capacitated to help achieve the country's SDG targets are provided by the National Economic Development Authority (NEDA) in its SDG Regional Best Practices report [41]. The NEDA mentions the Great Woman Project, which aims to generate jobs and contribute to inclusive growth, by improving the economic empowerment of women as micro-entrepreneurs, which contributes to the achievement of SDG 5 (gender equality) [41]. Another local initiative linked to achieving SDG 9 (industry, innovation, infrastructure) is the Small Enterprise Technology Upgrading Program or SETUP in the Bicol Region which provides wholly-owned Filipino MSMEs in Region 5 with equipment and technical assistance, to improve sales and production, improve and streamline operations, adhere to national and international excellence standards, enhance competitiveness as well as product, and service quality [41].

This shows that while creating awareness of the SDGs is essential, it is also important to effectively communicate existing sustainability-related programs to the small players, unpacking “what is in it for them” if they are to follow a sustainable pathway when it comes to integrating the SDGs in their core business operations and to go beyond mere CSR or corporate philanthropy activities. It would also be better to trigger positive competition in terms of indicator rankings along the ESG metrics, especially those that are tracked by regulators, such as the Securities and Exchange Commission in their sustainability reporting template [42].

In addition, multinational companies or MNCs can also play an important role in scaling up the integration of SDGs in emerging markets, particularly in influencing MSMEs, and even large local businesses in the region, that are all part of their supply chains. The challenge is to get MNCs involved and interested in promoting a culture of sustainability, integrity, and accountability through their supply chains. With a global mindset, there is potential in involving MNCs in this conversation, especially those deeply involved in promoting and even actively utilizing the SDGs in their business operations. This is especially true for MNCs that have suppliers downstream in their value chains that fall under the MSME classification. Influencing and assisting their suppliers towards SDGs can be a meaningful way for MNCs to achieve their own SDG targets.

The investment industry has yet to shift its vast financial resources in terms of developing the MSME sector. This has been a long-standing concern and can be turned into a huge opportunity [13]. Any concrete action to activate the investment industry can reap benefits, especially when engaging with large asset owners, as well as sovereign wealth funds to take a leading role in the market. This is particularly important for public and statutory asset owners, as they are the ones that can lead SDG integration with examples to demonstrate the private sector's clear intentions when it comes to sustainable business practices and meeting market expectations.

Lastly, this report would also like to emphasize the role that MSMEs play in creating employment and their potential to provide decent job opportunities for the bigger part of the population. This means that an ambitious implementation of structural transformation that provides an enabling environment conducive to the sustainable growth and health of MSMEs and not just the development of new policies that focuses on the traditional mantra of efficiency and productivity is needed.

The way forward depends on creating a balance of the three key aspects of macro, meso, and micro levels [6]. In the case of the Philippines, however, what needs to be focused on is primarily micro and then meso. There is a need for internal development to progress and keep up with the market's social and environmental demands. This needs to be supplemented by external intervention, especially those that will come from the government, to translate vision into reality.

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Introduction

SMEs are regarded as one of the main driving forces of economic development for all economies because they generate new employment, introduce new business methods and products, reduce poverty, inflation, and income inequality, and solve the balance of the payment problem [1]. Therefore, SMEs are considered the backbone of the economic development of a country. This sector has received considerable attention in development policy plans presented from time to time by different governments. The governments that were elected in 1956 and 1960, provided various facilities for the development of rural SMEs, to generate employment opportunities under the Import Substitution Industrial Policy [2]. Since then, each elected government has given priority to the development of the SME sector in its manifestos.

SMEs play a significant role in driving several economies, accounting for about two-thirds of the overall employment and contributing to more than 50% of GDP in many countries. The contribution of the SME sector to the economic output is generally found to be higher in high-income countries as compared to medium and low-income countries, highlighting the potential of their contribution to growth, particularly in developing nations [3]. In Sri Lanka, under the liberalized policy regime introduced in 1977, the role of SMEs has been recognized given their export potential, ability to provide raw materials to large firms, capabilities to produce under the sub-contracting system, and capacity to take the production process to rural areas. Further, the government policies in 1989 and 1995 recognized the importance of the SME sector as a vehicle for broad-based industrialization, employment generation, and poverty reduction [4].

The Ministry of Industry and Commerce has comprehensively defined SMEs by considering two broader criteria, namely, annual turnover and number of employees in the national policy framework for SME development, introduced by them. According to the definition, the ceiling on employment and annual turnover for SMEs in the manufacturing sector is 300 employees and LKR750 million respectively, while the ceiling on employment for SMEs in the service sector is 200 employees.

TABLE 1

TURNOVER AND EMPLOYEE CRITERIA FOR SMEs IN SRI LANKA.

Sector	Criteria	Medium	Small	Micro
Manufacturing	Annual Turnover	LKR251–750 Million	LKR16–250 Million	Less than LKR15 Million
	No. of Employees	51–300	11–50	Less than 10
Service	Annual Turnover	LKR251–750 Million	LKR16–250 Million	Less than LKR15 million
	No. of Employees	51–200	11–50	Less than 10

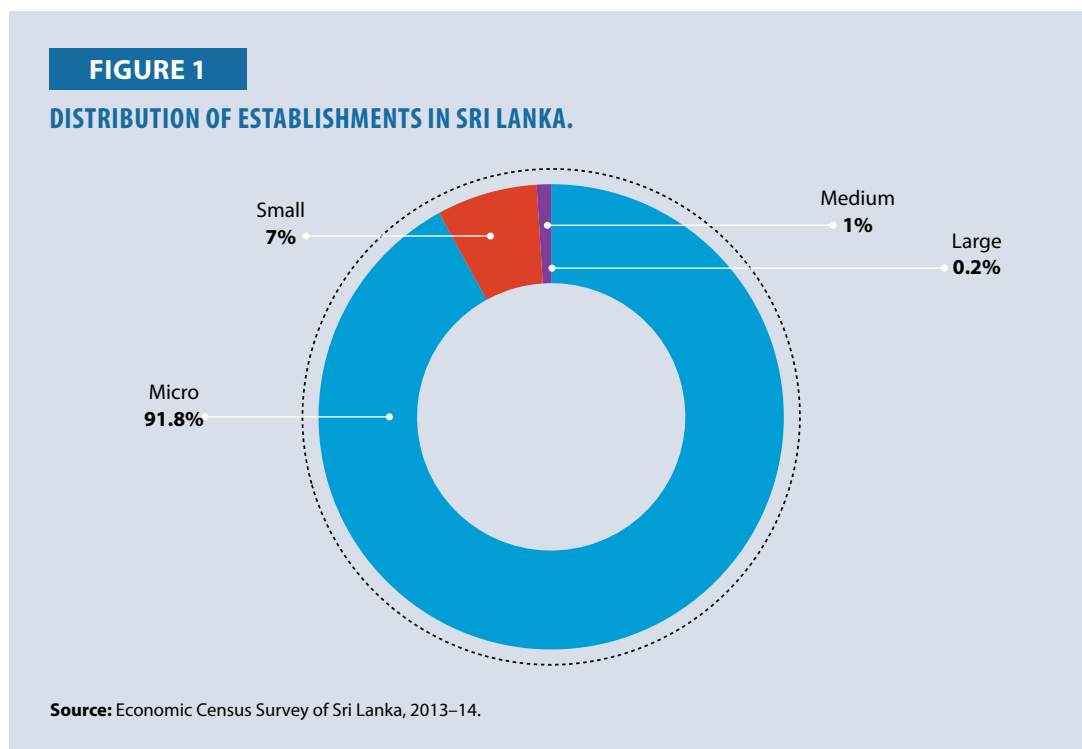
Source: National Policy Framework for SME Development.

Dimensions of Competitiveness Diagnostics

Outcomes

The SME sector has played a vital role in the socio-economic development of Sri Lanka since its independence. It is estimated that SMEs have contributed 52% to the GDP and hence, they are considered the backbone of Sri Lanka's economy. The SMEs account for over 90% of the total enterprises in the non-agricultural sector and 45% of the total employment. According to the Economic Census 2013–14, done by the Department of Census and Statistics in Sri Lanka, there were over 1.017 million small and medium enterprises in the country providing livelihood to nearly 2.25 million people in the non-agricultural sector.

As per the Economic Census survey 2013–14, the distribution of establishments in the country is categorized into four groups, namely, micro with 935,736 businesses or 91.8% share, small with 71,126 companies or 7.0 % share, and medium comprising just 1% of the total enterprises. As shown in Figure 1, large businesses comprise a meager 0.2% of the total establishments in Sri Lanka. The whole MSME sector accounts for 99.8% of the total establishments in the country.

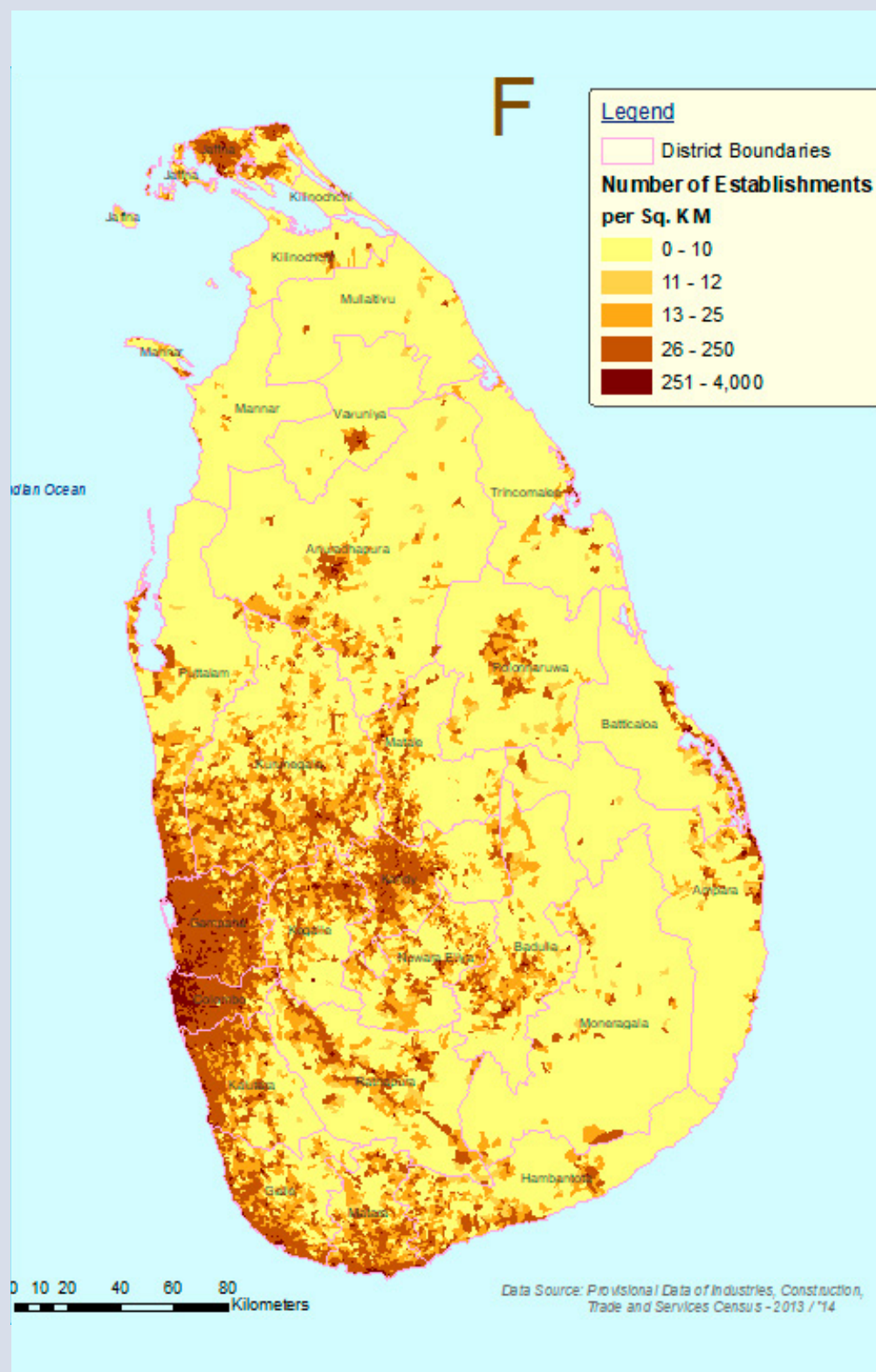


The geographical distribution of SMEs is one of the important factors that need to be considered in their development and their contribution to the economy. In the case of Sri Lanka, SMEs are primarily concentrated in the Western Province. However, noteworthy progress has been observed in the SME development in the Northwestern Province, making it the second most significant province in terms of dispersed SMEs during 2013–14. The Southern Province ranks third in this regard, showcasing the overall regional importance of SMEs in the country's economic landscape [5].

In 2021, the GDP contribution of different sectors in Sri Lanka was as follows: the industry sector contributed 28%, the services sector contributed 57%, and the agriculture sector contributed 9% of the total GDP, as per the 2020 market prices (Figure 2). Within the economy, the SME sector

FIGURE 2

DENSITY OF ECONOMIC ESTABLISHMENT OF SRI LANKA (2013).



Source: Atlas of Economic Activities of Sri Lanka 2013/2014, Department of Census & Statistics.

played a dominant role in various areas, including agriculture, plantation, construction, manufacturing, trade, and other services. Overall, the SME sector made a significant contribution of 52% to the country's GDP, highlighting its vital role in the economic landscape of Sri Lanka.

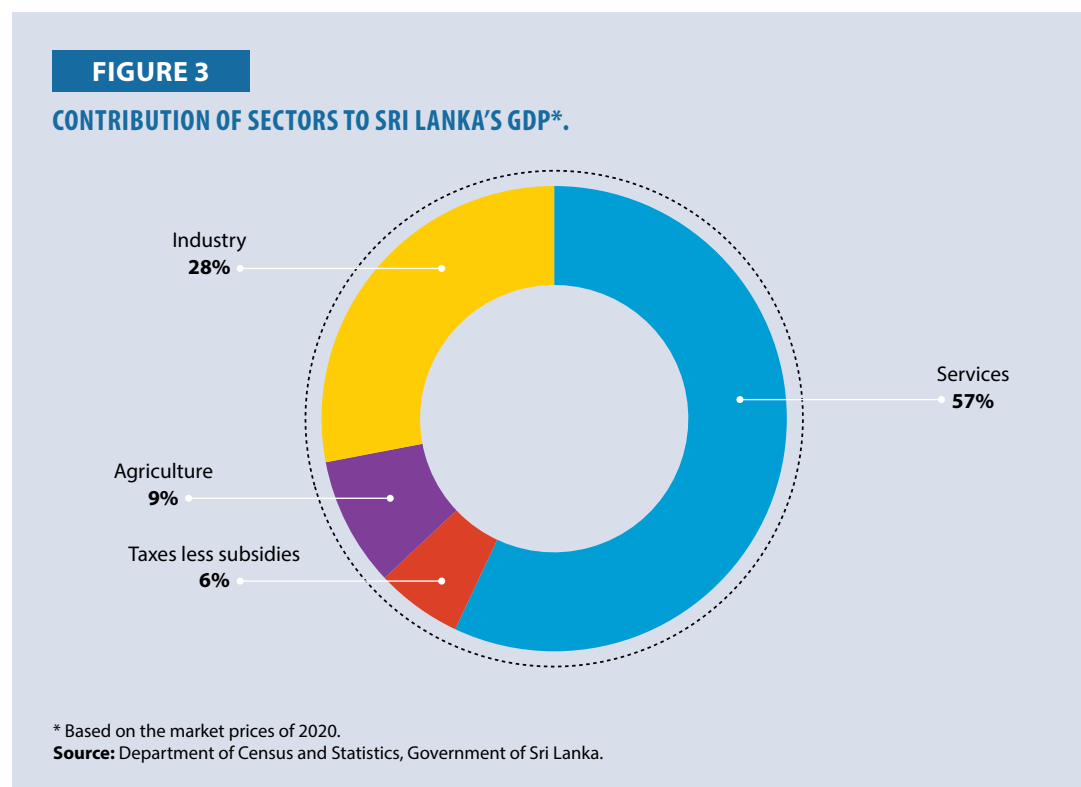


Table 2 showcases the GDP contribution of the SME sector from 2014 to 2021, along with the contribution to the labor force. Similarly, Figure 4 illustrates the labor productivity of the SME sector in Sri Lanka.

TABLE 2
SME SECTOR'S CONTRIBUTION TO SRI LANKA'S GDP.

Year	Total Labor Force	GDP at Constant (2010) prices (LKR million)	Labor Productivity	SME Contribution to the Labor Force (26%)	SME Contribution to the GDP (52%) LKR million	GDP per Employee in SMEs (LKR million)
2014	8,048,884	8,235,429	396,487	2,092,710	4,282,423	2,046,353
2015	8,214,473	8,647,833	412,469	2,135,763	4,496,873	2,105,511
2016	8,310,682	9,035,830	426,158	2,160,777	4,698,632	2,174,510
2017	8,566,686	9,359,147	436,446	2,227,338	4,866,756	2,185,010
2018	8,387,759	9,665,379	446,026	2,180,817	5,025,997	2,304,639
2019	8,592,010	9,883,350	453,302	2,233,923	5,139,342	2,300,591

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Year	Total Labor Force	GDP at Constant (2010) prices (LKR million)	Labor Productivity	SME Contribution to the Labor Force (26%)	SME Contribution to the GDP (52%)	GDP per Employee in SMEs (LKR million)
2020	8,466,606	9,530,606	434,810	2,201,318	4,955,915	2,251,340
2021	8,553,000	9,881,400	383,000	2,223,780	5,138,328	2,310,628

Source: Economic Statistics of Sri Lanka 2021, Department of Census and Statistics Government Policy and Strategy for SME Development 2012, Ministry of Finance and Planning.

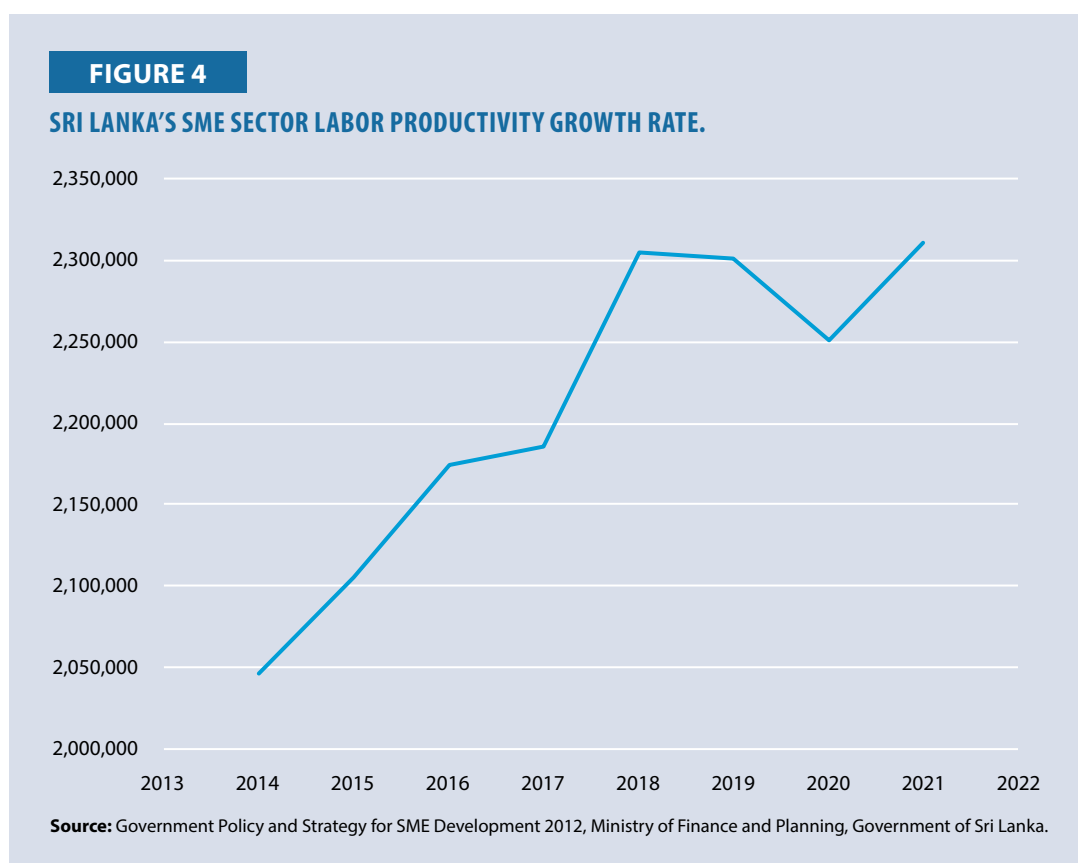


TABLE 3

LABOR FORCE PARTICIPATION RATE IN SRI LANKA.

Employee Population	2016	2017	2018	2019	2020	2021
SME (26%)	2,066,396	2,134,126	2,083,943	2,126,980	2,079,764	2,109,512
Male	1,343,157	1,365,841	1,375,402	1,403,807	1,393,442	1,413,373
Female	723,239	768,285	708,541	723,173	686,322	696,139

Source: Annual Survey Reports (2016–21), Department of Census and Statistics, Government of Sri Lanka.

Job creation within the private sector has been proven to be the main driver in the fight against poverty reduction in any economy. Given that the SME sector accounts for 52% of the GDP and employs 26%

SUCCESS STORY OF A WOMAN ENTREPRENEUR

Senani Foods Products, founded in 2007 by Jenika Senani Warusavithana, specializes in supplying ground Goraka (*Garcinia*), a vital ingredient in many Sri Lankan cuisines. Starting with a rough idea, the company conducted market research to explore its potential and identified a unique product opportunity known as 'Goraka Cream'. The product is made using ancient traditional seasoning technology, involving the use of five kilograms of Goraka blended with chili, a grinder for grinding Goraka, a clay pot, and a kerosene oil cooker for preparation.

Over the years, Senani Foods Products has achieved significant milestones:

- In 2013, it became the first Cream Institute in Sri Lanka to receive the GMP Certificate.
- In 2014, the company was honored with a Bronze Medal in the Meals Division at the 'National Vidatha Enterprises'.
- In 2016, they were awarded the Small-scale Silver Medal at the Enterprises Award Festival organized by the Western Provincial Commerce Council.
- The same year, Senani Foods Products received the prestigious Gold Medal as an Excellent Enterpriser in the Kalutara District Small Scale Business Development Division.
- In 2017, the company won a Joint Gold Award in the Award Ceremony organized by the Women's Chamber of Commerce & Industry in the Medium category, being recognized as the Best Women Entrepreneur of the Year.
- In 2018, the company participated under the SME category and received the SLIM Brand Excellence Award.
- In 2019, Senani Foods Products was granted the Best Women Entrepreneur Merit Award for Industry and Manufacturing in the Medium category by the National Enterprise Development Authority together with The National Chamber of Commerce, Sri Lanka.

of the country's labor force, it possesses significant potential to drive the achievement of SDG 1, which aims to end poverty. Moreover, SMEs are directly linked to SDG target 2.3, which aims to double the agricultural productivity and incomes of small-scale food producers while fostering interventions to develop the capabilities of small-scale farmers and agriculture-focused SMEs by 2030.

In Sri Lanka, a significant portion of the SME sector is involved in agriculture and plantations, with many farmers being small-scale producers. Therefore, SMEs can play a crucial role in supporting and encouraging small-scale farming. They can contribute to the local economy by sourcing from local entities and small-scale producers, particularly for manufacturing. Additionally, SMEs have the opportunity to demonstrate transparency in the agricultural supply chain, particularly during sourcing, aligning with the objectives of SDG 2.

TABLE 4

PRINCIPAL INDICATORS OF INDUSTRIAL ACTIVITY, 2009–2019.

Year	No. of Establishments	No. of People Engaged	No. of Employees	Salaries and Wages (LKR)	Value of Output (LKR)	Intermediate Consumption (LKR)	Value Added (LKR)
2009	2,851	582,327	580,447	91,240,911,812	1,328,481,316,054	759,724,213,223	568,757,102,831
2010	2,781	588,721	586,754	113,622,856,387	1,590,149,029,404	846,366,917,433	743,782,111,972
2011	2,595	598,940	596,928	124,660,664,735	1,989,484,168,848	1,161,181,309,415	828,302,859,433
2012	2,593	623,254	620,838	134,775,216,037	2,136,657,251,921	1,206,712,092,133	929,945,159,788
2013	3,392	834,468	829,733	260,845,463,028	3,138,617,188,661	1,859,060,521,337	1,279,556,667,324
2014	5,374	945,992	934,101	263,181,950,840	3,447,269,066,427	2,130,971,943,049	1,316,297,123,378
2015	5,743	1,074,944	1,069,537	323,478,539,588	4,032,651,136,012	2,521,483,286,271	1,511,167,849,741
2016	6,825	1,283,954	1,278,252	414,032,513,195	4,262,534,830,157	2,721,429,088,716	1,541,105,741,441
2017	7,466	1,352,684	1,347,173	465,852,260,589	4,620,479,129,591	2,869,015,061,808	1,751,464,067,783
2018	6,370	1,345,841	1,338,875	487,987,095,891	4,844,565,124,223	3,128,500,661,336	1,716,064,462,887
2019	5,216	1,331,347	1,327,038	525,371,632,725	4,942,536,411,239	3,276,891,049,163	1,665,645,362,075

Source: Economic Statistics of Sri Lanka, 2022.

As shown in Table 4, the number of establishments in Sri Lanka doubled from 2009 to 2019, with the overall number of employees in 2019 jumping to 1,327,038 as compared to 580,447 workers in 2009. Also, with the value of output increasing by 50%, the SME sector's substantial 52% contribution to the economy reinforces its pivotal role in advancing SDG 8, promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. To further support this goal, the Ministry of Labor, in collaboration with the ILO, has implemented the decent work country program, prioritizing the SME sector, which accounts for 45% of the employment in Sri Lanka. The program aims to ensure a safe working environment since there is an increase in concerns over precarious and unsafe working conditions, particularly as SMEs are vulnerable to external shocks. These enterprises are often overlooked in terms of labor inspection, and their knowledge of and adherence to the International Labor Standards for their workers, leading to limited access to social protection services.

The social and environmental outcomes of the SMEs are indicated in research conducted by Weerasiri and Zhengang in 2012, titled Attitudes and Awareness towards Environmental Management and its Impact on Environmental Management Practices of SMEs in Sri Lanka. The research highlights that the owners and managers of SMEs in Sri Lanka have limited awareness of environmental management issues and have not adopted management practices aimed at improving their environmental performance. The study highlights a substantial gap between SMEs and large enterprises concerning their awareness and adoption of environmentally responsible practices.

Economic Activity

Since gaining independence, the Sri Lankan economy has exhibited steady growth, achieving the status of an upper-middle-income country in 2018, with an economic growth rate of 6.4%. However, the economy slowed down due to the impact of COVID-19 and it was downgraded to a lower-middle-income country by the World Bank. The real effect of the pandemic became evident in Sri Lanka around mid-March 2020, following the detection of the first coronavirus case. In response, the government imposed a 14-day quarantine program, curfew, and total lockdown in the country. These measures severely disrupted economic activities, significantly impacting SMEs, which faced severe hardship during this period. The economic crisis further exacerbated their difficulties, making the situation severe.

Reflecting on the growth of the enterprise sector, Table 5 shows an increase in the establishment of new firms, including SMEs. However, SMEs in the tourism industry, apparel sector, footwear, and leather industry, processed food industry, handloom, and handicraft industry were severely impacted by COVID-19. Following this, the Central Bank of Sri Lanka decided to set up a refinancing facility as per the decision taken by the Cabinet of Ministers on 20 March 2020. The decision aimed to introduce a wide range of fiscal and financial concessions to support businesses adversely affected by the pandemic, including self-employment businesses and individuals.

TABLE 5

GROWTH IN THE ESTABLISHMENT OF NEW FIRMS IN SRI LANKA.

Organization Type	2015	2016	2017	2018	2019
Sole ownership	14,581	12,892	13,089	13,378	16,013
Partnership	1,583	2,605	1,791	1,789	1,765
Others	4,407	5,798	5,857	6,094	4,434
Total	20,571	21,295	20,737	21,260	22,212

Source: Annual Survey of Industries, Department of Census and Statistics, Government of Sri Lanka.

The primary challenge faced by SMEs is undoubtedly the disruption of their supply chain due to lockdowns and curfews. Additionally, a significant number of SMEs faced working capital issues as they did not receive payments for the goods supplied, and other income sources also declined during the crisis [6]. Moreover, the economic crisis led to a surge in the prices of raw materials due to limited availability, further affecting the operations of SMEs.

TABLE 6

GROWTH IN THE NUMBER OF ESTABLISHMENTS ACROSS INDUSTRIES.

Industry Type	2015	2016	2017	2018	2019
Mining and quarrying	3,237	2,737	2,532	2,947	3,689
Manufacturing	16,939	18,210	17,719	17,847	18,186
Electricity, gas, steam, and air conditioning supply	156	112	135	180	107

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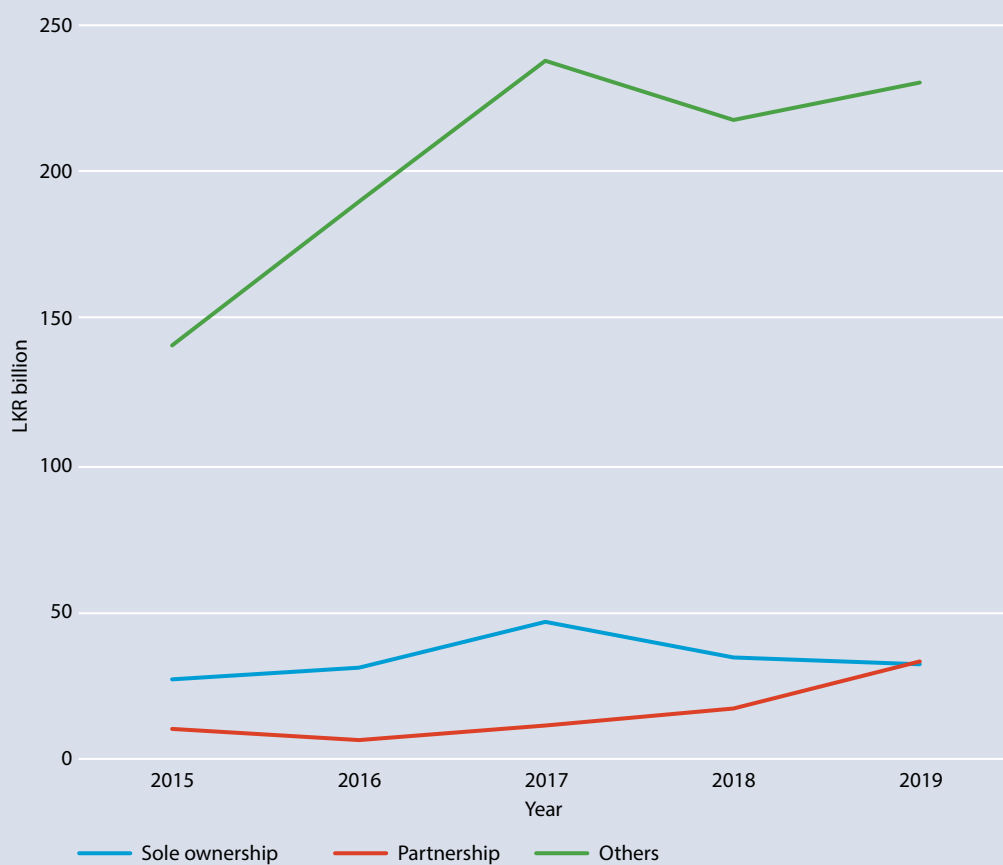
Industry Type	2015	2016	2017	2018	2019
Water supply, sewerage, waste management, and remediation activities	238	236	351	287	229
Total industry	20,571	21,295	20,737	21,261	22,212

Source: Annual Survey, Department of Census and Statistics, Government of Sri Lanka.

TABLE 7**GROSS ADDITION TO THE FIXED ASSETS (LKR BILLION).**

Legal Organizations	2015	2016	2017	2018	2019
Sole ownership	27.1	31.4	46.7	34.3	32.5
Partnership	9.8	6.4	11.1	17.7	33.2
Others	140.9	189.4	237.9	217.4	230.3

Source: Annual Survey of Industries 2015–2019, Department of Census and Statistics, Government of Sri Lanka.

FIGURE 5**GROSS ADDITION TO THE FIXED ASSETS.**

Source: Annual Survey, Department of Census and Statistics, Government of Sri Lanka.

TABLE 8**VOLUME OF EXPORTS OF SELECTED MINOR CROPS (2017–21).**

Volume (kg '000)

Item	2017	2018	2019	2020	2021*
Cinnamon	16,617	17,537	17,480	19,090	19,195
Cloves	7,806	3,279	5,126	2,597	6,487
Pepper	13,309	13,118	8,335	9,542	18,575
Cocoa	160	289	520	255	159
Cashew nuts	60	72	56	40	31
Cardamom	839	108	3,036	1.4	1.5
Coffee	14	24	23	27	30
Betel	5,145	4,009	4,678	3,940	3,834
Arecanuts	10,647	4,947	6,134	12,584	10,488
Sesame seed	1,704	3,616	22	2	2,736

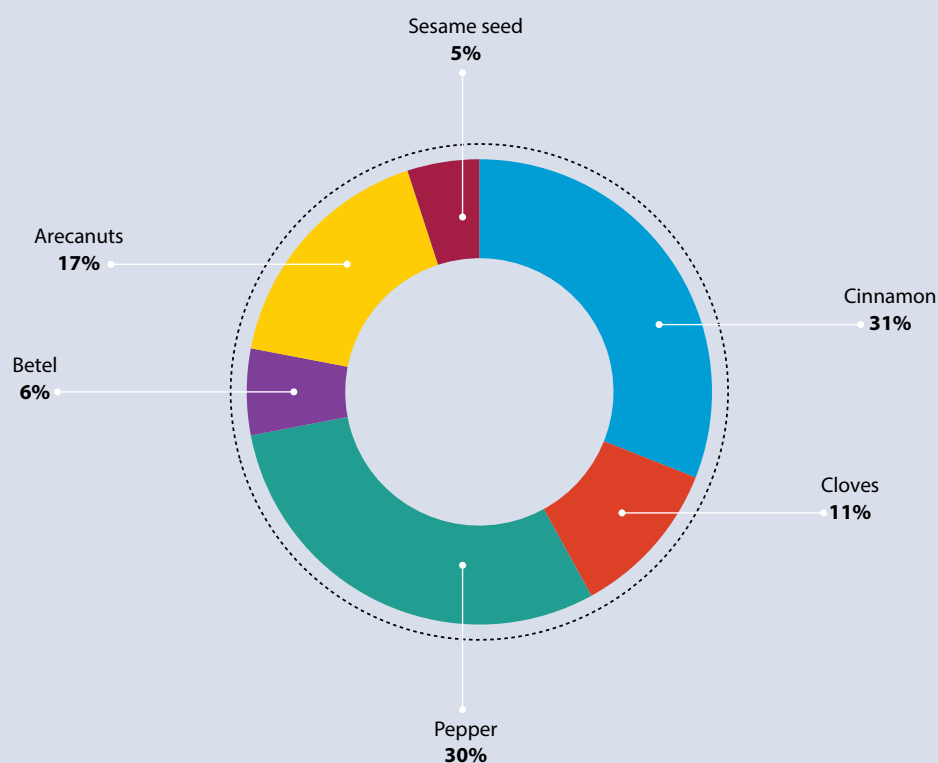
Source: Economic Statistics of Sri Lanka, 2022.**FIGURE 6****VOLUME OF EXPORT OF SELECTED MINOR CROPS IN 2021.****Source:** Economic Statistics of Sri Lanka, 2022.

TABLE 9

VOLUME OF EXPORTS OF MAJOR CROPS, 2013–21.

Year	Tea		Rubber		Cocount		Other Crops		Garments		Petroleum		Precious Stones	
	Quantity ('000 MT)	Value (LKR Mn.)	Quantity ('000 MT)	Value (LKR Mn.)	Quantity ('000 MT)	Value (LKR Mn.)	Quantity ('000 MT)	Value (Rs. Mn.)	Value (LKR Mn.)	Quantity ('000 MT)	Value (LKR Mn.)	Quantity ('000 MT)	Value (LKR Mn.)	
2013	320	199,446	24	9,194	379	11,118	169	68,618	551,659	511	55,128	14,393	16,084	
2014	327	212,588	16	5,916	716	27,970	183	66,744	611,350	398	44,132	12,685	21,831	
2015	307	182,054	10	3,548	552	30,123	177	81,530	618,803	908	50,461	12,116	21,322	
2016	289	184,778	16	4,758	765	31,477	137	71,204	669,796	807	41,794	12,136	20,750	
2017	289	233,338	17	5,920	466	28,921	148	93,049	722,624	972	66,280	9,400	21,143	
2018	282	231,750	14	5,088	355	24,263	162	88,225	807,787	1,093	101,467	8,190	21,703	
2019	293	240,637	13	4,321	768	28,779	152	89,350	930,805	984	93,194	8,306	18,725	
2020	266	230,170	16	5,579	574	30,221	–	98,245	728,005	798	68,849	2,697	12,618	
2021	286	263,353	15	8,377	613	40,049	–	132,062	984,941	853	100,975	5,364	21,613	

Source: Economic Statistics of Sri Lanka, 2022.

During the period from January to December 2021, Sri Lanka experienced a significant surge in merchandise exports, reaching a total value of USD12,475.29 million, a 24.17% increase compared to the corresponding period in 2020. This growth was observed across various major product sectors, including apparel and textiles, tea, rubber-based products, coconut-based products, electronics and electronic components, spices and concentrates, food and beverages, seafood, and ornamental fish, as highlighted in Table 10.

TABLE 10
PERFORMANCE OF MERCHANDISE EXPORTS IN SRI LANKA (IN USD MILLION).

Exports of Goods	Jan-Dec 2019	Jan-Dec 2020	Jan-Dec 2021	% of Growth (2020-21)	Dec 2020	Dec 2021	% Growth (2020-21)
Apparel and textile	5,577	4,406	5,415.92	22.93	450.49	531.05	17.88
Tea	1,346	1,241	1,324.38	6.72	112.97	110.62	-2.08
Rubber-based	890	816	1,092.60	33.87	79.51	93.5	17.6
Coconut- based	614	665	836.10	25.81	54.9	69.29	26.21
Diamond, gems and jewellery	314	148	292.49	97.32	16.53	22.4	35.51
Electronics and electronic components	381	328	421.42	28.38	36.16	36.94	2.16
Spices and concentrates	313	335	456.71	36.14	33.13	43.89	32.48
Processed food & beverages	442	351	443.98	26.36	27.56	38.78	40.71
Seafood	263	190	274.07	44.4	14.39	26.64	85.13
Ornamental fish	16	13	20.97	60.94	0.96	2.07	115.63
Vegetables	32	26	27.44	6.6	1.81	2.37	30.94
Fruits	42	36	39.46	10.66	2.75	3.59	30.55
Other export crops	45	68	68.58	1.46	1.39	5.36	285.61
Flowers and foliage	18	13	16.20	28.47	0.93	1.28	37.63
Boat building	65	2	37.81	1,482.01	0.23	0.18	-21.74
Petroleum products	336	272	234.36	-13.77	0.54	21.21	3,827.78
Others	1,246	1,137	1,472.80	29.53	130.25	116.52	-10.54
Total merchandise exports	11,940	10,047	12,475.29	24.17	964.5	1,125.69	16.71

Source: Export Development Board, Government of Sri Lanka.

In December 2021, export earnings from rubber and rubber-finished products increased by 17.57%, to reach USD93.49 million. This growth was largely driven by significant exports of pneumatic and retreaded rubber tires and tubes, which saw a remarkable increase of 39.92%. The revised export forecast of the Export Development Board for 2021 was USD15.72 billion, including USD12.14 billion from merchandise exports and USD3.58 billion from services exports. The cumulative earnings from exports from January to December 2021 reached USD15.12 billion, including the estimated services data for October to December, achieving 96.2% of the revised

export target. Notably, earnings from both merchandise exports and services exports jumped 102.78% and 73.88% respectively, during the year 2021 [10].

The impressive performance of export earnings also holds significant implications for achieving SDG 8.1, as SMEs remain the predominant form of enterprise in Sri Lanka and contribute significantly to economic growth, generating 60% of employment in the country. [3] Therefore, SMEs have the potential to promote decent work and entrepreneurship while directly contributing to SDG 8.3 [7]. Moreover, individual SMEs have the potential to adopt various actions in their business practices to contribute to the other SDGs. These actions may include offering apprenticeship opportunities to foster an entrepreneurial culture and investing in or mentoring young entrepreneurs, thereby contributing to the growth rate of new firms and fostering sustainable development in the country.

Sectorial Composition

TABLE 11

CONTRIBUTION OF SMEs IN OVERALL PRODUCTION OF GOODS AND SERVICES IN THE COUNTRY.

Description	2016	2017	2018	2019	2020
Total production of goods and services (LKR Million)	11,996,083	13,328,103	14,284,553	15,012,953	14,972,995
Contribution of SME in the total production 52%	6,237,963.16	6,930,613.56	7,427,967.56	7,806,735.56	7,785,957.4

Source: Calculated based on the data from the Department of Census and Statistics, Sri Lanka.

SMEs in Sri Lanka comprise a diverse range of manufacturing and service sector enterprises, covering various industry disciplines. In addition to their role as an enterprise, these SMEs hold significant importance as vital links in the supply chain connecting the larger industry and the service sector. Table 11 shows the contribution of SMEs to the total production of goods and services. Table 12 presents the composition of the GDP, which shows that overall, the manufacturing and service sectors contributed more than the agriculture sector.

TABLE 12

SRI LANKA'S GDP BY INDUSTRIAL ORIGIN AT CURRENT MARKET PRICES (2016–20).

Economic Activity (SLSIC)	2016	2017	2018	2019	2020
Agriculture, forestry and fishing	890,925	1,043,994	1,146,672	1,132,065	1,251,921
Manufacturing, mining and quarrying, and other industries	2,402,640	2,527,582	2,701,940	2,992,443	2,914,271
Of which: Manufacturing activities	1,964,786	2,048,702	2,205,277	2,456,838	2,426,373
Construction	934,787	1,040,978	1,050,428	1,121,659	1,015,772
Wholesale and retail trade, transportation and storage, accommodation, and food service activities	2,885,975	3,133,233	3,399,943	3,596,257	3,514,098
Information and communication	88,886	90,485	102,548	119,472	133,068

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Economic Activity (SLSIC)	2016	2017	2018	2019	2020
Financial and insurance activities	527,550	677,816	717,393	788,712	928,179
Real estate activities (including ownership of dwelling)	690,153	770,252	834,398	891,455	920,882
Professional, scientific, technical, administration and support service activities	201,976	224,431	244,015	260,735	265,223
Public administration, defense, education, human health, and social work activities	1,201,741	1,288,906	1,509,402	1,592,216	1,730,413
Other services (excluding own-services)	1,174,954	1,292,025	1,383,391	1,474,390	1,441,873
Equals GVA at bp	10,999,589	12,089,702	13,090,131	13,969,403	14,115,701
(+) Taxes on products	1,160,105	1,354,211	1,360,114	1,247,468	1,035,580
(-) Subsidies on products	163,610	115,810	159,338	203,917	178,286
Equals GDP at mp	11,996,083	13,328,103	14,290,907	15,012,953	14,972,995

Source: Economics Statistic for Sri Lanka, 2020.

Despite the higher contribution of industry and service to the GDP, the distribution of the employed population varies as shown in Table 13. In Sri Lanka, the employment composition is as follows: the agriculture sector employs 27% of the workforce, the industry sector employs 26%, and the service sector employs 47%.

TABLE 13
DISTRIBUTION OF EMPLOYED POPULATION BY ECONOMIC SECTOR (2016–21)

Sector	2016	2017	2018	2019	2020	2021
Total (number)	7,947,683	8,208,179	8,015,166	8,180,693	7,999,093	8,113,507
In %	100	100	100	100	100	100
Agriculture (number)	2,153,874	2,140,185	2,043,698	2,071,940	2,169,679	2,213,015
In %	27.1	26.1	25.5	25.3	27.1	27
Industry (number)	2,097,503	2,331,494	2,239,262	2,258,421	2,152,746	2,109,482
In %	26.4	28.4	27.9	27.6	26.9	26
Services (number)	3,696,306	3,736,500	3,732,206	3,850,332	3,676,688	3,791,011
In %	46.5	45.5	46.6	47.1	46.0	47

Note: The working-age population includes individuals aged 15 and above.**Source:** Economic Statistics for Sri Lanka, 2022.

TABLE 14

DISTRIBUTION OF INDUSTRY, TRADE, AND SERVICES ESTABLISHMENTS.

Industry, Trade, and Services Sector	No. of Establishments	In %
Mining and quarrying	8,902	0.9
Manufacturing	240,323	23.6
Electricity, gas, steam, and air conditioning	407	0.0
Water supply, sewerage, waste management, and remediation	2,382	0.2
Construction	8,309	0.8
Wholesale and retail trade, repair of motor vehicles	417,740	41.1
Transportation and storage	35,471	3.5
Accommodation and food services	90,222	8.9
Information and communication	7,605	0.7
Financial and insurance services	9,074	0.9
Real estate activities	9,682	1.0
Professional, scientific, and technical services	15,125	1.5
Administrative and support service	11,904	1.2
Education	45,033	4.4
Human health and social work	16,757	1.6
Arts, entertainment, and recreation	10,161	1.0
Other services	88,332	8.7
Total	1,017,425	100.0

Source: Economic Statistics for Sri Lanka, 2022.

TABLE 15

DISTRIBUTION OF INDUSTRY, TRADE, AND SERVICES ESTABLISHMENTS BY SIZE OF THE FIRM.

Industry, Trade, and Services Sector	Firm Size								Total	
	Micro (1–4 Employees)		Small (5–9)		Medium (10–99)		Large (100+)			
	Count	In %	Count	In %	Count	In %	Count	In %	Count	In %
Mining and quarrying	5,443	61.1	2,579	29.0	872	9.8	8	0.1	8,902	100.0
Manufacturing	222,565	92.6	9,953	4.1	6,560	2.7	1,244	0.5	240,323	100.0
Electricity, gas, steam, and air conditioning	210	51.6	63	15.5	131	32.2	3	0.7	407	100.0
Water supply, sewerage, waste management, and remediation	2,126	89.3	171	7.2	84	3.5	–	–	2,382	100.0

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Industry, Trade, and Services Sector	Firm Size								Total	
	Micro (1–4 Employees)		Small (5–9)		Medium (10–99)		Large (100+)			
	Count	In %	Count	In %	Count	In %	Count	In %	Count	In %
Construction	5,402	65.0	1,614	19.4	1,224	14.7	69	0.8	8,309	100.0
Wholesale and retail trade, repair of motor vehicles	401,603	96.1	10,739	2.6	5,219	1.2	178	0.0	417,740	100.0
Transportation and storage	33,278	93.8	1,395	3.9	759	2.1	38	0.1	35,471	100.0
Accommodation and food services	84,025	93.1	4,222	4.7	1,874	2.1	101	0.1	90,222	100.0
Information and communication	6,889	90.6	308	4.0	353	4.6	55	0.7	7,605	100.0
Financial and insurance services	6,475	71.4	1,210	13.3	1,338	14.7	51	0.6	9,074	100.0
Real estate activities	9,389	97.0	202	2.1	88	0.9	3	0.0	9,682	100.0
Professional, scientific, and technical services	13,416	88.7	807	5.3	829	5.5	73	0.5	15,125	100.0
Administrative and support services	10,383	87.2	833	7.0	592	5.0	96	0.8	11,904	100.0
Education	33,559	74.5	5,717	12.7	5,700	12.7	57	0.1	45,033	100.0
Human health and social work	15,330	91.5	843	5.0	558	3.3	26	0.2	16,757	100.0
Arts, entertainment, and recreation	9,463	93.1	501	4.9	188	1.9	9	0.1	10,161	100.0
Other services	83,138	94.1	3,205	3.6	1,948	2.2	41	0.0	88,332	100.0
Total	942,694	92.7	44,362	4.4	28,317	2.8	2,052	0.2	1,017,425	100.0

Source: Department of Census and Statistics, Government of Sri Lanka.

TABLE 16

SECTORIAL COMPOSITION AND INCREASE IN GDP BY INDUSTRIAL ORIGIN AT CONSTANT PRICES (2002).

Sector	Rate of Change (in %)		Contribution to Change (in %)		Share of GDP (in %)	
	2011(a)	2012(b)	2011(a)	2012(b)	2011(a)	2012(b)
Agriculture	1.4	5.8	2.1	10.0	11.2	11.1
1. Agriculture, livestock, and forestry	-0.2	5.3	-0.2	8.2	9.9	9.8
1.1 Tea	-1.2	-1.2	-0.2	-0.2	1.0	0.9
1.2 Rubber	2.1	-6.8	0.1	-0.3	0.2	0.2
1.3 Coconut	3.0	6.0	0.4	1.0	1.0	1.0
1.4 Minor export crops	-19.0	-5.0	-1.3	-0.3	0.4	0.4
1.5 Paddy	-8.4	1.3	-1.9	0.3	1.5	1.5
1.6 Livestock	7.3	6.4	0.7	0.8	0.8	0.8
1.7 Other food crops	2.4	10.0	1.1	5.6	3.6	3.7
1.8 Plantation development	5.7	8.8	0.2	0.3	0.3	0.3
1.9 Firewood and forestry	4.1	5.4	0.3	0.5	0.6	0.6
1.10 Other Crops	7.0	6.8	0.3	0.4	0.4	0.4
2. Fishing	15.5	9.3	2.3	1.9	1.3	1.3
Industry	10.3	10.3	36.0	47.1	29.3	30.4
3. Mining and quarrying	18.5	18.9	5.1	7.3	2.5	2.8
4. Manufacturing	7.9	5.2	16.7	14.1	17.3	17.1
4.1 Processing (tea, rubber and coconut)	0.9	6.5	0.1	0.6	0.6	0.6
4.2 Factory industry	8.3	5.2	15.7	12.8	15.7	15.5
4.3 Cottage industry	7.0	4.6	0.9	0.7	1.0	1.0
5. Electricity, gas and water	9.2	4.4	2.7	1.7	2.4	2.4
5.1 Electricity	9.6	4.3	2.5	1.4	2.2	2.1
5.2 Gas	5.7	5.1	0.1	0.1	0.2	0.2
5.3 Water	6.1	7.1	0.1	0.1	0.1	0.1
6. Construction	14.2	21.6	11.6	23.9	7.1	8.1
Services	8.6	4.6	61.9	42.9	59.5	58.5
7. Wholesale and retail trade	10.3	3.7	29.0	13.5	23.6	23.0
7.1 Import trade	14.3	1.0	14.0	1.4	8.5	8.1
7.2 Export trade	10.1	0.8	4.9	0.5	4.1	3.9
7.3 Domestic trade	7.5	6.8	10.1	11.7	11.0	11.1
8. Hotels and restaurants	26.4	20.2	1.7	1.9	0.6	0.7
9. Transport and communication	11.3	6.2	19.1	13.9	14.3	14.3
9.1 Transport	11.3	6.0	15.6	11.0	11.8	11.7

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Sector	Rate of Change (in %)		Contribution to Change (in %)		Share of GDP (in %)	
	2011(a)	2012(b)	2011(a)	2012(b)	2011(a)	2012(b)
9.2 Cargo Handling–Ports and Civil Aviation	7.2	5.7	0.6	0.6	0.7	0.7
9.3 Post and Telecommunication	13.4	7.9	2.9	2.3	1.9	1.9
10. Banking, insurance and real estate etc.	7.9	6.7	8.5	9.3	8.8	8.9
11. Ownership of dwellings	1.2	1.7	0.4	0.7	2.6	2.5
12. Government services	1.2	1.4	1.2	1.6	7.1	6.8
13. Private services	7.2	5.5	2.1	2.0	2.3	2.3
Gross Domestic Product	8.2	6.4	100.0	100.0	100.0	100.0
Net factor income from abroad	4.3	–89.2				
Gross National Product	8.4	5.5				

Note: a: Revised; b: Provisional

Source: Department of Census and Statistics, Government of Sri Lanka.

TABLE 17

SECTOR-WISE PERFORMANCE OF THE INDUSTRY IN SRI LANKA (2005–2012).

Item	2005	2006	2007	2008	2009	2010	2011	2012
Contribution to GDP (LKR billion)	740.9	900.4	1,070.70	1295.5	1434.7	1649.3	1956	2387.7
Contribution to GDP as a percentage	27	28.2	28.5	28.4	28.6	28.7	29.3	30.4
Sector growth rate	8.3	8.1	7.6	5.9	4.2	8.4	10.3	10.3
Number of employees (million)	1.8	1.9	1.9	1.8	1.9	1.8	2	2.1
Employee share of total work force	26.3	26.6	26.6	26.3	25.5	24.6	24.1	26.1
Industrial exports (USD million)	4,935	5,330	5,856	5,990	5,116	6,195	7,902	7,262
As a percentage of total exports	76.8	75.3	74.9	71.8	69.8	69.7	72.4	74.3
FDI inflows to manufacturing sector (USD million)	135.3	234.8	174	189.2	164.5	159.7	322.2	307.66

Source: Department of National Planning, Government of Sri Lanka.

TABLE 18

TRENDS OF INDUSTRY SECTOR PERFORMANCE INDICATORS (% ANNUAL CHANGE).

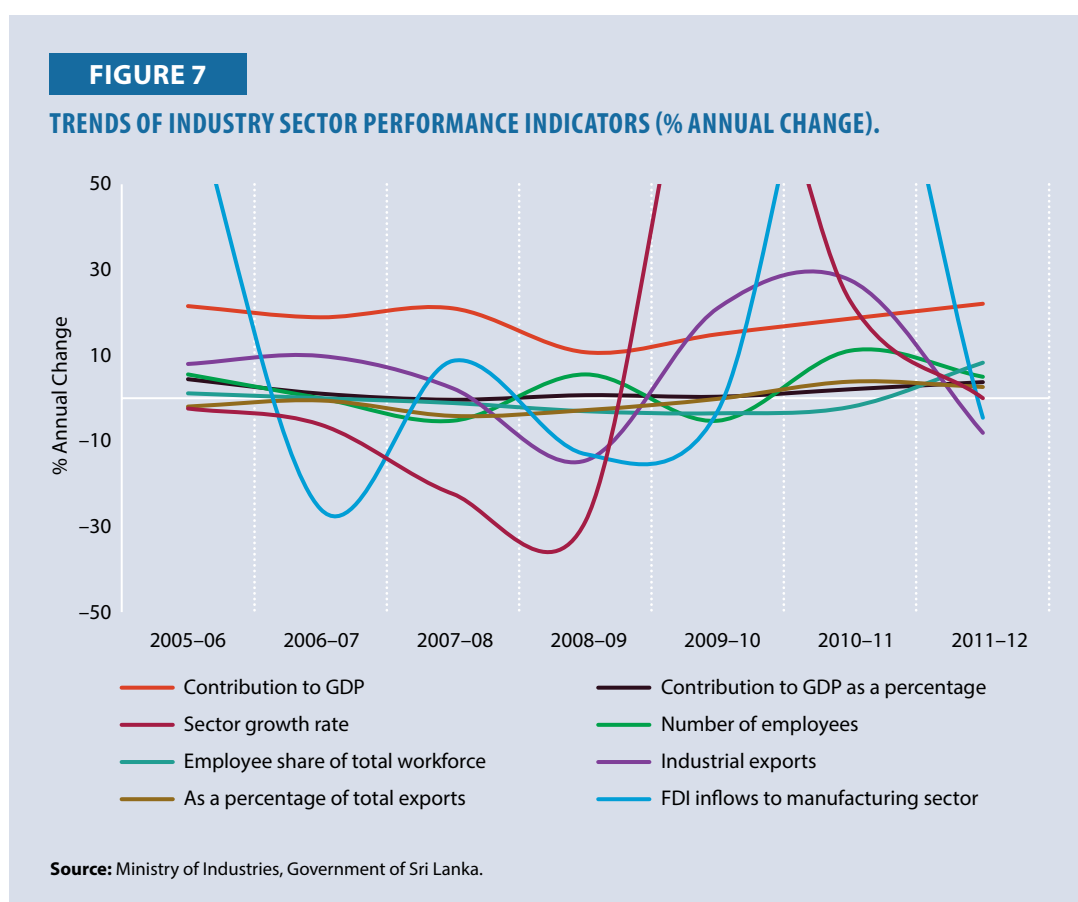
Indicator	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12
Contribution to GDP	21.53	18.91	21.00	10.74	14.96	18.60	22.07
Contribution to GDP as a percentage	4.44	1.06	–0.35	0.70	0.35	2.09	3.75
Sector growth rate	–2.41	–6.17	–22.37	–28.81	100.00	22.62	0.00
Number of employees	5.56	0.00	–5.26	5.56	–5.26	11.11	5.00

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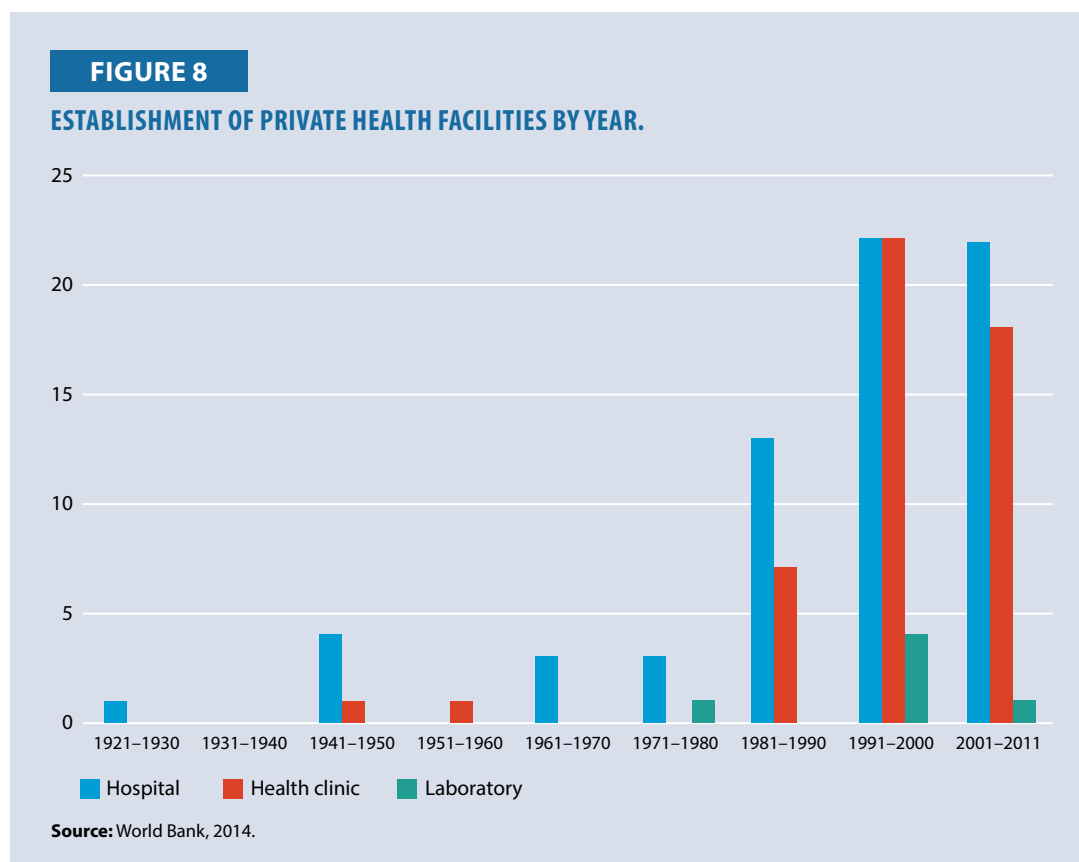
Indicator	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12
Employee's share of the total workforce	1.14	0.00	-1.13	-3.04	-3.53	-2.03	8.30
Industrial exports	8.00	9.87	2.29	-14.59	21.09	27.55	-8.10
As a percentage of total exports	-1.95	-0.53	-4.14	-2.79	-0.14	3.87	2.62
FDI inflows to the manufacturing sector	73.54	-25.89	8.74	-13.05	-2.92	101.88	-4.57

Source: Ministry of Industries, Government of Sri Lanka.



Exploring the question of whether SMEs in Sri Lanka can contribute to achieving SDG 3 of ensuring healthy lives and promoting the well-being of all at all stages, it is evident that private healthcare facilities, falling under the SME category, play an important role in the country's health sector. These facilities are of three types: hospitals (specialized or general), clinics (specialized or general), and laboratories. Private hospitals provide inpatient care, with an estimated 4,210 beds. Approximately 50% of these beds are in Colombo, while the rest are distributed across a few districts such as Kandy, Galle, Kurunegala, and Anuradhapura, with small hospitals or clinics housing around 20 to 30 beds each. The pharmacies, laboratories, imaging facilities, and individual medical practitioners provide ambulatory care. Over half (56%) of the hospitals and 41% of the clinics employ more than five employees. Among them, 66% offer inpatient care. As for bed

capacity, 44% of the health facilities have 1 to 19 beds, another 44% have 20 to 99 beds, and 12% of the health facilities have more than 100 beds. Notably, 72% of all surveyed health facilities had at least one operating theater. [8]



As per the description and the information provided in Figure 9, it can be concluded that SMEs within the health sector have made a substantial contribution towards achieving SDG Goal 3. They are also expected to continue playing a significant role in further achieving this goal by 2030, while they continue to complement the efforts of government healthcare facilitation.

Fundamentals of Competitiveness

Human Capital

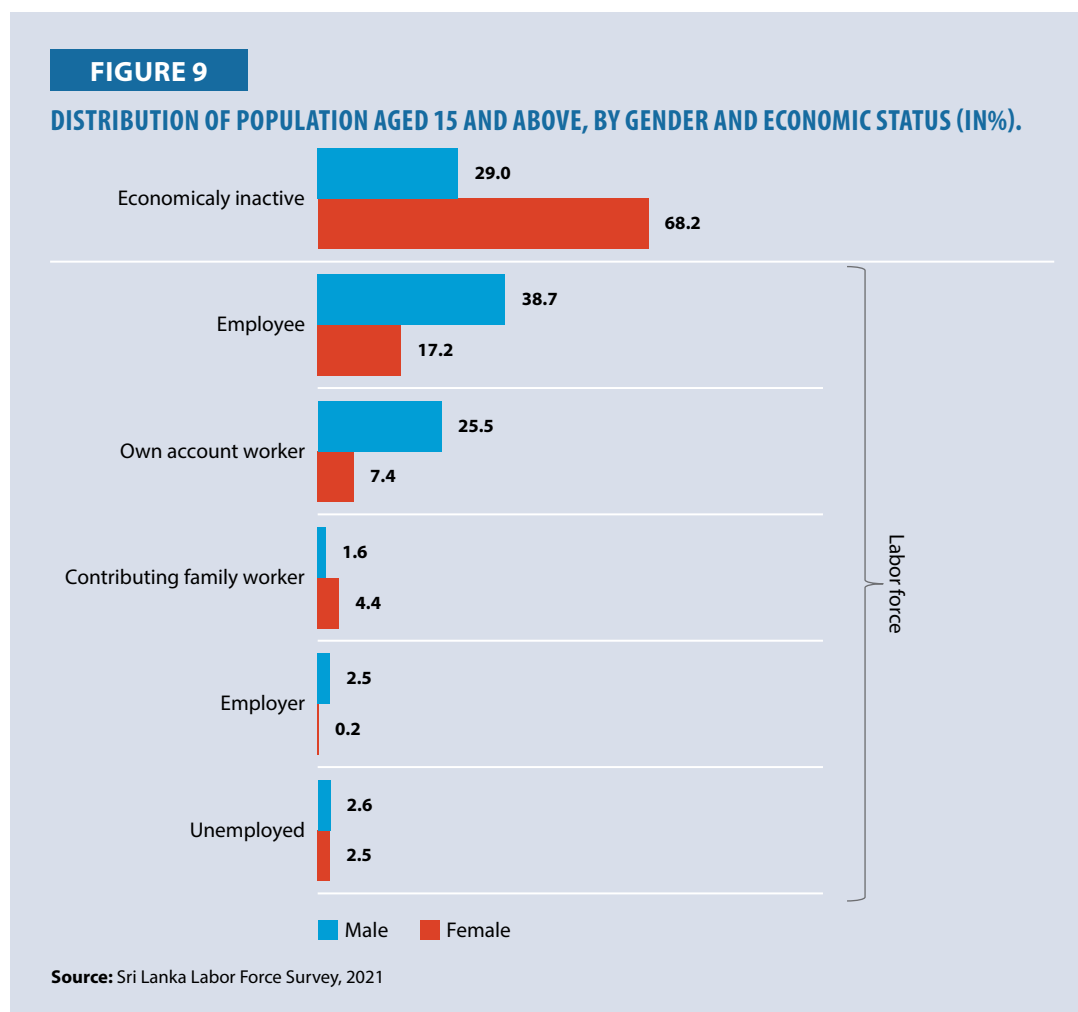
Human development is widely recognized as a crucial factor in the industrialization and modernization of nations. A well-educated population is associated with higher labor productivity and demonstrates greater human capabilities to acquire advanced technology from developed countries [7]. Enhancing human capital sets the stage for a virtuous circle, as it enables the adoption and progress of technology [7]. In the Human Development Index (HDI) published by the United Nations Development Program, Sri Lanka stands at 72 out of 189 countries and territories, indicating ‘High Human Development’ with an HDI value of 0.782.

Workforce Characteristics

The mid-year population of Sri Lanka in 2021 was 22.1 million, out of which 10.7 million were male and 11.4 million were females. Among them, the estimated working age population (15–60 years) stood at 10.82 million. The literacy rate of the working-age population was 93.3%, whereas

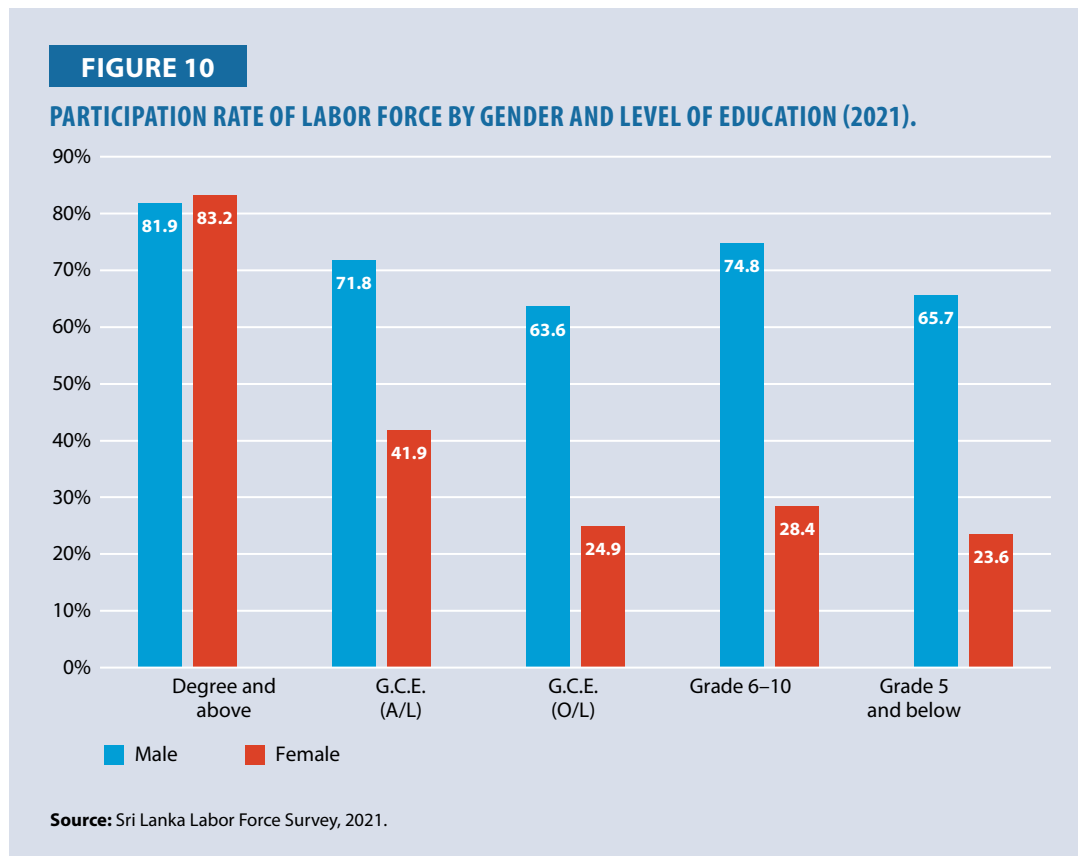
the digital literacy rate of the same population was 57.7% [9]. Since a high literacy rate of the population reflects the strength of the country's workforce, the Report underscores the strength of Sri Lanka's labor force.

Figure 9 provides insights into the distribution of the population aged 15 and above based on gender and economic status. Considering the economic status by gender, the majority of the female population, or 68.2% falls in the economically inactive group, while the majority of the male population is categorized as employees (38.7%) or own workers (25.5%).



Education and Training Level of Employees

The government of Sri Lanka considers education as a fundamental right of its citizens and believes that the country's social development and economic growth, as well as sustainable development, is closely tied with the human capital, which is created through education (National Education Policy). Since 1947, the Sri Lankan government has been committed to providing free education from grade one to the first-degree level in state universities, ensuring equity and equal access to education for all children. This can be seen in the SDG achievement dashboard, where Sri Lanka has made significant strides toward meeting SDG 4. The emphasis on education, spanning from school to university and tertiary levels, plays a crucial role in producing a highly educated and skilled labor force. This in turn, positively impacts employment in the SME sector and pushes them to fulfill the SDG objectives.

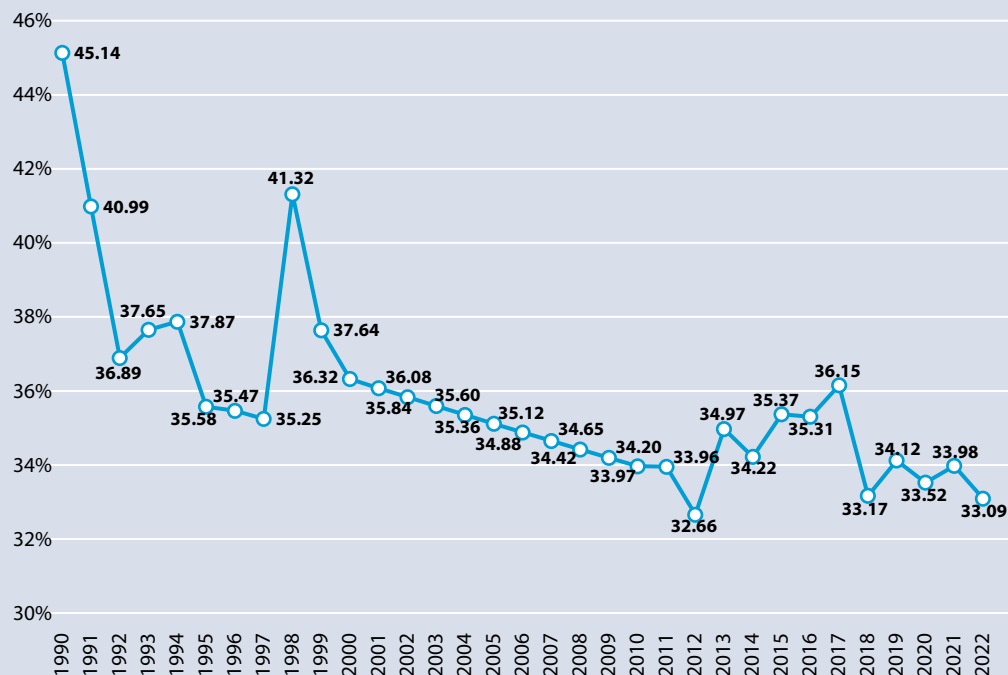


Entrepreneurship and Employment of Women in the Workforce

Despite achieving gender parity in access to education, Sri Lanka faces a significant gender gap in women's economic participation. The disparity is also evident in the SME sector. While SMEs contribute about 52% to Sri Lanka's GDP and account for about half of the country's jobs, only 25% of entrepreneurs in the SME sector are women [4]. This gender imbalance is reflected in the SDG achievement dashboard, which shows the status of achievement of SDG 5 or gender equality as stagnant due to the low female-to-male ratio in the labor force participation rate which stands at 45.1%. These gender inequalities represent missed opportunities to tap into the full potential of women's contributions in an economy with a steadily aging population and projected future labor shortages. Recognizing the significance of addressing this issue, the ADB has been supporting the Government of Sri Lanka in promoting entrepreneurship among women through the Small and Medium-Sized Enterprises Line of Credit Projects, supported by the Women Entrepreneurs Finance Initiative (We-Fi), to meet the gap.

On-the-Job Training for Employees

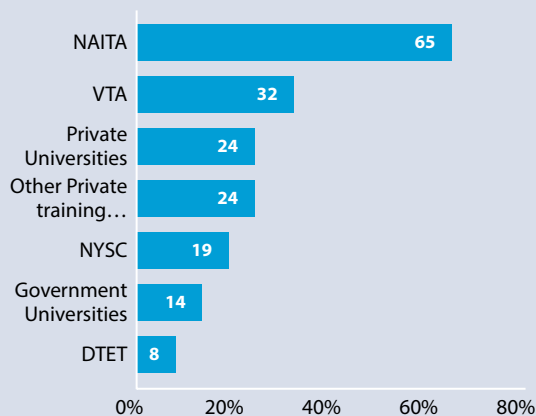
The National Policy on Technical and Vocational Education places significant emphasis on firm-based training, which could be conducted either in-house or externally, by Universities, TVET agencies, private companies, and industry associations. According to research conducted by the Technical and Vocational Education Commission (TVEC), 18.4% of Sri Lankan firms provide training to their employees. While this figure exceeds the South Asian average, it falls considerably below the percentage of firms providing training in East Asia and developed countries. The majority of firm-based training is carried out internally, although some companies also offer external training and in-house training by external providers. Figure 13 shows the snapshot of on-the-job training in the ICT sector.

FIGURE 11**PARTICIPATION RATE OF FEMALE LABOR FORCE IN SRI LANKA. ***

Note: * As a % of the female population above 15 years.
Source: The World Bank.

FIGURE 12**SNAPSHOT OF ON-THE-JOB TRAINING IN THE ICT SECTOR IN SRI LANKA.****On the Job Training****24%**

of companies in the sample provide "on the job training" (OJT) for students who follow ICT related vocational training courses or ICT Undergraduates coming from ..



There is a trend of not giving opportunities for OJT in private financial companies by considering data security and sensitivity

Different occupation categories that On the Job Trainings are being provided are;

- ✓ Data entry operator [57% and Average 6.7 students]
- ✓ IT Assistant [43% and Average 4.6 students]
- ✓ Graphic Designer [24% and Average 10.5 students]
- ✓ Software technician [16% and Average 4.7 students]
- ✓ Hardware technician [16% and Average 17.5 students]
- ✓ Networking technician [5% and Average 2.0 students]
- ✓ Other [19% and Average 6.4 students]

Majority of companies in ICT, BPM and Non ICT sector are giving Job opportunities or hire permanently for students who perform well in the OJT

Source: Tertiary and Vocational Education Commission, Government of Sri Lanka.

Skilling Policies

The National Education Commission Act No. 19 of 1991 has entrusted Tertiary and Vocational Education in Sri Lanka with the responsibility of formulating policy proposals on all aspects of education in the country. One of the key areas of focus for Tertiary and Vocational Education is technical education, which plays a key role in preparing skilled workers of high caliber directly relevant to the labor market. To address the challenges faced by the government in developing a skilled workforce, a significant step was taken by introducing National Vocational Qualifications (NVQ) in 2007. This initiative aimed to break away from the traditional perception of white-collar jobs and foster recognition of technical and vocational employment as professional fields of work. By giving equal importance to Technical and Vocational Education (TVE), the country took a crucial step toward promoting a skilled workforce. Moreover, TVE Act No. 20 of 1990 mandated TVEC to set up a nationally and internationally recognized system to award qualifications on tertiary and vocational education and training, for those who were seeking certificates for employment and other purposes.

Table 19 shows the number of NVQ certificates issued from 2008 to 2021 after the NVQ system was introduced. The NVQ certification policy enhanced the number of skilled workers entering the job market, and its positive impact has also been evident in the SME sector. The implementation of these empowering skilling policies in Sri Lanka is expected to bolster the capabilities of SMEs by providing them with a skilled workforce that can deliver better outputs and higher profits. Therefore, these upskilling policies directly influence the performance of the SME sector, enabling them to help the country in achieving SDG goals, notably SDG 1 (no poverty), SDG 2 (zero hunger), SDG 4 (quality education), SDG 8 (decent work and economic growth), and SDG 9 (industry, innovation, and infrastructure).

TABLE 19
STATUS OF NVQ CERTIFICATES ISSUED.

Institute	Number of NVQ Certificate Issued
Vocational Training Authority	173,089
National Apprenticeship and Industrial Training Authority	99,962
Department of Technical Education and Training	59,026
National Youth Services Council	17,569
Private and Non-governmental Organizations	152,793

Source: Tertiary and Vocational Education Commission, Government of Sri Lanka, 2021.

Finance

Funds Allocated and Disbursed for the Development of SMEs

Small and Medium-Sized Enterprises Line of Credit Project

This project is funded by the Asian Development Bank and its main objective is to establish a line of credit through 13 participating financial institutions (PFIs) to targeted SMEs in Sri Lanka. The project specifically aims to provide financial assistance to SMEs led by women, first-time borrowers, those with insufficient collateral, and those located outside of Colombo. To ensure effective resource allocation, the funds have been distributed among 10 PFIs on a competitive basis.

In addition to the credit line, the project incorporates technical assistance (TA) for developing innovative financial schemes for SMEs and promoting export-oriented cluster development. The

TA is funded by the Japan Fund for Poverty Reduction. Furthermore, the project focuses on creating an enabling environment for women entrepreneurship in Sri Lanka, with the establishment of an ecosystem to support women-led SMEs, backed by the We-Fi.

Loans from the Domestic Banks and Financial Institutions

The Government of Sri Lanka introduced the 'Enterprise Sri Lanka' program in 2015 to provide loan facilities to foster the development of SMEs. The program specifically targets small enterprises with an annual turnover ranging between LKR10 million to LKR250 million and employs a workforce of five to 50 individuals. Eligible SMEs engaged in agriculture, fisheries, ornamental fisheries, livestock, floriculture, horticulture, light engineering, printing, tourism, handicrafts, apparel, information technology, manufacturing industry, and renewable energy sectors benefitted from this scheme.

Taxation Policy

Established in 1932, the Inland Revenue Department is the main authority that collects taxes in Sri Lanka. The country has a self-assessment payment system in which every taxpayer is supposed to assess their liability on their own and pay relevant tax in line with the tax rules and regulations. The main revenue source for the government is Income Tax, Value Added Tax, Economic Service Charge, Nation Building Tax, Betting and Gaming Levy, Stamp Duty, Share Transaction Levy, Remittance Fee, and Tax on Voluntary Disclosure, etc. To promote SMEs and support their growth, the government has made provisions for a special tax rate of 14% on taxable income as compared to the standard 24% tax that is applicable for other businesses.

TABLE 20

TAX RATES FOR COMPANIES IN SRI LANKA.

Type of Tax Rate	Business Category	Tax Rate (in %)
Standard rate	Taxable income of a company (other than companies taxed at special rates).	24
Special rate	Gains and profits from the business of small and medium enterprises (excluding the business of betting and gaming or from the sale of liquor other than those gains and profits are merely incidental to another business).	14

Source: Department of Inland Revenue, Government of Sri Lanka.

TABLE 21

COMPARISON OF CORPORATE AND NON-CORPORATE INCOME TAX COLLECTION.

	2021		2020	
	Tax Collection (LKR)	In %	Tax Collection (LKR)	In %
Corporate*	251,830,847,280	84	214,461,197,787	85
Non-Corporate**	48,713,743,993	16	38,480,375,114	15
Total	300,544,591,273	100	252,941,572,901	100

*Includes Dividends Tax of Rs. 483 Mn in 2021 & Rs. 4,311 Mn in 2020

**Includes WHT and Income Tax paid by employees under Pay as You Earn (PAYE) scheme

Source: Annual Performance Report, 2021, Department of Inland Revenue, Government of Sri Lanka.

Technology and Innovation Capacity

According to the Action Plan for 2016, the National Policy Framework for SME development has identified Access to Technology as a key factor in fostering sustainable SME growth. In line with this, the Information and Communication Technology Agency (ICTA), the authorized government body for ICT in the country, has implemented ‘Sri Lanka Go Digital’, a digital transformation and technology adoption program. The initiative aims to enlighten and empower entrepreneurs from regional SMEs across all industries and sectors by equipping them with a wealth of knowledge on the importance of embracing digital technologies to uplift their businesses.

TABLE 22

GROSS DOMESTIC EXPENDITURE FOR RESEARCH AND DEVELOPMENT BY SECTOR.

	2015		2016		2017		2018	
	LKR Million	% of GDP	LKR Million	% of GDP	LKR Million	% of GDP	LKR Million	% of GDP
Government R&D institutes	4,062.50	0.036	5,391.80	0.046	6,310.74	0.047	6,497.77	0.045
Higher education sector	3,795.30	0.034	3,147.20	0.027	3,774.10	0.028	7,295.28	0.051
Business enterprises	4,004.20	0.036	6,784.00	0.057	6,809.20	0.051	4,302.92	0.030
Private non-profit	42.10	0.000	96.30	0.001	109.30	0.001	247.95	0.002
Total	11,904.10	0.106	15,419.30	0.130	17,003.34	0.128	18,343.92	0.128

Source: Sustainable Development Council, Government of Sri Lanka.

Table 22 presents the gross domestic expenditure for research and development that contributed to achieving SDG goal 9, particularly target 9.5.1. But the current level of expenditure does not yet meet the satisfactory level.

Regulatory and Business Environment

Intellectual property for industrial property includes patents for inventions, trademarks and service marks, industrial designs, and Geographical Indications. The current intellectual property legal regime in Sri Lanka is governed by the Intellectual Property Act, No. 36 of 2003, which has provisions for a variety of intellectual property rights, their acquisition, management, and enforcement. The National Intellectual Property Office of Sri Lanka, established under this law is the government department responsible for the administration and control of the intellectual property system in the country. Regulations made under the Intellectual Property Act have been published in the following Gazette notifications.

- Gazette Extraordinary No. 1415/18 of 10th October 2005
- Gazette Extraordinary No. 1455/10 of 17th May 2006
- Gazette Extraordinary No. 1527/18 of 13th December 2007

The Department of the Registrar of Companies is the authorized government body that facilitates registering a new business. Efficient and effective implementation, administration, and enforcement of Companies Act No. 7 of 2007 is done by the eRoc system, making business registration easy. The Department of Labor is the public institution responsible for upholding the rights at work and establishing social protection of workers in the private and semi-government sectors, by implementing labor laws. The following are the main labor protection laws in Sri Lanka.

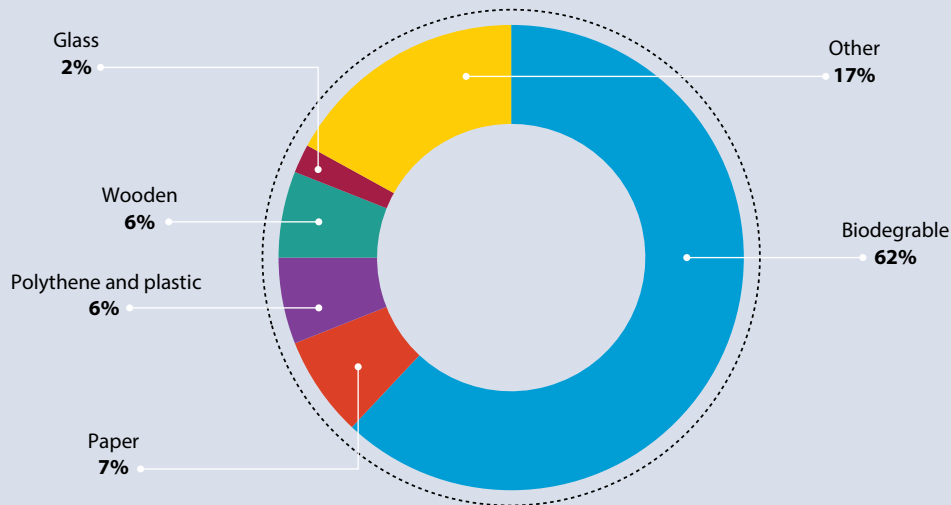
- Industrial Disputes Act No. 43 of 1950
- Gratuity Act No. 12 of 1983
- Termination of Employment of Workers' (Special Provisions) Act No. 45 of 1971
- Trade Unions Ordinance No. 14 of 1935
- Wages Boards Ordinance No. 27 of 1941
- Shop and Office Employees (Regulation of Employment and Remuneration) Act No. 19 of 1954
- Budgetary Relief Allowance of Workers Act No. 36 of 2005
- National Minimum Wages of Workers Act No. 03 of 2016
- Budgetary Relief Allowance of Workers Act No. 04 of 2016
- Employment of Women, Young Persons and Children Act No. 47 of 1956
- Maternity Benefits Ordinance No.32 of 1939
- Employees Provident Fund Act No. 15 of 1958

Environmental Factors

The Central Environmental Authority (CEA) is one of the main implementing arms of the national environmental policy, operating under the purview of the Ministry of Environment. The CEA was established in 1981 under the National Environmental Act (NEA) No. 47 of 1980 and with the emerging changes in world environmental concerns, the NEA No 47 of 1980 has been amended in 1988 and 2000.

The CEA, together with the municipal councils and other government institutions, implemented a waste management project to spread awareness and to provide proper waste management facilities to protect the environment. The CEA has also emphasized building resilience for climate change and is on track to achieving SDG 13 on climate action. In Sri Lanka, most of the SMEs were vulnerable to and affected by natural disasters like floods and landslides. In 2016 and 2017, the government took several actions to achieve SDG 13, which created a better environment for SMEs to operate and contribute to economic activities in the present and the future.

FIGURE 13
TYPE OF WASTE IN SRI LANKA.



Source: Central Environmental Authority, Government of Sri Lanka.

External Environmental Factors and Local Environment

Institutional Support for the Development of SMEs

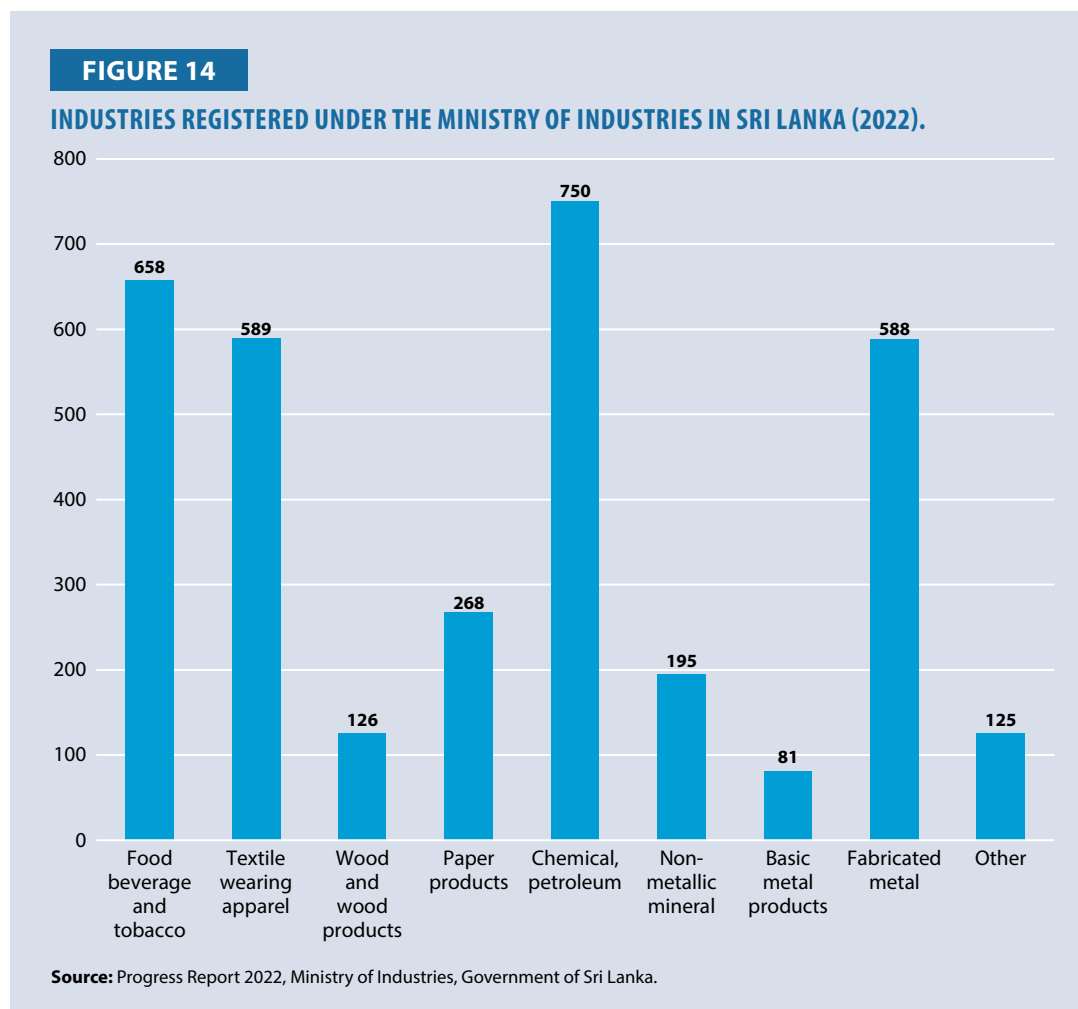
Despite their crucial role in economic development, SMEs face significant challenges in terms of survival, with only a 20% success rate, and a staggering 80% of the SMEs failing within the first five years of operation. The reasons for this failure vary and may include factors like inefficient management, inadequate handling of the business processes, lack of standardization, and structural inflexibility. Recognizing the importance of addressing these issues, successive governments since independence have taken various steps to uplift the SME sector. This is reflected in the establishment of various institutions by the government and the launching of various programs to support the sector. By creating and implementing these initiatives, Sri Lanka endeavors to provide much-needed assistance to SMEs, enabling them to overcome challenges and thrive in a competitive market.

Ministry of Industries

The Ministry of Industries plays a dynamic role in the development of the industrial sector. It is the key ministry responsible for promoting industrial development in the country within the wide policy framework of the government. The Ministry has also implemented many programs and projects to strengthen the contribution of the MSME sectors to the national economy. They also contributed to achieving sustainable industrial development through necessary interventions to solve the problems related to raw materials, energy, and fuel faced by local industrialists, with special emphasis on their protection and promotion [11].

The ministry has undertaken several initiatives to introduce the National Policy for Industrial Development, which has been prepared and finalized to raise the country's industrial sector to level 4.0. The key objective of this policy is to create an industrial sector that can benefit everyone by fostering a conducive business environment for providing the necessary certification and guidance to the industry. The government also implemented a national program aimed at establishing small and medium industrial zones at the local and district levels. The program was implemented by the ministry to provide land for various types of investments. The industrial zones cater to new

investments, export-oriented industries, and import substitution industries. They also accommodate investments in MSMEs already operating in the respective areas, as well as ventures initiated by new entrepreneurs. Traditional local industrialists, entrepreneurs making products using local raw materials, and technology-based investments with the potential to impact the local economy are also supported under the program [12]. Strengthening the local economy through SMEs will contribute directly to achieving SDG 8 and 9, and indirectly to goals 1, 2, and 5.



Ceylon Chamber of Commerce, Ceylon Institute of Scientific and Industrial Research, Industrial Technology Institute, and Industrial Development Board, are the main statutory bodies under the purview of the ministry responsible for facilitating the SMEs and maintaining a conducive business environment.

Sri Lanka Standard Institution (SLSI): The SLSI serves as the national body responsible for formulating and regulating standards and SLS certification. Recognizing the important role it plays, the organization has been actively supporting and promoting SMEs and entrepreneurialism in Sri Lanka, considering SMEs as the backbone of the nation's economy. Accordingly, SLSI has conducted a multitude of awareness programs, workshops, and training sessions targeted toward over 1,000 small and medium-scale entrepreneurs from September 2021 to September 2022. These programs were conducted with a view of developing Sri Lanka's SME sector, thereby helping to strengthen the overall national economy.

Small Enterprise Development Division (SEDD): The self-employment programs assisted by the Ministry of Youth Affairs and Sports (MYUAS), as well as several NGOs, and private institutions, have also helped the promotion of the SME sector in the country. To strengthen it further, a separate SEDD was established under the MYUAS in 1984, with the objectives of formulating strategies and policies for stimulating self-employment and small-scale enterprises. Currently, SEDD operates across the country playing a crucial role in empowering SMEs in human resource development, marketing, and entrepreneurship development.

Policy Actions

The National Policy Framework that was introduced by the Ministry of Industries and Commerce has the vision to create a significant number of globally competitive, dynamic, innovative, technologically driven, eco-friendly, and sustainable SMEs that can contribute greatly to national economic development. On the other hand, the Department of Commerce is issuing preferential Certificates of Origin for exporters, and several verification and approval processes to the EU self-declaration Registered Exporter system. They support exporters under the EU GSP, Indo-Lanka Free Trade Agreement, SARRC Preferential Trading Agreement, Asia-Pacific Trade Agreement, and Singapore-Sri Lanka Free Trade Agreement. These policies facilitate SMEs to access the export market easily to generate foreign exchange which contributes to the country's economy.

Global Environment

Global Competitiveness Index

Among the various indicators used to assess competitiveness or productivity, the Global Competitiveness Index holds a prominent position, standing out as the most widely recognized and respected index. The Global Competitiveness Report's significance lies in its ability to provide an overall ranking of the country's performance across 12 different areas, referred to as the 12 pillars. These include institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation. Hence, The Global Competitiveness Report is a good source to study and compare how countries have performed and played their role in the context of development. The Global Competitiveness Report is issued by the World Economic Forum, Geneva.

TABLE 23

GLOBAL COMPETITIVENESS INDEX RANKING OF APO MEMBER COUNTRIES.

Country	Value (0-100)	Rank (Among 141 Countries Surveyed)	
	2019	2019	2018
Singapore	84.8	1	2
Hong Kong	83.1	3	7
Japan	82.3	6	5
ROC	80.2	12	13
ROK	79.6	13	15
Malaysia	74.6	27	25

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Country	Value (0–100)	Rank (Among 141 Countries Surveyed)	
	2019	2019	2018
Thailand	68.1	40	38
Indonesia	64.6	50	45
Philippines	61.9	64	56
Vietnam	61.5	67	77
India	61.4	68	58
Sri Lanka	57.1	84	85
Iran	53.0	99	89
Mongolia	52.6	102	99
Bangladesh	52.1	105	103
Cambodia	52.1	106	110
Nepal	51.6	108	109
Pakistan	51.4	110	107
Lao PDR	50.1	113	112
Fiji	NA	NA	NA

Source: Global Competitiveness Report (GCI) 2018 and 2019. World Economic Forum.

Table 23 highlights the performance of the APO member economies with the overall evaluation of 12 pillars illustrated in the Global Competitiveness Index. Sri Lanka scored 57.1 out of 100 and ranked 84 among the 141 countries that participated.







TABLE 24

SRI LANKA'S GCI RANKING ACROSS 12 PILLARS.

Description	Rank	Score (0–100)	Change (2018 to 2019)
Basic Requirements (40%)			
1st Pillar: Institutions	79	51.6	
2nd Pillar: Infrastructure	61	69.2	
3rd Pillar: ICT Adoption	107	40.3	
4th Pillar: Macro economic stability	118	68	
Efficiency Enhancers (50%)			
5th Pillar: Health	43	87.1	
6th Pillar: Skills	66	63.8	

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Description	Rank	Score (0–100)	Change (2018 to 2019)
7th Pillar: Product market	131	43.2	
8th Pillar: Labor market	118	51.8	
9th Pillar: Financial market	87	56.9	
10th Pillar: Market size	58	58.4	
Innovation and Sophistication (10%)			
11th Pillar: Business dynamism	70	60	
12th Pillar: Innovation	84	34.9	

Source: Global Competitiveness Report (GCI) 2018 and 2019. World Economic Forum.

All the other pillars except Macro Economic Stability and Product Market showed small improvements in 2019 when compared to the year 2018. This is shown in Table 24. All these pillars positively influence the improvement of productivity and competitiveness in the SME sector. ICT adoption, Product Market, and Innovation had lower scores of below 50 out of 100 scores.

TABLE 25**MOST PROBLEMATIC SUB INDICATORS FOR SRI LANKA IN 12 PILLARS OF GCI 2019.**

Description	2019 Score (Out of 100)	2018 Score (Out of 100)
The efficiency of the legal framework in challenging regulations	40.6	31.1
The burden of government regulation	33.8	29.4
Incidence of corruption	38	38
Quality of land administration	18.3	8.3
Government's responsiveness to change	38.2	–
Legal framework's adaptability to digital business models	37.3	–
Government's long-term vision	38.6	–
Internet users % of the adult population	34.1	32.1
Trade openness	38.4	61.8
Trade tariffs	18.6	14.7
Border clearance efficiency	39.6	–
Active labor market policies	43.6	33.1
The ratio of wage and salaried female workers to male workers	31.7	–
Venture capital availability	38.5	32.5

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Description	2019 Score (Out of 100)	2018 Score (Out of 100)
Market capitalization	23.5	26.2
International co-inventions	2.6	1.7
Patent applications	3.8	3.3
R&D Expenditure	3.6	3.4
Research institutions prominence	2.3	–

Source: Global Competitiveness Report (GCI) 2018 and 2019, World Economic Forum.

Table 25 shows the most critical areas that have to be considered in the development of the SME sector in Sri Lanka. Since these sub-indicators are adversely affecting the development of SMEs, they should be closely monitored and taken into serious consideration during the process of policy formulation, to eliminate the barriers to strengthening the SMEs in the country. The country has scored below 50 in all the sub-indicators identified in Table 25. Of these factors, Sri Lanka has obtained very low scores in trade tariffs, international co-inventions, patent applications, R&D expenditure, and prominence of research institutions, which indicates that SMEs are far from contributing to the national goal of achieving SDGs [13].

Ease of Doing Business Index 2020

Ease of Doing Business measures aspects of business regulation and their implications for establishment and operations. It includes the most important issues that are relevant for businesses' decisions which are under the control of policymakers.

Sri Lanka ranked 99 out of 190 countries in the index, scoring 61.8 out of 100 marks. The following criteria are considered for the preparation of the Ease of Doing Business Index.

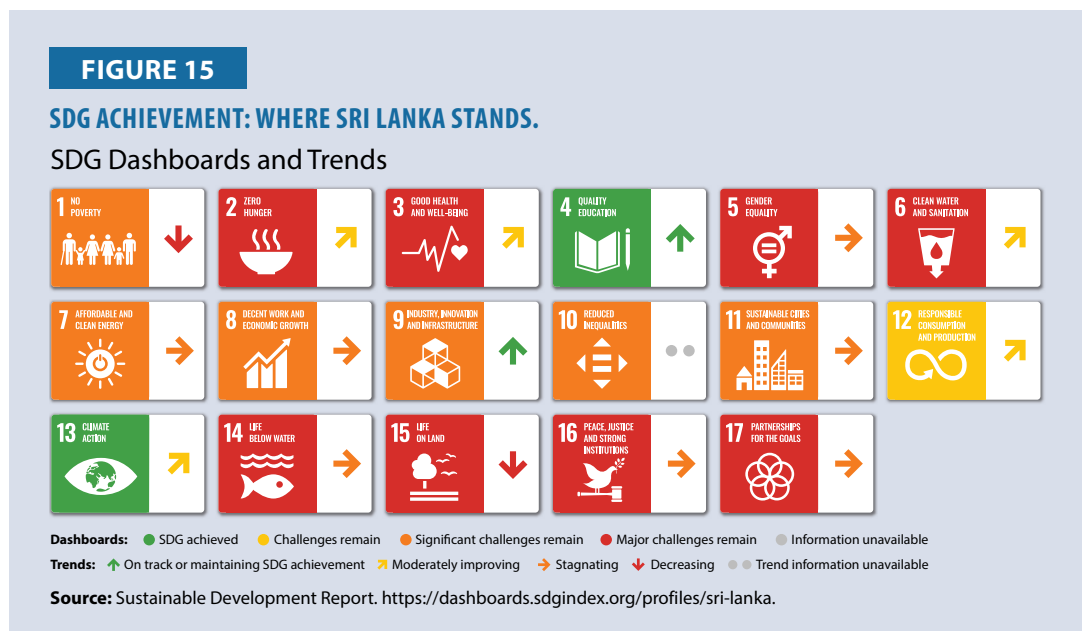
1. Starting a business	}	Opening a business
2. Employing workers		
3. Dealing with construction permits	}	Getting location
4. Getting electricity		
5. Registering property		
6. Getting credit	}	Accessing finance
7. Protecting minority investors		
8. Paying taxes	}	Dealing with day-to-day finance
9. Trading across borders		
10. Contracting with the government		
11. Enforcing contracts	}	Operating in a secure business unit
12. Resolving insolvency		

Policy Recommendations

The National Policy Framework of the government in Sri Lanka consists of ten key policies aimed at achieving the fourfold outcome of a productive citizenry, a contented family, a disciplined and just society, and a prosperous nation. The ten key policies have been implemented considering the socioeconomic, environmental, and political aspects of the country.

- Priority to national security
- Friendly, non-aligned, foreign policy
- An administration free from corruption
- New constitution that fulfills peoples' wishes
- Productive citizenry and a vibrant human resource
- People-centric economic development
- Technology-based society
- Development of physical resources
- Sustainable environmental management
- Disciplined, law-abiding, and values-based society.

The Way Forward



The main issue faced by the SMEs in Sri Lanka is the breakdown of their supply chain due to COVID-19 lockdowns and curfews and the economic crises that followed. Moreover, the majority of them faced

working capital problems due to delays in receiving the payments for the goods supplied by them, while other income sources also shrunk. Price escalation of raw materials due to limited availability during the pandemic and reduction of foreign earnings also affected their operations. Even though the government initiated several relief measures, it did not improve the cash flow among the SMEs. The critical challenge of the government at present is to implement measures for the sustenance of businesses and minimizing job losses. The government can take the following measures can strengthen the SME sector in Sri Lanka and to enable them to deal with current challenges effectively.

- To deal with the critical economic downturn in Sri Lanka, the country must implement strategies that will revive economic activities and move towards a concrete program that can help retain jobs in the SME sector.
- Government authorities recognize that there is a need to restructure and revitalize the development and facilitation of the SME sector. Re-structuring is important to enhance the quality of SMEs and to foster their growth, enabling them to meet the changing local and global market needs.
- The pandemic created new opportunities, especially for agro-based value-addition processes, which could contribute to expanding the agro-based SMEs. Therefore, authorities should pay attention to these new opportunities and take necessary actions to promote the innovations done by students and SMEs during the pandemic and develop these basic ideas to a commercial level.
- Although the Government of Sri Lanka has granted relief packages, most of the entrepreneurs have not been able to reap the benefits due to a lack of awareness and inability to meet the requirements of the banks. Therefore, relevant authorities who are responsible for SME development should pay more attention to this.
- The government should pay more attention to ICT infrastructure development and facilitate the recovery of the supply chain of the SME to ensure continuity of operation.
- The government must appoint a Task Force, or a Coordinating Body without delay for a concerted effort to assist the SMEs to revive businesses, by identifying gaps and drawing up strategies, to coordinate to avoid duplication, and resource optimization of Business Development Service providers, and to develop a mechanism that provides one-to-one coaching and guiding sessions focused on generating working capital, reviving the supply chain, developing marketing links, and business continuity plans.

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THAILAND

Introduction

The GDP of Thailand experienced a slight increase, rising from USD350 billion in 2013 to USD496 billion in 2019. However, in 2020, the GDP dropped to USD462 billion. Despite its overall decline, there was a minor growth in 2021, with the GDP reaching USD467 billion. Similarly, the contribution of MSMEs to the National GDP showed a steady increase, starting from USD131 billion and reaching USD206 billion by 2018. However, in 2020, the sector's contribution slid to USD158 billion. The sector registered minor growth in 2021, with its contribution increasing to USD165 billion. The trend is illustrated in Figure 1.

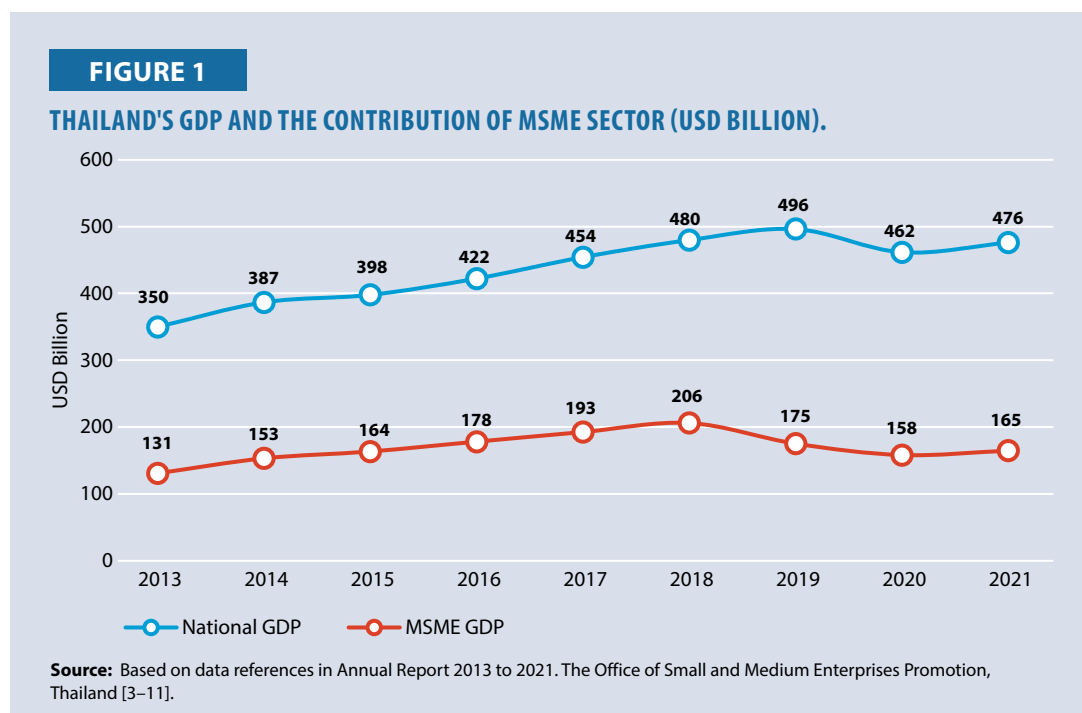
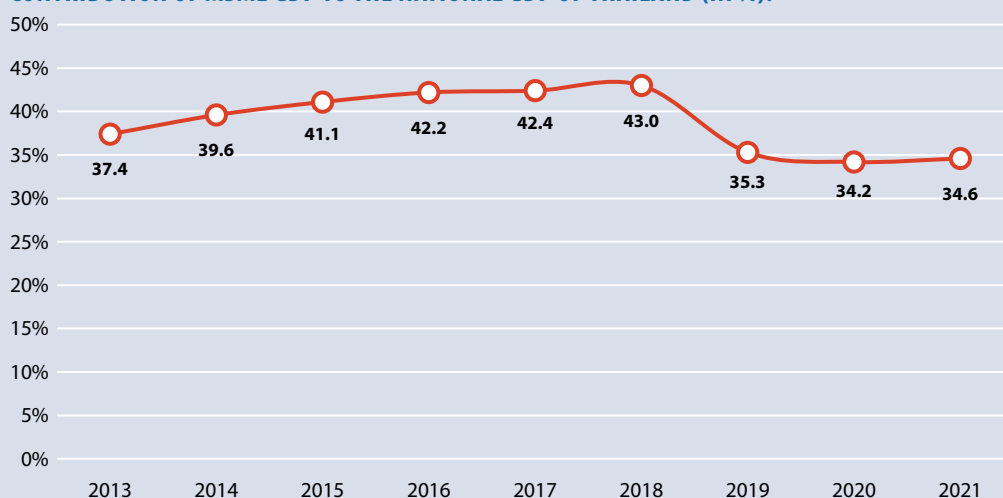


Figure 2 depicts the contribution of the MSME sector to the overall GDP of Thailand in percentage terms. From 2013 to 2018, the contribution of MSMEs to the National GDP experienced a slight increase, rising from 37.4% to 43.0%. However, due to the implementation of a new definition for MSMEs, the sector's contribution to the National GDP dropped to 35.3% in 2019. With the introduction of the new definition, the average contribution of MSME GDP to the National GDP decreased by approximately 8.0% compared to the previous definition. Nevertheless, the new definition allowed for the calculation of the MSME GDP value in the agricultural sector, which was not possible under the previous definition.

The growth rates of both the National GDP and the MSME GDP can be seen clearly in Figure 3. From 2013 to 2019, the growth rates of the National GDP ranged between 0.9% and 4.1%, with an average of approximately 3.0%. However, a significant drop in the growth rate occurred in 2020, with a decrease of -6.1%. The following year, in 2021, the National GDP experienced positive

FIGURE 2

CONTRIBUTION OF MSME GDP TO THE NATIONAL GDP OF THAILAND (IN %).

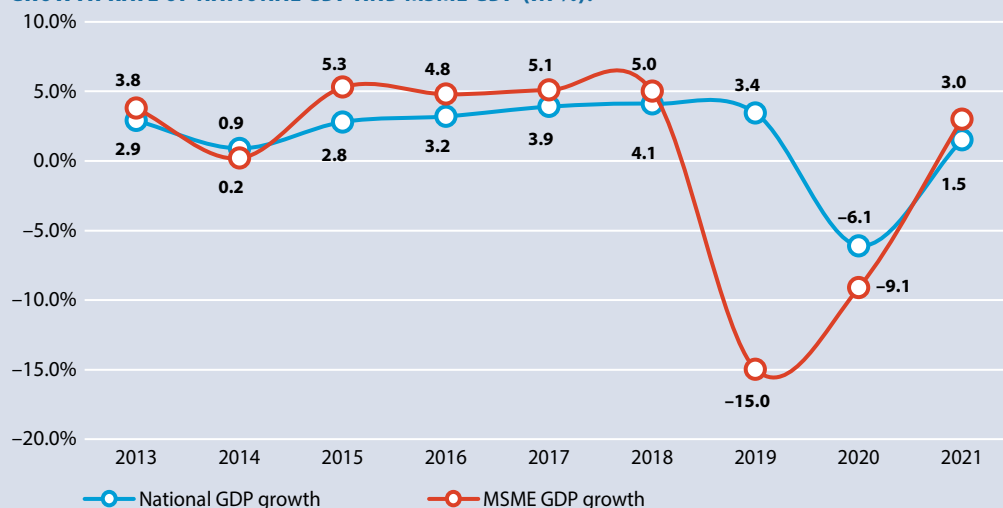


Source: Based on data references in Annual Report 2013 to 2021. The Office of Small and Medium Enterprises Promotion, Thailand [3–11].

growth. In contrast, the average growth rate of the MSME GDP from 2013 to 2018 was around 4.0%. However, in 2019, there was a dramatic decline with the growth rate dropping to -15.0%. The downward trend continued in 2020 with a drop to -9.1%. Fortunately, the MSME GDP regained positive growth in 2021.

FIGURE 3

GROWTH RATE OF NATIONAL GDP AND MSME GDP (IN %).



Source: Based on data references in Annual Report 2013 to 2021. The Office of Small and Medium Enterprises Promotion, Thailand [3–11].

The COVID-19 pandemic had a clear impact on the National GDP in 2020. However, the decline in the MSME GDP began a year earlier, primarily due to the introduction of the new definition of MSME. It was also hit by the COVID-19 pandemic in the following year. Although

both the National GDP and MSME GDP experienced positive growth rates in 2021, they remained lower than the pre-pandemic levels, reflecting the widespread impact of COVID-19 on the global economy.

Structure of MSMEs in Terms of GDP

Figure 4 illustrates the structure of MSMEs in terms of GDP value. From 2013 to 2018, the MSME sector included two categories of enterprises, namely medium (ME) and small enterprises (SE). However, with the introduction of the new MSME definition, the sector expanded to include three categories of enterprises: medium (ME), small enterprises (SE), and micro enterprises (MicroE) during 2019–21.

From 2013 to 2018, the majority of the MSME GDP value came from SE, with the GDP value steadily increasing from USD89 billion to USD147 billion. The remaining portion of the MSME GDP value came from ME, which also experienced a steady increase in GDP value from USD42 billion to USD59 billion. However, starting in 2019 due to the implementation of the new MSME definition, the majority of MSME GDP value shifted to ME, surpassing SE by a margin of 2–3%. This change can be seen in Figure 5. Additionally, a contribution to the MSME GDP value came from MicroE, which accounted for around 3% of the National GDP after the new definition was implemented.

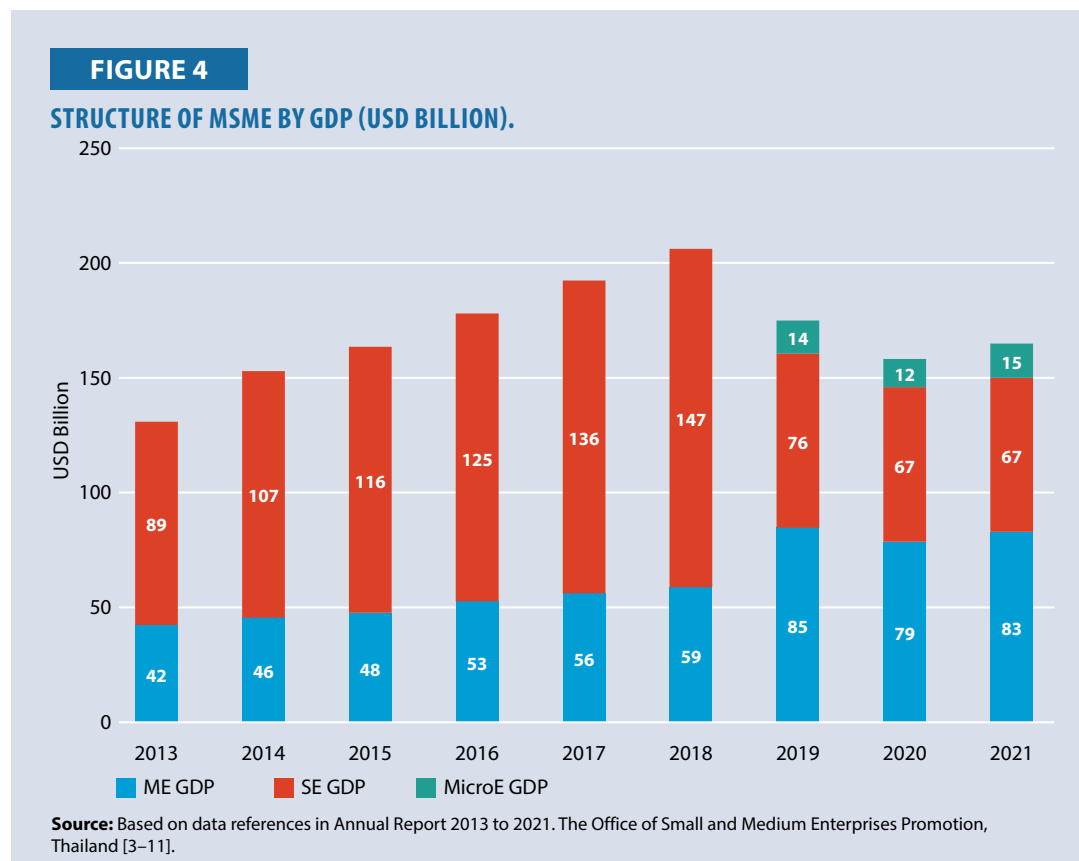
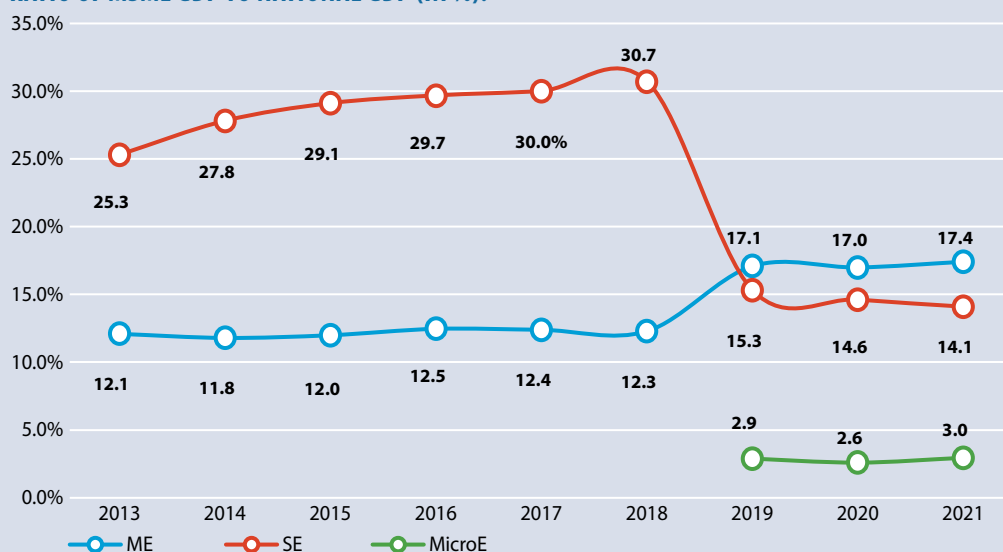


Figure 6 displays the growth rate of MSMEs in terms of GDP by sector (size). From 2013 to 2018, the growth rate of ME GDP experienced positive fluctuations, reaching up to 10%. In 2019, following the implementation of the new definition of MSMEs, the growth rate of ME GDP significantly jumped to 39%. It, however, dropped to -7% in 2020, before recovering to a positive value in 2021. A similar pattern of fluctuating growth rate was observed in the case of SEs during

FIGURE 5

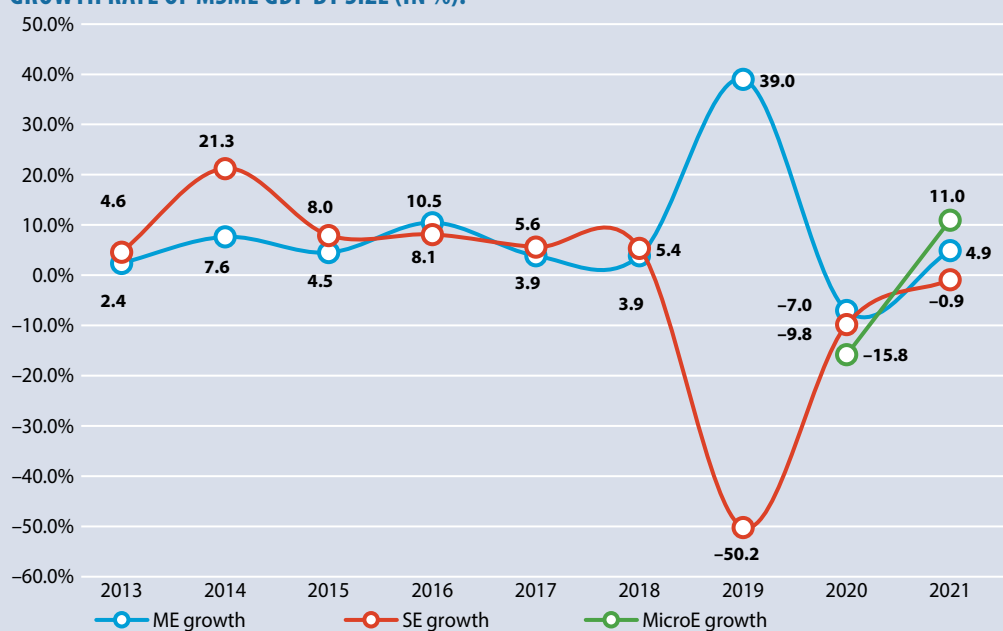
RATIO OF MSME GDP TO NATIONAL GDP (IN %).



Source: Based on data references in Annual Report 2013 to 2021. The Office of Small and Medium Enterprises Promotion, Thailand [3-11].

FIGURE 6

GROWTH RATE OF MSME GDP BY SIZE (IN %).



Source: Based on data references in Annual Report 2013 to 2021. The Office of Small and Medium Enterprises Promotion, Thailand [3-11].

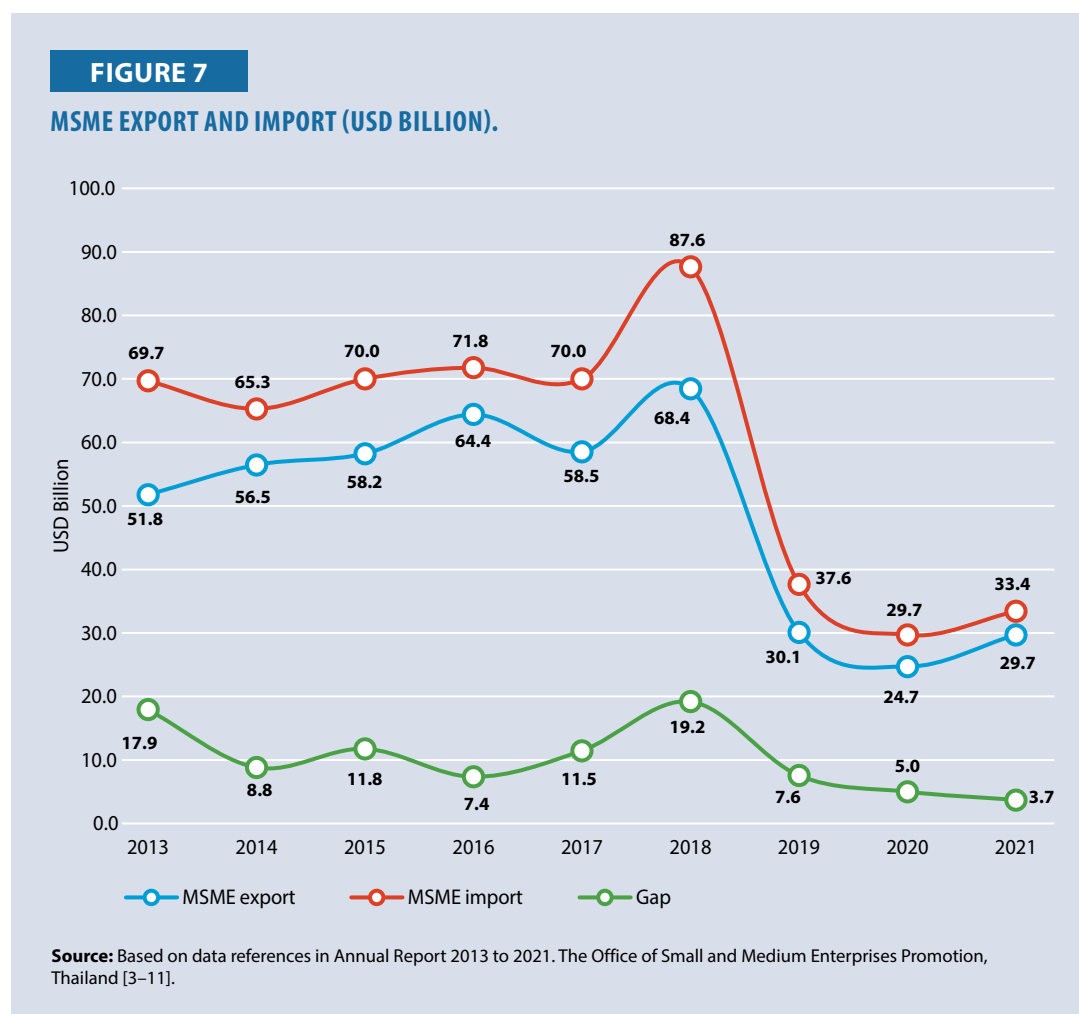
the period 2013–18. However, with the introduction of the new definition of MSME, there was a dramatic drop to -50% in the growth rate of SE GDP in 2019. Subsequently, due to the adverse effects of the COVID-19 pandemic, the growth rate of SE GDP remained negative in 2020 and 2021, recording -9.8% and -0.9%, respectively.

Export and Import by MSMEs

The export and import value of MSMEs, from 2013 to 2021, is illustrated in Figure 7. As evident, the export value was consistently lower than the import value throughout the years. The gap between the export and import value from MSMEs experienced fluctuations during the period from 2013 to 2021. From 2013 to 2018, the average gap value was approximately USD12.7 billion. However, after 2018 the average gap value decreased to around USD5.4 billion. This indicates a smaller difference between the export and import values of MSMEs in the latter part of the period under consideration.

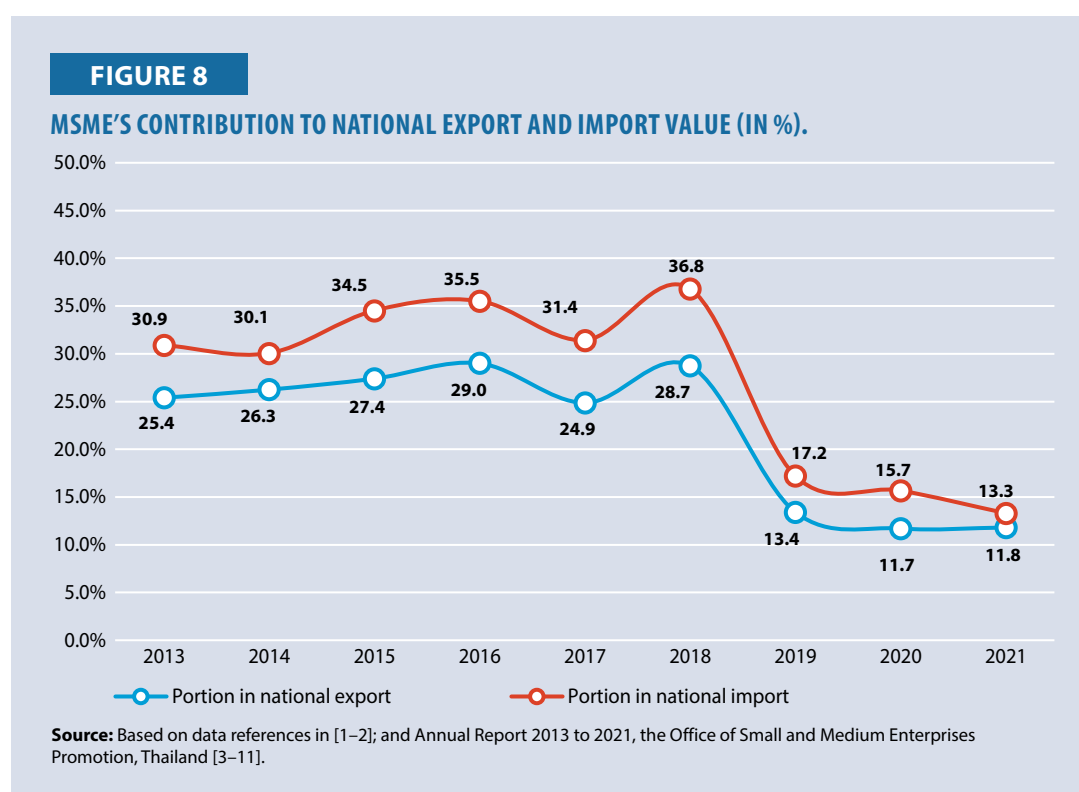
From 2013 to 2018, the export value of MSMEs increased slightly from USD51.8 billion to USD68.4 billion, with an average growth rate of around USD3.3 billion per year, except for a drop in 2017. In 2019, the export value of MSMEs declined sharply to USD30.1 billion, which accounted for approximately 44% of the export value in 2018. This low level of export value persisted until 2021, indicating a challenging period for MSMEs in terms of international trade.

Similarly, the import value of MSMEs exhibited a similar trend from 2013 to 2018, increasing slightly from USD69.7 billion to USD87.6 billion, with an average growth rate of approximately USD3.6 billion per year, with two drops in 2014 and 2017. However, in 2019, the import value of MSMEs decreased abruptly to USD37.6 billion, nearly 40% of the import value recorded in 2018. The import value remained at this low level till 2021.



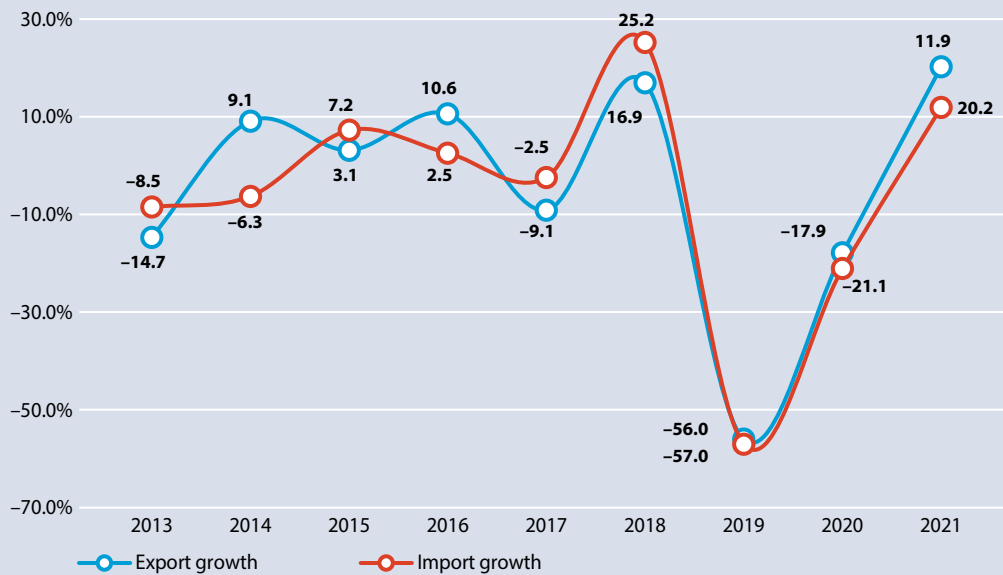
The contribution of the export and import value of MSMEs to the national export and import value during the period from 2013 to 2021 is shown in Figure 8. The size of the export value of MSMEs in national export value, during the period, increased marginally from 25.4% to 28.7%, with an average growth rate of approximately 0.6% per year, except for one drop in 2017. In 2019, the proportion of the export value contributed by MSMEs in the national export value abruptly decreased to 13.4%, around 46% lower than the value recorded in 2018. This downward trend continued, with the proportion of MSMEs in the national export value remaining lower until 2021.

The proportion of the import value of MSMEs in the national import value during 2013–18 increased slightly, rising from 30.9% to 36.8%, with an average growth rate of around 1.2% per year, except for two drops occurring in 2014 and 2017. In 2019, the size of the import value of MSMEs in the national import value experienced a significant decline, dropping abruptly to 17.2%, approximately 46% of the proportion recorded in 2018. This downward trend till 2021. This situation mirrors the trend observed in the size of the export value of MSMEs as compared to the national export value.



The growth of the export and import value of MSMEs during 2013–21 is illustrated in Figure 9. The growth rate of the export value of MSMEs exhibited some instability, with both positive and negative growth rates observed from 2013 to 2018. There was a significant drop in the growth rate of export value of MSMEs from 17% in 2018 to -56% in 2019. This decline continued to shrink and the growth rate further contracted in 2020. However, in 2021, the growth rate of the export value of MSMEs began to rebound to reach a positive value again.

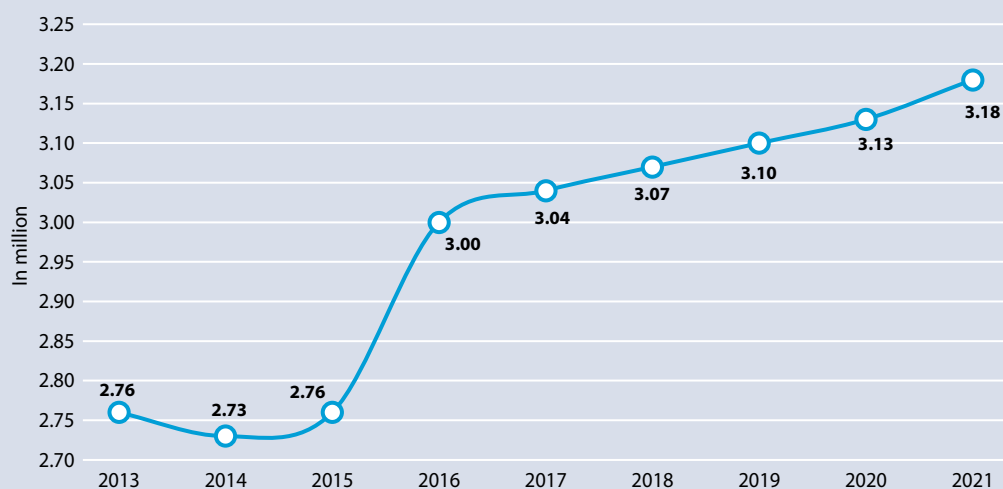
Similarly, the growth rate of the import value of MSMEs was unstable, with both a positive as well as negative growth rate from 2013 to 2018. There was a significant drop in the growth rate of MSME import value from 25% in 2018 to -57% in 2019 and it continued to shrink further in 2020. In 2021, the growth rate of the import value of MSMEs began to recover and turned positive again.

FIGURE 9**GROWTH RATE OF MSME EXPORT AND IMPORT VALUE (IN %).**

Source: Based on data references in Annual Report 2013 to 2021. The Office of Small and Medium Enterprises Promotion, Thailand [3–11].

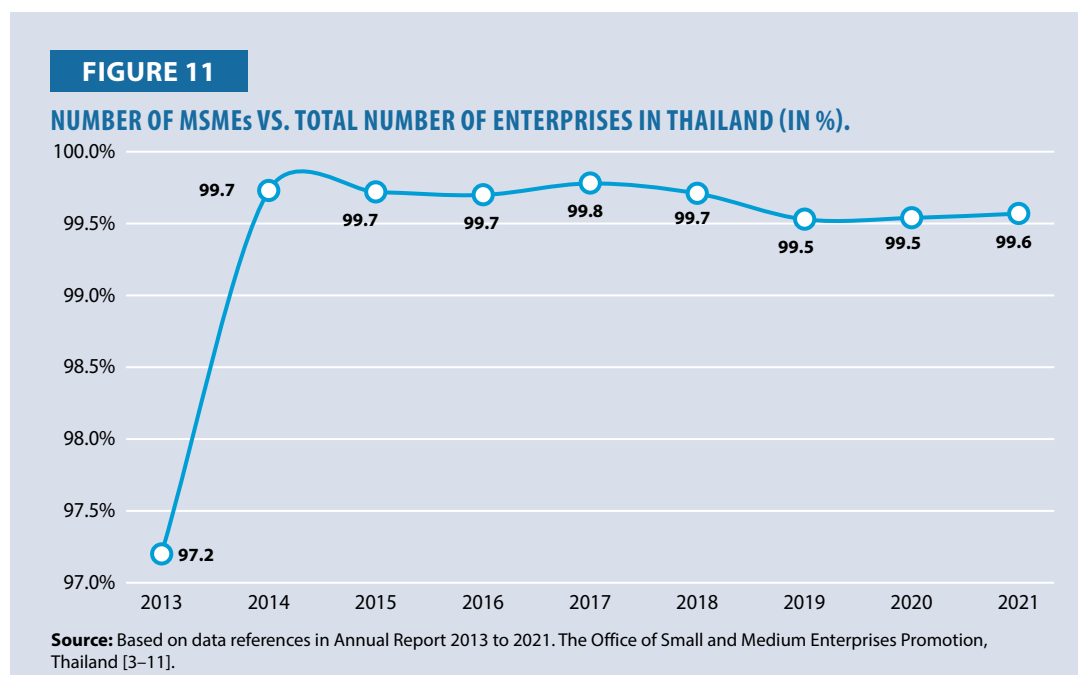
Status and Number of MSMEs

The number of MSMEs in Thailand during 2013–21 is shown in Figure 10. During the period, the number of MSMEs remained relatively constant at 2.7 million. In the subsequent year, the number of MSMEs increased from 2.76 million to 3.00 million. From 2016 to 2021, the number of MSMEs continued to grow steadily, reaching 3.18 million. This corresponds to an average growth rate of approximately 0.03 million MSMEs per year.

FIGURE 10**NUMBER OF MSMEs IN THAILAND (IN MILLION).**

Source: Based on data references in Annual Report 2013 to 2021. The Office of Small and Medium Enterprises Promotion, Thailand [3–11].

The percentage of the number of MSMEs in the total number of enterprises in Thailand during 2013–21, is shown in Figure 11. It is evident that from 2014 onwards almost all enterprises in Thailand were classified as MSMEs, accounting for over 99.5% of the total number of enterprises.



With the previous MSME definition, the distribution of MSME numbers by size in 2017–18 showcased the dominance of SEs, accounting for approximately 99.4–99.5% of the total MSME count. In contrast, the number of MEs was relatively negligible, making up only 0.6–0.5% of the total. However, after the implementation of the new MSME definition, there was a significant shift in the distribution. The majority of MSMEs became Micro Enterprises, comprising around 85% of the total MSME count. SEs accounted for around 13%, while MEs constituted approximately 1.4% of the MSMEs.

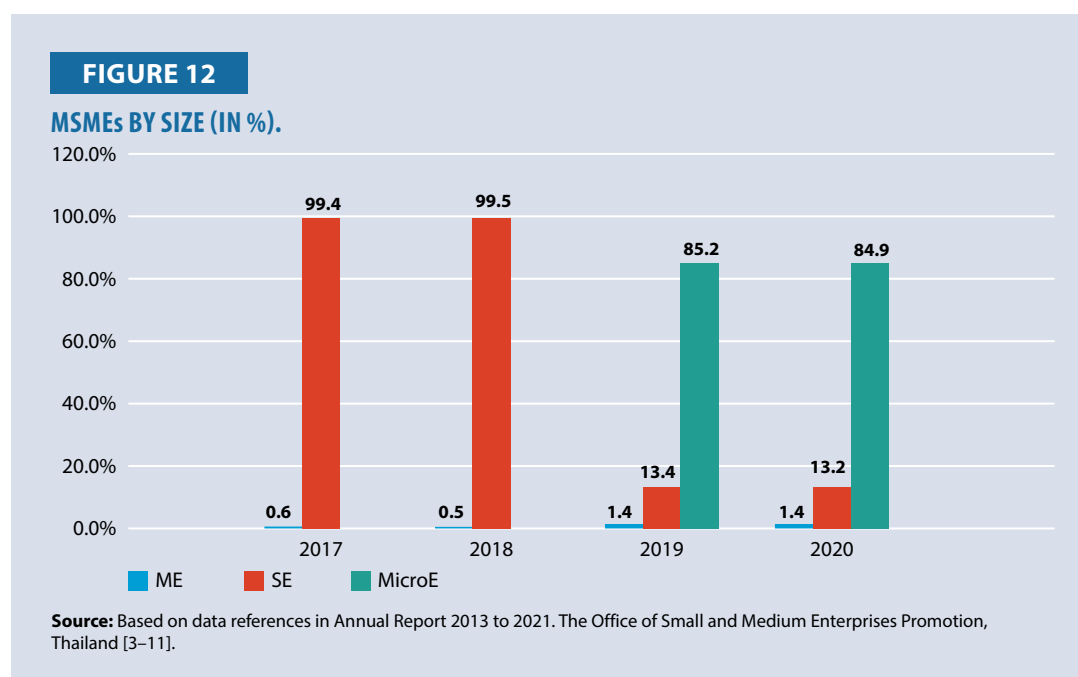


Figure 13 illustrates the distribution of MSME numbers by registration type in Thailand from 2013 to 2021. The data reveals that a majority of MSMEs, around 70–75% of the total number of MSMEs (around 2.0–2.3 million), were registered as non-juristic individuals. The second-largest registration type was juristic persons, representing around 20–25% of the total number of MSMEs (around 0.59–0.80 million). The rest of the MSMEs were registered as communities, with a count of less than 0.1 million.

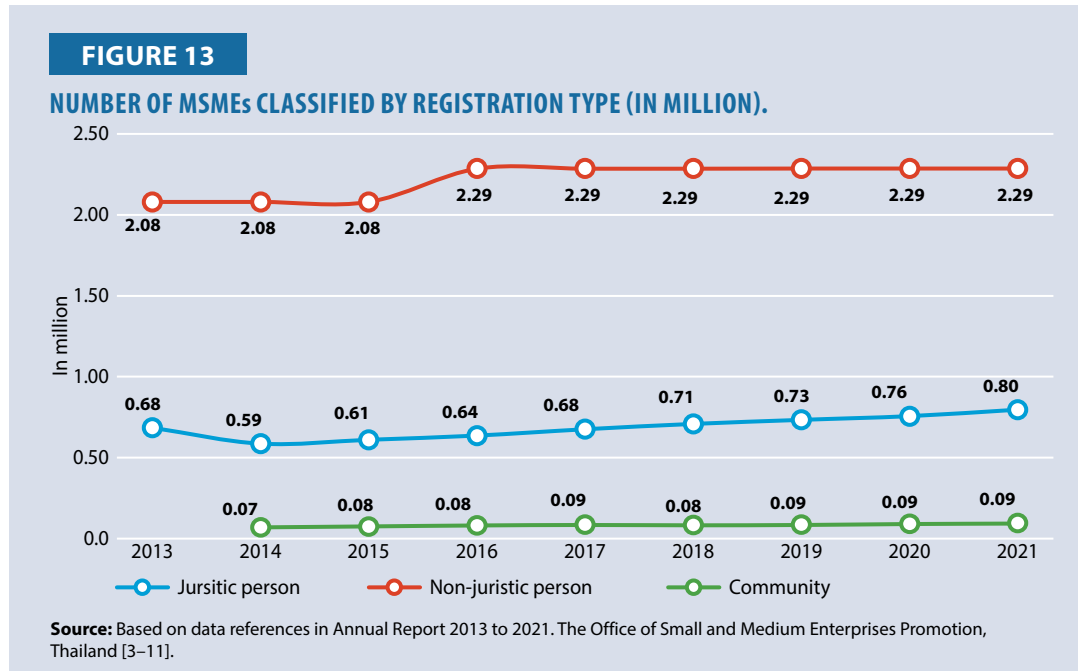
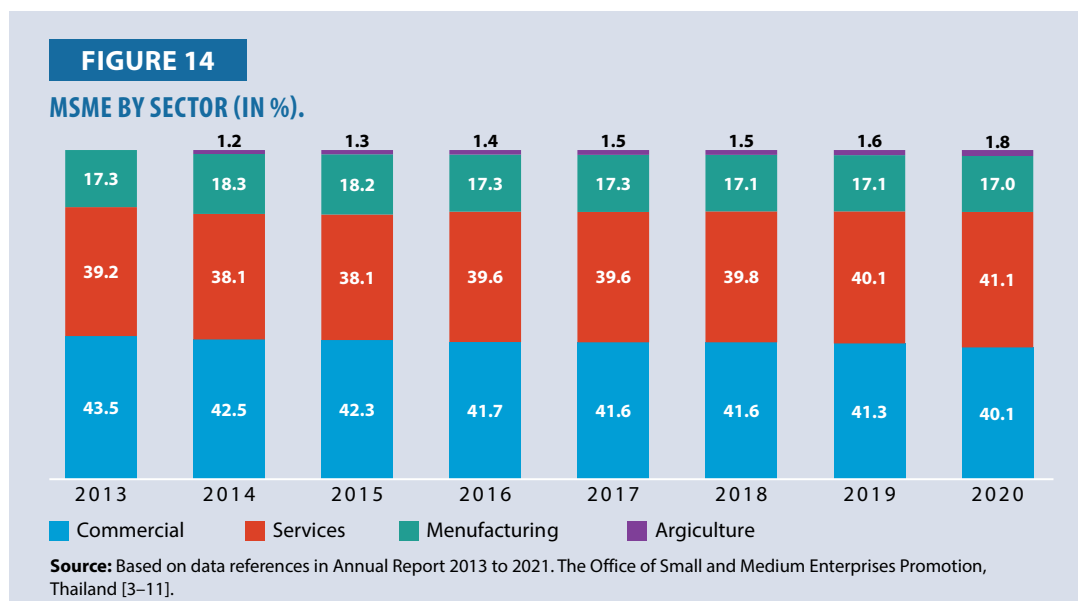


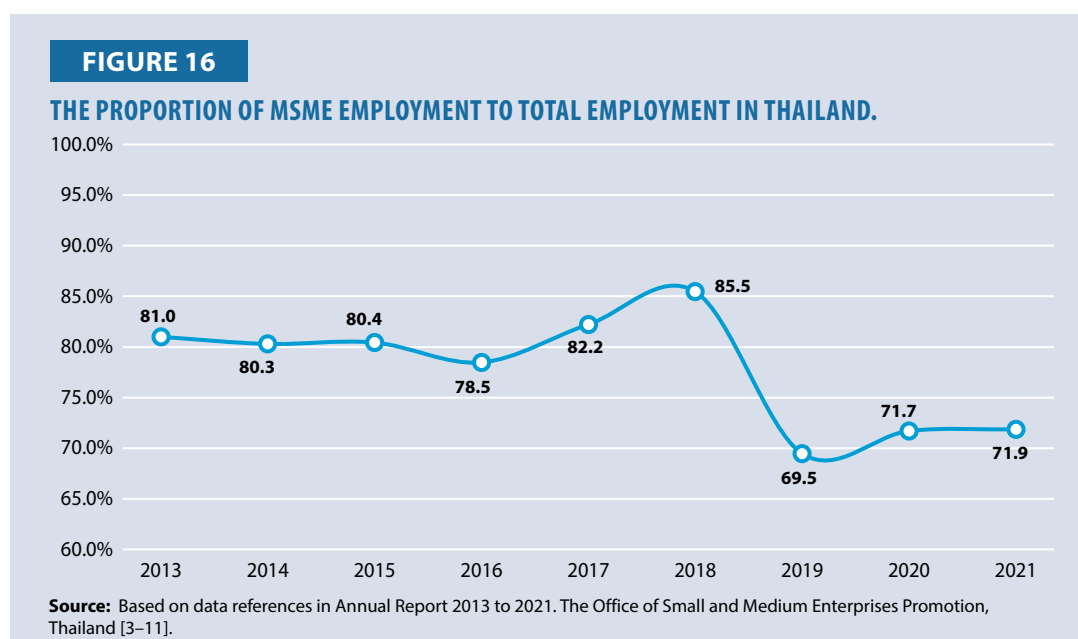
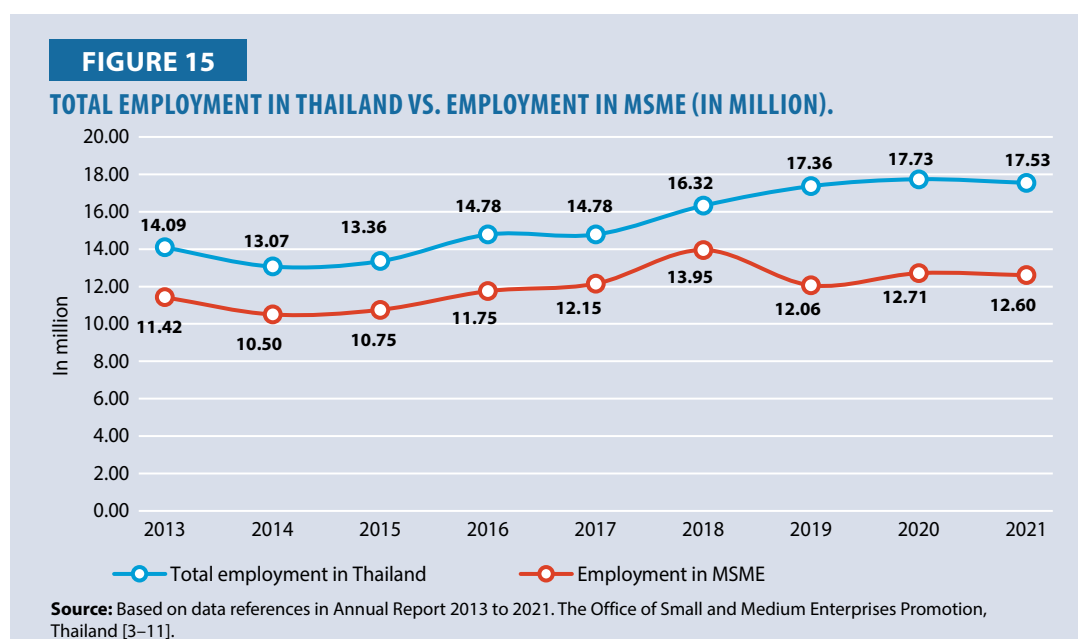
Figure 14 presents the distribution of MSME numbers by sector in Thailand from 2013 to 2020. The commercial sector had the largest number of MSMEs, constituting the majority, followed by the service sector, manufacturing sector, and agriculture sector. The ratio of these four sectors of MSMEs remained almost constant from 2014 to 2020. On average the commercial sector accounted for 41.6% of the MSMEs, the service sector accounted for 39.5%, the manufacturing sector accounted for 17.5%, and the agriculture sector accounted for 1.5%.



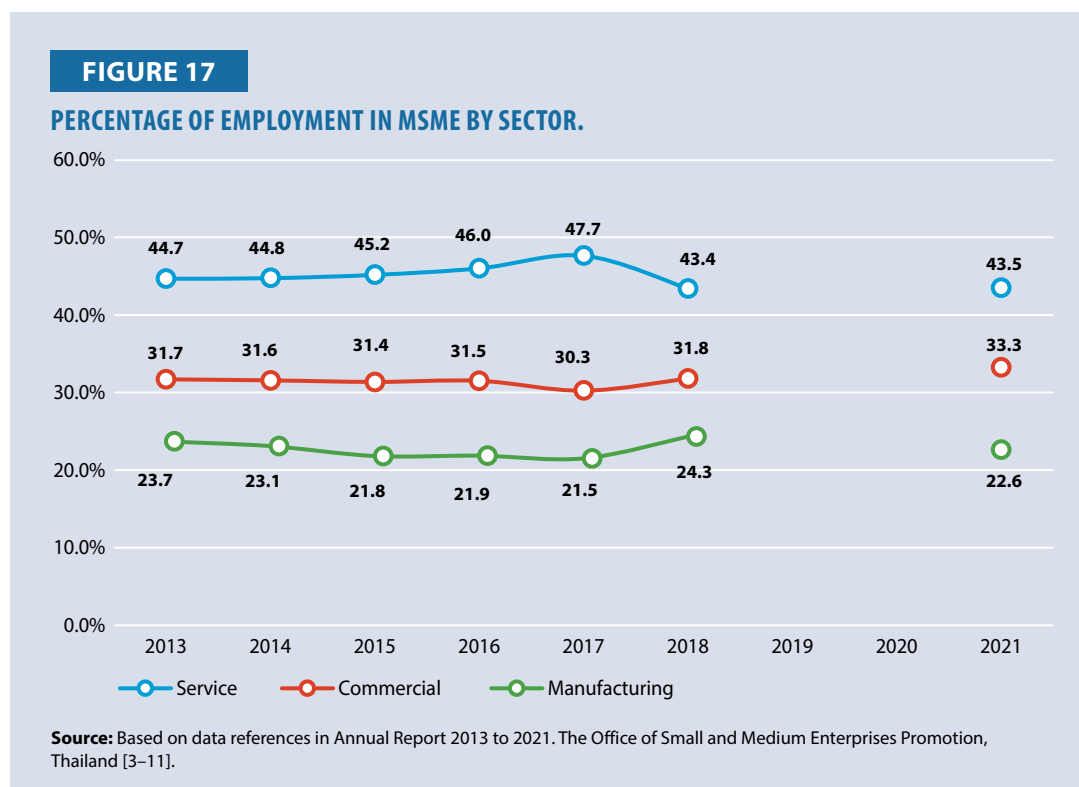
MSME and Employment

Figure 15 depicts the employment numbers in MSMEs in Thailand from 2013 to 2021. The data reveals an overall increase in total employment in the country, up from 14.09 million in 2013 to 17.53 million in 2021, with an average annual growth of 0.43 million. Similarly, employment within MSMEs went up from 11.42 million in 2013 to 13.95 million in 2021, with an average annual growth of 0.50 million. However, despite the general upward trend, there was a decline in employment within MSMEs during the period of 2019–21. The number of employed individuals in MSMEs dropped to 12.06 million in 2019 and remained almost at the same level thereafter.

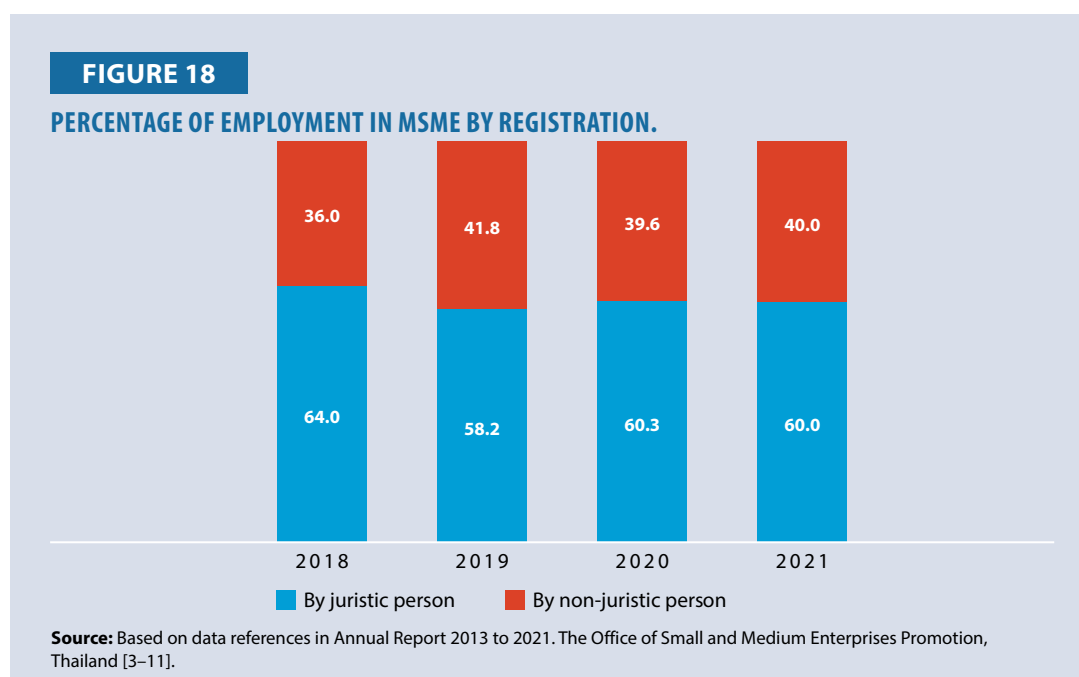
The proportion of MSME employment in total national employment in Thailand is shown in Figure 16. The data shows that the proportion of MSME employment in national employment during 2013–18 was around 80%. However, starting from 2019 onward, it declined to around 70%.



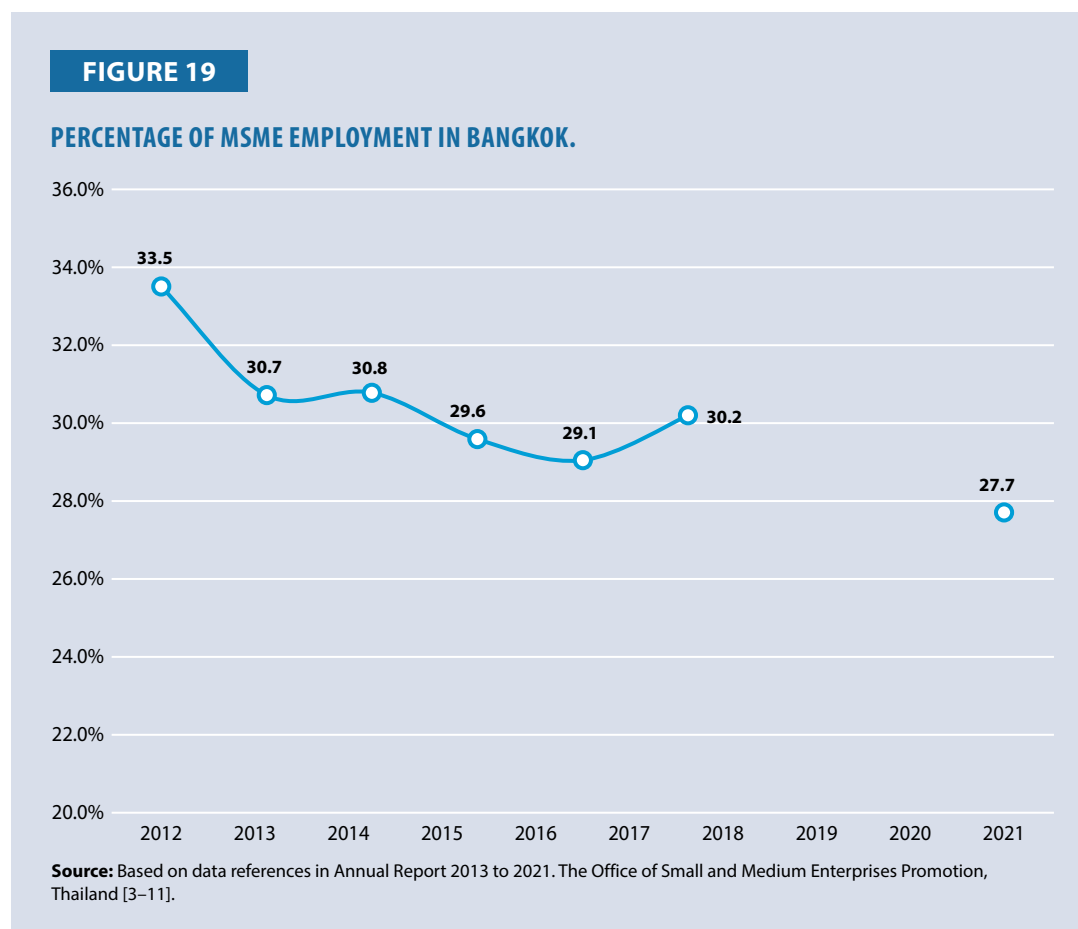
Employment in MSMEs by sectors during 2013–21 is shown in Figure 17. On average the service sector accounted for approximately 45% of MSME employment, followed closely by the commercial sector at around 32%, and the manufacturing sector at approximately 23%.



Employment in MSMEs by registration type during 2018–21 is shown in Figure 18. The ratio of employment in MSMEs by a juristic person and a non-juristic person was more or less the same, with an average of around 60% employment by the juristic person and 40% by the non-juristic person.



Bangkok had the highest percentage of MSME employment in Thailand. The MSME employment in Bangkok during 2018–21 is shown in Figure 19. The ratio of MSME employment in Bangkok declined from 33.5% in 2013 to 27.7% in 2021. This reflects an average annual decrease rate of 0.7%.



Driving Thai MSMEs toward SDG

The key problems faced by MSMEs in Thailand, from past to present, are listed below [11].

- Lack of basic and modern knowledge of business management skills.
- Lack of accessibility and use of various channels for markets.
- Lack of accessibility and technology innovation.
- Doing business in a stand-alone manner, lack of integration and alliance.
- Inadequate supply and lack of advanced and diversified skills.
- Lack of quality, standard, and creative differences.
- Lack of track record and insufficient security deposit.
- Difficulty to reach information due to its dispersion.

To address and mitigate the problems, the Office of Small and Medium Enterprises Promotion in Thailand initiated an action plan for 2021–22. The plan focused on three strategies aimed at supporting and assisting MSMEs in Thailand in line with the SDGs. These strategies are as follows [11]:

Strategy 1

Enhance MSME data integration in Thailand with Big Data

- Integrate budget planning and monitor all MSME promotional agencies across the country.
- Establish cooperation at both domestic and international levels to promote MSMEs.
- Develop and connect databases to support MSME Big Data.
- Develop instruments to analyze and evaluate the economic impact of MSMEs.

Strategy 2

Develop mechanisms to promote access to MSME and the local economy (community)

- Accelerate the growth of contributing factors.
- Enhance the service of the MSME One-Stop Service (OSS) Center and integrate it with government policies.
- Develop a network of consultants and service networks.

Strategy 3

Expanding and internationalizing groups or consortiums of entrepreneurs

- Promote businesses at the start-up level or in their early stages.
- Enhance the potential and competency of micro-business entrepreneurs.
- Upgrade small enterprises to international standards for the global market.

Remark on the Definition of MSMEs

The definition of MSMEs in Thailand has been redefined in accordance with the Ministerial Regulations on Designation of the Characteristics of SME Promotion Act B.E. 2562 (2019) and the Announcement of the Office of SME Promotion Subject Designation of Characteristics of Micro Enterprises. The purpose of this is effectively to promote the targeted entrepreneurs based on their annual revenue and employment, taking into account the current economic situation [9].

Micro Enterprises

Manufacturing

Annual revenue: < USD0.05 million

Employment: < 5 Employees

Trade and service sectors

Annual revenue: < USD0.05 million

Employment: < 5 Employees

Small Enterprises

Manufacturing

Annual revenue: > USD0.05–3 million

Employment: > 5–50 Employees.

Trade and Service Sectors

Annual revenue: > USD0.05–1.5 million

Employment: > 5–30 employees.

Medium Enterprises

Manufacturing

Annual revenue: > USD3–14.7 million

Employment: > 50–200 employees.

Trade and Service Sectors

Annual revenue: > USD1.5–8.8 million

Employment: > 30–100 employees.

In the case where the number of employees of an enterprise corresponds to one type of enterprise category, but the revenue corresponds to a different type of category, the higher value between the two (employee count or revenue) shall be used to determine the category of the enterprise.

Remark on Currency

In this report, the Thai Baht (THB) was converted to USD using an exchange rate of THB34 to USD1.

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TURKIYE

Introduction

SMEs play a pioneering role in enhancing competitiveness, dynamism, and complexity within economies. They shoulder a significant portion of the burden in terms of production, employment, and exports. In Türkiye, a rapidly growing industrial power, SMEs are at the center of this growth, constituting 99.83% of all companies in the country [1].

To support the sustainable growth and development of SMEs, the 11th Development Plan of 2019–23 and the 2023 Industry and Technology Strategy documents outline various actions. The Small and Medium-sized Enterprises Development Organization (KOSGEB), a public institution, having a legal entity and a special budget, under the Ministry of Industry and Technology (MoIT), has undertaken numerous studies to understand the development of SMEs and their alignment with the SDGs.

According to the latest regulation of 2022, enterprises with less than 250 employees and annual net sales revenue or financial balance sheet not exceeding TRY250 million (approximately USD13,282.89 thousand), fall under the SME classification. The data presented in this report incorporates definitions based on lower economic sizes according to the SME definition, up until 2022. The financial limits in the definition of SMEs were raised from TRY25 million to TRY40 million in 2012, and then to TRY125 million in 2018.

TABLE 1

SME DEFINITION IN TURKIYE (2022).

Type	No. of Employees	Revenue (in USD* Thousand)	Net Sales (in USD Thousand)
Micro	< 10	≤ 265.66	≤ 265.66
Small	< 50	≤ 2,656.58	≤ 2,656.58
Medium	< 250	≤ 13,282.89	≤ 13,282.89

*(TRY1 = USD0.05313; 13 January 2023)

Source: SME Statistics, KOSGEB, 2022 [1].

This report aims to provide insight into the current situation of the SMEs in Türkiye, utilizing statistics from both KOSGEB and the Turkish Statistical Institute (TurkStat). The data on different sectors is based on the Statistical Classification of Economic Activities in the European Community (NACE), which is a coding system that facilitates the production and dissemination of statistics on economic activities in Europe.

TABLE 2

NOMENCLATURE OF ECONOMIC ACTIVITY SECTIONS UNDER NACE CLASSIFICATION.

Section	Name of the Section
A	Agriculture, forestry, and fishing
B	Mining and quarrying

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(Continued from the previous page)

Section	Name of the Section
C	Manufacturing
D	Electricity, gas, steam, and air conditioning supply
E	Water supply, sewerage, waste management, and remediation activities
F	Construction
G	Wholesale and retail trade; Repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific, and technical activities
N	Administrative and support service activities
O	Public administration and defense; Compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment, and recreation
S	Other service activities; S 95 Repair of computers and personal household goods
T	Activities of households as employers; Undifferentiated goods and service-producing activities of households for own use
U	Activities of extraterritorial organizations and bodies

Source: Classifications on economic statistics, UNSTAT [2].

Dimensions of Competitiveness Diagnostic

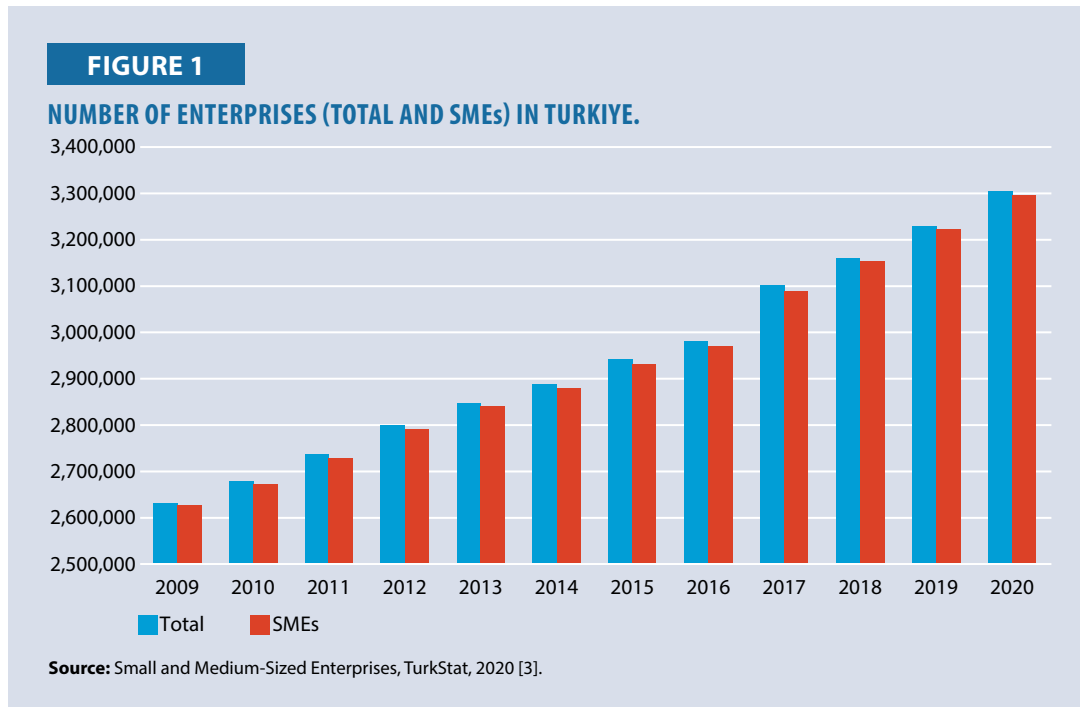
Outcomes

Transforming the World: 2030 Agenda for Sustainable Development, which includes the SDGs, was approved by Türkiye in 2015. Türkiye takes a holistic approach to development, emphasizing both institutional framework activation and direct integration of SDGs into its development programs.

Economic growth and employment are the two key areas covered by SDG 8, Decent Work and Economic Growth. The development of a long-term, inclusive model of economic, social, and environmental growth, which takes into account a nation's structural issues, is the goal for sustainable economic growth. In terms of employment, the emphasis is on creating safe working environments, banning all forms of child labor, creating jobs that offer social protection to families, and upholding employee rights, while also providing decent employment opportunities for groups of all demographics, including women, youth, and the disabled. This section of the report has attempted to present the current state of SMEs in Türkiye in various areas.

Dynamics of Economic Growth of SMEs

The significant number of enterprises operating in Türkiye and the factors contributing to total employment highlight the vital role that SMEs play in the country's economy. Notably, since 2009, the ratio of SMEs to the total number of enterprises has consistently remained at or above 99.5%.



Changes in total turnovers and values added at factor cost, are given in the next section on Labor Productivity.

Labor Productivity

Since 2009, SMEs employ 70–75% of the total employees. Figure 2 shows a trend of increasing number of employees working in SMEs. The reason for the decline in 2019 is the change in the scale criterion of the regulations defining SMEs. In 2020, the share of people employed by SMEs as compared to the total number of employees was 72.0%.

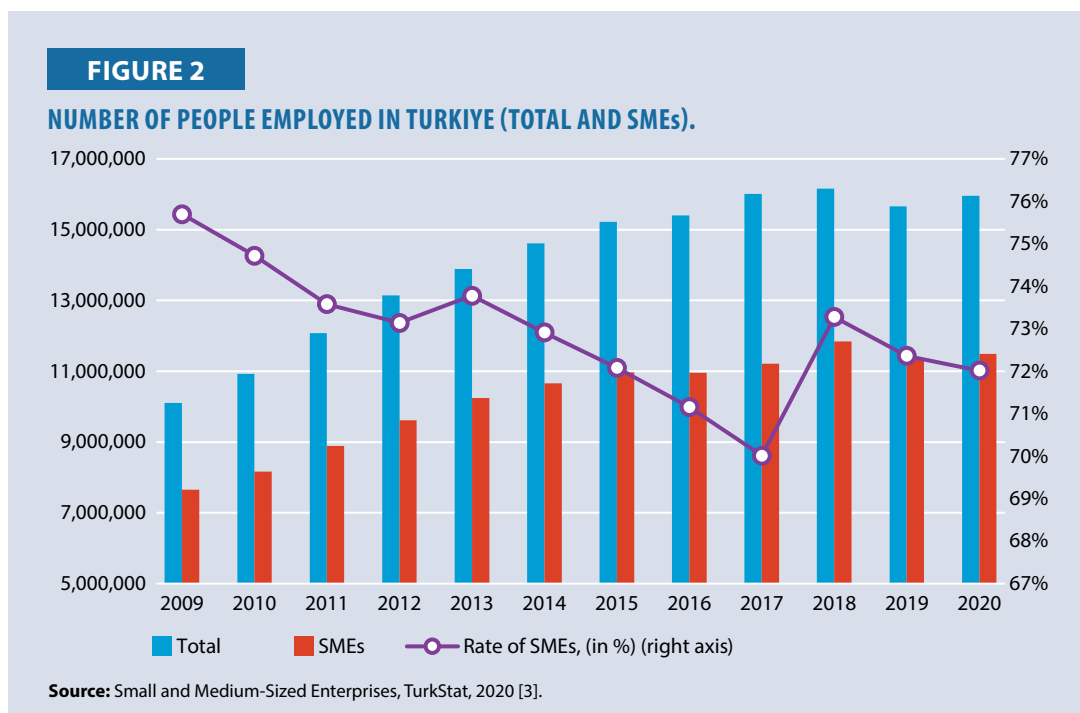


TABLE 3

GDP AND RELATED INDICATORS FOR SMEs IN TURKIYE¹.

	GDP (USD thousand)	Total Population	Working Age Population	Total Number of SME, Employees	GDP per Capita (USD)	GDP per Person of Working Age (USD)	GDP per SME Employee (USD)
2010	773,287,734	73,722,988	49,516,670	8,166,318	10,490	15,616	94,695
2015	861,150,675	78,741,053	53,359,594	10,972,438	10,938	16,139	78,484
2020	718,096,738	83,614,362	56,592,570	11,488,623	8,589	12,688	62,505

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3]; based on calculations by the national expert.

The GDP of Turkiye increased 4.3 times from 2010 to 2020, whereas the GDP per SME employee increased three times and remained less in comparison to the growth of GDP. Given that the GDP per capita has increased by 3.8, it is clear that the rate of expansion in SME employment has outpaced that of the economy as a whole.

TABLE 4

LABOR PRODUCTIVITY IN SMEs IN TURKIYE.

	Total Personnel Costs of SMEs (USD)	Total Turnover of SMEs (USD)	Value Added per Factor Cost (USD)	Turnover/Personnel Costs	Value Added per Factor Cost/Personnel Cost
2009	41,726,512,559	583,673,506,100	74,687,101,151	13.99	1.79
2010	50,330,315,010	696,915,477,857	86,785,839,642	13.85	1.72
2011	54,385,125,780	764,918,162,940	93,870,768,818	14.06	1.73
2012	62,498,533,270	804,054,909,532	99,664,066,599	12.87	1.59
2013	72,579,283,774	922,580,744,123	118,983,624,345	12.71	1.64
2014	72,976,302,767	903,828,753,615	117,373,723,278	12.39	1.61
2015	67,074,577,332	799,956,013,378	106,295,407,587	11.93	1.58
2016	74,302,503,368	779,804,842,710	111,219,038,299	10.50	1.50
2017	67,234,275,901	766,268,018,929	104,610,211,135	11.40	1.56
2018	64,832,310,550	839,576,372,436	111,990,653,600	12.95	1.73
2019	63,394,332,488	792,108,660,850	107,110,419,532	12.49	1.69
2020	51,018,561,771	744,384,610,253	97,016,350,104	14.59	1.90

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3], based on calculations by the national expert.

The labor force statistics of SMEs show that labor productivity increased in 2020. The possible reason for this might be the decrease in personnel costs, regarding pandemic-related supports. There has not been any other decrease in personnel costs in this period.

Labor Mobilization

Employees as a share of the working-age population and types of employment are given in Table 5 and Table 6. In 2021, SMEs had the highest number of waged or salaried employees with a rate of 66%.

¹ For the TRY USD conversion, for each year, the annual average values of the banknote selling exchange rate of the Central Bank of the Republic of Turkey have been used.

TABLE 5

EMPLOYEES AS A SHARE OF WORKING AGE POPULATION IN TURKIYE.

	Working Age Population	Total Number of Employees	Total Number of SME Employees	Total Share of Employees in Working Age Population	Share of Employees in SMEs in Working Age Population
2010	49,516,670	10,929,200	8,166,318	22.07%	16.49%
2015	53,359,594	15,222,587	10,972,438	28.53%	20.56%
2020	56,592,570	15,952,795	11,488,623	28.19%	20.30%

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

According to Table 5, between 2010 and 2015, the working age population increased by 7.6%, while the total number of employees climbed to 39%, and the percentage of people working for SMEs increased by 34%. In comparison to the growth in the working-age population between 2015 and 2020, the change in the workforce was marginally slower.

TABLE 6

TYPES OF EMPLOYMENT IN TURKIYE².

	2011	2015	2020	2021
Wage, salaried, or per diem	13,010,936 58.5%	17,767,454 66.9%	18,689,129 69.8%	16,928,978 66.2%
Employer	1,238,090 5.6%	1,174,095 4.4%	1,198,883 4.5%	1,307,704 5.1%
Self employed	4,686,759 21.1%	4,467,947 16.8%	4,420,806 16.5%	4,645,915 18.2%
Unpaid family worker	3,303,310 14.9%	3,150,485 11.9%	2,473,300 9.2%	2,692,742 10.5%
Total	22,239,095 100%	26,559,982 100%	26,782,119 100%	25,575,339 100%

Source: Household Labour Force Survey for 2011, 2015, 2020, and 2021, TurkStat [4]; based on calculations by the national expert.

Gender Gap in Labor Force Participation Rate

Table 7 displays the percentage of female workers in different profession groups, working in SMEs by occupation in 2015 and 2021.

² TurkStat compiles detailed and up-to-date information on the labor force status of the population, employed and unemployed, with the Household Labor Force Survey (HLFS), which is the main data source on the supply side of the labor force and which it regularly implements. The scope of the HLFS is the non-institutional population and includes people who are not covered by social security. On the other hand, SME statistics of TurkStat, which are included in the other tables in this report, are based on Annual Industry and Service Statistics. And the data sources of these statistics are the administrative records of the Turkish Tax Administration and the Social Security Institution and the results of the Annual Industry and Service Statistics Investment Expenditure Survey Questionnaire. Therefore, the employment of unregistered enterprises cannot be included in the labor force data. For this reason, it is expected that the number of employees will be higher in the results of the HLFS.

TABLE 7

PROPORTION OF FEMALE WORKERS IN DIFFERENT PROFESSIONS IN TURKIYE³.

	2015 Women's Ratio	2021 Women's Ratio	Change in %
11-Chief executives, senior officials, and legislators	13.31%	13.63%	0.32
12-Administrative and commercial managers	24.44%	31.84%	7.40
13-Production and specialized services managers	9.82%	15.44%	5.62
14-Hospitality, retail, and other services managers	10.68%	17.42%	6.74
21-Science and engineering professionals	28.11%	31.34%	3.23
22-Health professionals	64.60%	58.04%	-6.56
23-Teaching professionals	54.71%	63.71%	9.00
24-Business and administration professionals	29.21%	28.98%	-0.22
25-Information and communications technology professionals	17.71%	18.55%	0.83
26-Legal, social, and cultural professionals	37.71%	42.93%	5.22
31-Science and engineering associate professionals	9.26%	9.74%	0.49
32-Health associate professionals	50.70%	58.03%	7.32
33-Business and administration associate professionals	33.48%	32.24%	-1.24
34-Legal, Social, cultural, and related associate professionals	25.77%	28.46%	2.69
35-Information and communications technicians	14.29%	17.00%	2.72
41-General and keyboard clerks	50.41%	48.60%	-1.80
42-Customer services clerks	47.36%	49.30%	1.94
43-Numerical and material recording clerks	36.38%	37.12%	0.74
44-Other clerical support workers	35.63%	47.61%	11.98
51-Personal service workers	28.51%	33.21%	4.70
52-Sales workers	28.08%	29.61%	1.52
53-Personal care workers	87.04%	88.09%	1.05
54-Protective services workers	5.01%	7.71%	2.70
61-Market-oriented skilled agricultural workers	39.81%	34.67%	-5.13
62-Market-oriented skilled forestry, fishery, and hunting workers	6.94%	4.14%	-2.81
63-Subsistence farmers, fishers, hunters, and gatherers	51.51%	49.23%	-2.28
71-Building and related trades workers, excluding electricians	0.65%	0.53%	-0.12
72-Metal, machinery, and related trades workers	1.20%	1.43%	0.23
73-Handicraft and printing workers	48.88%	53.52%	4.64
74-Electrical and electronic trades workers	0.98%	0.99%	0.01
75-Food processing, woodworking, garment, and other craft ...	23.49%	24.92%	1.44

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³ This table is based on the International Standard Classification of Occupations (ISCO-08) created by the International Labor Organization (ILO). The codes before the profession titles are the group codes in ISCO-08 classification.

(Continued from the previous page)

	2015 Women's Ratio	2021 Women's Ratio	Change in %
81-Stationary plant and machine operators	25.31%	25.15%	-0.16
82-Assemblers	10.68%	10.59%	-0.09
83-Drivers and mobile plant operators	0.19%	0.15%	-0.04
91-Cleaners and helpers	45.95%	52.20%	6.25
92-Agricultural, forestry, and fishery laborers	67.94%	61.22%	-6.72
93-Laborers in mining, construction, manufacturing, and transport	19.65%	21.87%	2.23
94-Food preparation assistants	46.39%	50.77%	4.38
95-Street and related sales and service workers	10.32%	12.70%	2.38
96-Refuse workers and other elementary workers	5.83%	6.66%	0.83
Total	30.30%	31.74%	1.44

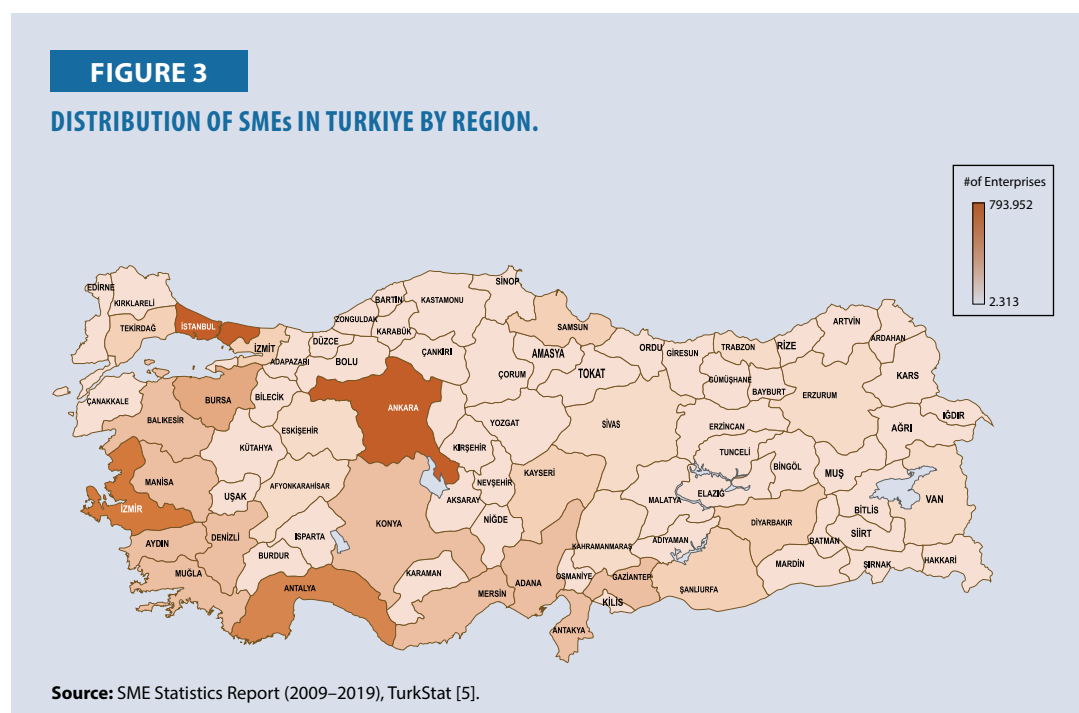
Note: The colors highlight the percentage range from dark red, which represents very low ratios, to dark green, which represents very high ratios.

Source: Household Labour Force Survey for 2011, 2015, 2020, and 2021, TurkStat [4]; based on calculations by the national expert.

The sections for personnel care workers (88%) and agricultural, forestry, and fishery laborers (61%) had the largest percentage of women. The rate is almost zero in the sections for drivers and mobile plant operators and building and related trades workers, excluding electricians. Working environment and workplace culture in such regions may be thought of as the primary determinants of these intensities.

Regional Disparities

The distribution of SMEs in Türkiye by province is shown in Figure 3.



Among the provinces with the highest number of SMEs, Istanbul ranks first with 797,302 SMEs, followed by Ankara with 235,552 SMEs, and İzmir with 204,822 SMEs [5].

Social and Environmental Outcomes

Sustainability in the use of resources is a crucial topic in Türkiye's agenda because it can reduce both environmental impacts as well as resource costs. Structural (organic) issues have been brought to focus, and long-term and inclusive initiatives are being established, in the context of SDG 8 (Decent Work and Economic Growth), defined for economic growth and employment. By doing so, strategies for the expansion of SMEs, and also their development can also be developed.

The consumption of materials in Türkiye increased by 8% between 2011 and 2017, while this rate decreased by 7% across the OECD countries. Although the material efficiency (output per material) in Turkey shows an increasing trend between 2011–17, it is still under the OECD average values. [6].

Analyzing the growth trend, Türkiye's annual greenhouse gas emissions increased by 55% from 2005 to 2018, marking the highest increase among the OECD countries. Like in the rest of the world, the energy sector is the most significant source of greenhouse gas emissions in Türkiye [6]. SMEs have an important role to play in improving energy efficiency in the country. In addition, SMEs constitute a significant part of the agriculture sector. With the implementation of the European Green Deal (EGD), non-compliant food products face stringent import restrictions in the EU market. Hence, supporting the development and adoption of environment-friendly and sustainable agricultural practices among SMEs becomes imperative.

Considering their share in the economy, SMEs have an important role to play in limiting negative environmental impacts. They have the potential to be the driving force in creating both employment and value add by taking advantage of the opportunities that green transformation offers, with the help of their innovative capacities and motivations [6].

Energy Use

Giving everyone access to inexpensive, dependable, sustainable, and contemporary energy, is the goal of SDG 7 (affordable and clean energy). The three fundamental principles that reinforce SDG 7 are:

1. Fair distribution of energy, availability of clean energy, and ensuring energy security.
2. Gradually reduce the usage of fossil fuels in the energy portfolio while raising the proportion of renewable energy sources in the overall energy supply.
3. Energy efficiency improvement in all industries the Ministry of Energy and Natural Resources, the Ministry of Environment, Urbanization, and Climate Change (MoEUCC), and the MoIT have created strategies and policies that include measures for these categories [7].

The National Energy Efficiency Action Plan (NEEAP), 2017–23 was established under the Ministry of Energy and Natural Resources to address the enhancement of energy efficiency. The plan includes 55 specific actions across various sectors, namely buildings and services, energy, transport, industry and technology, agriculture, and areas cutting across the sectors (horizontal). The NEEAP aims to boost and accelerate the efforts for improving energy efficiency in all sectors.

This will be achieved by implementing more effective energy efficiency support models, developing sustainable finance mechanisms, advancing sustainable procurement practices, developing culture, awareness, and consciousness of energy efficiency in both public and private sectors, promoting the onsite generation and consumption of energy, promoting smart cities and smart networks that prioritize energy efficiency, and enhancing energy efficiency in the industry, transport, and agriculture.

Moreover, the NEEAP aims to increase the scale of the district heating systems, increase the utilization of alternative fuels and resources from an energy efficiency perspective, promote environment-friendly structures, and make the existing structures more efficient. The priorities outlined in this action also serve as guiding principles for other policy strategies and documents [8].

Furthermore, KOSGEB put energy efficiency on its agenda in 2008, and a support program was launched to identify energy efficiency opportunities in SMEs, including training and consulting services.

Currently, there is no specific data in either the national statistics or the Eurostat data, about energy balance and the consumption of SMEs.

Economic Activity

All of the plans regarding Türkiye's development have addressed sustainable economic growth, and the policy documents, created by the relevant organizations, in the fields of education, employment, industry, science, technology, energy, tourism, finance, and many other areas, contain policies that influence economic growth. The issue of enhancing economic efficiency is one of the top priorities to be assessed within the framework of SDG 8. It has been listed in documents like Development Plans, 2023 Industry and Technology Strategy, Productivity Strategy and Action Plan (2015–18), and SME Strategy and Action Plan (2015–18).

Growth of Enterprises in the SME Sector

TABLE 8

RATE OF SMEs IN HIGH-GROWTH ENTERPRISES.

	In Terms of Employment (in %)	In Terms of Turnover (in %)
2014	89.7	90.7
2015	89.2	90.0
2016	88.3	89.0
2017	87.0	87.5
2018	92.3	92.8
2019	91.4	92.3
2020	92.7	92.4

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

In general, enterprises with average annualized growth, greater than 10% per annum, over three years, are considered as high growth enterprises. Although the rate of SMEs among high-growth enterprises showed a small increase during 2014–20, it generally remains at the level of 90%.

Trade Activity

Table 9 presents Türkiye's total exports in the production and trade sectors, along with the proportion contributed by SMEs in this export. Notably, in both sectors, the share of SMEs in total exports, which witnessed an increase from 2015 to 2020, does not surpass one-quarter of the production area. This relatively lower contribution of SMEs might impact their motivation to fully align with SDGs.

TABLE 9

EXPORTS IN INDUSTRY AND TRADE SECTORS IN TURKIYE⁴.

	(USD thousand)	Total	B-E Industry	G Trade	Others
Total		143,954,135	81,905,478	58,791,121	3,257,536
2015 SMEs		49,068,065	17,503,906	29,708,327	1,855,832
Ratio of SMEs		34.09%	21.37%	50.53%	56.97%
Total		167,154,059	95,589,977	67,450,600	4,113,482
2020 SMEs		60,872,838	22,274,470	35,754,240	2,844,128
Ratio of SMEs		36.42%	23.30%	53.01%	69.14%

Source: Small and Medium-Sized Enterprises, TurkStat [3].

It can be said that there has not been a significant change in exports in industry and trade in the country.

Sectoral Composition

One of the top priorities under SDG 8 is to promote productive activities, decent work production, entrepreneurship, and creativity, improve the development-oriented policies that support innovation, and encourage the registration and expansion of micro, small, and medium-sized enterprises, including access to financial services. In this context, one of the top policy priorities is to help SMEs become more effective, contribute more to added value, and be more globally competitive. Other top priorities include raising the level of technology, offering guidance and consulting services, ensuring the integration of the main-supply industry, and increasing their collaboration with university technoparks by encouraging R&D [7].

Production Capacity

TABLE 10

PRODUCTION VALUE FOR TOTAL ECONOMY AND MANUFACTURING SECTOR IN TURKIYE.

	Türkiye			Manufacturing		
	Total (USD)	SMEs (USD)	Rate of SMEs	Total (USD)	SMEs (USD)	Rate of SMEs
2015	976,076,949,258	419,697,862,559	43.00%	409,101,597,066	140,002,338,975	34.22%
2020	857,796,175,627	366,672,407,212	42.75%	403,647,788,346	134,443,624,548	33.31%

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

⁴ B: Mining and quarrying; C: Manufacturing; D: Electricity, gas, steam, and air conditioning supply; E: Water supply; Sewerage, waste management and remediation activities; G: Wholesale and retail trade; Repair of motor vehicles and motorcycles.

Share of SMEs in VA and Employment

VA and employment data for SMEs were presented in the previous sections. In this section, VA in factor cost is presented by economic activity.

TABLE 11
PRODUCTION VA AT FACTOR COST BY ECONOMIC ACTIVITY IN TURKIYE#.

Economic Activity (NACE REV.2)		2010 (USD Thousand)	2010 (Rate)	2020 (USD Thousand)	2020 (Rate)
Turkiye	Total	202,166,887	100.00%	234,905,690	100.00%
	SMEs	86,778,146	42.92%	97,046,657	41.31%
B	Total	4,816,556	2.38%	5,173,542	2.20%
Mining and quarrying	SMEs	960,265	0.47%	754,054	0.32%
C	Total	65,502,649	32.40%	91,626,885	39.01%
Manufacturing	SMEs	22,700,662	11.23%	28,193,172	12.00%
D	Total	11,804,636	5.84%	13,014,225	5.54%
Electricity, gas, steam, and air conditioning supply	SMEs	438,411	0.22%	2,406,828	1.02%
E	Total	2,415,894	1.20%	1,709,815	0.73%
Water supply, sewerage, waste management, and remediation activities	SMEs	207,947	0.10%	369,275	0.16%
F	Total	13,549,007	6.70%	12,898,720	5.49%
Construction	SMEs	8,017,881	3.97%	7,953,912	3.39%
G	Total	42,225,828	20.89%	44,493,741	18.94%
Wholesale and retail trade, repair of motor vehicles and motorcycles	SMEs	24,937,086	12.34%	24,507,681	10.43%
H	Total	13,900,000	6.88%	14,843,954	6.32%
Transportation and storage	SMEs	6,041,060	2.99%	5,619,488	2.39%
I	Total	7,192,053	3.56%	4,942,248	2.10%
Accommodation and food service activities	SMEs	4,469,536	2.21%	2,949,787	1.26%
J	Total	9,892,053	4.89%	9,429,872	4.01%
Information and communication	SMEs	1,910,596	0.94%	3,372,262	1.44%
L	Total	1,716,556	0.85%	2,450,356	1.04%
Real estate activities	SMEs	931,126	0.46%	1,591,607	0.68%
M	Total	8,529,139	4.22%	8,325,178	3.54%
Professional, scientific, and technical activities	SMEs	7,015,232	3.47%	6,423,898	2.73%

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Economic Activity (NACE REV.2)		2010 (USD Thousand)	2010 (Rate)	2020 (USD Thousand)	2020 (Rate)
N	Total	8,154,305	4.03%	10,576,814	4.50%
Administrative and support service activities	SMEs	3,163,576	1.56%	2,680,085	1.14%
P	Total	3,070,199	1.52%	3,630,725	1.55%
Education	SMEs	1,630,464	0.81%	1,548,364	0.66%
Q	Total	4,537,748	2.24%	3,847,226	1.64%
Human health and social work activities	SMEs	3,041,722	1.50%	1,948,933	0.83%
R	Total	3,963,576	1.96%	7,391,465	3.15%
Arts, entertainment, and recreation	SMEs	489,404	0.24%	C	C
S	Total	896,026	0.44%	550,782	0.23%
Other service activities	SMEs	823,179	0.41%	C	C

* Does not include programming, broadcasting, financial, and insurance activities.

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

Sectoral Mix: VA and Employment

SMEs in the Manufacturing Sector

TABLE 12

VA AT FACTOR COST BY ECONOMIC ACTIVITY IN TURKIYE.

	Total (USD)	SMEs (USD)	Rate of SMEs in Total VA	Total VA in Section C (Manufacturing) (USD)	Rate of Section C in Total VA	SMEs' VA in Section C (USD)	SMEs' VA Rate in Section C
2010	202,166,655,380	86,777,908,221	42.92%	65,502,958,434	32.40%	22,700,666,819	34.66%
2015	252,523,050,471	106,256,548,489	42.08%	86,166,039,505	34.12%	28,648,071,982	33.25%
2020	234,905,689,229	97,046,606,789	41.31%	91,626,928,851	39.01%	28,193,110,848	30.77%

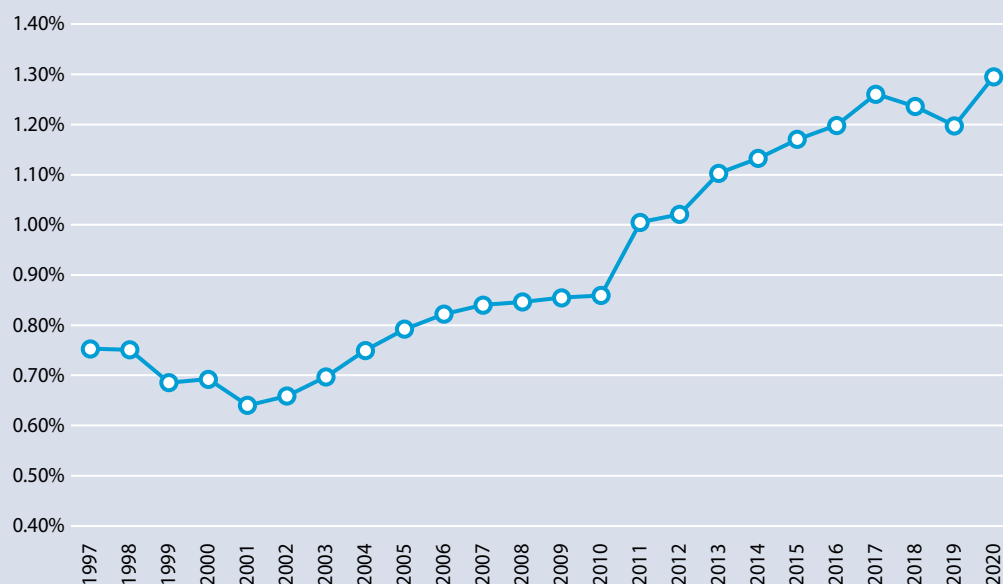
Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

TABLE 13

NUMBER OF PEOPLE EMPLOYED BY ECONOMIC ACTIVITY IN TURKIYE.

	Total	SMEs	Rate of SMEs in Total Employment	Total Employment in Section C (Manufacturing)	Rate of Section C in Total Employment	SMEs' Employment in Section C	SMEs' Employment Rate in Section C
2010	10,929,200	8,166,318	74.72%	2,865,482	26.22%	1,855,970	64.77%
2015	15,222,587	10,972,438	72.08%	3,908,510	25.68%	2,456,052	62.84%
2020	15,952,795	11,488,623	72.02%	4,308,302	27.01%	2,664,962	61.86%

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

FIGURE 4**TURKIYE'S SHARE IN GLOBAL MANUFACTURING, VA (1997–2020).**

Source: Manufacturing, Value Added – Turkiye, The World Bank [9].

The composition of various types of goods produced in Turkiye is presented in Table 14, along with the NACE codes.

TABLE 14**MANUFACTURING SECTOR TURNOVER BY ACTIVITY IN TURKIYE (2020).**

	Turnover (USD)	Share of Economic Activity
Section C	434,078,268,997	
10 Food products	63,521,398,600	14.63%
11 Beverages	2,755,477,702	0.63%
12 Tobacco products	–	–
13 Textiles	35,985,697,852	8.29%
14 Wearing apparel	23,817,252,905	5.49%
15 Leather and related products	3,239,705,544	0.75%
16 Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	5,639,494,148	1.30%
17 Paper and paper products	13,000,209,242	2.99%
18 Printing and reproduction of recorded media	2,957,905,368	0.68%
19 Coke and refined petroleum products	–	–
20 Chemicals and chemical products	25,460,934,383	5.87%
21 Basic pharmaceutical products and pharmaceutical preparations	6,079,915,376	1.40%

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	Turnover (USD)	Share of Economic Activity
22 Rubber and plastic products	23,939,294,772	5.51%
23 Other non-metallic mineral products	18,947,295,443	4.36%
24 Basic metals	47,237,512,750	10.88%
25 Fabricated metal products, except machinery and equipment	28,298,171,421	6.52%
26 Computer, electronic, and optical products	6,952,646,219	1.60%
27 Electrical equipment	24,031,485,788	5.54%
28 Machinery and equipment n.e.c.	22,695,801,811	5.23%
29 Motor vehicles, trailers, and semi-trailers	38,537,187,073	8.88%
30 Other transport equipment	5,486,492,295	1.26%
31 Furniture	8,364,461,361	1.93%
32 Other manufacturing	5,145,866,368	1.19%
33 Repair and installation of machinery and equipment	7,058,432,436	1.63%

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

*SMEs in the Service Sector⁵***TABLE 15****VA AT FACTOR COST BY ECONOMIC ACTIVITY IN TURKIYE.**

	Total (USD)	SMEs (USD)	Rate of SMEs in Total VA	Total VA in Sections G–J (Services) (USD)	Rate of Sections G–J in Total VA	SMEs' VA in Section G–J (USD)	SMEs' VA Rate in Sections G–J
2010	202,166,655,380	86,777,908,221	42.92%	73,209,653,545	36.21%	12,173,792,293	16.63%
2015	252,523,050,471	106,256,548,489	42.08%	88,869,249,908	35.19%	10,259,534,591	11.54%
2020	234,905,689,229	97,046,606,789	41.31%	73,709,890,667	31.38%	9,146,141,624	12.41%

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

TABLE 16**NUMBER OF PEOPLE EMPLOYED BY ECONOMIC ACTIVITY IN TURKIYE.**

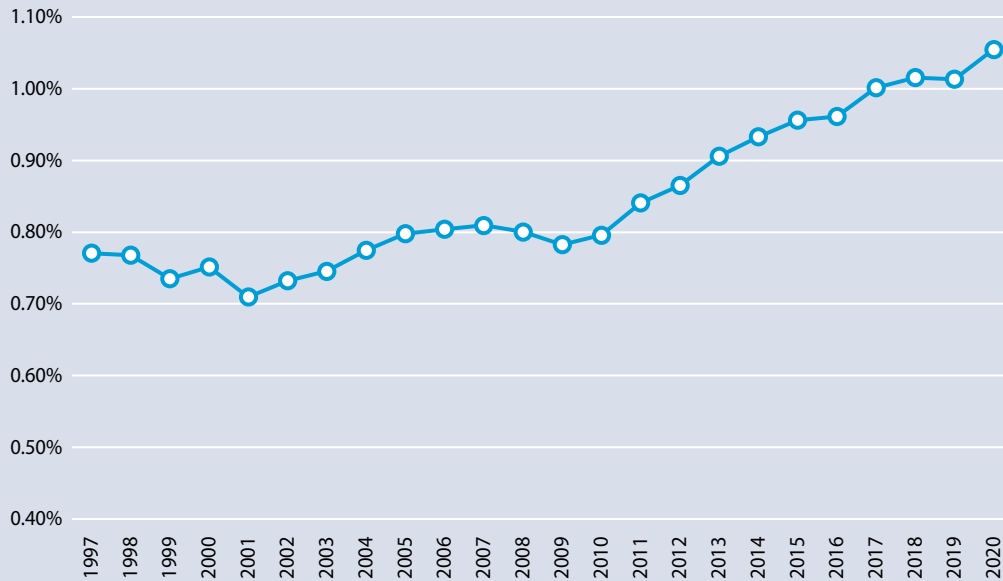
	Total	SMEs	Rate of SMEs in Total Employees	Total Employees in Sections G–J (Services)	Rate of Sections G–J in Total Employees	SMEs' Employees in Sections G–J	SMEs' Employee Rate in Sections G–J
2010	10,929,200	8,166,318	74.72%	4,772,054	43.66%	3,973,348	83.26%
2015	15,222,587	10,972,438	72.08%	6,240,284	40.99%	4,987,484	79.92%
2020	15,952,795	11,488,623	72.02%	6,695,294	41.97%	5,384,045	80.42%

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

⁵ The terms service industry(ies), service sector(s) or simply service(s) are generally used to refer to economic activities covered by Sections G to K. For Turkey, Section K (Financial and Insurance Activities) data is not available. Therefore, Sections G, H, I and J are taken into account.

FIGURE 5

TURKIYE'S SHARE IN GLOBAL SERVICES, VA (1997–2020).



Source: Services, Value Added – Türkiye, The World Bank [10].

The composition of various types of services is presented in the table below according to NACE codes.

TABLE 17

UNDER SECTION G–J (SERVICES) TURNOVER BY ECONOMIC ACTIVITY IN TURKIYE (2020).

	Turnover (USD)	Share of Economic Activity
Services (Total of G, H, I, J)	815,784,291,909	
Section G Wholesale and retail trade; repair of motor vehicles and motorcycles	691,723,877,107	
45 Wholesale and retail trade and repair of motor vehicles and motorcycles	72,025,941,526	8.83%
46 Wholesale trade, except for motor vehicles and motorcycles	469,303,015,987	57.53%
47 Retail trade, except for motor vehicles and motorcycles	150,394,919,594	18.44%
Section H Transporting and storage	78,370,643,697	
49 Land transport and transport via pipelines	43,356,236,790	5.31%
50 Water transport	4,153,446,950	0.51%
51 Air transport	8,699,417,828	1.07%
52 Warehousing and support activities for transportation	18,885,646,777	2.32%
53 Postal and courier activities	3,275,895,352	0.40%

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	Turnover (USD)	Share of Economic Activity
Section I Accommodation and food service activities	19,239,469,496	
55 Accommodation	5,266,020,242	0.65%
56 Food and beverage service activities	13,973,449,254	1.71%
Section J Information and communication	26,450,301,608	
58 Publishing activities	1,795,057,843	0.22%
59 Motion picture, video, and television program production, sound recording, and music publishing activities	1,182,355,950	0.14%
60 Programming and broadcasting activities	907,390,765	0.11%
61 Telecommunications	12,293,224,500	1.51%
62 Computer programming, consultancy, and related activities	9,115,392,343	1.12%
63 Information service activities	1,156,880,208	0.14%

Source: Small and Medium-Sized Enterprises, TurkStat, 2020 [3].

Informality in SMEs

Unregistered employment is one of the main problems that all countries need to cope with, and it is more common in SMEs. Unregistered employment is mostly observed in micro-sized (less than 10 employees) enterprises in Türkiye. In the last quarter of 2021, the rate of unregistered employees (shows the share of people working without being affiliated with the Social Security Institution in all the employees for the whole economy), was 28.7%. The rate of unregistered workers in the non-agricultural sector is 18.1% [11].

Türkiye's 11th Development Plan emphasizes that informal employment and undeclared wages will be tackled more effectively and programs to raise awareness on the fight against unregistered work will be implemented [12].

The Ministry of Treasury and Finance implements action plans about coping with the unrecorded economy in Türkiye. Four action plans for the periods of 2008–10, 2011–13, 2015–17, and 2019–21 were prepared and implemented. These action plans aimed to control and audit the areas where unrecorded economic activities were concentrated. Currently, the Ministry of Treasury and Finance implements the Action Plan to Fight against Informal Economy (2023–25) not only for SMEs but also for the entire economy. In this action plan, 44 actions have been given under five fundamental components. These five fundamental components are measurement and analysis studies of the dimension of the informal economy, increasing the level of social awareness and voluntary integration, developing inter-institutional collaboration and data sharing, taking legal, administrative, and technical measures, and increasing the audit capacity [13].

Competitiveness Fundamentals

The SDGs are significant for SMEs because they alter how they conduct business. Businesses must design their objectives and business strategies within the framework of these aims in a way that not only considers economic and financial objectives, but also social and environmental issues.

Businesses engaged in international trade are mainly impacted. For instance, an SME manufacturing for any global supply chain will be held accountable not just for the product's quality, but also for the fact that it was created in a workplace that values fairness and equality and that any environmental harm was kept within reasonable bounds. SMEs must exert more effort in areas that need medium-long-term strategy development and planning to achieve the SDGs because their workforces are typically less qualified than those of large corporations. Studies have also been conducted in the framework of the SDG 8 targets, to address the issues with SMEs' access to finance, such as the provision of KOSGEB support and the issuing of loans with favorable terms.

Human Capital

Workforce Characteristics

According to the OECD report, Education Policy Outlook – Türkiye, the chances of formal employment improve with educational achievement, and in 2017, people with higher education earned 64% more than those with upper secondary education, compared to 57% on average. However, many individuals have been unable to take advantage of these benefits. In 2018, Türkiye had the highest percentage of 25–64-year-olds in the OECD countries, who had not completed secondary education (44%, compared to an average of 7%). Additionally, Turkish adults' literacy and numeracy results in the Survey of Adult Skills in 2015 were below average. In contrast to the average unemployment rate of 19%, the unemployment rate for people aged 25 to 64 in 2018 was among the highest in the OECD at 29% [14].

Türkiye Regional and Sectoral Productivity Development Map (TPDM), which was published in 2018, presented important findings on the densities of different education levels in Türkiye's manufacturing industry. It was prepared in line with one-on-one interviews with 10,066 enterprises. Although the study excluded the service industries, it gives an idea about the general education level in the Turkish business environment [15].

When the education levels of white and blue-collar employees in the enterprises participating in the TPDM survey were examined, it was observed that a little more than one-third (37%) of the blue-collar employees were high school graduates. The ratio of high school graduates among white-collar workers was 33%. An employee with a high school degree could be in a white or blue-collar job, depending on the industry and the nature of the job.

When businesses with 1–19 employees are taken into account, the rate of high school graduates among white-collar employees is higher. Another fact is that the rate of white-collar high school graduates is higher in sectors with lower technological intensity (such as furniture, food products, and wood products). In addition, among white-collar workers, the density of those with a university or higher education degree is 40%, and the rate of those who have graduated from a vocational school is 12%. In other words, a little more than half of white-collar workers have a vocational college, university, or higher education degree. Among blue-collar workers, this rate is around 5%, and secondary school graduates have the highest share with 26% after high school graduates.

Vocational Technical Anatolian High Schools or Vocational Training Centers in Türkiye provide vocational education and training, offering apprenticeships to students as young as 14.

Although the participation rates in economic activities are still not at the desired level, multidimensional policies have been implemented in Türkiye to increase the job opportunities, working conditions, and prestige of Vocational High School graduates. Orienting the said graduates

to work in the fields in which they are educated, presents itself as another challenge, because many Vocational High School graduates, who received training in the field of manufacturing, give priority to the service industries in their job search. The service sector in Türkiye is mostly located in city centers or shopping malls. As a result, although it is not generally more advantageous financially, the service sector is more considerate of young people who have just joined business life in terms of side benefits such as working hours, working environment, social opportunities, and reputation. The industry, which is mostly located outside the cities, offers much harder working conditions and very limited social opportunities. For this reason, many measures have been taken to improve the physical and social conditions of the Organized Industrial Zones (OIZs) in Türkiye.

Skilling the Workforce

Several methods of collaboration between education and the real sector are formed to strengthen the connection between vocational education and production, to train the qualified workforce needed by the industry, to increase the contribution of the industry in vocational and technical education, to increase the employment rate of vocational and technical education graduates, and to ensure that the workforce is trained in real business environments.

For instance, the Industrial Doctorate Program carried out by TUBITAK (The Scientific and Technological Research Institution of Türkiye), aims to train qualified human resources with doctorate degrees needed in the industry through university-industry cooperation, to encourage the employment of researchers with doctorate degrees in the industry, and to develop university/research infrastructure-industry cooperation [16]. The cooperation protocols signed between vocational and technical education schools and companies in the sector serve the following purposes:

- Strengthen the ties between vocational education and the business world.
- Train the qualified workforce needed by the sector.
- Increase the contribution of the sector to vocational and technical education.
- Increase the employment rate of vocational and technical education graduates.
- Ensure that the workforce grows in real business environments [17].

In the 11th Development Plan, the aim of renewing the equipment of workshops and laboratories according to the technology was outlined to increase the quality of education in vocational and technical high schools. In this context, in-service training programs are carried out to renew the workshop and laboratory infrastructure and increase vocational course teachers' on-the-job training and special field competencies in real manufacturing environments. The number of students studying in vocational and technical secondary education institutions in 2021–22 reached 1,833,717 [17].

Finance

Funds Allocated and Disbursed for the Development of SMEs

SMEs and entrepreneurs are supported by the support programs established within the scope of the KOSGEB Support Programs Regulation in Türkiye. Support programs are approved by the KOSGEB Executive Committee and announced on the website [18].

General information on the supports given to enterprises in 2021, within the scope of the KOSGEB Support Programs Regulation and KOSGEB SME Loan Interest Support Regulation, is given in Table 18.

TABLE 18
KOSGEB SUPPORT SCORECARD FOR 2021.

List of Support Initiatives	Number of SMEs	Support Amount (USD)
A. Supports Provided within the Scope of KOSGEB Support Programs Regulation	55,723*	191,168,772
SME Development Support Program	19,566	46,613,027
R&D, P&D, and Innovation Support Program,	219	3,021,216
Cooperation Support Program	44	3,658,285
International Incubation Center and Accelerator Support Program	2	195,631
SME Development Support Program (KOBIGEL)	459	10,349,927
Strategic Product Support Program	46	4,490,290
SME Technological Product Investment Support Program (TEKNOYATIRIM)	106	10,967,286
International Market Support Program	821	5,371,789
Traditional Entrepreneur Support Program	20,695	16,617,187
Advanced Entrepreneur Support Program	10,180	75,791,592
ISGEM/TEKMER Support Program	9	380,978
Business Plan Award Support Program	3	8,979
General Support Program	1,184	1,155,013
R&D, Innovation, and Industrial Application Support Program	1,177	11,290,544
Entrepreneurship Support Program	1,207	1,109,329
Cooperation-Collaboration Support Program	3	143,165
Technological Product Promotion and Marketing Support Program (TEKNOPAZAR)	2	4,533
B. Support Given Under the KOSGEB Loan Interest Support Regulation	5,722	8,317,627
TOTAL (A+B)	61,445**	199,486,399

*In 2021, the net number of enterprises to which support payments were made within the scope of the KOSGEB Support Programs Regulation is 53,083.

** Since a business can benefit from more than one program, this number represents the cumulative number of SMEs.

Source: 2021 Annual Report, KOSGEB [19].

An increasing trend is observed in the amount of entrepreneurship and SME support. It is considered that the development of the entrepreneurship ecosystem, the focus of the support provided on innovative and growth potential initiatives, and the development of monitoring-evaluation systems and impact analyses, will contribute to the acceleration of the sector's development [19].

Availability of Loans from the Domestic Banking Sector and Financial Institutions

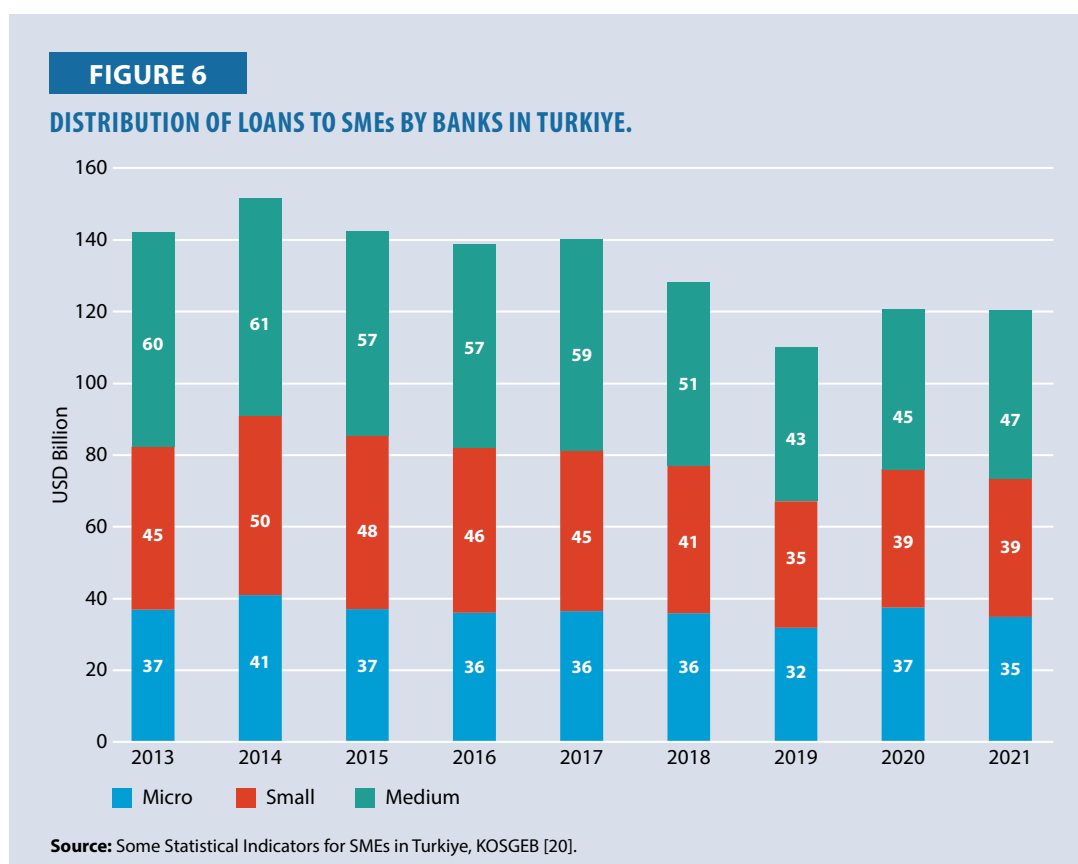
According to the Banking Regulation and Supervision Agency's Turkish Banking Sector Key Indicators Report (March 2022), the share of SME loans in all loans is given in Table 19 [20].

TABLE 19
SHARE OF LOANS TO SMEs IN TURKIYE.

Key Indicators (in %)	2015	2020
Share of loans given to SMEs in total loans	26.2	23.7
Share of loans given to SMEs in commercial loans	35.4	30.8

Source: Some Statistical Indicators for SMEs in Türkiye, KOSGEB [20].

Information on the distribution of banking sector SME loans based on micro-sized enterprises, small-sized enterprises, and medium-sized enterprises is given in Figure 6. According to the business classes, micro, small, and medium-sized SME loans increased compared to the previous quarter [20].



Credit Extended by Microfinance Institutions

Microcredit is not very common in Türkiye. Within the commercial banking sector, public banks are the main actors in the microfinance and SME sector. However, some of their services are designed for the disadvantaged segments. Ziraat Bankası and Halkbank, which are public banks in Türkiye, can be specified as institutions that provide advantageous loans to SMEs. In addition, low-capital support is provided to many entrepreneurial candidates through KOSGEB support programs.

Türkiye Grameen Microfinance Program, which was established in 2003, can be mentioned as one of the examples of a microfinance program in Türkiye. Türkiye Grameen Microfinance Program is a non-profit microfinance institution that provides financial services to poor and low-income

women. Turkiye Grameen Microfinance Program distributed TRY174,509,378 Microcredits in 2021, according to the 2021 Annual Report [21].

Taxation Policy

SMEs in Turkiye are obliged to pay taxes such as corporate tax, income tax, VAT, etc. In addition, SMEs report insurance premiums and other payments to the Social Security Institution after they pay their employees.

The SME Financing Support Program, provided by KOSGEB, aims to provide financial support to SMEs under favorable conditions, to solve their financing problems, to increase their production, quality, and standards, to create employment, and to enable them to compete at the international level.

To protect the economy from the negative effects of the COVID-19 pandemic, some additional support has been given to households and companies since March 2020. Domestic demand stayed nearly constant despite the lockdown measures due to the pandemic, because of measures such as short-time working allowance, dismissal ban, cash wage support, tax reductions applied in some sectors, postponement of Social Security Institution premium payments, and grant supports for businesses and SMEs [17].

With a regulation made in 2021, the income of all employees up to the minimum wage level is excluded from income and stamp tax. With the legal regulation, not only the blue-collared workers but all employees were covered, and an increase in net wages was achieved [17].

Technology and Innovation Capacity

Expenditure towards R&D

The share of SMEs in total gross domestic R&D expenditures of companies in 2020 was 32.9%.

TABLE 20

TOTAL R&D EXPENDITURE OF FINANCIAL AND NON-FINANCIAL COMPANIES IN TURKIYE.

Year	SME (USD Thousand)	Total (USD Thousand)	Rate (in %)
2010	679,470	2,503,974	27.1
2015	1,090,476	3,691,575	29.5
2020	1,631,863	4,962,589	32.9

Source: Some Statistical Indicators for SMEs in Türkiye, KOSGEB [20].

Considering current and investment expenditures, in the total R&D expenditures, SMEs' shares are as follows [20].

- The share of current expenditures is 91.9% in SMEs
 - Share of personnel expenditures is 59.5% in SMEs
- The share of investment expenditures is 8.1% in SMEs
 - Share of expenditures on machinery equipment is 4.6% in SMEs
 - Share of fixed facility expenditures is 0.6% in SMEs

- Share of expenditures on computer software is 2.3% in SMEs
- Share of intellectual property expenditures is 0.6% in SMEs

Technology Imports

It is important to support the production of investment goods, intermediate goods, and raw materials with high imports, with domestic and national resources, especially by increasing the technological capacities of SMEs. Within the scope of reducing the current account deficit and localizing intermediate goods with high imports, the Supplier Development Department was established, which is continuing its efforts to find new suppliers, increase the quality, capacity, and efficiency of existing suppliers, and bring large enterprises and SMEs together [19].

In 2020, the share of high technology in the number of imports realized by importing SMEs was 4.6%, and medium-high technology was 29.5%. The share of high technology in the amount of imports realized by large enterprises was 7.2%, and medium-high technology was 34.4% [20].

Digitalization of Value Chains

Digitalization provides SMEs with great opportunities to increase the efficiency of their production processes and the ability to innovate their business models. In the last three years, SMEs have mostly invested in internet sites in the digital field. Hardware, infrastructure, and social media investments follow this ranking. When digital investment alternatives in the next three years are evaluated, it is expected that companies will invest in mobile applications and e-commerce. Up to one-fifth of SMEs plan to invest in websites, e-commerce, or social media in the next three years. When we look at the digital applications that companies use, it is observed that they mostly use websites and social media applications.

SMEs in Türkiye cannot fully benefit from the data-driven strategies that are part of the digital economy. The use of applications such as ERP, CRM, and telemarketing in SMEs is limited. Nearly 54.2% of SMEs in the country pointed out that they had a digital vision and strategy, while 95% indicated that they had not taken any action toward their digital vision and strategy since the beginning of COVID-19 [22], even though the pandemic has established the importance of digitalization and the volume of e-commerce and investments in this area have increased.

Entry into e-Commerce

E-commerce stands out as the most effective and inexpensive marketing and sales strategy that enables SMEs to open up to domestic and foreign markets. SMEs do not have as advanced qualifications as large enterprises in terms of raw material supply and access to financial resources. In addition, they have to work with high costs due to the inability to produce in high volumes, and they have difficulty competing with large-scale enterprises, especially in areas such as advertising and public relations. Hence, e-commerce is an important tool for SMEs to expand in the global market, reduce their costs, and share information more easily and frequently with the companies and suppliers they do business with. There are several large and well-known e-commerce platforms in Türkiye like trendyol.com and hepsiburada.com that enable SMEs to sell their products online.

Regulatory and Business Environment

Entry Requirements and Industrial Licensing

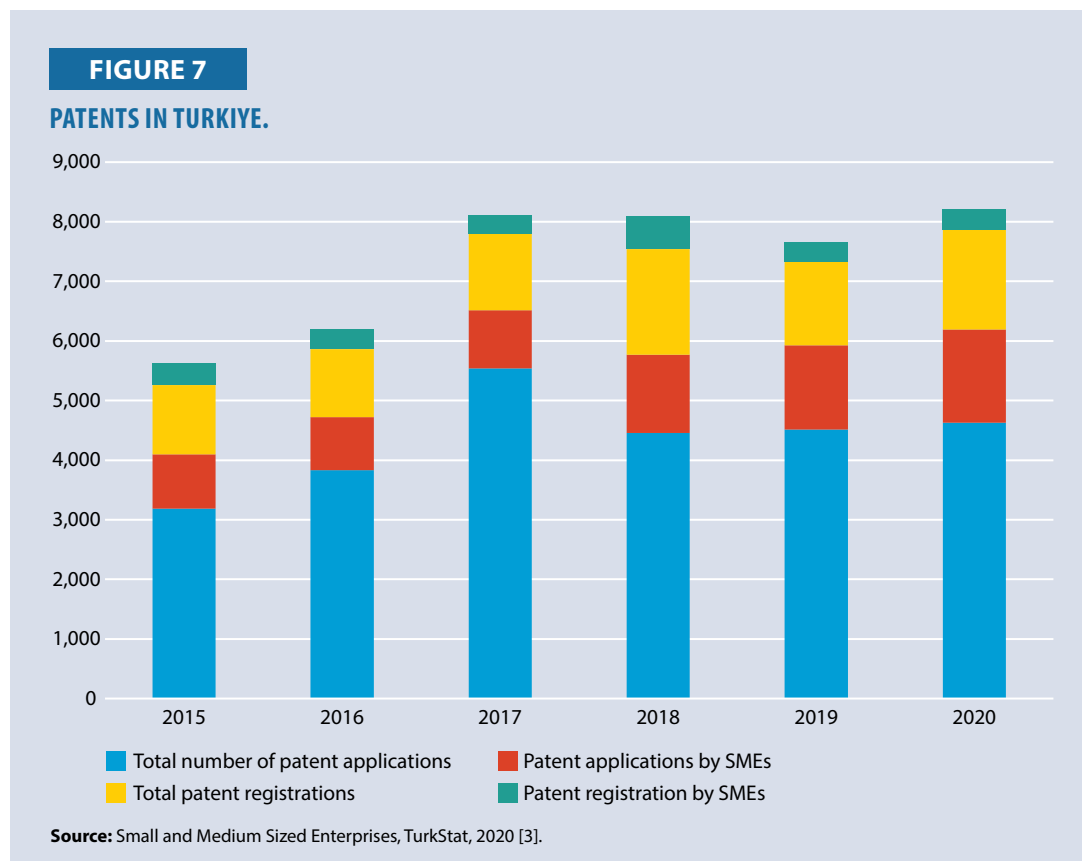
The Doing Business study published by the World Bank, which includes the comparison of business legislation of 190 economies, ranked Türkiye as 33 in 2020 [23]. Türkiye has initiated reforms with

a view of making it easier to do business, enhancing the investment environment, eliminating red tape in setting up a business, and minimizing costs and procedures. Now, establishing a company is only carried out at Trade Registry Directorates, which are located in Chambers of Commerce and designed to be a ‘one-stop shop’. The process is completed within the same day. Türkiye's Foreign Direct Investment Law is based on the principle of equal treatment and allows international investors to have the same rights and liabilities as local investors [24].

Intellectual Property Rights Protection

In Türkiye, the Turkish Patent and Trademark Office is responsible for the registration of patents, utility models, brands, geographical indications, traditional product names, designs, and integrated circuit topographies. Their mandate includes enforcing the provisions of the relevant legislation to ensure the protection of these rights [25].

In 2020, SMEs accounted for 33.8% of the enterprises filing patent applications and 19.8% of the received patent registrations.



It is important to increase intellectual property awareness and innovation culture in the industry, especially in small-scale enterprises. For this purpose, consultancy services are provided to SMEs in the field of industrial property through projects aiming to increase the innovation development capacity of SMEs [17].

Labor Protection Laws and Labor Market Regulations

Occupational health and safety are a paramount concern for both the ILO and the EU. Aligned with ILO recommendations, the EU has established comprehensive standards and legislation within its

borders and also for countries looking to join it. Turkiye, which has reached an important stage in the process of joining the EU, is making efforts to follow processes that meet the EU requirements. The vision of the Ministry of Labor and Social Security (MoLSS) in Turkiye is to regulate and supervise the working life, increase the contribution of growth to employment and labor force participation rate by solving the structural problems of the labor market, create qualified human resources, take measures to expand social security and develop a healthy and safe working environment for all employees by developing a culture of occupational health and safety.

The Occupational Health and Safety Law (No. 6331, 2021) aims to ensure and develop health and security conditions in workplaces [26]. This Law applies to all jobs and workplaces in both the public and private sectors, regardless of their sectors or number of workers, and covers all employees, interns, employers, and their representatives. The ultimate aim of the Law is to prevent occupational diseases and accidents, and other physical and mental health problems of the workers, related to work and the work environment. Other relevant laws are Labor Law (No. 4857, 2003) and Social Insurance and Universal Health Insurance Law (No. 5510, 2006).

The Labor Laws stipulate that the minimum age for work is 15 years, while the weekly working period has been capped at 45 hours. The activities included in the working period, like rest periods, night work, underground work, and working periods during maternity are described in the Law. The Social Insurance and General Health Insurance Law applies to workers registered with the Social Security Institution, i.e., those who pay insurance premiums, those working in industrial establishments and service sectors, civil servants, agricultural workers, and self-employed people paying insurance premiums.

Turkiye has also approved 55 conventions of ILO, including C187 Promotional Framework for Occupational Safety and Health Convention, C182 Worst Forms of Child Labor Convention, C155 Occupational Safety and Health Convention, and C144 Tripartite Consultation Convention.

Logistics Performance Index

Logistics and transportation services are some of the main factors that directly or indirectly affect the SDGs formed around components such as access to resources, poverty reduction, livable cities, climate change, and energy efficiency.

On a global scale, the slowdown in Turkiye's accession process to the EU has negatively affected Turkiye's overall logistics performance as a country. Behind this situation, there are differentiating customs tariffs, loss of time, and additional costs in the main transportation corridors between Turkiye and Central Europe. As a result of this situation, Turkiye ranked 47th in the Logistics Performance Index 2018 published by the World Bank every two years. It was also noteworthy that Turkiye fell 13 places from 2016 to 2018.

TABLE 21

TURKIYE'S RANKINGS IN THE GLOBAL LOGISTICS PERFORMANCE INDEX.

Year	LPI Rank	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking & Tracing	Timeliness
2007	34	33	39	41	30	34	52
2010	39	46	39	44	37	56	31
2012	27	32	25	30	26	29	27

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Year	LPI Rank	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking & Tracing	Timeliness
2014	30	34	27	48	22	19	41
2016	34	36	31	35	36	43	40
2018	47	58	33	53	51	42	44

Source: Türkiye's Rankings in the Global Logistics Performance Index, The World Bank, 2018 [27].

The sectors with the highest decline in the Global Logistics Performance Index were Customs with a decrease of 22 places, International Shipments with a decrease of 18 places, and Logistics Competence with a decrease of 15 places.

Although there is no periodic indexing or quantification study for the evaluation of domestic logistics performance, it is accepted that Türkiye has taken important steps toward strengthening the domestic transportation infrastructure in the last 20 years.

TABLE 22
CHANGE IN THE TURKIYE'S TRANSPORTATION INFRASTRUCTURE.

	2003	2021
Dual carriageway	6,101 km	28,284 km
High-speed railway	0 km	1,213 km
Maritime containers transport	190 million Tons	344.9 million Tons
Number of airports	26	56

Source: Logistics and Transportation Industry in Türkiye, Presidency of Investment Office, Republic of Türkiye, 2022 [28].

In addition, logistics centers (hubs) were established to develop transportation routes for combined transportation, establish an effective connection between transportation modes, and carry out activities such as storage, maintenance-repair, loading-unloading, and handling, in more economical ways. To increase the competitiveness of Türkiye's logistics performance, the government has planned to build logistics centers in 25 different locations, of which, 12 are operational [29].

Grievance Redressal Process

The main legal basis for the rights of all businesses and employees in Türkiye is the Labor Law. According to this law, labor legislation applies to almost all businesses and employees, regardless of the size of the workplace, with some exceptions. Social security legislation, which is complementary to the Labor Law, especially the Occupational Health and Safety Law and the Law on Trade Unions and Collective Bargaining Agreements, constitutes two important components of the grievance redressal mechanism in Türkiye.

In addition to these, the Turkish Code of Obligations has the force of general law to be considered in cases that are not covered in the above-mentioned legislation. In this Code, there is also a chapter examining labor law. For some companies and employees, like those serving in the aviation sector, it is necessary to act directly in line with the provisions of the Turkish Code of Obligations.

Moreover, the Law on the Protection of Personal Data (No. 6698, 2016), as a whole, defines personal data, their processing and protection, and in particular, outlines how the processing and protection of personal data should be, as well as determining what the sanctions will be in case of non-compliance with the processing and protection rules. Many institutions within the Grievance Redressal Mechanism like MoLSS, MoIT, and the Turkish Employment Agency, etc. have grievance assessment systems that actively operate over both e-mail and telephone. The Presidential Communication Centre (CIMER) constitutes the core interface for most of the general issues where a direct interlocutor cannot be found. In more specific topics, for example, even for a single KOSGEB support program, particular e-mail addresses for grievance assessment have already been defined.

Environmental Factors

Guidelines for Disposal of Industrial Gases and Wastes

Turkiye is a leading trade partner to the EU, playing an essential role in multiple global value chains. As such, new regulations in the EU emanating from the EGD could severely impact Turkish exports and industries. In July 2021, the Ministry of Trade released the Green Deal Action Plan (GDAP) to accelerate Turkiye's transition to a sustainable and resource-efficient economy [30]. The GDAP aims at harmonization with the principles and regulations adopted under the EGD to preserve and carry forward the existing integration of Turkiye within the scope of the EU Customs Union.

The water and energy supply datasets were developed under the GDAP project titled Development of the National LCA Database (2017–2021), funded by the Turkish MoIT [31]. In this project, energy and water datasets were developed for the national database, and system boundaries were applied as cradle-to-gate. In 2021, considering the impact of the changes to be brought by the EGD, data sets of products under the steel product group produced in electric arc furnace facilities, cement product group, lime product group, and transportation (freight transportation) product group, have been developed and integrated into the National Life Cycle Database.

MoIT is also playing an important role in the transition to a circular economy, by initiating the Green OIZ and green certificate system, and leading international finance resources for green transition and emission reductions of the manufacturing sector. Also, Sectoral Resource Efficiency Guidelines have been published by the MoIT, to disseminate sustainable production methods to industry [32].

The Turkish Environmental Label System, developed by MoEUCC, is considered an important tool in promoting sustainability in the production and consumption of different sectors, as it focuses on key environmental issues such as low carbon emissions, energy efficiency, zero waste, restricted chemicals, wastewater recycling, etc. By focusing on sustainable production and consumption, the Turkish Environment Label System encourages the use of cleaner production technologies in production and creates a platform for consumers to support goods and services with environmental labels [33].

Furthermore, in February 2022 MoEUCC organized the first national Climate Council, whose Commission Recommendations set forward 217 new decisions in line with Turkiye's 2053 net zero emissions and green development targets. Key areas covered by the decisions included Circular Economy, Climate Compatible Cities, Climate Smart Agriculture, Drought Action Plan, Environment and Clean Transportation Network, Green Energy, Green Economy, and Climate Education, among others [34].

Environmental Clearances Required for Businesses

In Türkiye, the notion of environment has been included in development plans and policy documents for many years. In 1983, Environmental Law No. 2872 was put into force. The purpose of this Law is to protect the environment, which is the common property of all living things, in line with the principles of sustainable environment and sustainable development [35]. In accordance with this law, institutions, organizations, and businesses that may cause environmental problems, as a result of their planned activities, are obliged to prepare an Environmental Impact Assessment Report, or project introduction file. Unless the Environmental Impact Assessment Positive Decision or Environmental Impact Assessment is Not Required Decision is taken, approval, permit, incentive, construction, and usage license cannot be given for these projects, and investment will not be started and tendered for the project.

According to this law, facilities, businesses, and settlements that are not deemed appropriate to directly or indirectly deliver their wastes generated as a result of production, consumption, and service activities, are obliged to treat and dispose of their wastes in accordance with the standards and methods determined in the regulations, and obtain the prescribed permits. There are various laws and regulations in the current legislation, especially the Environmental Law, for the prevention of pollution caused by hazardous chemicals and wastes. When the national policy documents, legislation, and institutional framework are examined, it is seen that the SDG targets are mostly covered directly or indirectly. In Türkiye, policies sensitive to environmental problems are developed within the framework of sustainable development principles, in line with global SDGs.

Policy Framework

Following the UN Conference on Environment and Development held in Rio in 1992, Türkiye put the notion of sustainable development on its agenda and has reflected this concept in its legislation and policy documents, especially in sectoral and thematic national policy, and strategy documents.

The 2030 Agenda for Sustainable Development agreed upon by world leaders at the UN Sustainable Development Summit, was adopted with the consensus of 193 countries. The 2030 Agenda accepts the elimination of poverty in all its dimensions as an integral part of sustainable development. It aims to include all societies in the efforts to reduce poverty and increase welfare around the world, protect cultural and social values, and prevent environmental damage. In this new global development approach, besides social and environmental issues, economic issues such as technological development, employment, and industrialization are also included. Seventeen SDGs have been defined within the scope of the 2030 Agenda, and SDGs 8 and 9 outline the main goals for the transformation of SMEs within the scope of this research.

The main issues that stand out within the scope of SDG 8 (decent work and economic growth) are increasing the total factor productivity, increasing the productivity of SMEs, ensuring resource efficiency in production and consumption, and increasing the employment of women and youth. Under SDG 8, Türkiye has achieved significant improvements in areas such as GDP growth rate, increase in non-farm employment, access to finance, decent jobs, and inclusive employment, as a result of the macroeconomic and structural policies implemented. Issues such as technological transformation, productivity increase, qualified employment, and environment-friendly growth, have also gained importance. SDG 8 is defined as "Promoting stable, inclusive, and sustainable economic growth, full and productive employment, and decent work for all". All of the objectives

within the scope of SDG 8 are discussed in different dimensions in the Development Plans and Annual Programs [7]. The SME Strategy Document (2015–18) is one of the other basic documents for this goal.

Within the scope of SDG 9 (industry, innovation, and infrastructure), significant resources have been allocated for strengthening the infrastructure of the industry and improving the transportation infrastructure in Türkiye. The share of R&D expenditures in GDP has increased, and rapid progress has been made in accessing information and communication technologies. SDG 9 is defined as “Building inclusive and sustainable resilient infrastructures supporting industrialization and strengthening innovation”. Supporting entrepreneurship for SMEs, facilitating access to finance, developing training and consultancy services provided by KOSGEB, expanding the use of information and communication technologies, and developing university-industry cooperation, are among the main policies addressed by Türkiye within the scope of this SDG [7].

The 2030 Agenda for Sustainable Development was accepted at the UN Sustainable Development Summit held in 2015, and within this framework, 17 goals with 169 targets were defined, to achieve these goals. There is a global indicator set consisting of 231 single indicators to monitor the level of achievement of SDGs and objectives. Overall, 131 indicators and their definitions are published, including replacement indicators that are considered suitable for measuring the target related to those currently available for the country. TurkStat is responsible for monitoring the 2030 Agenda, based on these indicators, and SDG indicators have been integrated into the Official Statistics Program covering the years 2017–21 [36]. Within the scope of these studies, to monitor and coordinate the implementation of the SDGs at the national level, The National Sustainable Development Coordination Board, consisting of the relevant deputy ministers of all ministries, the heads of the Turkish Cooperation and Coordination Agency, the Turkish Human Rights and Equality Institution, and the Turkish Statistical Institute, was established with the Presidential Circular No. 2022/12, on 19 July 2022, under the chairmanship of the Strategy and Budget Presidency.

The Way Forward

SMEs are the catalysts of the Turkish economy as well as other developed and developing countries. As they have more flexible production opportunities, as compared to large enterprises, they adapt to the changes in demand in a shorter time and reach full competition conditions quickly. The most important obstacles that SMEs face in the transition to the new sustainable development approach are uncertainty (demand, return, and regulations), lack of financial resources, lack of awareness, and lack of skilled workforce.

Developing local entrepreneurship and industrialization at the local and national levels is also crucial to support and develop a sustainable economy and development. One of the goals of KOSGEB's 2021 Annual Report was to contribute to SMEs and entrepreneurs to reach an innovative, technological, and competitive structure, and also to increase their share in economic and social development [15].

Although there are approaches to SDGs in environmental policies, it can be stated that their implementations in SMEs are limited. Although KOSGEB is the main implementation body in policy development processes regarding SMEs, some improvements are needed in the coordination of activities related to SDGs. Incentives and regulations accelerating SMEs' transformation should

also be carefully revised in the coming period. Considering the current fragility of SMEs, measures with a complementary perspective should be adopted.

In the upcoming period, it will be vital to accelerate and expand the use of R&D and information–communication technology by increasing research and practices for the competitiveness, employment, increase in added values, and digital transformation of the industry, in particular SMEs. In today's world of digital and green transformation, one of the most comprehensive solutions is to address the Green Deal Action Plan from the SMEs' perspective. Achievement of SDGs will be possible with the participation of the private sector and non-governmental organizations.

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VIETNAM

Introduction

The 2030 Agenda, adopted by all UN member states in September 2015, outlines a collective vision for promoting peace and prosperity for both people and the planet, in the present and the future. Central to the agenda is the 17 SDGs, which urgently call on countries across the world to build a better and sustainable future for all, everywhere. The SDGs emphasize that ending poverty and other deprivations must go hand in hand with strategies to improve health and education, reduce inequality, and promote economic growth. Simultaneously, they underscore the need to address climate change and preserve oceans as well as forests. These 17 SDGs set forth 169 specific targets and 232 indicators as measurement tools.

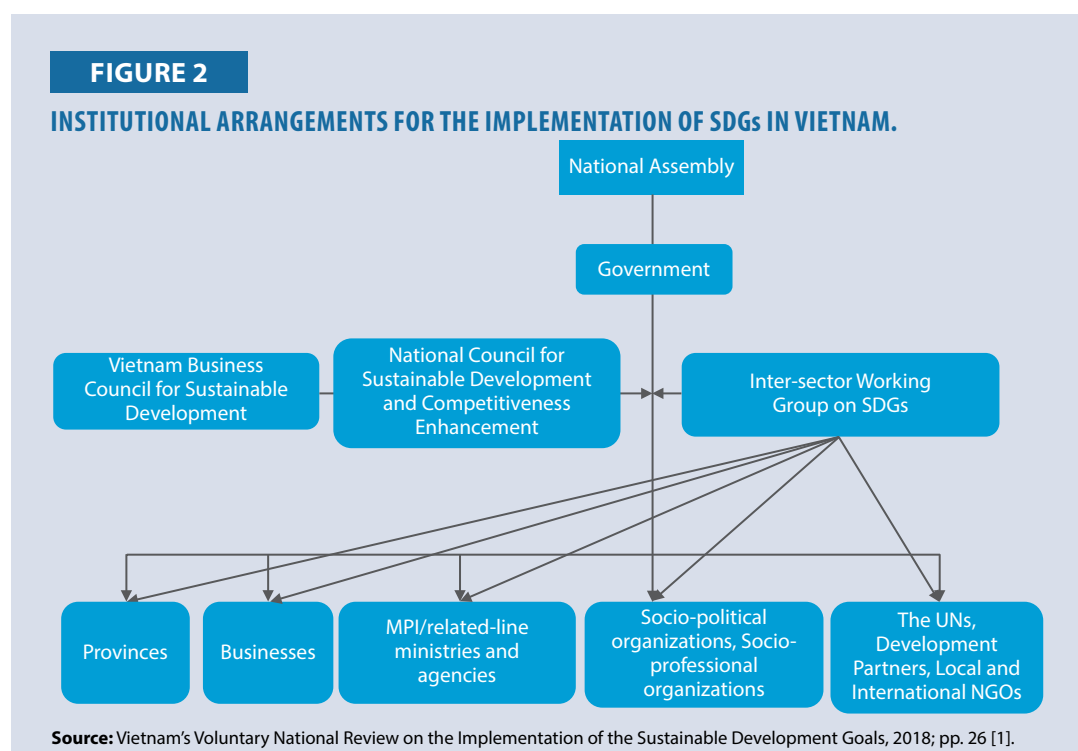


The Prime Minister of Vietnam issued Decision number 622/QĐ-TTg on 10 May 2017 to introduce the National Action Plan for the implementation of the 2030 Agenda for Sustainable Development (National Action Plan 2030). The National Action Plan (NAP) 2030 lays out 17 SDGs for Vietnam to achieve by 2030. This includes 115 specific targets that the country needs to achieve in two phases: 2017–2020 and 2021–2030. Notably, the 115 targets are aligned with 150 of the 169 global targets, tailored to suit Vietnam’s conditions and development context.

The NAP 2030 allocates specific responsibilities to various ministries, branches, agencies, and localities, outlining the tasks and solutions to realize the SDGs in Vietnam. To oversee the implementation of NAP 2030, the Prime Minister established the National Council on Sustainable

Development and Competitiveness Enhancement through Decision 419/QĐ-TTg in 2018. The Council serves as an advisory body for the government and the Prime Minister, focusing on sustainable development and competitiveness matters.

The institutional setup for SDG implementation in Vietnam is shown in Figure 2. As per Vietnam's Voluntary National Review on the Implementation of the Sustainable Development Goals 2018 (VNR 2020) [1], which monitors the progress and implementation of SDGs, 17 of the 22 ministries and branches, along with 51 of the 63 provinces and centrally-run cities, have already announced their Action Plans to implement the 2030 Agenda.

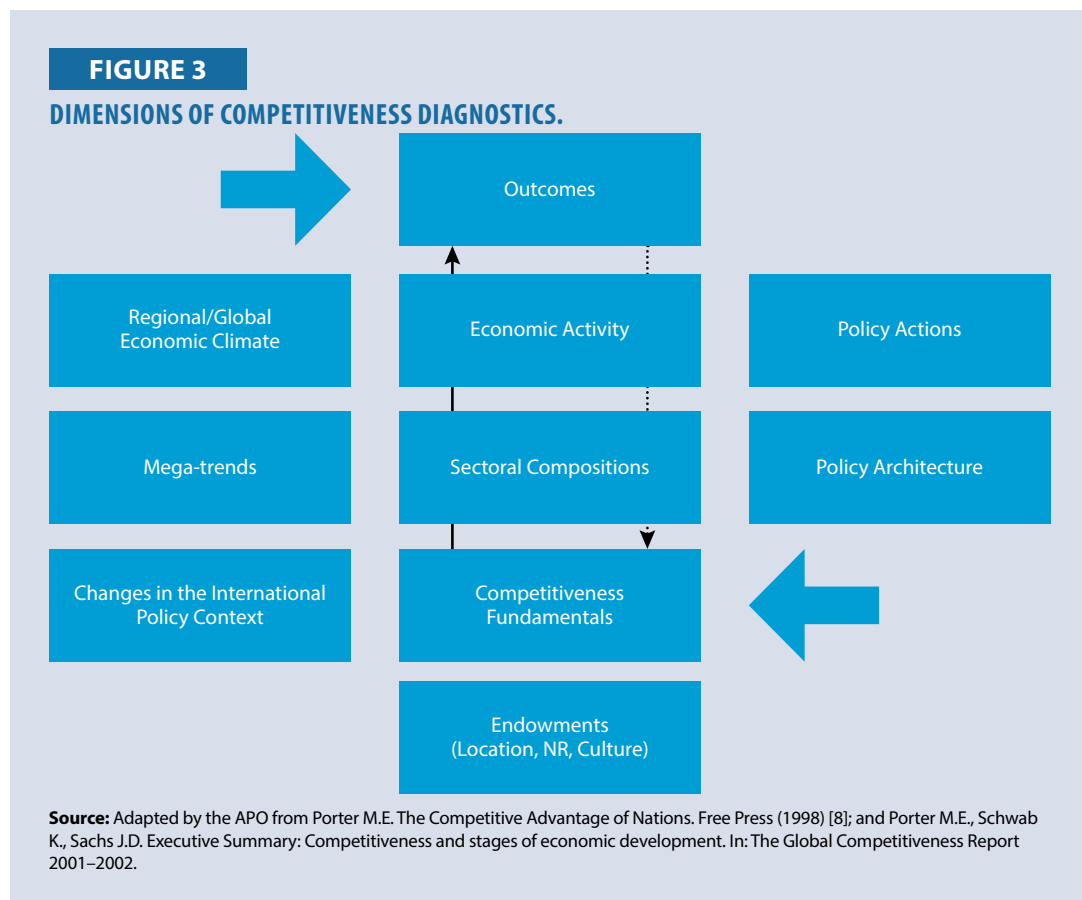


While policies and the institutional systems implementing the Vietnam SDGs have been in place since 2017, the specific policy for supporting SMEs to meet their SDG objectives was inadequate until recently. In February of 2022, the Deputy Prime Minister signed Decision 167/QĐ-TTg, approving the program to increase sustainable development in the private sector. The program seeks to ensure harmony between economic efficiency, corporate social responsibility, and environmental protection, thereby contributing to the country's fulfillment of the 17 UN SDGs by 2030 [2].

In Vietnam, SMEs account for the majority of private enterprises. According to the General Statistical Office (GSO) of Vietnam, there are approximately 785,000 SMEs in the country, accounting for more than 98% of all businesses. SMEs generate employment for 70% of the country's labor force and contribute about 50% of the GDP [3]. John Rand & Finn Tarp [4] highlight the significant role that SMEs in Vietnam can play in achieving various SDGs in the country. They not only promote inclusive and sustainable economic growth, employment, and decent work for all (SDG 8) but also contribute to sustainable industrialization, fostering innovation (SDG 9). Additionally, with appropriate support, SMEs can help in reducing income inequalities (SDG 10) by providing good-quality jobs. They can also help in achieving gender equality (SDG 5) and women's empowerment, through female entrepreneurship [4].

Research Methodology

This research uses Michael E. Porter's competitiveness framework, guided by APO, as shown in Figure 3.



Each of the four dimensions, as outlined in the Competitiveness Diagnostics, has several indicators that need to be identified and analyzed. As per the APO guidelines, the indicators include a diversified set of data at the macro level and the objective of this research is to demonstrate how SMEs can be transformed to achieve SDGs. The report attempts to provide a comprehensive roadmap for the SME sector in Vietnam, enabling them to work towards achieving SDGs, while also improving overall productivity.

The report used the desk review method, gathering and reviewing secondary data within a period of two months. However, it is essential to acknowledge that this method has its limitations. The desk review method is constrained by the accessibility and availability of data, and, in some cases, certain indicators outlined in the framework lack current or up-to-date data. As a result, the report may have only partially addressed some of the required information. This report uses data from various international organizations such as the World Bank, UNDP, OECD, APO, and the GSO.

With the constraints and considerations of available data, the report adheres to the APO guidelines by initially presenting the four dimensions, emphasizing the indicators for which data is accessible. It then proceeds to examine the policy that can facilitate the transformation of SMEs to meet the SDGs in Vietnam. Subsequently, the report delves into policy recommendations and the way forward, proposing actionable steps and strategies to further support SMEs in their journey toward achieving the SDGs.

Dimension of Competitiveness Diagnostics

As illustrated in Figure 3, the research framework encompasses four dimensions of competitiveness diagnostics. These include Outcome, Economic Activity, Sectoral Composition, and Competitive Fundamentals. Each dimension comprises indicators with detailed data sets or indexes. This section aims to input as much available data as possible to diagnose the research theme related to the transformation of SMEs in meeting the SDGs.

According to the SME Support Law (2017), SMEs in Vietnam are defined by two criteria: the annual average number of workers, and the total value of the enterprise's capital or its total revenue, as reflected in the enterprise's balance sheet. These criteria are applied differently in the two main groups of enterprise sectors in Vietnam: (1) agriculture, forestry and fisheries, and industry and construction; and (2) trade and services. Table 1 summarizes the definition of an SME in Vietnam, based on Decree No. 39/2018/ND-CP under the SME Support Law.

TABLE 1
DEFINITION OF SMEs IN VIETNAM.

Enterprise Size	Indicator	Sector	
		Agriculture, Forestry, and Fishing	Trade and Services Industry and Construction
Micro	Either		
	Total revenue	< USD126,156	< USD420,521
	Or		
	Total capital	< USD126,156	< USD126,156
	Employees	≤10	≤10
Small	Either		
	Total revenue	< USD2.1 million	< USD4.2 million
	Or		
	Total capital	< USD841,043	< USD2.1 million
	Employees	≤11–100	≤11–150
Medium	Either		
	Total revenue	< USD12.615 million	< USD12.615 million
	Or		
	Total capital	< USD4.205 million	< USD4.205 million
	Employees	≤101–200	≤ 51–100

Note: Calculated at the exchange rate of USD1.00 = VND23,780.00.

Source: Decree No. 39/2018/ND-CP on the Implementation of SME Support Law, Government of Vietnam.

Outcome

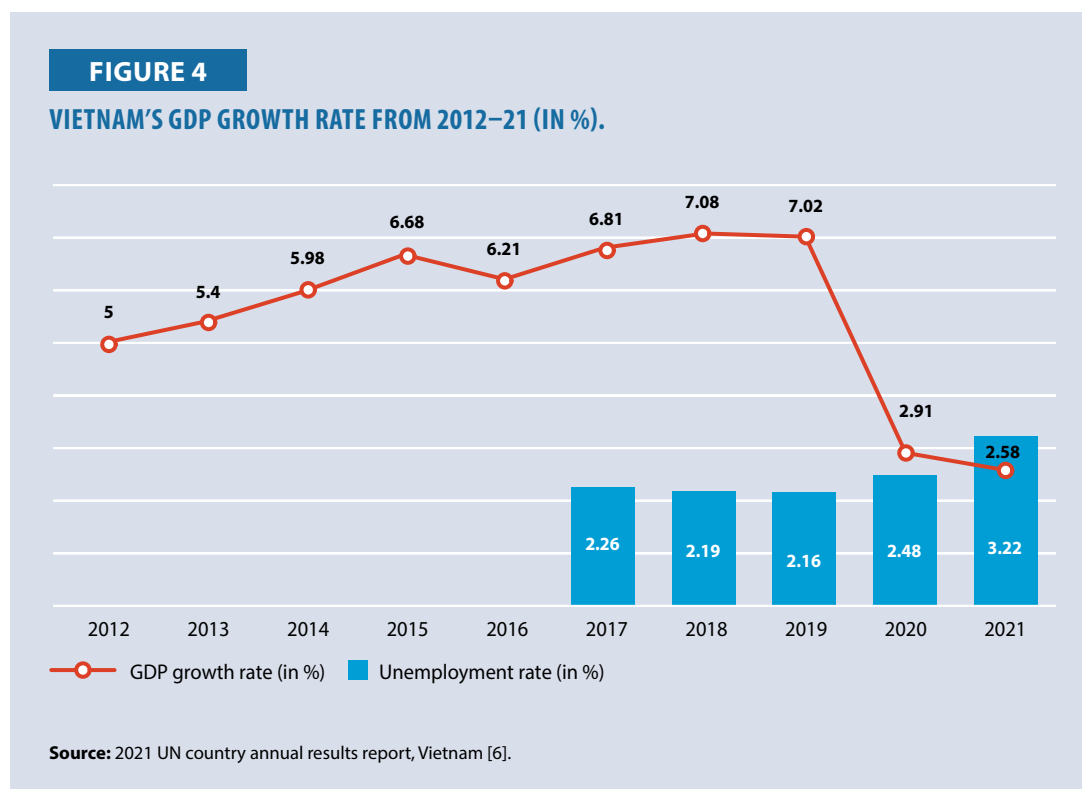
In this dimension, the following indicators will be reviewed.

- Dynamics of economic growth of SMEs
- Labor productivity
- Labor mobilization
- Gender gap in labor force participation rate

- Regional disparities
- Social and environmental outcomes
- Energy use

Dynamics of Economic Growth of SMEs

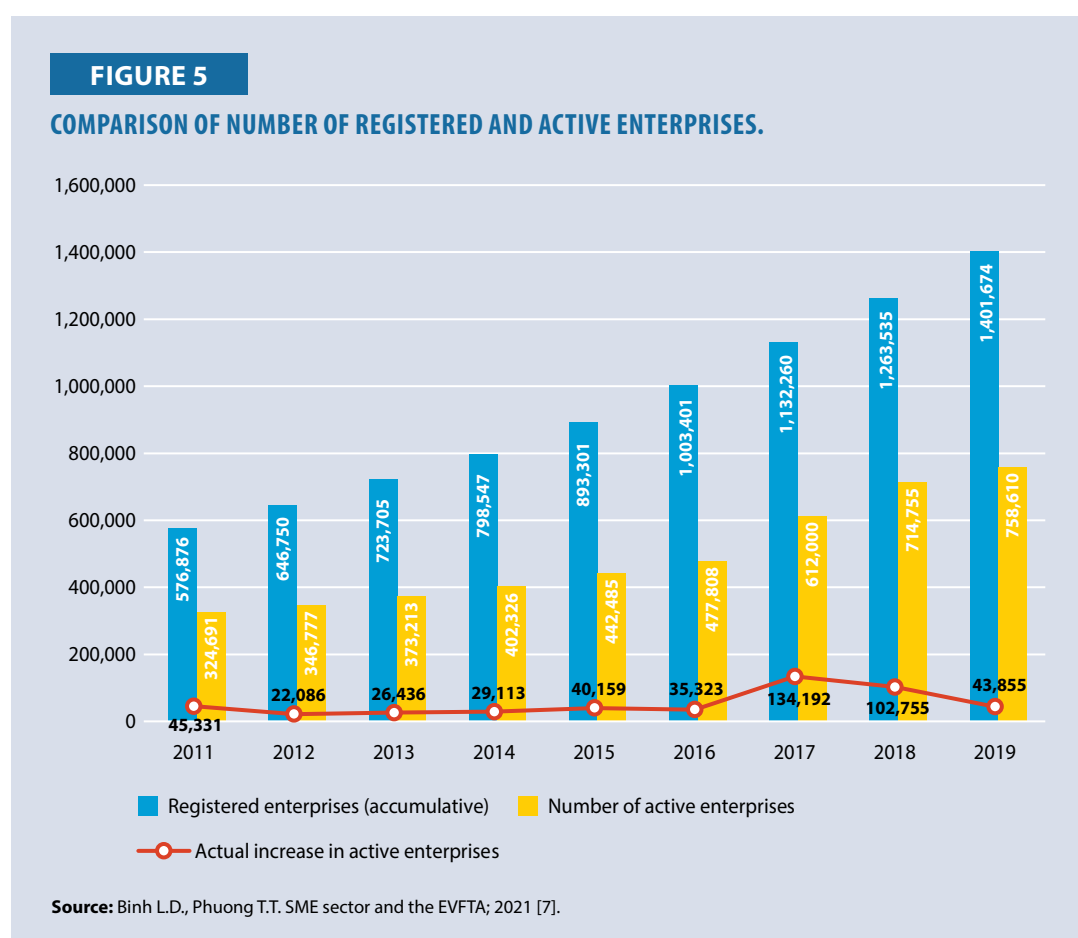
Over the past 20 years, Vietnam's GDP and GDP per capita have shown steady growth, as reported by the World Bank. Despite the challenges posed by the COVID-19 pandemic, Vietnam's GDP continued to grow positively during the 2020–21 period and was one of the few countries with positive GDP growth. The GDP growth was forecast to further jump from 2.56% in 2021 to 7.5% in 2022. The GSO highlights that the GDP per capita at current prices consistently surpassed the previous year, reaching USD3,717 per person in 2021, reflecting an increase of USD165 compared to 2020. Moreover, the GDP at current prices for 2021 stood at VND8,479.7 trillion (approximately USD366.1 billion), as compared to VND8,044.4 trillion (approximately USD346.6 billion) in 2020 [5]. The GDP growth rate for the last 10 years is illustrated in Figure 4.



The growth of SMEs in Vietnam in the last three decades was rapid with the number of registered enterprises also increasing significantly over the years. The epochal Enterprise Law, adopted in 2000, triggered rapid growth in the number and size of private enterprises. It eased restrictions and conditions in market entry [7]. Since then, the number of enterprises has increased at an amazing rate. According to the 2020 report of GSO and the Ministry of Planning and Investment (MPI), by the end of 2019, more than 1.4 million SMEs had registered with the government. Notably, more than 38,000 SMEs were registered in 2019 alone. Also, despite the negative impact of COVID-19, over 111,000 SMEs with a total capital equivalent to USD67 billion registered within the first 10 months of 2020, promising to generate 850,000 new jobs in the years to come. The capital

investment registered by SMEs during this period was six times higher than the registered FDI capital inflow into Vietnam during the same period in the previous year [7].

Notwithstanding the increase in the number of SMEs and investments, Le Duy Binh and Tran Thi Phuong [7] found that the gap between the number of registered enterprises and those that were active has been widening in recent years (see Figure 5). This indicates a challenging business environment for most of the private enterprises in Vietnam. According to GSO, approximately 758,000 SMEs were active in 2019 [12]. This represented only 54.1% of the total number of SMEs that had registered until 2019. Figure 5 shows a widening gap between the number of enterprises that are registered and the actual increase in the number of annual active enterprises over the years.



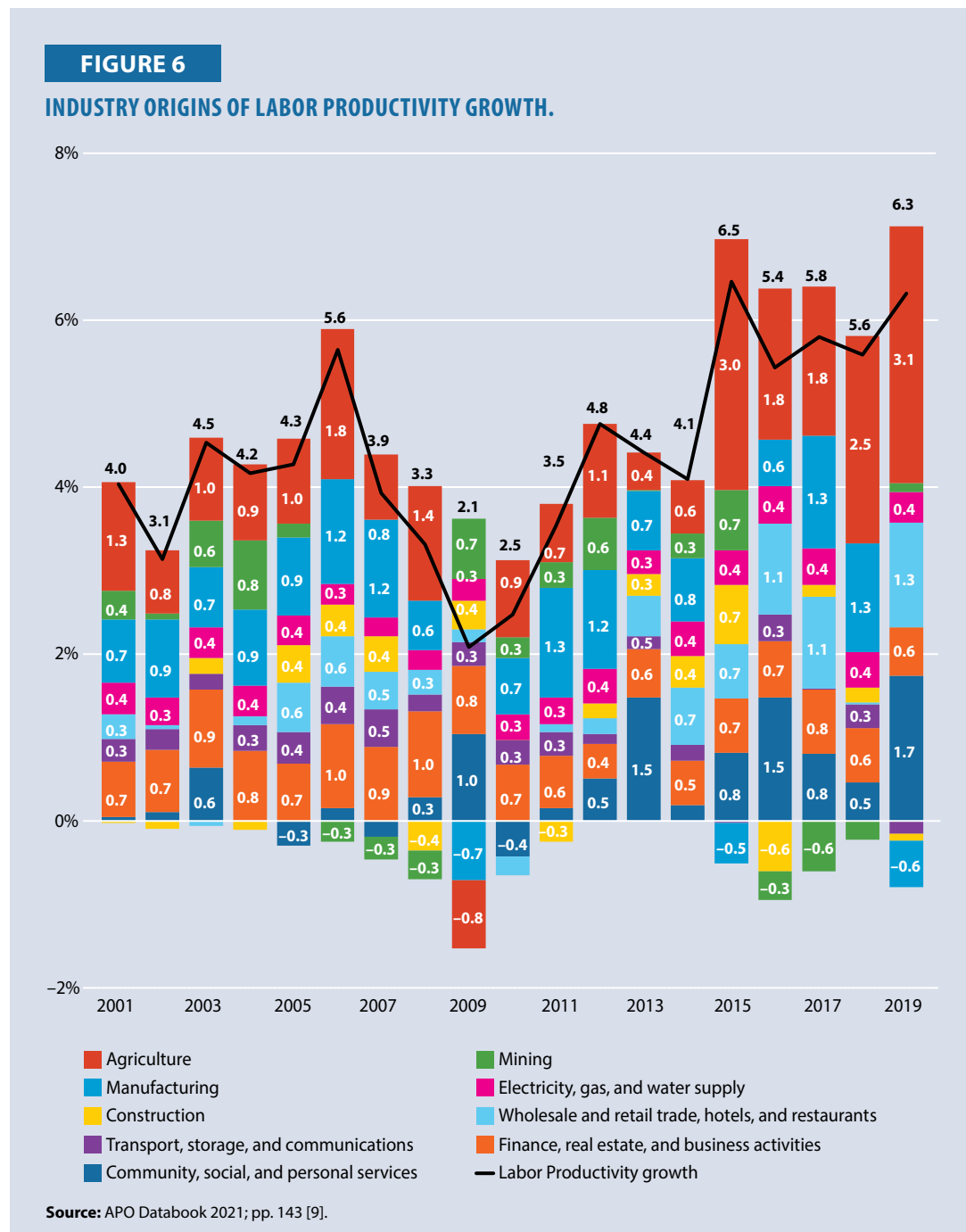
SMEs in Vietnam create jobs for 70% of the country's laborers and contribute about 50% of GDP [3]. The dynamic growth of SMEs in both quantity and quality can significantly contribute to meeting the SDGs. Going ahead the chapter will discuss the other characteristics of SMEs in Vietnam.

Labor Productivity

Labor productivity of the whole economy at current prices in 2021 was estimated to be VND172.8 million (approximately USD7,461) per labor. At constant prices, labor productivity in 2021 increased by 4.6% with the improvement in the qualifications of the laborers. The rate of trained workers with degrees and certificates in 2021 was 26.1% as compared to 24.1% in 2020 [5].

Vietnam's labor productivity has converged rapidly towards the OECD average over the last 10 years. Between 2015–17, the average annual labor productivity growth in Vietnam stood at 7%, which was more than any other major emerging economy. Moreover, labor productivity levels in Vietnam do not exhibit significant differences by sector, such as between industry and services, or by firm size, especially between mid-sized (50–249 employees) and large enterprises (250+ employees). However, the productivity gap is more pronounced when compared with small-sized firms (10–49 employees) [8].

The growth rate of labor productivity over the past 20 years, as outlined in Industry Origins, is shown in Figure 6.

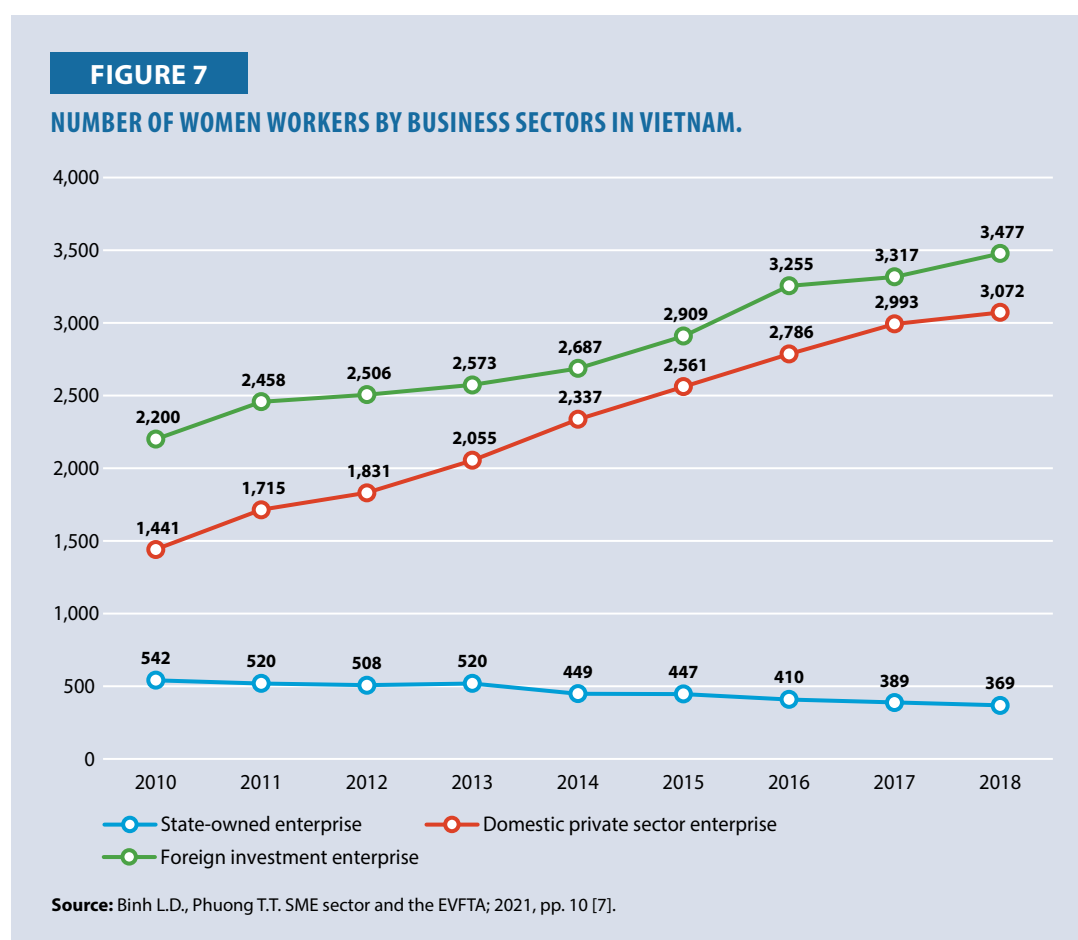


Labor Mobilization

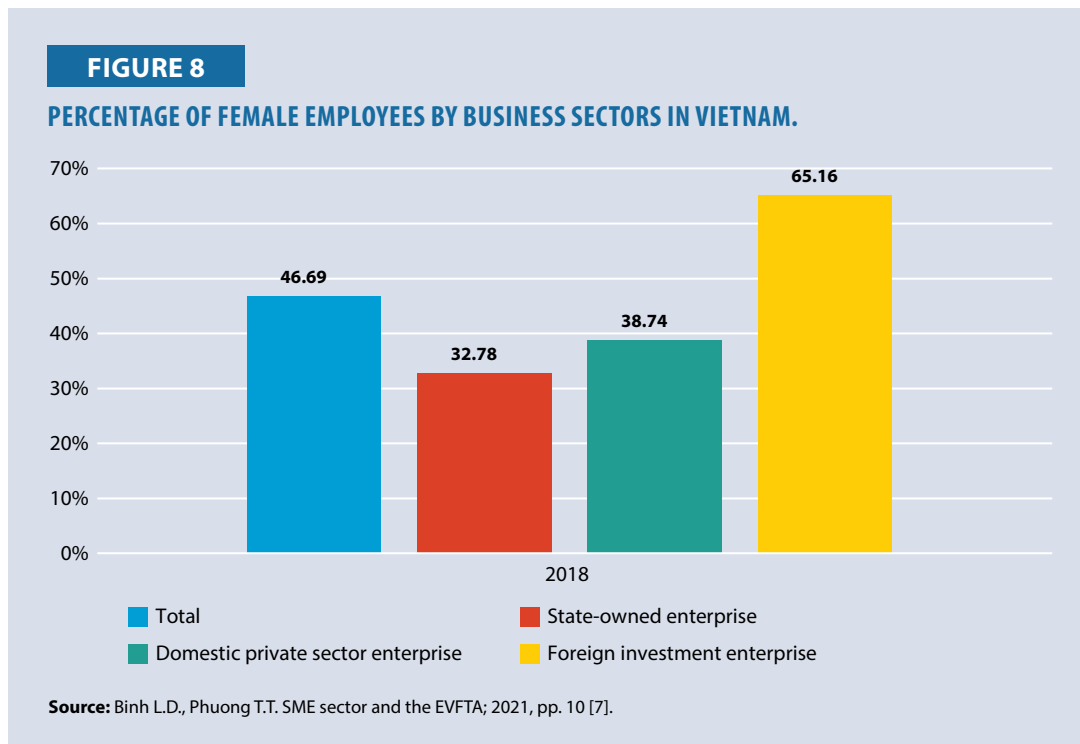
The labor force aged 15 and over in 2021 reached 50.6 million people. The employed population aged 15 and over was estimated to reach 49.1 million people, of which, the 14.3 million people working in the agriculture, forestry, and fishery sectors, accounted for 29.1%, the 16.2 million people working in the industry and construction sector, represented 33.1%, and 18.6 million people working in the service sector, made up 37.8% [5].

Gender Gap in Labor Force Participation Rate

In terms of labor force structure, the percentage of male employees participating in the workforce reached 53.5%, which is higher than the rate of 46.5% for females [5]. In 2018, women comprised 46.7% of the total employment in the formal enterprise sector. However, in the private sector SMEs, the share of female workers is relatively lower at 38.7% [7], as illustrated in figures 7 and 8.



In Vietnam, women own 95,906, or about 21%, of formal enterprises (GSO, 2014), of which the majority about 57% (55,049) are microenterprises, while 42% (44,003) are SMEs, and 1% (854) are large enterprises. Women-owned businesses are similar in size to those of men, with comparable average annual revenues. According to the 2015 Enterprise Census, small women-owned enterprises reported an average annual revenue of USD548,000, while men-owned enterprises had an average revenue of USD543,000. Additionally, for medium-sized enterprises, the revenue for women-owned enterprises was USD5.69 million as compared to USD5.76 million for men-owned enterprises) [10].



Regional Disparities

According to GSO in 2020, the distribution of enterprise across various regions of Vietnam, measured per 1,000 people, is as follows.

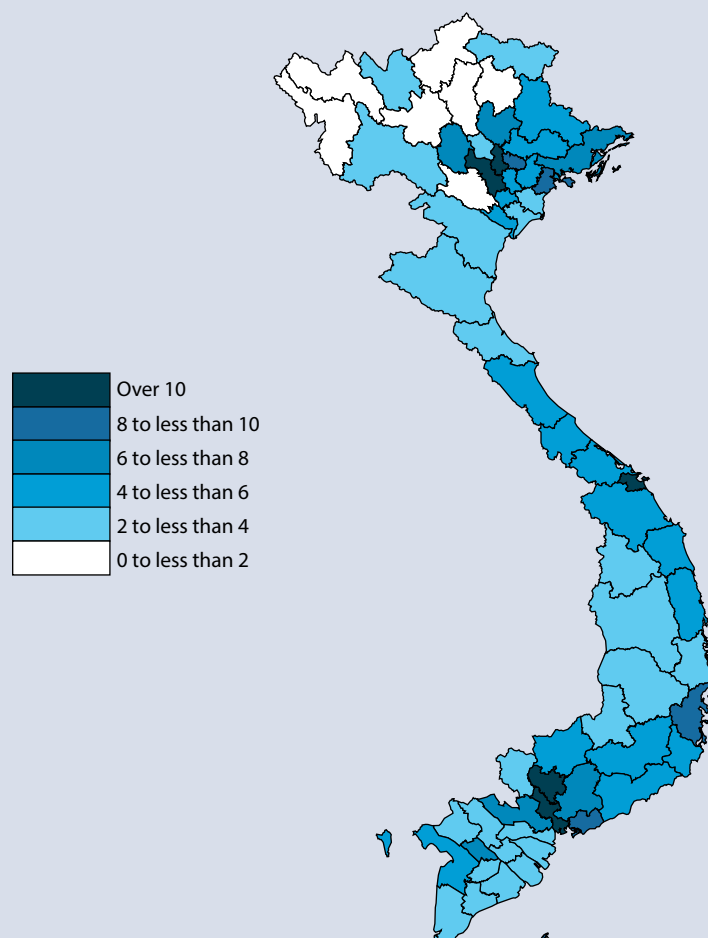
- Average: 8.3 enterprises per 1,000 people
- Highest: 27.6 enterprises per 1,000 people
- Lowest: 0.2 enterprises per 1,000 people

In 2020, the nationwide average showed that there were 8.3 active enterprises operating per 1,000 people. Notably, 8 out of 63 localities (provinces and cities) surpassed the national average in terms of the density of active enterprises per 1,000 people. These regions are as follows:

- Ho Chi Minh City: 27.6 enterprises per 1,000 people
- Da Nang: 20.2 enterprises per 1,000 people
- Hanoi: 20.1 enterprises per 1,000 people
- Binh Duong: 13.5 enterprises per 1,000 people
- Hai Phong: 9.8 enterprises per 1,000 people
- Ba Ria - Vung Tau: 9.4 enterprises per 1,000 people
- Khanh Hoa: 9.0 enterprises per 1,000 people
- Bac Ninh: 9.0 enterprises per 1,000 people

FIGURE 9**THE DENSITY OF ACTIVE ENTERPRISES IN VIETNAM (PER 1,000 PEOPLE) IN 2020.**

Unit: Enterprise



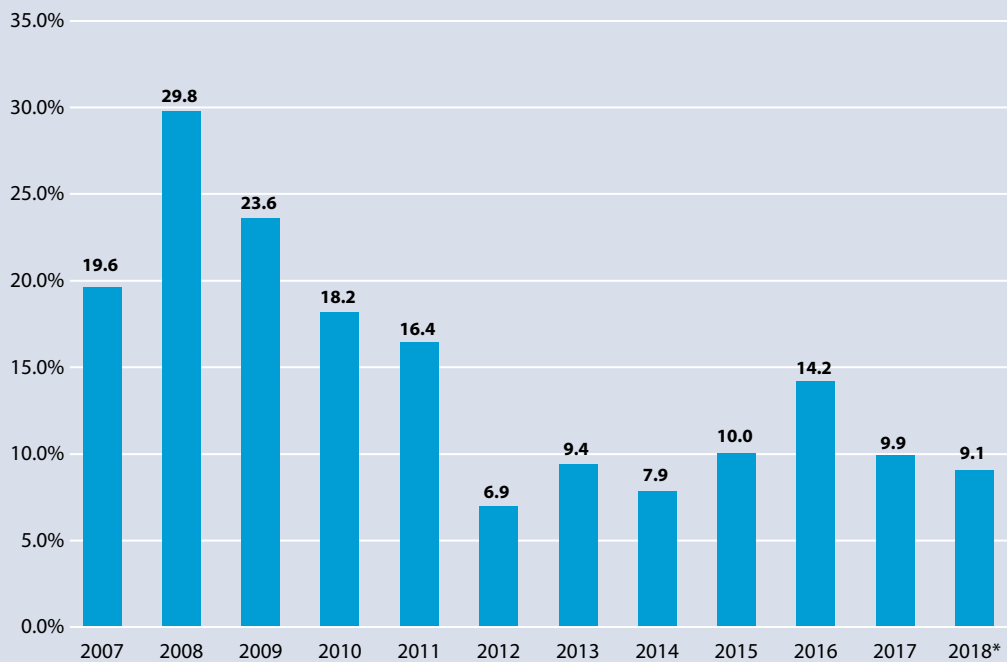
Source: General Statistical Office (GSO) of Vietnam, 2020.

Economic Activity**Growth of Enterprises in the SME Sector**

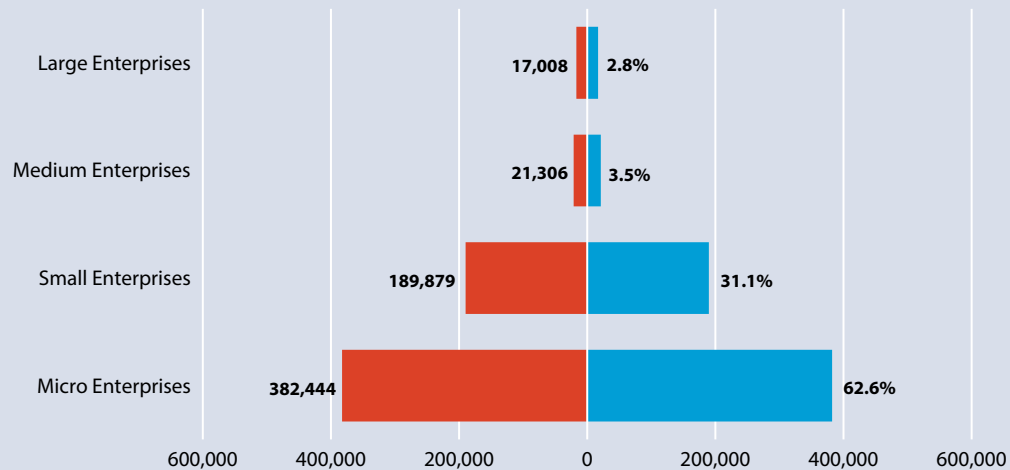
The growth of the MSME sector in Vietnam, including the Micro-enterprises beside the SMEs, is illustrated in Figure 10, based on data from the ADB Asia SME Monitor 2020 database [12]. The data presented in the figure is up to 2018, offering insights into the development of the MSME sector in the country during that period.

The rapid growth in the number of enterprises has helped increase the rate of SMEs per 1,000 people in Vietnam. By 2019, the country had an average of eight operating enterprises per 1,000 people, indicating significant progress toward reaching the ASEAN average.

In terms of the composition of enterprises by size, the Enterprise White Book, released by MPI in 2020 [12], indicates that as of January 2019, there are 382,444 micro-enterprises, accounting for 62.6% of all enterprises in the country. The data captured by the GSO in its annual survey also indicates that there were 189,879 small enterprises, making up 31.1% of the total, while medium and large enterprises together accounted for the remaining 6% of the Vietnamese enterprises [7].

FIGURE 10**MSME GROWTH RATE IN VIETNAM (IN %).**

Source: 2020 ADB Asia Small and Medium-Sized Enterprise Monitor Volume 1: Country and Regional Reviews. ADB [11].

FIGURE 11**THE BREAKUP OF ENTERPRISES BY SIZE IN VIETNAM.**

Source: Binh L.D., Phuong T.T. SME sector and the EVFTA; 2021, pp. 8 [7].

An analysis by Binh and Phuong found that despite the impressive growth in quantity, the size of SMEs in Vietnam remains small. Notably, enterprises in Vietnam, especially micro and small ones, show sluggish growth in size. The two also identified a major issue of the ‘missing middle’ among the SME sector in Vietnam. This phenomenon arises due to various constraints in the business

environment, such as limited accessibility to capital and finance, scarcity of human resources, lack of managerial skills, restricted access to markets, and inadequate technology and innovation capacity, among others.

The ‘missing middle’ phenomenon refers to the absence of medium-sized enterprises in the SME sector due to their limited ability to upgrade and expand. As a result, the SME sector in Vietnam faces challenges in bridging the gap between small enterprises and larger corporations. This becomes a considerable concern from the perspective of SME development, as the lack of medium-sized enterprises hampers the sector's aspirations to grow into larger corporations or establish international brands.

Furthermore, to understand the growth of enterprises in the SME sector in Vietnam, it is important to note that a large informal sector entails that official statistics underestimate the real contribution of SMEs to the economy [8] and only a small fraction of smaller household businesses have been registered during the past three decades. This means that the official statistics do not capture nearly 30 million employees, even if they form a critically important part of the SME dynamics, both in terms of job and income creation [4].

Data from Vietnam's GSO primarily covers only the formal sector. However, it is essential to recognize that the informal sector is substantial in Vietnam and mainly consists of household businesses, own-account workers, and micro-enterprises. Estimates based on the national labor force survey indicate that informal workers account for 57.2% of total (non-agricultural) employment. In addition, the GSO data indicates that there are about half a million registered businesses in Vietnam. However, there are approximately 5.1 million unregistered businesses, which includes businesses that do not have an Enterprise Registration Certification. It is worth noting that this figure also includes businesses that are not obligated to have such certifications, such as household businesses [8].

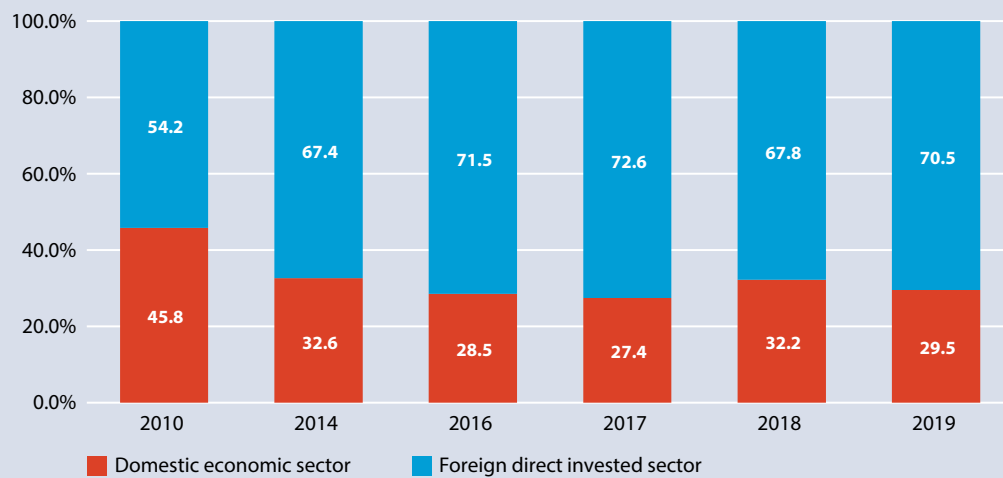
Trade Activity of SMEs

Following the guidelines of APO, this part will focus on the export activities of SMEs in Vietnam.

According to the Vietnam Chamber of Commerce and Industry (VCCI), in 2018, exports by SMEs in Vietnam accounted for only 20% of total exports [7]. It is important to note that Vietnam is an export-driven economy. The research by Binh and Phuong [7] found that although firms involved in exports account for 8% of the total number of registered companies, they employ a significant 47% of the national labor force. In the industry sector, which contributes to 68% of national exports, exporting companies employ as much as 86% of the total labor force.

SMEs play a significant role in Vietnam's export landscape, accounting for 88% of exporting enterprises and accounting for about half of the total export volume. However, it is also worth noting that a substantial portion of Vietnam's SME export volume, approximately 70%, comes from foreign-owned SMEs that have relocated to Vietnam to establish proximity to multinational enterprises that act as their lead buyers [8].

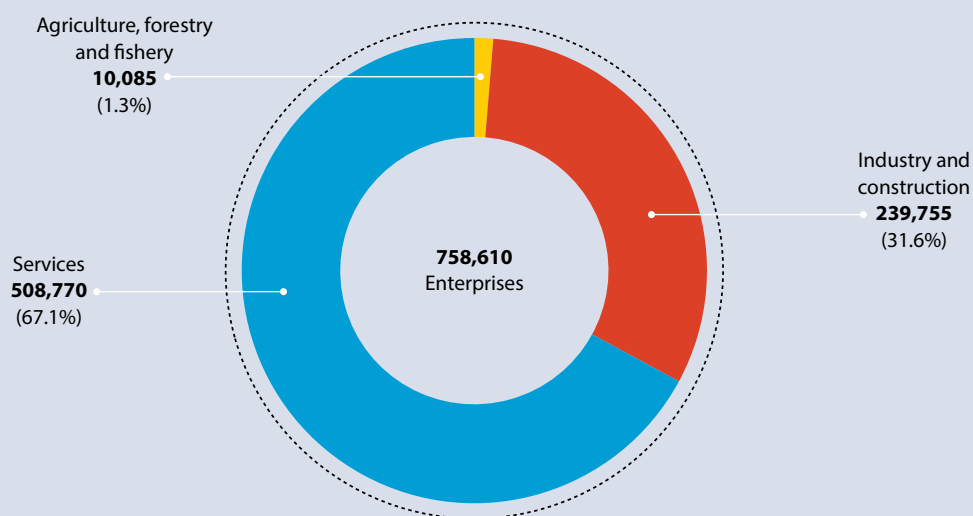
Statistics indicate that the private sector in Vietnam holds a dominant share in exports and has been a key driver of the country's growth in recent decades. However, the share of domestic private companies, including SMEs, in the total exports is decreasing fast. Data from GSO shows that the total share of exports by domestic enterprises, of which private-sector SMEs are a subset, has sharply declined from 45.8% in 2010 to 29.5% in 2019 (Figure 12).

FIGURE 12**COMPARISON OF THE SHARE OF EXPORT: FDI SECTOR VS. DOMESTIC BUSINESS.**

Source: Binh L.D., Phuong T.T. SME sector and the EVFTA. GOPA Consultants and Economica Vietnam; 2021, pp. 12 [7].

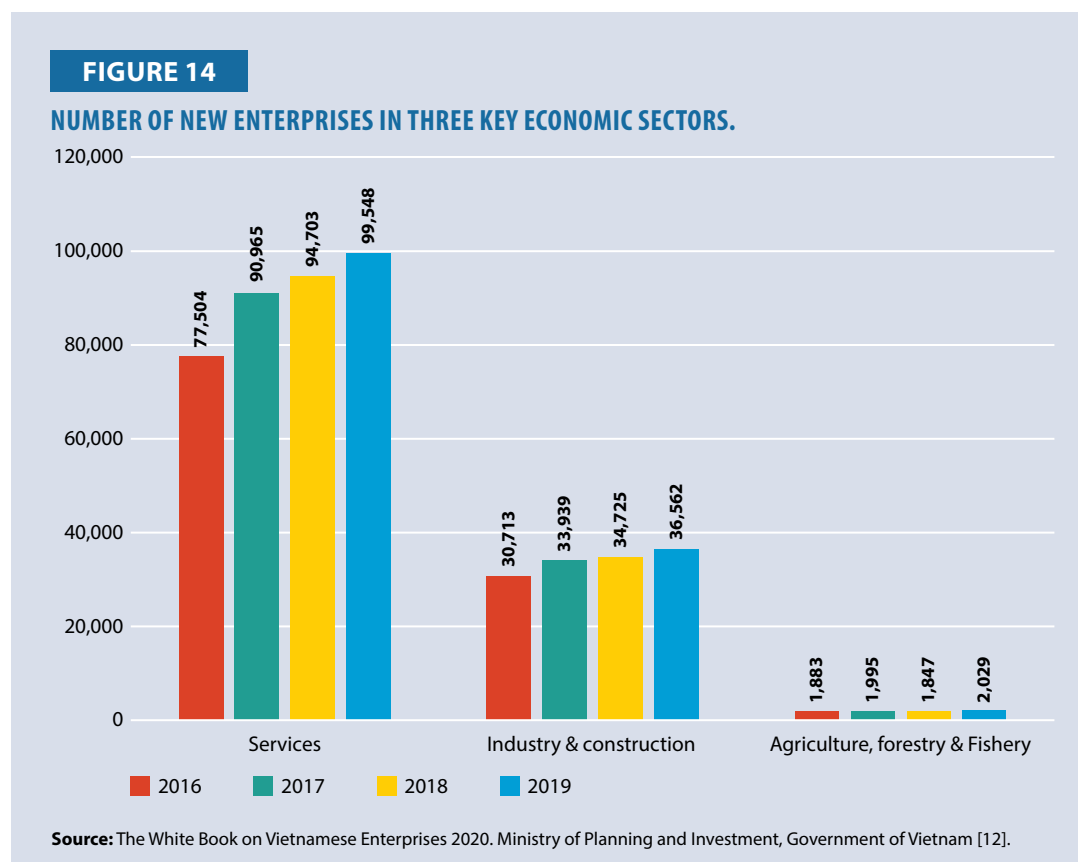
Nature of Investment in SME

As of the end of 2019, the distribution of enterprises in Vietnam by sector is as follows: 508,770 enterprises (67.1%) are in the service sector, 239,755 enterprises (31.6%) are in the industry and construction sector, and 1.3% enterprises SMEs are in the agriculture and forestry sector. Agriculture and forestry remain the least attractive sectors for SMEs, and the number of enterprises actively engaged in this sector decreased by 6.3% in 2019 compared to 2018 [12]. Overall, there are more active SMEs in the service sector [7].

FIGURE 13**NUMBER OF ACTIVE ENTERPRISES BY SECTOR IN VIETNAM (2019).**

Source: Ministry of Planning and Investment, Government of Vietnam; 2020.

SMEs in Vietnam are more concentrated in the services and trade sectors, followed by manufacturing and construction. This trend is also evidenced by the number of newly registered enterprises in recent years, as illustrated in Figure 14.



Sectorial Composition

Production Capacity and Share of SMEs in VA and Employment

The SME sector is the main contributor to job creation, poverty reduction, improved living conditions, and inclusive and sustainable growth. Overall, the SME sector generated 5.98 million jobs in 2010, which soared to 8.8 million in 2018. On average, the SME sector in Vietnam has created about 280,000 new jobs annually during the last decade. An MPI report indicates that SMEs contributed to over 45% of the country's GDP and 31% of the State's total budget revenue.

Informality in SMEs

Based on estimates by the National Labor Force Survey, informal workers represent 57.2% of total non-agricultural employment. In addition, the GSO estimates suggest that there are about half a million registered businesses compared with 5.1 million unregistered businesses without any Enterprise Registration Certification, including household businesses [8] that do not need a certification. Hence, even though SMEs have been contributing to employment generation and, thereby, to the SDGs, their numbers have not been taken into account fully.

Competitiveness Fundamental

Human Capital

Vietnam's basic education is of good quality, but there are signs of skills mismatches in the labor market. Less than one-third of high school students complete secondary education and enroll in

tertiary education, pointing to inequality in access to higher education. There are also signs of a mismatch of skills in the labor market, to the extent that 43% of Vietnamese working youths are in jobs that do not match their qualifications [8].

According to the Statistical Yearbook of Vietnam 2021 [5], the productivity of the whole economy at the current prices in 2021 was estimated to be VND172.8 million per labor (equivalent to USD7,461 per labor). At constant prices, labor productivity in 2021 increased by 4.6% because the laborers' qualifications were improved (the rate of trained workers with degrees and certificates in 2021 reached 26.1%, higher than the rate of 24.1% in 2020).

Regarding Entrepreneurship and Employment of women in the workforce, Figures 7 and 8 have mentioned the equality between men and women, in doing business in Vietnam.

The Statistical Yearbook of Vietnam 2021 [5] also shows that unskilled occupations represent 25.7% of the total labor force, while employees in highly skilled operations represent just 7.3%.

Finance

The SME Development Fund and the Credit Guarantee Fund are useful policy initiatives but experience low demand.

The Government of Vietnam fosters SME financing, primarily through the SME Development Fund (SMEDF) and the Credit Guarantee Fund (CGF). Both are useful initiatives, but they experience low take-up. The SMEDF, delivered mainly through partnering banks, provides 80% of the loan amount at interest rates capped below the market rates, with the borrowing company required to contribute 20% of the project cost. However, the first provision might discourage the participation of commercial banks by reducing the profit margins on the SMEDF-backed loans excessively, while the second condition might deter cash-constrained small businesses from applying. Low awareness of the SMEDF among small companies and a long approval process have also been reported as underlying reasons for the limited use of this fund.

The CGF has also experienced low demand. An assessment of the results of the implementation of 10 business support programs within the framework of the law on supporting SMEs through the Provincial Competitiveness Survey 2021 project of VCCI [13], shows that the percentage of businesses that have received support from the program is still quite modest. The percentage of businesses that said that they had received support from the programs was less than 8%. The support program with the highest percentage of businesses accessing it is credit guarantee at the Credit Guarantee Fund for SMEs, but only 7.34% of businesses have approached it.

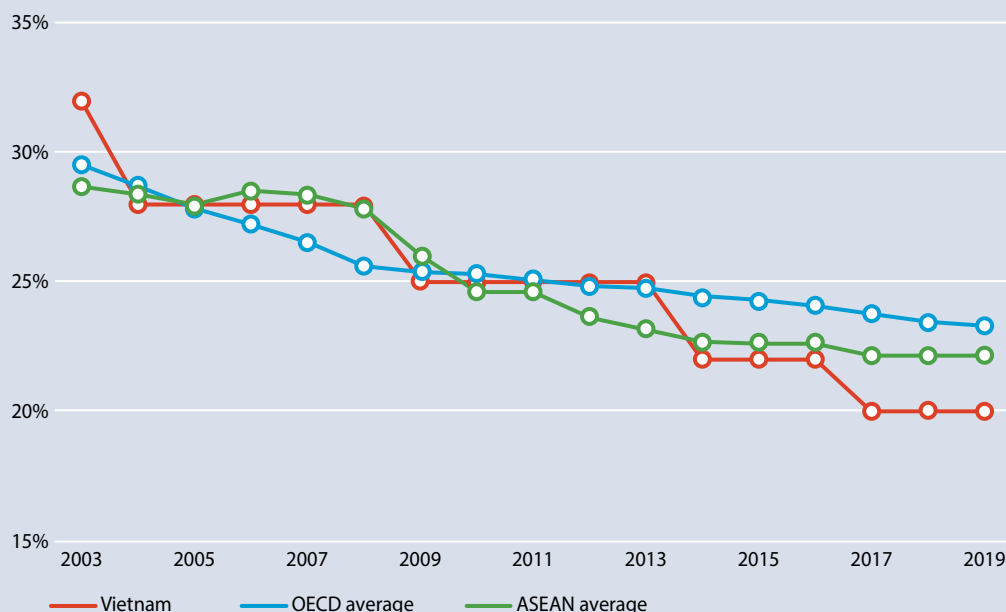
Vietnam has reduced its corporate income tax rate considerably and is considering a preferential tax regime for SMEs. Figure 15 shows the reduction of corporate income tax rate over the period 2003–19.

Technology and Innovation Capacity

Business R&D spending in relation to GDP has increased by eight times between 2011 and 2017, but it is still only 0.4%, lower than the other ASEAN countries such as Malaysia and Thailand, and the overall OECD average of 1.6%. Limited R&D spending in SMEs suggests that most innovation is 'frugal', such as making small modifications to existing products to make them more accessible to low-income customers.

FIGURE 15

CORPORATE INCOME TAX RATES IN VIETNAM (2003–2019).



Source: SME and Entrepreneurship Policy in Vietnam, OECD; 2021 [8].

As reported in the executive summary of the Vietnam: Science, Technology, and Innovation Report 2020, by the World Bank, the country's current Science, Technology, and Innovation (STI) capabilities are weak, and the national innovation system is in a nascent, fragmented state. In Vietnam, R&D is still a peripheral activity, both in the business and the public sector [14].

Based on reports published by the government and non-profit organizations, SMEs in Vietnam stand quite low on the innovation front, both at the national and enterprise levels. This is due to a low level of awareness and knowledge about innovation in general and among Vietnamese SMEs in particular. Also, Vietnamese SMEs often use project templates to manage innovation and tend to adopt or adapt existing initiatives rather than develop new ones. Moreover, the human resources for innovation within Vietnamese SMEs do not meet the requirements for business development because they do not prioritize training to enhance the capacity of their human resources for innovation [15].

Digital infrastructure and regulations remain central to realizing the promise of Industry 4.0, and even though two out of three people in Vietnam had internet access in 2019, firm-level digitalization continues to remain low. Deepening the data ecosystem, including regulatory frameworks available to support cross-border data flows, data security, and privacy, will promote the use of technology and knowledge flow.

In Vietnam, as in other ASEAN countries, policies and regulations pertaining to e-commerce have advanced significantly. This includes secure electronic transactions, data protection and privacy, and consumer protection for online purchases. However, as indicated by the Science, Technology, and Innovation Report 2020, when it comes to other digitization trends associated with Industry 4.0, such as big data analytics, cloud computing, or IoT, the development of policies and regulations is relatively less advanced [14].

Vietnam needs to make a significant increase in its investments in STI to improve the indicator for SDG 9. The investment will help streamline and rebalance the innovation system, by putting enterprises, particularly the SMEs at the center of these efforts [14]. In Vietnam, SMEs need strong support to transform and improve their technology and innovation capabilities.

Regulatory and Business Environment

Entry Requirements and Industrial licensing in Vietnam are becoming easier and simpler with the reform of public services and the digital transformation strategy of the government. The current business law regulates the process of business registration and industrial licensing, which can be obtained within three days, through online, post office, and direct application.

The protection of IPR in Vietnam has been regulated by the Law on Intellectual Property since 2006. The law has recently been amended with effect from 1 January 2023. However, according to the World Bank report, the IPR regime in Vietnam is not well-enforced [14] and needs stronger efforts, along with the improvement in capacity, to adapt to the needs of Vietnam's entrepreneurial ecosystem, especially SMEs. On the other hand, SMEs' awareness of IPR is limited and needs to be leveraged.

Labor Protection Laws and Labor Market regulations in Vietnam are aligned with the Labor Code 2019 regulating labor standards, rights, obligations, and responsibilities of employees, employers, etc. Similarly, in 2018, Vietnam scored 3.01 on a scale of 1 (low) to 5 (high) on the Logistics Performance Index, according to the World Bank [16] report.

The Regulatory and Business environment for SMEs to transform toward SDGs will be discussed broadly under the Policy section of this report.

Environmental Factors

Environment Protection Law, established in 1993 and renewed in 2020, and the regulations under it, give detailed guidelines for the disposal of industrial gases and wastes, and environmental clearances required for businesses. Enterprises shall be monitored by the related authorities while doing business, by submitting reports, such as an environmental status report, set of environmental indicators and management of environmental monitoring data, environmental protection of industrial clusters, concentrated business and service zones, craft villages, and production, business and service establishments, strategic environmental assessment, environmental impact assessment and environmental protection plan, detailed environmental protection project, simple environmental protection project; waste and scrap management, hazardous waste management, registration for underground water exploitation, application form for grant, extension, adjustment, and re-issuance of water resource permit, etc.

Besides the Laws, Decrees, and Circulars that provide the regulations mentioned above, hundreds of National Technical Regulations stipulate technical requirements and specifications about environmental protection that the related businesses must obey. For instance, National technical regulation on ambient air quality, National technical regulation on industrial waste incinerator emissions, National technical regulation on textile dyeing industry wastewater, National technical regulation on surface water quality to protect aquatic life, and National technical regulation on the hazardous waste threshold, etc.

While the legal provisions on environmental protection are relatively comprehensive, their implementation by enterprises, especially SMEs, remains limited. Given the close relationship

between environmental protection and several SDGs, including SDGs 6, 7, 11, 12, 13, 14, and 15, it is crucial to enhance compliance with these environmental regulations by the SMEs.

Policy

Legal Framework for Implementing the NAP 2030

To create a legal basis and promote the implementation of the National Action Plan 2030 in Vietnam, the government, the Prime Minister, ministries, branches, and localities have issued a set of legal documents as in Table 2.

TABLE 2

LIST OF LEGAL DOCUMENTS FOR IMPLEMENTING NAP 2030 IN VIETNAM.

Resolution No. 136/NQ-CP dated 25 September 2020 of the government on sustainable development.

Directive No. 13/CT-TTg dated 20 May 2019 of the Prime Minister on sustainable development.

Decision No. 681/QĐ-TTg dated 4 June 2019 of the Prime Minister on the Roadmap for the implementation of SDGs by 2030.

Decision No. 2158/QĐ-BKHDT dated 31 December 2019 of the Minister of Planning and Investment promulgating the guidelines for integrating SDGs into the five-year socio-economic development plan for the next five years 2021–2025, 2026–2030 by ministries, branches, and localities.

Decision No. 419/QĐ-TTg in 2018 of the Prime Minister on setting up The National Council on Sustainable Development and Competitiveness Enhancement.

Decision No. 622/QĐ-TTg dated 10 May 2017 of Prime Minister on issuing the National Action Plan for the implementation of the 2030 Agenda for Sustainable Development.

17/22 ministries, branches, and 51/63 provinces and centrally-run cities have issued Action Plans to implement the 2030 Agenda.

Source: National Report 2020: 5 Years Progress Implementing SDGs; pp. 6–7. UNDP [18].

Monitoring and evaluating the progress of SDGs is a crucial aspect of implementing the 2030 Agenda in Vietnam. To facilitate this, the MPI has issued Circular No. 03/2019/TT-BKHDT dated 22 January 2019, which comprises a system of 158 statistical indicators for tracking Vietnam's sustainable development. Among these indicators, 38 belong to the National Statistical Indicator System as specified in the Law on Statistics 2015, while 112 indicators align with 101 global SDGs. Additionally, there are 32 indicators of the System of Statistical Indicators of various ministries and sectors, including the ministries of Education and Training, Health, Science and Technology, Construction, Natural Resources and Environment, Labor, Invalids and Social Affairs. The responsibility for collecting and synthesizing the data for Vietnam's sustainable development statistical indicators is specified in Circular No. 03/2019/TT-BKHDT and the GSO is responsible for collecting 62 indicators (39.2%) while 21 ministries and other agencies are responsible for collecting data for the remaining 96 indicators (60.8%).

To quantify the level of achievement of the SDGs, the Roadmap for the implementation of the SDGs by 2030 was issued in Decision No. 681/QĐ-TTg dated 4 June 2019 by the Prime Minister. The roadmap is a basis for ministries, sectors, and localities to develop specific targets in annual and five-year socio-economic development plans, and is a measure to evaluate the achievement of these targets. SDGs have timelines for 2020, 2025, and 2030.

To support the ministries, sectors, and localities in monitoring and evaluating the SDGs, the Ministry of Planning and Investment has issued a Guide to monitoring and evaluating the implementation of Vietnam's SDGs by 2030. (Decision No. 468/QĐ-BKHDT dated 26 March 2020). Accordingly, the SDGs are monitored and evaluated through a system of 158 sustainable development indicators (issued in Circular 03/2019/TT-BKHDT) and the level of achievement till 2020, 2025, and 2030, based on the roadmap for the implementation of Vietnam's SDGs by 2030 (issued in Decision 681/QĐ-TTg). The monitoring and evaluation of SDGs have the participation of stakeholders including Vietnam Fatherland Front and socio-political organizations, ministries, branches, and agencies; People's Committees of provinces and centrally run cities; social organizations, professional associations, non-governmental organizations, universities, research institutes, professionals, and the business community. Every year, ministries, branches, central agencies, organizations, and the People's Committees of provinces and centrally run cities, send reports on the assessment of the implementation of the SDGs to the Ministry of Planning and Investment for summarizing and submitting them to the Prime Minister.

According to regulations, reports on monitoring and evaluation of the implementation of SDGs include the following.

- Report on assessment of the implementation of the annual SDGs.
- Report to the country on the implementation of the SDGs periodically.
- National review report on the voluntary implementation of SDGs (VNR Report).
- Report on sustainable development by topic and other ad-hoc reports.

Social organizations, non-governmental organizations, research institutes, and other stakeholders are encouraged to submit reports providing information, research content, evaluation, and criticism of the SDGs to the Ministry of Planning and Investment and sector regulatory agencies.

It can be said that the system of legal documents supporting the implementation of SDGs in Vietnam is quite complete. The government directs uniformly from the central to local levels and across Ministries.

Policies for Supporting SMEs

SMEs have received increasing attention in national legislation [8]. The SME and entrepreneurship policies have a recent history in Vietnam. In 1999, the government introduced the Enterprise Law, which dealt with everything related to enterprises' incorporation, governance, and operations regardless of their size. Later, in 2001, a national law introduced, for the first time, a legal definition of SMEs and established the SME Development Agency, which is called the Agency for Enterprise Development today, and the SME Development Council. Finally, in 2018, Vietnam voted on the SME Support Law, which sets out specific support measures for SMEs and shows the commitment of the government to the promotion of the domestic SME sector. The SME Support Law covers many different policy areas, from taxation to access to finance, from innovation to value chain development, although there are still some areas that lack sufficient attention (e.g., SME digitalization) and others where results have not yet been successful (e.g., the conversion of household businesses into formally registered enterprises).

There are numerous programs supporting SMEs in various aspects of finance, innovation, trade, and e-commerce, as well as those for women entrepreneurs and training, etc. There are also policies encouraging and supporting enterprises in sustainable development in general. However, specific policies and programs supporting SMEs towards the achievement of SDGs are not yet in place.

Policies for Supporting SMEs to Meet the SDGs

In February 2022, the government issued Decision No.167/QĐ-TTg, approving the program aiming to increase sustainable development in the private sector (that includes SMEs), ensuring harmony between economic efficiency, corporate social responsibility, and environmental protection, thus contributing to the country's fulfillment of the 17 UN SDG by 2030. The program targets to support about 10,000 private businesses in sustainable development. It will focus on three main activities: Developing an ecosystem for supporting sustainable business activities, supporting businesses in their sustainable development, and the program's management activities. Qualified businesses will be supported with training, strategy building, business plans, technology support, human resources development, finance, production, marketing, internal governance, and more. Currently, there are about 800,000 enterprises, but only around 0.25% are members of the Vietnam Business Council for Sustainable Development, and only about 12.5% have access to information on sustainable development.

To realize Decision 167, a new initiative supported by USAID was announced on 22 November 2022. The initiative will promote socially conscious business behavior by delivering Environmental, Social, and Governance (ESG) technical assistance packages to 300 businesses, to implement or scale their innovative ESG business concepts. The initiative is expected to help small businesses improve their competitiveness and innovation, overcome constraints, chart a path for sustainable growth and job creation, and continue to contribute to Vietnam's prosperity.

Discussion

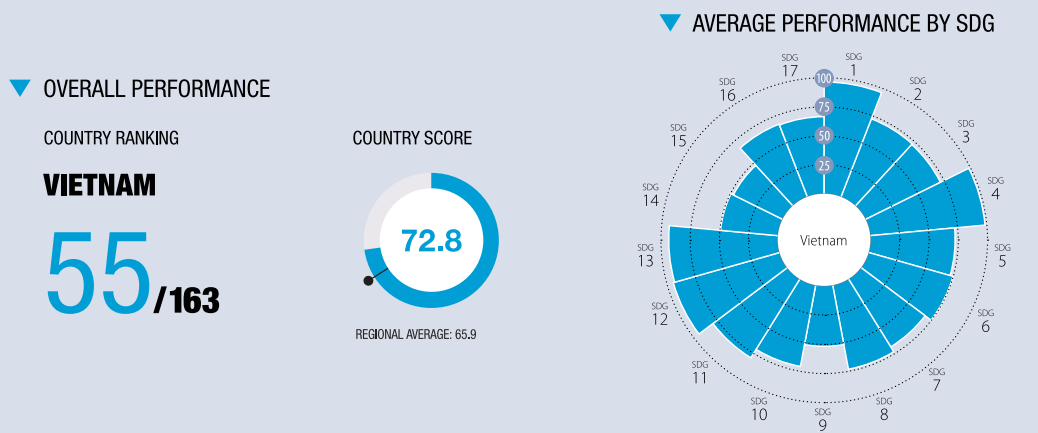
At the Workshop, Sustainable Development Goals in Vietnam: Implementation progress and Some Recommendations, recently organized by the Academy of Policy and Development (Ministry of Planning and Investment) on 21 December 2022, experts and participants reviewed the implementation progress, addressed constraints, and gave out some recommendations. More specifically, in terms of progress in implementing the SDGs in Vietnam, Vietnam achieved the best score for SGD 4 (97.83 points), followed by SDG 1 (95.62 points), and SDG 12 (93.88 points). The three worst targets were SDG 9 (51.31 points), SDG 14 (48.79 points), and SDG 15 (46.49 points). In 2017, Vietnam's SDGs implementation ranking, ranked 68th, rising to 49th in 2020. However, in the past two years, Vietnam has dropped to 55th.

Accordingly, the representative of the Ministry of Planning and Investment proposed to focus on five solutions to achieve SDGs in the coming time. Firstly, provide orientations and solutions to stabilize the macro-economy and support businesses towards sustainable economic development. Second, continue to invest in the development of human capital, especially through the provision of basic, essential, accessible, equitable, and quality social services.

Third, promote the recovery of economic sectors in a green and circular direction to ensure sustainable economic developments, create potential for social security solutions but at the same time reduce environmental pollution, protect the environment, protect the natural resources, and respond to climate change. Fourth, continue to implement synchronous solutions to mobilize and effectively use financial resources for the implementation of SDG goals, especially from the private

FIGURE 16

OVERVIEW OF SGD PROFILE OF VIETNAM (2022).



Source: SGD Profile of Vietnam, 2022. Sustainable Development Solutions Network [17].

sector. Finally, strengthen data capacity to provide timely evidence for the tracking, monitoring, and evaluation of the SDG targets.

Although policy recommendations have mentioned private enterprises for sustainable development and achieving global sustainable development targets, they have not specifically addressed the needs of SMEs. Therefore, it is crucial to have specific policies for the SME sector to help them achieve global SDGs.

The Way Forward

According to the VNR 2020 [1], the Government of Vietnam has set directions toward 2025, to fulfill the SDGs as follows:

- Continue to improve the system of policy institutions and improve the efficiency of policy implementation.
- Enhance awareness, and promote coordination and cooperation among the stakeholders, to create spillover in the implementation of SDGs. Ensuring the implementation of SDGs is not only the work of the government but also the political system and the whole of society.
- Mobilize and use financial resources effectively.
- Improving the quality of human resources in association with promoting innovation, application, and strong development of science and technology.
- Strengthen resilience to uncertain risks caused by climate change, natural disasters, and epidemics.
- Strengthening international cooperation and raising the role and position of the country.

Some specific activities were addressed that indirectly involved the SMEs (as a business entity), including:

- Promote information and communication on sustainability, with attention to clarifying specific requirements for sustainable development for each type of organization and enterprise.
- Promote the implementation of SDGs in localities. Develop and complete a set of tools to evaluate performance as per the national, regional, and local characteristics, with attention to, and the promotion of sustainable development in the business community.

Based on the APO guidelines, this research examines SMEs from various aspects and dimensions. In addition to the directions mentioned above, the following recommendations are proposed for policies to facilitate the transformation of SMEs in meeting the SDGs in the future.

- Specify policies and regulations related to SDGs and NAP 2030, specifically for SMEs.
- Incorporate/Integrate SDGs and NAP 2030 into prevailing SME Support Programs such as ESG.
- Enhance awareness and promote coordination and cooperation among SMEs and other stakeholders for the implementation of SDGs.
- Strengthen the capacity of agencies supporting the SMEs to achieve SDGs (agencies have to transform themselves).

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CONCLUSION

State of SMEs and their Growth Trajectory

After establishing an understanding of how the competitiveness framework can contribute to achieving the SDGs, it becomes crucial to assess the status of MSMEs in different countries, particularly in the Asian economies. To address this, member countries, namely Cambodia, Fiji, India, Indonesia, Mongolia, Nepal, Pakistan, the Philippines, Sri Lanka, the ROC, Thailand, Turkiye, and Vietnam were requested to draft country-specific sections on the state of SMEs using the suggested framework. The member economies submitted their initial reports, and feedback was provided in due course. After receiving the feedback, the countries submitted the final versions of their SME reports.

Based on country-specific observations, this chapter compiles and analyzes the state of SMEs in the respective countries and explores how they can align their productivity growth agenda to meet the SDG targets. However, there were some challenges in collating the data reported by the member countries. For instance, while the countries sincerely tried to reproduce the data in a prescribed format, there were instances when the data provided were at a country level (generic) rather than at the SME level (specific). Moreover, while it is acknowledged that not all data were available due to data gaps, preliminary research from the country’s websites and international organizations like WB, OECD, and ADB, among others, indicated that more data could have been made available.

Nonetheless, the reports submitted by the member countries offer valuable insight into the status and role of SMEs in achieving SDGs. Before delving into the country-specific observations, it is important to mention again that the competitiveness framework is not a panacea. However, since it focuses on the broad idea of an input-output-outcome-based approach, it is a step in the direction for SMEs to meet the SDG targets.

What Does the Data Suggest?

The data presented in Table 1 illustrates a broad set of indicators that were reported by member countries. When viewed from the perspective of the competitiveness framework, it becomes apparent that the member countries exhibit varying scales of performance. For instance, the SME contribution to the GDP ranges from 18% to 58% across these economies. Similarly, the number of employees in the SME sector varies based on factors such as population size and labor force. The data also highlights high rates of informality in the economy and the SME sector in many countries. This informality is evident, both at the enterprise level and in terms of employment practices. Likewise, while most countries have a separate budget for skilling the workforce and implementing employment-generating initiatives, some countries like Fiji and Thailand, among others, reported that they do not have such budgets in place.

TABLE 1
COUNTRY-SPECIFIC INDICATORS ON COMPETITIVENESS FRAMEWORK.

Parameter	India	Fiji	Philippines	Sri Lanka	Nepal	Vietnam
Outcomes						
Contribution of SMEs to GDP	30%	18%	33%	52%	22%	50%

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Parameter	India	Fiji	Philippines	Sri Lanka	Nepal	Vietnam
GDP per employee or labor productivity	3.55% (2021)*	–	–	4.5% (2021)	7% *	4.6% (2021) *
Labor as a share of working age population	900 million*	–	–	8.5 million *	21 million *	50 million*
Female LFPR or Female Employment in SMEs	24%	33% *	–	33%	38%	39%
Geographical concentration of SMEs	Yes	Yes	Yes	Yes	Yes	Yes
Social and Environmental Outcomes of SMEs	SMEs contribute 70% to total industrial pollution	–	–	–	–	–
Energy use by SMEs	–	–	–	–	–	–
Economic Activities						
Growth in new firms or change in composition	18.5% CAGR (2019 & 2020)	–	–	2% CAGR (2015–19)	–	11% CAGR (2017–19)
Share of SMEs in exports	49%	25% *	25%	–	–	20%
Total domestic/foreign investments in SMEs	Domestic	Domestic	–	–	–	Foreign
Sectoral Composition						
Total production of goods and services	–	–	–	52%	–	–
Share in employment	110 million	0.07 million	5.4 million	2.25 million	2.7 million	70% in total employment
SMEs in the manufacturing sector	31%	–	–	25%	11%	32%
SMEs in the service sector	69%	–	–	74%	89%	67%
SMEs in the green energy sector	–	–	–	–	–	–

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Parameter	India	Fiji	Philippines	Sri Lanka	Nepal	Vietnam
Share of SMEs in the informal sector	78% enterprises	–	–	–	50% enterprises	90% enterprises
Competitiveness Fundamentals						
Levels of education of the employees	31% of the working-age population lacks basic education	–	–	–	32% have no secondary education *	–
Women as entrepreneurs	20%	19%	51%	25%	30%	21%
Employment of people from marginalized sections	66% are owned by a socially backward group	–	–	–	–	–
Employees working in high-skilled roles in SMEs	–	–	–	–	–	7.3% *
Firms investing and providing training	–	–	–	Yes	–	–
Government budgetary allocation for skilling programs	Yes	–	Yes	Yes	Yes	–
Allocation of funds by the governments for promoting SMEs	Yes	Low	Yes	Yes	Yes	Yes
Domestic public and private banks offering loans to SMEs	Yes	Low	Yes	Yes	Yes	Yes
Long-term and short-term loans offered by microfinance bodies	Yes	Low	Yes	Yes	Yes	–
Tax benefits and incentives given to SMEs	Yes	–	Yes	Yes	Yes	–

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Parameter	India	Fiji	Philippines	Sri Lanka	Nepal	Vietnam
Expenditure towards R&D	0.66% *	–	–	0.128% *	–	–
Technology imports	–	Yes	–	–	–	–
Digitalization of value chains	Yes	–	–	–	–	Low
Entry into e-commerce/ government support	Yes	Low	–	–	Yes	Low
Ease of registering for a business	Yes	–	Low	–	Yes	Yes
Protection of Intellectual Property Rights	Yes	–	Low	Yes	–	Yes
Labor protection laws and labor market regulations	Yes	–	Yes	Yes	–	Yes
Nature and quality of transportation-related infrastructure (Logistics Performance Index)	Ranked 44	Ranked 133	Ranked 60	Ranked 94	Ranked 114	Ranked 39
Grievance redressal mechanisms	Yes	–	–	–	–	–
Guidelines for disposal of industrial gases and wastes	Yes	–	–	–	–	Yes
Environmental clearances required for businesses	Yes	Yes	Yes	Yes	Yes	Yes
Parameter	Cambodia	Pakistan	Turkiye	Mongolia	Thailand	Indonesia
Outcomes						
Contribution of SMEs to GDP	58%	40%	41% (VA)	18%	35%	57%

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Parameter	Cambodia	Pakistan	Turkiye	Mongolia	Thailand	Indonesia
GDP per employee or labor productivity	4.9% (2019)	–	(–) 4.4% CAGR (2010–20)	5.6% (2020)	6% (2021)	2.08% (2019)
Labor as a share of working age population	9 million *	160 million *	15 million *	1.1 million*	17.5 million *	–
Female LFPR or Female Employment in SMEs		21% *	32%	–	–	15%
Geographical concentration of SMEs	Yes	–	Yes	Yes	–	Yes
Social and Environmental Outcomes of SMEs	–	–	Greenhouse emissions rose to 55% from 2005 to 2018	–	–	31% of social enterprises in Indonesia are organizations with environmental missions and support greater female employment
Energy use by SMEs	–	–	–	–	–	–
Economic Activities						
Growth in new firms or change in composition	–	–	–	5% CAGR (2017–21)	1% CAGR (2016–21)	2.2% CAGR (2000–19)
Share of SMEs in exports	10%	–	36%	2.30%	12%	16%
Total domestic/foreign investments in SMEs	–	–	–	Domestic	–	Foreign
Sectoral Composition						
Total production of goods and services	–	–	43%	3.10%	–	–
Share in Employment	4 million	30.5 million	11 million	0.6 million	12.5 million	119.5 million
SMEs in the manufacturing sector	28%	–	30.77%	10%	18%	16.68%

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Parameter	Cambodia	Pakistan	Turkiye	Mongolia	Thailand	Indonesia
SMEs in the service sector	4%	–	12.41%	69%	40%	–
SMEs in the green energy sector	–	–	–	–	–	–
Informal sector share	25% enterprises	71% of workers are informal *	29% of workers are informal *	0.15 million workers	–	94% enterprises
Competitiveness Fundamentals						
Levels of education of employees	13% are illiterate *	34% are illiterate *	44% had no secondary education *	–	–	50% had secondary education
Women as entrepreneurs	–	–		68%	–	17%
Employment of people from marginalized sections	–	–		–	–	–
Employees working in highly skilled roles in SMEs	–	–		–	–	Yes
Firms investing and providing training	Yes	–		–	–	Yes
Government budgetary allocation for skilling programs	Yes	Yes	Yes	–	–	Yes
Allocation of funds by the governments for promoting SMEs	Yes	Yes	Yes	Yes	–	Yes
Domestic public and private banks offering loans to SMEs	Yes	–	Yes	Yes	–	Yes
Long-term and short-term loans offered by microfinance bodies	Yes	–	Low	–	–	Yes

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Parameter	Cambodia	Pakistan	Turkiye	Mongolia	Thailand	Indonesia
Tax benefits and incentives given to SMEs	Yes	–	Yes	Yes	–	Yes
Expenditure towards R&D	0.12% *	–	1% *	–	–	0.1%
Technology imports	–	–	Yes	Yes	–	–
Digitalization of value chains	–	–	Yes	–	–	Yes
Entry into e-commerce/ government support	Yes	–	Yes	Yes	–	Yes
Ease of registering for a business	Yes	–	Yes	Yes	–	Yes
Protection of Intellectual Property Rights	Yes	–	Yes	Yes	–	Yes
Labor protection laws and labor market regulations	Yes	–	Yes	Yes	–	Yes
Nature and quality of transportation-related infrastructure (Logistics Performance Index)	Ranked 98	Ranked 122	Ranked 47	Ranked 130	Ranked 32	Ranked 46
Grievance redressal mechanisms	–	–	Yes	–	–	–
Guidelines for disposal of industrial gases and wastes	Yes	–	Yes	Yes	–	–
Environmental clearances required for businesses	Yes	–	Yes	Yes	–	Yes

Note: * Country-level representative figures

LPI had a total of 160 countries (2018)

Taiwan was excluded from the above table since its information was based on an extremely small sample of six enterprises

Source: Based on the research inputs from the countries.

Learnings from the Exercise

Several observations can be made based on the analysis of the reports submitted by the member countries. First, when considering the four stages of the SME lifecycle, the countries stand at varying points of SME development. This also indicates that the majority of the MSMEs across all member countries did not transition to the level of becoming full-fledged entrepreneurs.

Secondly, a common challenge faced by nearly all MSMEs across countries is the lack of finance and R&D support. These two factors emerge as the biggest impediments to their growth trajectory. The SME sector identifies high collateral requirements, information asymmetries in the credit market, complicated procedures, and high upfront costs, as key bottlenecks in meeting their financial and R&D needs. If MSMEs struggle to manage their cash flows or cannot allocate resources to vital R&D efforts essential for product development, their potential for increasing productivity diminishes. The continuous growth of MSMEs is an essential component, and failure to achieve factors like cost-efficiency not only leads to their eventual exit but also hinders the process of achieving the SDGs, including gender equality, decent working conditions, workforce skilling, and poverty alleviation, among other important goals.

The third observation is both, a learning and a solution to the aforementioned issue, and governments have made considerable efforts to ease financial access to MSMEs. For instance, the Government of Mongolia has granted USD348 million in long-term concessional loans to 8,235 SMEs through the Small and Medium Enterprises Development Fund between 2009 and 2021. This fund primarily aided enterprises in the food industry, light industry, animal husbandry, and trade services. The program is estimated to have created 51,145 new jobs and preserved 37,249 existing jobs.

Additionally, some countries have taken a proactive approach to setting up specialized banks that cater specifically to the development of SMEs. A notable example is the Cambodian Ministry of Economy and Finance, which established the SME Bank in November 2020 with an initial capital of USD100 million. Under this scheme, 753 enterprises in sectors like innovation industries, agro-processing, and tourism have benefitted. Other countries have also undertaken similar efforts to support and empower their SME sector.

While government interventions in the form of tax exemptions and subsidies are welcomed, it is essential to recognize that these are often one-time measures, and their benefits may fall short of enterprises' intended goals. SMEs seek long-term support, such as technical assistance or funding for the longer term, which equity and venture capitalists are better equipped to provide. However, most MSMEs are too small to scale up to a level where they can attract such funding or assistance.

In this context, the role of the government becomes crucial in creating an enabling ecosystem beyond a mere one-time boost to the industries. While it has been observed that regular government intervention is not desirable for the long-term growth of MSMEs [2] the government can create an enabling ecosystem through measures, such as streamlining the registration process, simplifying IPR filing, investing in overall R&D of the country, and promoting digital services. These measures indirectly benefit enterprises in their day-to-day operations.

For example, India's MSME Champions Portal, a single-window system, enables businesses to obtain approvals and licenses from 32 central departments, while similar clearance windows at the state level grant access to state approvals and licenses. Transparent, accessible, and low-cost

systems like these enhance business efficiency and generate long-term profits since MSMEs can leverage such a business-enabling environment to elevate their competitiveness [1].

Fourthly, almost all MSMEs encounter the challenge of informality within their countries. The informality exists both at the enterprise level and in terms of employment arrangement. It is closely linked to the lack of skilling in the workforce, which exacerbates the prevalence of informal work, such as self-employment, casual labor, and gig workers. As a result, workers are deprived of decent working conditions, while enterprises struggle to scale up to a level wherein they can achieve product monopolies and seek equity or investments from VCs.

The issue is more extensive than what is generally understood, particularly in Asian countries, where educating and training the workforce to meet market demands has become challenging. Many skilled workers are either seeking opportunities abroad or opting to work for larger enterprises in the domestic market. Since SMEs already face liquidity challenges in their daily operations, the brunt of skilling the workforce cannot solely rest on them. To address this challenge, governments are stepping in and launching training programs for workers. For example, in Sri Lanka, 18.4% of firms provide training to their employees, according to a survey by the Tertiary and Vocational Education Commission. Likewise, Vocational Technical Anatolian High Schools or Vocational Training Centres in Türkiye provide vocational education and training, offering apprenticeships to students as young as 14. More efforts need to be made by governments to bridge the labor productivity gaps between SMEs and large enterprises by investing in workforce training.

This approach must also be combined with efforts to formalize both the enterprises and the workforce in the country. Governments must endeavor to make the business registration process friendly for SMEs. The study indicates that most governments already have mechanisms in place to achieve this. Additionally, increasing the digital footprint of MSMEs can enhance their visibility and transparency, and most APO member countries demonstrated adequate support and promotion from the government in this regard.

However, it is essential to consider that not all SMEs aspire to become large enterprises or entrepreneurs in general. Some SME owners prefer to keep their businesses small in scale as they may be family-run or provide a comfortable lifestyle without the need for expansion. Others may be concerned about the scrutiny and standards that larger firms attract, so they opt to remain small [2]. As such, interventions should encourage scalability and formalization rather than imposing it, taking into account the diverse aspirations and preferences of SME owners.

The Way Forward

Besides the potential challenges and remedial actions discussed above, governments in Asian countries are making efforts to address several other constraints faced by SMEs. The initiative is being taken to register all SMEs to reduce informality in this sector and disburse special funds to those involved in the green energy sector. The country chapters in this report provide a comprehensive view of SMEs in Asian countries. However, some countries have yet to design and collect detailed data on various factors related to SMEs, and the reports are limited by the availability of existing data. Nevertheless, the analysis sheds light on the state of SMEs, related policies, and the efforts undertaken by governments to improve the productivity and sustainability of these enterprises.

The ultimate goal of this report is to initiate a cross-country dialogue on ways to transform SMEs to achieve the SDGs. The report is optimistic that the competitiveness framework can act as a guiding principle in attaining the SDGs. The beauty of this framework lies in its ability to encourage SMEs' active participation in achieving the SDGs rather than coercing them to comply. It should be emphasized that SDGs are not specific or external goals that SMEs just need to pay heed to; instead, they are intrinsic to SME development. By adhering to the guidelines of the competitiveness framework, SMEs can become active stakeholders in the mission to achieve all 17 SDGs.

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LIST OF ABBREVIATIONS

4E	End-to-End Energy Efficiency
AC	Arbitration Council
ACCF	Accident Compensation Commission of Fiji
ADB	Asian Development Bank
AMDAL	Environmental Impact Assessment
ANBC	Adjusted Net Banking Credit
APEC	Asia-Pacific Economic Cooperation
ATI	Assistance to Training Institutions
BIC	Business Incubation Center
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BRAP	Business Reform Action Plan
CamDX	Cambodia Data Exchange platform
CBS	Central Bureau of Statistic
CDO	Community Development Officer
CEA	Central Environmental Authority
CGF	Credit Guarantee Fund
CGTMSE	Credit Guarantee Scheme for Micro and Small Enterprises
CIMER	Presidential Communication Centre
CoP26	Conference of Parties 2021
CSR	Corporate Social Responsibility
CTEVT	Council for Technical Education and Vocational Training
DIPP	Department of Industrial Policy and Promotion
DoI	Department of Industry
ECLGS	Emergency Credit Line Guarantee Scheme
EE	Energy Efficiency
EFL	Energy Fiji Limited
EGD	European Green Deal
EIA	Environmental Impact Assessment
EoDB	Ease of Doing Business
EPNRM	Environmental Protection and Natural Resource Management
EPR	Employment-to-Population Ratio
ESG	Environmental, Social, and Governance

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FBR	Federal Board of Revenue
FCCC	Fijian Competition and Consumer Commission
FDB	Fiji Development Bank
FDI	Foreign Direct Investment
FEE	Fiji Enterprise Engine
FI	Financial Institutions
FNPF	Fiji National Provident Fund
FRCS	Fiji Revenue and Customs Services
GCI	Global Competitiveness Report
GDAP	Green Deal Action Plan
GDP	Gross Domestic Production
GDT	General Department of Taxation
GeM	Government e-Marketplace
GGP	Green Growth Program
GNDI	Gross National Disposable Income
GNI	Gross National Income
GRDP	Gross Regional Domestic Product
GSO	General Statistical Office
GVA	Gross Value Added
GVC	Global Value Chain
HDI	Human Development Index
HLFS	Household Labor Force Survey
ICCI	Islamabad Chamber of Commerce & Industry
ICTA	Information and Communication Technology Agency
IEA	Industrial Enterprise Act
IEC	International Electrotechnical Commission
IEDI	Industrial Enterprise Development Institute
IEE	Initial Environmental Examination
IEIA	Initial Environmental Impact Assessment
IFAD	International Fund for Agricultural Development
ILO	International Labor Organization
IP	Intellectual Property
IPO	Intellectual Property Office
IPP	Independent Power Producers
IPR	Intellectual Property Right

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ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification
ISO	International Organization for Standardization
KITE	Kemudahan Impor Tujuan Ekspor
KOBIGEL	SME Development Support Program
KOSGEB	Small and Medium-sized Enterprises Development Organization
KUR	People's Business Credit
KVIC	Khadi and Village Industry Commission
KYF	King Yun Fu
LDC	Least Developed Country
LFPR	Labor Force Participation Rate
LOL	Love Our Locals
LPEI	Indonesia Eximbank
LPI	Logistics Performance Index
MCTTT	Ministry of Commerce, Trade, Tourism, and Transport
MDG	Millennium Development Goal
ME	Medium Enterprises
MEDEP	Micro-Enterprise Development Program
MEDPA	Micro Enterprise Development for Poverty Alleviation
MEF	Ministry of Economy and Finance
MFI	Microfinance Institution
MIC	Middle-Income Country
MicroE	Micro Enterprises
MISTI	Ministry of Industry, Science, and Technology and Innovation
MLE	Medium and Large Enterprise
MNT	Mongolian Tugrik (National currency)
MOC	Ministry of Commerce
MoE	Ministry of Environment
MoEUCC	Ministry of Environment, Urbanization, and Climate Change
MoEYS	Ministry of Education, Youth and Sport
MoFALI	Ministry of Food, Agriculture and Light Industry
MoICS	Ministry of Industry, Commerce and Supplies
MOIP	Ministry of Industries & Production
MoIT	Ministry of Industry and Technology
MoLSS	Ministry of Labor and Social Security

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MoLVT	Ministry of Labor and Vocational Training
MOPDR	Ministry of Planning, Development & Reform
MPI	Ministry of Planning and Investment
MSDV2030	Mongolia Sustainable Development Vision 2030
MSE	Micro and Small Enterprise
MSE – CDP	Micro and Small Enterprises Cluster Development Program
MSEFC	Micro and Small Facilitation Council
MSI	Manufacturing Industry
MSME	Micro, Small and Medium Enterprise
MSMED	Micro, Small and Medium Enterprises Development
MYUAS	Ministry of Youth Affairs and Sports
NAP	The National Action Plan
NBDP	National Business Development Programs
NBFC	Non-Banking Financial Institution
NCCP	National Climate Change Policy
NCSD	National Council for Sustainable Development
NCSMED	National Centre for Small and Micro Enterprises Development
NEA	National Environmental Act
NEC	National Economic Census
NEDA	National Economic Development Authority
NEEAP	National Energy Efficiency Action Plan
NLFS	Nepal Labor Force Survey
NPA	Non-Performing Asset
NPC	National Planning Commission
NPL	Non-Performing Loans
NSO	National Statistic Office of Mongolia
NTIS	Nepal Trade Integration Strategy
NVQ	National Vocational Qualifications
ODOP	One District, One Product
OIML	International Organization of Legal Metrology
OIZ	Organized Industrial Zone
OJT	On-the-Job Training
ONDC	Open Network for Digital Commerce
OSS	One-Stop Service
OVOP	One Village One Product

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PE	Private Equity
PEN	National Economic Recovery
PFI	Participating Financial Institution
PIC	Pacific Island Countries
PMEGP	PM Employment Generation Programme
PMEP	Prime Minister's Employment Program
PMFME	PM Formalization of Micro Food Processing Enterprises
PMNPPP	Prime Minister Nepal Production Promotion Program
PPP	Public-Private Partnership
PRC	People's Republic of China
PSA	Philippine Statistics Authority
PSB	Public Sector Bank
PSIC	Pakistan Standard Industrial Classification
R&D	Research and Development
RAMP	Raising & Accelerating MSME Performance
RBI	Reserve Bank of India
RERP	Rural Enterprises and Remittances Project
ROC	Republic of China
rPET	Recycled PET
SAFTA	South Asia Free Trade Agreement
SARSO	South Asian Regional Standards Organization
SBP	State Bank of Pakistan
SDF	Skills Development Fund
SDG	Sustainable Development Goal
SE	Small Enterprises
SECP	Securities & Exchange Commission of Pakistan
SEDD	Small Enterprise Development Division
SEZ	Special Economic Zone
SFB	Small Finance Bank
SFB	Securities and Futures Bureau
SFURTI	Scheme of Fund for Regeneration of Traditional Industries
SHG-BLP	Self-Help Group Bank Linkage Program
SHGs	Self Help Groups
SLSI	Sri Lanka Standard Institution
SME	Small and Medium Enterprise

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SMEDA	Small and Medium Enterprise Development Authority
SMEDF	SME Development Fund
SMIC	Standards and Metrology Institute for Islamic Countries
SSS	Social Security System
STI	Science, Technology, and Innovation
TC	Technology Centre
TCSP	Technology Centres Systems Programme
TEKNOPAZAR	Technological Product Promotion and Marketing Support Program
TEKNOYAT-IRIM	SME Technological Product Investment Support Program
TESDA	Technical Education and Skills Development Authority
TPDM	Türkiye Regional and Sectoral Productivity Development Map
TREDS	Trade Receivables Discounting System
TUBITAK	The Scientific and Technological Research Institution of Türkiye
TurkStat	Turkish Statistical Institute
TVEC	Technical and Vocational Education Commission
TVET	Technical and Vocational Education and Training
UAP	Udyam Assist Platform
UMi	Micro-Credit Program
USD	United States Dollar
UT	Union Territory
VA	Value Added
VAT	Value-Added Tax
VC	Venture Capital
VCCI	Vietnam Chamber of Commerce and Industry
We-Fi	Women Entrepreneurs Finance Initiative
WTO	World Trade Organization
YES	Youth Entrepreneurship Scheme
ZED	Zero Defect Zero Effect

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