

# SMEs and 'Enterprise Security' in the 'Servitisation' Era

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**ISED Small Enterprise Observatory**

*Jointly with*

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## Preface

The advances in science and technology have the potential of revolutionising production, ensuring a greater integration of the markets, and of nourishing the supply chains. The impact of this on SMEs belonging to various sub sectors, in the short run and in the long run, is a key concern of policy. The purpose of this paper is to examine the evolving techno-economics, on the one hand, and the external constraints, on the other, in shaping the prospects of SMEs globally and in India.

Under the India MSME Communication Programme(IMCP), the Observatory, in co operation with the various Knowledge Centres of the Institute, makes a rigorous analysis of the latest currents in the MSME constituency, leading to a unique 'Development Report'. This study is a spill-over of this exercise of Development Reporting on micro, small and medium enterprises (MSMEs) at the ISED.

While the team of the Observatory did a meticulous job under the guidance and support of the Project Leaders, individual members of the Team, including the editors and the Associates, have made their special contribution in specific thematic areas. While this title is significant in the present context of the Indian economy , and of the MSME developments in specific, I hope it will contribute to wider discussions in the subject area.

As this title come out as a joint output of the Observatory and the ISED Centre for Enterprise Development, the Institute wishes to thank, without fail, the pains and efforts of the authors, and all who have supported it through inputs and suggestions. ISED has taken best efforts to ensure the quality and reliability of this paper. However, for the findings and views, the authors alone are responsible.



P.M.Mathew

Director, ISED Cochin

December 20, 2020



# SMEs and ‘Enterprise Security’ in the ‘Servitisation’ Era

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## *Abstract*

*The advances in science and technology have the potential of revolutionising production, ensuring a greater integration of the markets, and of nourishing the supply chains. The impact of this on SMEs belonging to various sub sectors, in the short run and in the long run, is a key concern of policy. The purpose of the following discussion is to examine the evolving techno-economics, on the one hand, and the external constraints, on the other, in shaping the prospects of SMEs globally and in India.*

*Key Words: enterprise security, SMEs, servitisation, technology.*

## **1.0. Introduction**

The advances in science and technology, and the latest form of industrial organisation that it has brought in, has been described under the rubric, ‘Industry 4.0’, or “Fourth Industrial Revolution”. While it has the potential of revolutionising production, ensuring a greater integration of the market, and of nourishing the supply chains, the more recent experience has been significantly disruptive. Of late, it appears largely in terms of climate change and repeated pandemics, which disturb government budgets and resource allocation in general. Whether such a break is likely to be short term or long term, and to what extent, it is likely to affect particular sub sectors, are key concerns of policy. The purpose of the following discussion is to examine the evolving techno-economics, on the one hand, and the external constraints, on the other, in shaping the prospects of SMEs globally and in India.

## **2.0. Manufacturing Transition: Global Scene**

The conventional theoretical understanding on economic growth and structure is based largely on the writings of Simon Kuznets (1966) who argued a three-stage progression of the economy, i.e., agriculture, industry, and the services. The above analytical scheme was further nourished by the contributions of Kaldor (1967) who notes that, manufacturing sector is the main engine of faster growth. However, studies in the late 1990s and early years of the twenty first century have brought in the hypothesis of deindustrialisation. Studies have shown that, the importance of manufacturing has diminished globally over the last 30 years, resulting in premature industrialisation or non industrialisation in most developing countries (UNIDO, 2016). It is primarily attributed in labour redundancy and a shift of manufacturing activities into lower income countries based on trade between mature economies and developing countries (Tregenna, 2009; Rowthorn and Ramaswamy, 1997). According to many of these

studies, premature deindustrialisation signifies, the growth of the industrial sector, but with a lop sided. This means that, even at the peak of their industrial growth, the share of manufacturing remains low.

‘Deindustrialisation’ refers to the process of social and economic change caused by the removal or reduction of industrial capacity or activity in a regional setting. The term is often used in the context of heavy industry, as they are considered to be the engines of diversification of industrial base of a region and economic growth in general.

The finding that emerges from many of the above studies is that, while the potential of manufacturing as a key agent of economic growth (as noted by Kaldor), is crucial. The actual experience of economic growth remains retarded. In the context of India, there are a few studies that leads to the conclusion that manufacturing has acted as an engine of growth, though its share has progressively declined.

### **2.1. The Debate on ‘Deindustrialisation’**

‘Deindustrialisation’ has taken place in many nations over the years, as social changes and urbanisation have changed the financial demographics of the world. Phenomena such as the mechanisation of labour render industrial societies obsolete, and lead to the de-establishment of industrial communities.

The debate on ‘deindustrialisation’, at the global level, comprises of two major streams of arguments: a) policy induced; and b) autonomous. The striking example of arguments on policy-induced deindustrialisation relates to India. During the reign of the Mughal Empire, India was the largest economy in the world, accounting for roughly one-quarter of the world economy. It had strong agriculture and industry, and was the world’s largest cotton textile manufacturer (particularly Bengal Subah). But in the latter half of the 18th century, India underwent political turmoil and Europeans (mainly British) got an opportunity

**'Deindustrialisation': A Reality, but a Road Block**

Box No: 1

The phenomenon of 'deindustrialisation' is a global reality, but a road block in sustainable economic development. The term refers to the process of social and economic change caused by the removal or reduction of industrial capacity or activity in a regional setting. It is often used in the context of heavy industry, the engine of regional diversification and economic growth. The debate on 'deindustrialisation', at the global level, comprises of two major streams of arguments: a) policy induced; and b) autonomous. According to the UNIDO(2016), the recent experience is such that, the problem of declining manufacture is largely a problem of policy. Therefore, the declining manufacturing value added, and employment, need to be a matter of serious concern, because as manufacturing growth declines, the general level of income opportunities and quality jobs also declines. According to scholars like Rodrik(2020), while in developed countries, technological progress has triggered deindustrialisation, in developing world, it is trade and globalisation.

to become political masters. During their rule, British mercantilism targeted weakening of the craft guilds, pricing and quota caps, and banning production of many products and commodities in India. India's de-industrialization contributed to Britain's Industrial Revolution, with India no longer being a competitor in the global textile industry. Britain eventually replaced India as the world's largest cotton textile manufacturer in the 19th century.

UNIDO(2016) suggests, the recent experience is such that, the problem of declining manufacture is largely a problem of policy, rather than being an accidental phase in economic growth. Therefore, the declining manufacturing value added, and the associated decline in employment, need to be a matter of serious concern, because as manufacturing growth declines, the general level of income opportunities and quality jobs also declines

While the term, 'deindustrialisation' brings to one's mind the context of advanced countries skipping the industrialisation phase, and moving to a post-industrial society, scholars like Rodrik(2020) attempt to explain this in the context of developing countries. According to Rodrik(2020), the obvious alternative available to developing countries is, trade and globalisation. While in developed countries, technological progress has played a major role in deindustrialisation, in developing countries, it is trade and globalisation.

Given the above background, the experience of Covid-19, a pandemic that has contributed to disastrous disruption in the economies, brings in a new dimension. It brings in a new challenge for countries, and especially for India. On the one hand, public goods need to be strengthened, which means the creation of an array of social infrastructure, especially health and education, that are complementary. On the other hand, there is the need for enhancing the manufacturing capabilities (eg: pharmaceuticals and hospital equipments). The choice, therefore, is between manufacturing and services. But, there is a more

serious third factor-employment promotion, which demands promotion of the services sector, especially the IT sector. What will the government do? This is a "butter and guns" choice.

**2.2. Manufacturing and Servitisation**

The global trend, today, is towards manufacturing firms developing the capabilities they need to provide services and solutions that supplement their traditional product offerings. This is called 'servitization', a concept coined by the Cranfield University Business School. It is "the innovation of an organization's capabilities and processes to better create mutual value through a shift from selling products, to selling Product-Service Systems". These firms sell value-in-use, rather than value-in-exchange. This shift in business model is important, because it means the interests of clients, and providers are much more closely aligned. The case of Rolls Royce has been suggested by some studies: Instead of selling aero engines, Rolls-Royce now contracts with many of its customers for "power-by-the-hour". The customer buys the power of the aero engines. The Company delivers and provides all of the support (including maintenance) to ensure that aero engines can continue to deliver power. In fact, what the customer wants is an assurance that the planes fly safely. According to a recent study, across OECD countries, between 25 % and 60 % of employment in manufacturing firms is found in service support functions including R&D, engineering, transport, logistics, distribution, marketing, sales, after-sale services, IT, management and back-office support(Zachariadis,2019).

Selling solutions rather than products, is the emerging trend in many industries. In healthcare, for example, many pharmaceutical firms are under significant pressure. The cost of developing drugs is increasing, many of the traditional drugs are coming off patent and so the generic manufacturers can move into the market. Hence, pharmaceutical firms are increasingly