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Future Challenges of MSMEs & Policy Imperatives

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Overview:

Micro, Small and Medium Enterprises (MSMEs) account for a considerable proportion of enterprises, employment, innovations, Gross Domestic Product (GDP), and exports in nations across the global economy, irrespective of their stage of development and prosperity. This has been so, irrespective of the varying rates of fertility and mortality of MSMEs, and despite the changing economic times characterised by intermittent economic crises, economic reforms, and industrial revolutions induced by technological advancements. Their persistent economic contributions are largely attributed to their flexibility, dynamism, need for limited investments, and multiple options for entrepreneurial eruptions from diverse income groups, and relatively easy entry and easy exit feasibilities, among others.

It is their potential and actual economic contributions (in terms of employment and income, among others) which can absorb unskilled, skilled and academically (Science & Technology, and Management) qualified labour force, and thereby ensure a more equitable distribution of income and wealth (within an economy) which has consistently attracted the attention of policy makers and empirical researchers world over. Though varying forms of policy interventions have been introduced in different countries over a period of time, the challenges/constraints of MSMEs with respect to their access to finance, technology, labour, and markets persist. Two propositions are being submitted in this concept note, which seeks to address some specific challenges facing MSMEs in India. Section 1 attempts to explore the domain of industry and the emerging challenges for MSMEs, as well as catalogue some policy imperatives that can synergize the developments in the Industrial sector with the growth of MSMEs in India. Section 2 addresses the challenge of skill-formation in MSMEs and proposes the setting up of an all-India university with state-level branches for MSMEs, modelled on institutions like AIIMS or Agriculture Universities.

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Section I: Positioning MSMEs for High-Tech Industrial Revolution³

I.1 Introduction

In recent years, the challenges/constraints facing MSMEs have been taking a new dimension altogether, for two reasons: (i) Changing complexion of international trade due to ever increasing dominance of Global Value Chains (GVCs) of MNCs, and (ii) Steadily advancing Industry 4.0 (Fourth Industrial revolution) comprising multiple dimensions such as the applications of artificial intelligence, augmented reality, cloud computing, big data analytics, industrial internet of things, sensors, simulation tools, etc. Such applications are expected to radically improve human to machine connectivity and bring machine to machine connectivity, among others. Smart factories, smart homes, smart offices, etc. are the outcomes.

Irrespective of the degree of participation of an economy in the GVCs of MNCs, and irrespective of the degree of absorption of Industry 4.0 by an economy, both gradually growing dominance of GVCs of MNCs in the global trade and steadily penetrating Industry 4.0 into developed economies will have serious repercussions on domestic economies (across the world). The wildest form of repercussions is anticipated in the form of serious job losses due to automation and interconnectivity of machines displacing labour. Further, unlike the earlier three Industrial revolutions, the fourth Industrial Revolution is multi-dimensional and sector agnostic. Therefore, as of now, anticipating and assessing its actual impact on the economy as a whole is quite a challenge.

However, economies and sectors which do not absorb or lag behind in the absorption of Industry 4.0 will be left behind, and will not be in a position to penetrate the GVCs of MNCs. More than that, they will be adversely impacted within the domestic economy as well. Obviously, the prime casualty will be the domestic industry sector, particularly MSMEs. Given this, it is appropriate to ascertain how MSMEs will get impacted, and what needs to be done to deal with the emerging challenges of MSMEs.

I.2 How will the Industrial Sector, particularly MSMEs get impacted?

Indian industry, unlike the industrial sectors of developed and newly industrialised economies, is not uniform, rather it is fragmented and heterogeneous. This is due to the limited and varying

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penetrations made by earlier Industrial Revolutions into the Indian economy in general, and industry in particular. The first Industrial Revolution introduced mechanical production in industries with the help of water and steam power. This penetrated Indian industry in a limited way, leading to the emergence of a second layer in the sector/economy.

The second Industrial Revolution introduced mass production involving assembly lines, with the help of electricity. This did make an impact on Indian industry to a greater extent and facilitated the growth of 'registered factory sector' in the Indian economy, leading to the emergence of a third layer which virtually obfuscated the second layer emerged due to the first Industrial Revolution.

The third Industrial Revolution, thanks to Globalization and ICT revolution involved the application of electronics and Information Technologies to automate production. Despite all apprehensions, this penetrated the Indian economy far and wide, including industry leading to the emergence of the fourth layer. This has also enabled the emergence and growth of start-ups, particularly technology innovation induced high-tech start-ups. However, it is pertinent to note that the larger part of the unorganised sector remained beyond the purview of the third Industrial Revolution.

It is due to the partial penetration of earlier Industrial Revolutions into the Indian economy in general, and industry in particular, that we have multiple layers in Indian industry including MSMEs. Broadly, we can visualise Indian industry as a four layered pyramidal structure (Figure 1) as follows:

- (i) At the bottom of the pyramid, there is a huge base of unorganised sector comprising Household Enterprises and Unregistered Workshops, predominantly located in rural India. The key characteristics of these enterprises are: (i) Low level of education of entrepreneurs, (ii) Low level of labour skills, (iii) Low level of investment, (iv) Limited access to formal financial institutions, (v) Obsolete technology, (vi) Limited use or absence of power, and (vii) Largely confined to local markets with limited penetration beyond. If at all, they have (directly/indirectly) penetrated the national market with the help of E-Commerce Companies (in the recent years). They are hardly touched directly by any of the former Industrial Revolutions. There exists virtually no scope for the adoption of

Industry 4.0 but they will get impacted by its penetration indirectly (by Industry 4.0 absorbed E-Commerce Companies, for example).

- (ii) Intermediate base of the Pyramid: A growing share of modern (factory) MSMEs, whose founders are educated, have better labour skills, moderate investments, access to formal financial institutions, involving mechanised and electricity operated technology, with penetration of regional, national and even international markets. They have rather strong linkages with the large (domestic/foreign) industrial enterprises in the domestic economy. Some of them have accessed and joined GVCs of MNCs. Thus, they are impacted by the second and third Industrial Revolutions and have the potential to adopt and get impacted by Industry 4.0.
- (iii) Intermediate top of the pyramid: A narrow intermediate top comprising modern large scale enterprises (including MNCs). They are the products of 2nd and 3rd Industrial Revolutions, and they have the high potential to absorb Industry 4.0. In fact, more and more of them have been absorbing Industry 4.0 either to enhance competitiveness or out of sheer necessity.
- (iv) Top of the pyramid: A minute triangle comprising high-tech start-ups, which are the outcomes of the third and fourth Industrial Revolutions, respectively. Those high tech start-ups which have come up in the Industry 4.0 space such as Augmented Reality, Artificial Intelligence, Big Data analytics, Cloud Computing, Edtech, Fintech, Health Tech, IOT, Sensors, Simulation tool, etc. are invariably the targets of large companies including MNCs for M&As. Acquiring high-tech start-ups in the Industry 4.0 space is one of the means adopted by the latter to overcome the gestation period required to absorb Industry 4.0.

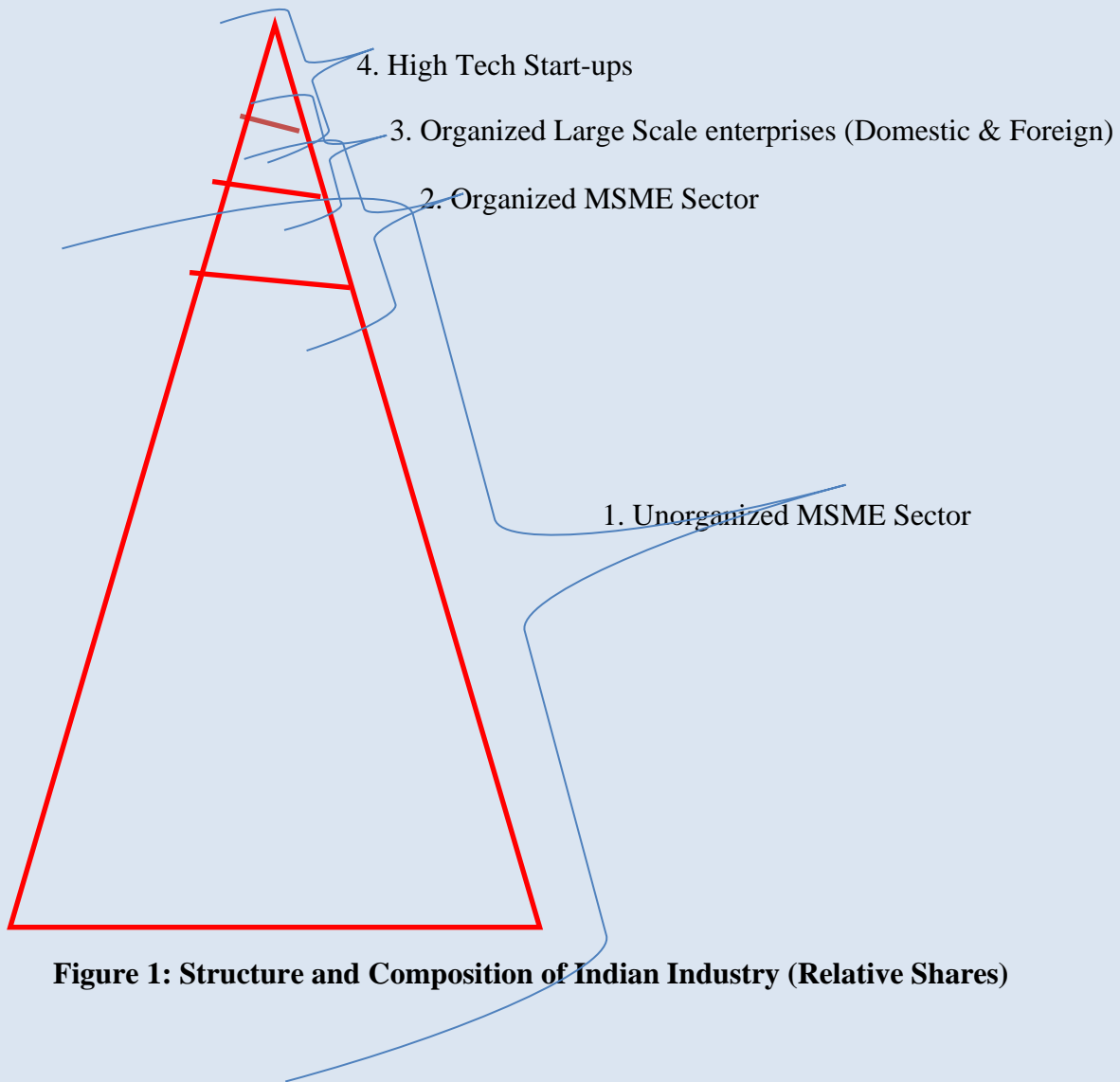


Figure 1: Structure and Composition of Indian Industry (Relative Shares)

I.3 Why should Industry, particularly MSMEs, be Industry 4.0 Ready?

Industrial enterprises (including MSMEs) which can increasingly absorb different components of Industry 4.0 will achieve productivity improvements and therefore higher competitiveness. Such enterprises will exhibit more dynamism, and therefore will be able to carry out technological innovations for process/product developments. They will gain in terms of cost reduction, quality improvement, be able to avert production or supply chain breakdowns, meet product demands accurately, save energy, and penetrate wider markets steadily. International collaborations or entry into foreign markets through foreign direct investment will be relatively smooth. They will be able to penetrate the international markets through exports or through integration with GVCs more effectively. Given this, it is appropriate to know what needs to be done to enable a larger proportion of Indian enterprises to absorb Industry 4.0.

High tech start-ups which emerge in the Industry 4.0 space will significantly add Industry 4.0 capability to the ecosystem. Many such start-ups will be the targets for M&As by large scale enterprises (including MNCs). Some of them may scale up and reach global markets.

I.4 Constraints and Challenges relating to the Adoption of Industry 4.0

While the advantages emanating from the absorption of Industry 4.0 is fairly evident, the path to its adoption is confronted with constraints as well as challenges in India. Despite the ever growing penetration of IT and digital infrastructure, it is far from being adequate to facilitate a steady absorption of Industry 4.0 elements by Indian industry. But infrastructure alone will not facilitate Industry 4.0 penetration. There are inadequate R&D intensities and therefore inadequate technological capabilities as prevalent in a wide variety of sectors. This constraint is compounded by inadequately available and inadequately skilled labour force in India. Thus, overall, infrastructure, capital investment and skilled labour are still lacking in India.

Even when an increasing number of industrial enterprises absorb Industry4.0 elements, there is a greater probability of displacement of labour leading to job losses and a rise in technological unemployment. This will pose a huge challenge to Indian Policy Makers by worsening the ‘jobless growth’ scenario in the country. Further, MSMEs will find it hard to hold on to their presence in international markets, and joining the GVCs of MNCs will become a greater challenge.

Overall, increasing absorption of Industry 4.0 by Indian industry will enable a steady increase in productivity, production and exports leading to an increase in industry contribution to GDP, but its contribution to employment will suffer. Thus, it has the potential to worsen the inequalities in the distribution of income and wealth. Given this, it is appropriate to explore the policy imperatives to maximise benefits and minimise losses.

I.5 What Needs to be Done? Policy Imperatives

The adoption of Industry 4.0 in India is at its infancy. At the outset, a vast IT and digital infrastructure with a strong semiconductor industry base is the need of the hour. The current Vedanta Foxconn initiative to manufacture semiconductors in India is a welcome step which has the potential to boost manufacturing MSMEs as well as strengthen the global supply chain with India as the base. A similar semiconductor investment initiative is proposed in Karnataka.

Apex Industry Chambers, namely, Assocham, FICCI and CII must play an instrumental role with the help of the Government, to induce Industry 4.0 related investments in their member industrial enterprises. Similarly, the Ministry of MSMEs along with Federation of Indian Exporting Organisations (FIEO) must encourage organised sector MSMEs to adopt Industry 4.0 elements as far as possible. Thereby an increasing number of MSMEs must be enabled to join the GVCs of MNCs in the global market.

Exclusive policy initiatives may be done (as part of 'Make in India' initiative and National Strategy for Additive Manufacturing) to attract Industry 4.0 adopted MNCs to locate their production bases in India and encourage them to integrate with the local industrial enterprises including MSMEs.

Higher Education Institutions such as IITs, NITs, IIMs, and other premier educational institutions must increasingly introduce Industry 4.0 related courses to build skilled manpower for industries to adopt Industry 4.0. Further, it would be appropriate to lay an exclusive emphasis on setting up Industry 4.0 sector specific Technology Business Incubators in Higher Education Institutions to nurture high-tech start-ups. Similarly, corporate sector enterprises may be encouraged to set up Accelerators to exclusively focus on high-tech start-ups in the Industry 4.0 space.

Industry 4.0 adopted E-Commerce Companies may be further encouraged to help unorganised MSMEs to market their products, and thereby enable them to circumvent their inability to take advantage of Industry 4.0. The above measures would make the impact of Industry 4.0 on Indian industry, particularly MSMEs, less turbulent and enable them to reap more benefits out of it.

Section II. Need for an MSME University⁴

II.1 Introduction

Micro, Small and Medium Enterprises (MSMEs) have a tremendous potential in providing employment opportunities to the increasing number of youth in the economy. India is an economy that adds 12 million people to its working population annually, with a workforce of around 400 million between ages of 15 to 34 years. MSMEs contribute nearly 30 percent to national GDP, employing over 11 crore people in around 6 crore enterprises and accounting for around 36 percent of manufactured output and 40 percent of exports from India. Recent policy focus on goals like ‘Make in India’ and encouraging foreign manufacturers to set up units in India are all encouraging trends and would certainly boost employment, growth and development of MSMEs in India. Given that large industries, to stay competitive, would vigorously pursue automation and artificial intelligence, the burden of job creation and the absorption of an increasing labour force can only be performed by MSMEs. Thus, the focus of the government on MSMEs at this juncture of economic growth is justified.

In view of the significance of the sector, since 1948, successive governments have been making intense efforts to encourage MSMEs. The office of development commissioner for MSMEs was set up in 1954 and a dedicated Ministry for MSMEs was established in 1999. The Small Industries Development Bank of India (SIDBI) was established in 1990 to serve as an apex body for promotion, financing and development of the MSMEs. In recent years, the government has shifted more attention to MSMEs, with innovative measures like Udyam, which is a digital system for registration of MSMEs, thereby improving their financial inclusion. However, given the demographic pressures and the precarious nature of work for a large number of Indians (as evident from the pandemic period), the government has to think out of the box to create a thriving entrepreneurial environment in the country.

II.2 Key Challenges⁵

Some of the key problems faced by MSMEs continue to be related to availability of technology, infrastructure, and managerial competence, and limitations posed by informality

⁴ Lead Contributor: Dr. Charan Singh, Former RBI Chair Professor of Economics, IIM Bangalore

⁵ Charan Singh and K. Poornima, Finance for Micro, Small and Mid-sized Enterprises in India: Sources and Challenges, ADBI WP no. 581 July 2016

of jobs, labour laws, taxation policy, market uncertainty, imperfect competition and the skill level of the workforce.

II.3 Need for a dedicated Institution or University⁶

Skill formation has to be seen from two angles – labour and entrepreneurs. In many cases, there are single individual MSMEs where the entrepreneur is the sole employee of the micro enterprise. To skill labour, there are already many skilling centres and more can be established. The real challenge is to create and nurture entrepreneurs. For entrepreneurs, there is a need for having more incubators. Most importantly, for the 6000 odd goods that MSMEs produce, there is a need for R&D. In India, illustratively, each state has a unique or characteristic good like Rajasthani Rajai, Punjabi Jhooti, Kolhapuri Chappals, etc. and focused research on each from the angle of production, supply chain, innovation and quality would be useful.

In addition to the recent government initiatives to revitalise MSMEs, there are a few innovative things that the government can consider, like setting up central and state-level universities dedicated to entrepreneurship, on the pattern of All India Institute of Medical Sciences (AIIMS), which serves as a research hub with clinics even in farthest and remotest villages of India. *Therefore, there is a need to have a network of dedicated institutions, familiar to the local conditions, in every state of India.*

The proposed University, which can be called as **Indian Institute of Entrepreneurship (IIE)** can have a Hub and Spoke model. The Hub should be able to undertake research and generate material in local languages, to be spread across the length and breadth of the country through state-level IIEs (or Spokes). The farthest cluster of MSMEs should have an MSME clinic, with local area experts specialised in local industrial clusters.

The teaching faculty, which would consist of academia and practitioners, are to handle tasks at different levels. The following is conceived –

- a) First, designing a 3-year degree course (after 12th) for entrepreneurs, and a 5-year course for training the trainers, as well as certification courses for specific areas. The focus is on teaching entrepreneurship, including core subjects like psychology, sociology, accounting, harnessing human resources, law and labour laws, leading people and situational leadership, production and operations management, marketing (including digital marketing), finance (including business finance), innovation,

⁶ Charan Singh, Why each State of India needs a MSME University, Financial Express, February 26, 2018

strategy, communication, government and banking policies, planning, macroeconomic analysis for better decision making, and economic environment.

The teaching of entrepreneurship cannot be only a classroom phenomenon, but a practical hands-on training in existing enterprises, to develop, nurture and cultivate the skills. This would also help in developing confidence, and preparing them for risk taking.

- b) Second, R&D in different aspects of production of specific goods will build the competence of MSMEs. Most MSMEs do not have resources to undertake research on their products. Hence, their products are outcompeted from the markets because large firms and foreign companies with extensive research are able to improve quality and lower costs.
- c) In the research on MSMEs, it is generally observed that bankers and financial institutions are reluctant to finance projects proposed by MSMEs. The rigorous training, subject-wise would provide credibility to the young entrepreneurs and confidence to the bankers for investing resources in new projects undertaken in MSMEs. Therefore, IIE can match the bankers and the graduating entrepreneurs for enhancing production, employment and growth in the country.
- d) As the educational pattern would be subject-wise, semesters, existing entrepreneurs and MSMEs can benefit by short-term courses focused on specific areas. The expertise available in the IIE will be able to provide consultancy to the MSMEs and ensure sustainability of the firms in the sector.
- e) The government can consider scaling up the numbers of incubators by using these state-wise institutions, established/financed by the government – both central and state. The industry can also help by establishing incubators using the provisions of CSR in these institutions.
- f) IIEs should coordinate and collaborate with trade associations across the country. The Hub has to work with the governments (both centre and states) to create policies on skills, job creation and entrepreneurship

II.4 Indian Institute of Entrepreneurship: Some Considerations

There are many things that the government can do through IIEs dedicated to MSMEs. The MSME ministry could facilitate a strong media presence (both digitally and otherwise) exclusively for MSMEs which would help the entrepreneurs to keep abreast of the happenings in the sector. The medium of communication has to be largely local language and if possible, local entrepreneurs should be encouraged to share their experience, and mentor the local budding entrepreneurs.

A separate legal counsel should be made available in all district headquarters and MSME clusters. Law institutes in each state should come up with documents that have Frequently Asked Questions (FAQs) along with basic legal information specific to MSMEs in local language.

The government could utilise the expertise in these institutions to build financial schemes for MSMEs in consultation with the banks. As in the case of micro finance, bankers should be permitted to follow joint liability group (JLG) or Self-Help-Group (SHG) approach while extending loans for MSMEs, mainly micro institutions which need small amounts. JLG could be formed for the street where a group of few entrepreneurs would be constituted and loans extended. Most importantly, Loan proposal templates should be made available in the native language.

The institution can address the issue of Greenfield projects, by helping to create an evaluation framework. This framework can use historical MSME data as the input.

Similarly, to encourage products manufactured by MSMEs, India could illustratively showcase and promote their products such as phulkari of Punjab, bamboo works of Assam and West Bengal, and cotton weaving of Tamil Nadu via galleries and museums, preferably, free of cost.

Section 3: Conclusion

First, the Fourth Industrial Revolution will demand higher competitiveness and thereby more dynamism and resilience in production processes. Therefore, we need to equip the MSMEs accordingly, in order to avert production or supply chain breakdowns or other disruptions. This will help in ensuring MSMEs a niche in the global and domestic markets, without falling behind technologically. To facilitate a steady absorption of Industry 4.0 elements by Indian industry, fostering innovation and improving infrastructure, capital investment and skilled labour are necessary. Measures like setting up a vast IT and digital infrastructure with a strong

semiconductor industry base, nurturing high-tech start-ups, helping the unorganized MSMEs to market their products through the E-commerce companies, could potentially enable MSMEs and the Indian industry in general to reap more benefits from the fourth industrial revolution and achieve sustainable growth.

Secondly, In view of the young demographics that India has, it is important that self-employment is emphasised. MSMEs provide an opportunity for self-employment. We propose the setting up of an 'Indian Institute of Entrepreneurship' for generating employment, training the young entrepreneurs in different respects of business and thereby minimising the risk of premature mortality. The training will also help the banks and financial institutions to fund these young entrepreneurs. The emphasis on R&D would help in innovation in the products manufactured and marketed by MSMEs. The availability of clinics in every cluster and entrepreneurs trained in local languages would help in ensuring better input and output markets as well as sustainability of the model.

To create an entrepreneurial environment in the country, it is most important to train the trainers too. The best place to train the trainers is to create a university where training the entrepreneurs and their teachers are created.