



CDEIS POLICY BRIEF SERIES ON PUNJAB ECONOMY

#2020-07

Covid-19 and MSMEs in Punjab: Challenges Ahead

Swati Mehta
Assistant Professor
Punjab School of Economics
Guru Nanak Dev University, Amritsar-143005
swatieco@gmail.com

October, 2020

Centre for Development Economics and Innovation Studies (CDEIS)

Arts Block No. 6,

Second Floor,

Punjabi University, Patiala

Telephone : 0175-3046544 (O)

Email: cdeispbi@yahoo.com

website: <http://www.punjabiuniversity.ac.in/Pages/department.aspx?dsenc=9>

CDEIS Policy Brief Series on Punjab Economy

The COVID-19 pandemic has shaken the economies globally and added to the existing problems and their intensity like climate change, poverty, unemployment, migration, education, and of course, health. Developing economies have suffered even more due to their vulnerabilities to such sudden and large shocks. India is no exception to this trend and has regional variations in the impact of COVID-19 as there is much disparity and specificity in the levels of development of state economies. Punjab being an agriculturally grown state though still highly dependent on its agriculture and rural non-farm economy for significant proportion of its population and their livelihoods in the presence of public resource crunch has also faced this COVID-19 onslaught while being in economic, social and environmental crisis.

In this context, it was thought fit to get an independent set of policy directions from scholars in their respective domains based in Punjab, outside Punjab and even overseas to encourage public policy debate in and outside the state about the nature and magnitude of Punjab's economic and developmental crisis and the COVID-19 implications for it and explore possible ways forward to make the economic and social systems of the state move out of the situation of economic and policy inertia. The policy briefs in this series numbering more than 20 examine issues ranging from agricultural sustainability, environmental and market aspects of the agricultural systems to allied sector and informal and small-scale sector livelihoods including dairy and MSMEs. The marginalised group livelihoods like women, schedule castes, and farm labour and other rural and migrant workers also get adequate attention. The sectors of health and education are also examined. On the fiscal front, institutional credit for recovery and revenue of the state post-GST are analysed. The larger aspects of governance, federalism and diaspora also get a coverage as contextual and overarching themes.

We hope that these briefs would serve to encourage more informed debate and discussion in the interest of the betterment of the state economy and society to aid post-COVID recovery and medium and long-term sustainable development policy making.

Sukhpal Singh, IIM, Ahmedabad
Lakhwinder Singh, Punjabi University, Patiala and
Kamal Vatta, PAU, Ludhiana
Series Editors

Covid-19 and MSMEs in Punjab: Challenges Ahead

Swati Mehta
Assistant Professor
Punjab School of Economics
Guru Nanak Dev University, Amritsar-143005
swatieco@gmail.com

Abstract

Micro, small and medium scale enterprises (MSME) play an significant role in the economy of India as well as for Punjab. The MSMEs act as important node for backward and forward linkage in the local and global value-chains. Major industries of Punjab include transport equipment (automobile parts, bicycles), textiles (hosiery and readymade garments), and general-purpose and special purpose machinery (hand tools and machine tools), sports goods among others. With the nationwide lockout started in later week of March 2020 to curb the effect of deadly Covid-19, MSMEs across the nation were also hit hard. It is estimated that the industry of Punjab losses around Rs. 40,000 Cr for the days of total lockdown due to coronavirus. Government of India (GOI) announced several measures to revive the economy, with specific emphasis on MSMEs. New definition of MSMEs, specific credit availability measures amongst others were announced under the ‘stimulus package’ with the broader policy of making India self-reliant for global competition with a call for ‘Atamnirbhar Bharat’. The aim of the paper is to bring forth the challenges in the path of MSMEs in manufacturing sector of Punjab to re-start, revive, survive and compete in the post-lockdown times.

Covid-19 and MSMEs in Punjab: Challenges Ahead

Swati Mehta

I. Road to Revival: Focusing on priorities?

Covid-19 brought numerous challenges for human lives and their livelihoods across nations. Nation states are struggling to save people from pandemic and hunger. Since the outbreak of coronavirus in November 2019, its spread is halting the economies across the globe, although at different times for different durations and different intensities. From Chinese province of Wuhan, the epicenter of the outbreak, the coronavirus spread its paws to South East Asia and Europe before entering South Asia. The affected economies remained closed, either fully or partially on an average for about three months disrupting the supply-chains and demand of different products across different nations. Apart from curbing the spread of coronavirus, the biggest challenge for the nation states is to frame and implement appropriate *public policies* to revive the stranded economies. Government of India (GOI) call for 'Atmanirbhar Bharat', a medium to long-term objective amidst immediate struggle to restart the economy with various non-fiscal, fiscal and monetary instruments, subsumed in the 'stimulus package' of Rs. 20 lakh crores. GOI focuses upon Micro, Small and Medium enterprises (MSME) in an attempt to join the broken supply-chains and to provide gainful employment opportunities to the people. The importance of MSMEs is manifested from the fact that its share in Gross domestic product (GDP) is about 28.9 percent in 2016-17 with about 633.88 lakh enterprises providing employment to about 11.10 crore people in India (MSME, 2018-19). Therefore, MSMEs can appropriately act an important link to both demand and supply side of the economy across sectors. Combining this with the Kaldorian (1960) 'engine of growth theory' with

industrialization¹ at the center², it would be significant to examine the challenges and opportunities that MSMEs, especially from the manufacturing sector is facing in recent times. For the purpose, the focus of the paper is upon MSMEs in manufacturing sector of Indian Punjab in context of the recent policy announcements and expectation of changing 'world economic order'.

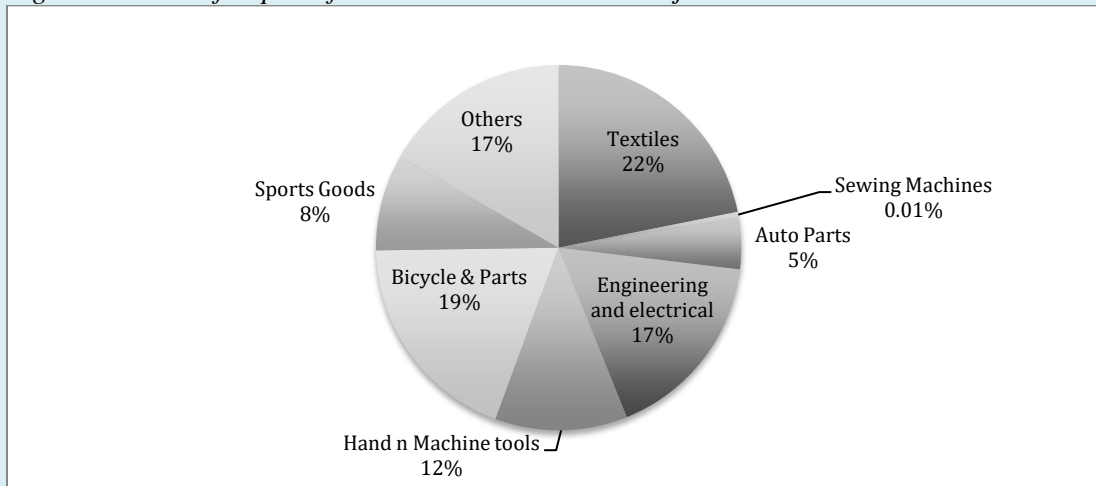
II. MSME in Punjab: Structure and Nature:

Punjab is primarily an agricultural state with a considerable share of industries and services in State Gross Value Added (GSVA)³. According to National Sample Survey Organization (NSSO) 73rd round, out of the total 633.88 lakh MSMEs in India, Punjab has about 14.65 lakh enterprises (2.3 percent of the total MSMEs in India) providing about 24.80 lakh jobs (2.2 percent of the total MSMEs in India) with a large proportion of Micro enterprises (14.56 lakh enterprises) (MSME, 2018-19). Ministry of MSME adopted *Cluster Development Approach* for capacity building to enhance backward and forward linkages in the production chains. The importance of *clusters approach* or '*geographical concentration of interconnected companies*' (Porter, 2000) are increasingly acknowledged as a means of learning and technological accumulation for building competitiveness and value-upgradation (Giuliani et al. 2005), although with the correct mix of internal and external organizations and institutions (Malerba, 2005). Punjab has in total 22 industrial⁴ clusters with the maximum 14 clusters in Ludhiana district alone. Ludhiana has the clusters for the manufacturing of auto-parts, fasteners, machine tools, hand tools, wire drawing, sheet metal parts, bicycle and engineering

parts, foundry and induction furnace, dyeing industries, printing and packaging, oil expeller & parts, tractor parts, and knitted outwear. Punjab being an agricultural state also develops the agricultural implements clusters in Ferozepur and Mukatsar districts. However, an advanced machine cluster is also being developed at Mohali district of Punjab. Broadly, the important manufacturing exports from Punjab are

largely from six industrial sectors (Figure 1) textiles, bicycles & parts, auto-parts, Hand and Machine Tools, Electrical switchgears & accessories and engineering goods, and sports goods. It is estimated that the minimum loss due to total lock-down to the manufacturing sector of Punjab state is around INR 40,000 Cr. with the man-days loss of 482 lakh persons employed⁵.

Figure 1: Share of Exports from Industrial Sector in Punjab



Source: Author's illustration from Statistical Abstract of Punjab (2018-19)

Notes: 1. Total industrial exports are of INR 22221.50 Crores (at current prices) for the year 2017-18.

2. Textiles are Hosiery and readymade garments; Auto-parts includes auto-spares and diesel engines; Electrical goods are switch gears and accessories; others includes tanned & chrome leather and leather products, food products, handicrafts, drugs, carpets and other items.

Ministry of (M/o) MSME has established 18 *Technology Centers* across India for providing stimulus to MSME sector. Of these two were established in Punjab namely, Central Tool Room (CTR) at Ludhiana and Central Institute of Hand Tools (CIHT) at Jalandhar (MSME, 2018-19). However, the development of MSMEs is the primary responsibility of the State government, which is undoubtedly supplemented by the policies and initiatives of the Government of India (GOI). As a revival strategy for the pandemic trodden economy, some measures were announced by Finance Minister, GOI on 13th May 2020 for the MSMEs, which would be briefly outlined in next section with the discussion of its

probable impact on Punjab manufacturing sector.

III. Roadmap for Revival: Focus on MSMEs

There are certain policies that were announced for the revival of the MSMEs in India with the expectation of providing initial inertia to the strangled economy. The revival of MSMEs would give a boost to the broken supply-chains from the supply side and would also be expected to push-up the demand side by providing employment opportunities.

Redefining the Sector: The major change announced was concerning the amendment of the Micro, Small and Medium

Enterprises Development (MSMED) Act 2006 for defining the sector. The *new* definition of the MSMEs is based upon both *investment* and *turnover* limits whereas the previous definition considered only the investment criterion. Second, earlier the defining criterion for manufacturing was different from services, which was done away with in the revised versions. Presently, Micro enterprise is one that has the investment limit of less than INR 1 crore and turnover of less than Rs. 5 crores. Earlier, it was the one with the investment limit of Rs. 25 lakhs only. The investment limits of Small enterprises is also revised from less than Rs. 5 crores to less than Rs. 10 crores along with the turnover of Rs. 50 crores. For the Medium enterprises, the investment limit was doubled from less than Rs. 10 crores to less than Rs. 50 crores and with turnover of less than Rs. 250 crores⁶. These revisions in the criterion is expected to boost the investment limits in the MSM enterprises which in turn would also have a direct impact on the turnover of these enterprises. As we have seen that more than 99 percent of the enterprises in Punjab are 'Micro enterprises', the revised criterion would encourage investment in these enterprises. But some 'small enterprises' according to previous criterion would also be expected to fall under the 'micro enterprises' further swelling the section of MSMEs. Second, fulfilling both criterion of investment and turnover simultaneously would demand careful classification of enterprises to avail the relevant benefit.⁷ Third, entrepreneurial fervor for the changed definition would be evident with the level of investment and henceforth turnover that may follow in due course of time, given the nature of credit facilities' apart from the overall strategy to revive demand¹⁰ along with supply in the economy.

Easing Credit Facilities: GOI made announcements (<https://msme.gov.in/>) to boost investment in MSMEs including (i)

guarantee free and collateral free loan of Rs. 3.00 lakh crores, (ii) payment of receivables to MSMEs within next 45 days and (iii) bar on domestic tendering up to Rs. 200 crores. These schemes can be understood under the umbrella of call for 'Made-in India' or 'Atmanirbhar Bharat Abhiyan'. The call for making India 'self-reliant' is not new in the history of her economic development. After Independence, the Second Five Year Plan has in its core the mission of making India 'self-reliant' (Ahluwalia, 1991) that has its own empathizers and critiques over time. But the beginning of 1990s witnessed some reversal in policy framework in compliance with 'Washington consensus'. Again, the paradigm is shifting back to 'self-reliant' policies but with the broader aim for '*making India globally competitive*'.

About the specific policies for the revival of the MSMEs (<https://msme.gov.in/>) it was highlighted that under the 'guarantee free and collateral free loan' an amount of total Rs. 3.00 lakh crores is earmarked out of the Rs. 20 Lakh Crore package announced by GOI. The scheme has the moratorium of one year on payment of principal and is valid till 31st October 2020 or the time when the money allotted for the scheme is available. To reduce institutional bottlenecks, it was made mandatory for the department of GOI and the Central Public sector enterprises (CPSEs) to pay the receivables to MSMEs within next 45 days for easing the working capital conditions of MSMEs. Since this scheme is for both manufacturing and services sector across country, the extent of the benefits of the scheme depends upon the quantum of loan taken by Punjab based entrepreneurs. Importantly, these schemes are largely to stimulate the supply-side bottlenecks, policies for demand revivals would encourage entrepreneurs much to take loans for future expansion. To boost demand, GOI however announced a scheme of putting bar on government

procurements for the global tendering upto Rs. 200 crores⁸ for providing boost to indigenous manufacturers and service providers under 'Aatmanirbhar Bharat' scheme. However, the quandary is that the government policies concerning MSMEs are largely supply encouraging, which is expected to bring momentum in the economy with probable enhanced investment which would boost employment to generate demand, however with some time lag⁷.

IV: MSMEs: Challenges for Learning and Competitiveness⁹

As discussed previously, Punjab is a manufacturer and exporter of varied industrial products. Each of these products possesses their respective 'learning' pattern, technological complexity, backward & forward linkages, relationship with suppliers, markets & competitors and institutional structures. This heterogeneity in attributes creates different opportunities and challenges for different enterprises producing different products. However, in the present section, an attempt is made to discuss some domestic and external challenges that the MSMEs in manufacturing sector in Punjab experience.

a. Domestic Bottlenecks: First, situated next to international border, Punjab is far from National capital (New Delhi), Trade capital (Mumbai) and knowledge hubs (Noida, Bangalore, Pune, Hyderabad). Although, the *road-link* is preferable option for imports and exports, the *rationalization of rail-link cost* is important (EXIM, 2019). Government of Punjab should speed up the process of bringing Ludhiana (Times of India, 2018) the manufacturing hub of Punjab on international air-map that would be beneficial not only for the local entrepreneur but also attract potential international investors in the state. Importantly, MSMEs in Punjab also have

concerns regarding supply-chain ecosystem. Being an agricultural based state, Punjab depends upon other states and countries¹⁰ for most of the basic raw materials. A study done by Exim Bank (EXIM, 2019) found that pig-iron is imported in Punjab from Jharkhand and Odisha for auto-parts, hand-tools and machine-tools clusters; raw-rubber is imported from Kerala; and furnace oil is imported from Jamnagar. Subsequently, manufactured products are exported across the continents. Therefore, an effort should be made to provide *advanced fast means of transportation* at *subsidize rates* for the manufacturing clusters in Punjab.

Second, MSMEs in Punjab faces challenge concerning human capital. Migration to other countries from Punjab has increased over the years, thus creating a void in labour market. Labour working in MSMEs in Punjab is largely migrated from other states. MSMEs face difficulty in finding skilled labour and they usually resort to on-job training⁷ to unskilled labour force. However, M/o MSMEs has established two Technology centers that not only provides technological supports to industries but also provides skilled manpower in tool engineering (MSME, 2018-19). However, to fill the abyss three points are suggested, One policymakers should try to strengthen university-industry linkage for generating demand based supply of manpower. Two, M/o MSME should establish specialized Technology Centres for *automated manufacturing system* to meet the future competitive requirements in Punjab. Labour Laws are another important aspects of concern not only to labour but also to domestic and international entrepreneurs. Flexibility in labour laws is largely being advocated by entrepreneurs⁷ and some school of thoughts (Basu, 2009) which is largely rejected by labour unions due to contrary interests (Shyam Sundar, 2005). Therefore, the need is to find alternative policy framework for finding the middle

competitive, skill-enhancing and evolutionary path. Third, industrialists in Punjab are also concerned about *infrastructural bottlenecks* in Punjab. To put in perspective, in the first month of 2020, industrialist demanded the reduced rate of power at par with adjoining states (The Tribune, 2020a).

b. External Challenges: There are certain challenges that MSMEs face from their counterparts from different countries. During the panel discussion concerning industries in Punjab, Ludhiana based entrepreneur⁷ found ‘infrastructural’ and ‘institutional’ bottlenecks as challenges that India and Punjab face in particular. As of 2020, World Bank compares Business Regulations in quantitative indicators in 190 economies and it covers 12 areas including the aspects related to ‘*starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency, employing workers, and contracting with the government*’¹¹. Whereas, these features are important for domestic entrepreneurs, they also act as an important means (or hindrance) for the foreign investment. According to the *Doing Business Report 2020*, out of 190 countries, India ranks 64, which is lower than that of China (rank 31), Singapore (rank 2), Hong Kong (rank 3), Malaysia (rank 12), Taiwan (rank 15), and Thailand (rank 21) amongst others. However, there are certain specific infrastructural backwardness that India and particularly Punjab is facing to attract the foreign investors. For example, ‘*rental factories*’ or ‘*plug and play*’ facilities are non-existent in Punjab that is attracting investment in countries like China, Vietnam and other Southeast Asian countries. In case of Textiles industry, the competition from countries like Bangladesh, Vietnam and Cambodia is increasing, for which Textile Parks (The

Tribune, 2020b) could pave the way of gaining strength. Similarly, efforts should be made for ‘*product specific parks*’ with state-of art infrastructure and related organizations.¹²

Another challenge that MSMEs in Punjab in particular are struggling with is concerning un-coordinated nodes in the development of its ‘*knowledge ecosystem*’⁷. Efforts should be made for the evolution of ‘*learning*’ ‘*systems*’ (Edquist, 2005) by developing specific linkages between researchers, research institutes (within and outside Punjab) and entrepreneurs. ‘*Learning*’ within Clusters should be appreciated for the overall growth and sustainability of production and trade. At large, *dynamism* and *openness to change* is required amongst entrepreneurs to compete and upgrade their production systems. It was also found⁷ that at times entrepreneurs have reservations in adopting ‘*compliances*’ expected in regional/ global supply chains. At the level of the state government also, the efforts towards promoting ‘*research*’ is at backburner. It is pertinent to highlight that Punjab allocates only 0.02 percent of state expenditure on General Research in 2014-15 that was reduced further to 0.01 percent of state expenditure of Rs. 78153.72 crores (in revised estimates) for 2016-17 (Statistical Abstract of Punjab, 2018). The resources devoted to research activities are thus very less as compared to National average of 0.7 percent during the period (Department of Science and technology, GOI, 2020).

V. Planning for Learning: A Right Strategy

Continuous learning is the appropriate strategy to survive, compete, sustain and leapfrog in the dynamic production processes with ever evolving technologies (Edquist, 2005). The world is moving fast in adopting the technologies of fourth industrial revolution (IR 4.0) like

automation, artificial intelligence, block-chain technologies and alike. Moreover, Post-Covid' 19 world is also expected to redraw the 'rules of games' with changing world economic order. Therefore, to meet the future complexities of participation in regional/global production chains, Punjab should design coherent, dynamic policy for making 'learning' an evolutionary process for its industrial sector. Such an alternative policy framework, based upon 'systems approach' (Edquist, 2005) should focus upon the interaction amongst various actors (suppliers, producers, users) organizations (institutions, research institutions, universities) and institutions (rules of laws). Basically, efforts should be directed towards accumulating 'technological capabilities' through building 'absorptive capacity' (Cohen and Levinthal, 1989) with indigenous investment in research & development (R&D) and human capital so as to escape from the vicious cycle of 'low value-added trap'.¹³

VI. Conclusion

Covid-19 has caused numerous challenges for lives and livelihoods across nations. Timely focused policy announcements would determine the pattern of growth for different sectors and economies in the post-lockdown times. To revive the economy, Government of India announced 'stimulus package' of Rs. 20 lakh Cr. including some policy and fiscal initiatives for Micro, Small and Medium enterprises (MSME) of different sectors. In this context, the paper focused upon MSMEs belonging to the manufacturing sector of Indian Punjab to bring forth the challenges that the sector faces in general and specifically due to Covid-19 lockdown. Punjab has about 2.3 percent of the total MSMEs in India with large proportion of micro enterprises. Major industries of Punjab include the manufacturing of hosiery, readymade garments, automobile parts, bicycles, hand tools, machine tools,

sports goods etc. that contribute considerably in the local and global value chains. It is estimated that the minimum loss that the industrial sector of Punjab suffered due to complete lockdown is around Rs. 40,000 Cr. However, it was found that industries of Punjab face numerous problems mainly related to infrastructural bottlenecks, obsolete transport facilities and institutional hurdles. It is important that the process of *continuous learning* is adopted with co-evolution of different actors, organizations and institutions for making the industry competitive and to meet the long-term objective of making India self-reliant with the recent call for 'Atamnirbhar Bharat'.

Notes:

1. The growing share of services sector in India's growth is signaling to an alternative 'engine of growth' thesis. see: <https://www.unido.org/api/opentext/documents/download/9928079/unido-file-9928079>
2. The empirical evidences in the history of economic growth found 'industrialization' as the 'engine of growth' from West to East. Whereas first industrial revolution ushered growth and development in Europe followed by the United States, the recent Asian miracles were also the result of the industrial catching-up with the incumbents.
3. The average share of agriculture and allied activities in Nominal GSVA for the years 2012-13 to 2016-17 is around 29.2 percent, industry is about 24.6 percent and services is at around 46.1 percent, respectively (Punjab Economic Survey, 2019-20) available at <https://www.esopb.gov.in/Static/PDF/EconomicSurvey-2019-20.pdf>.
4. Status of various clusters of Punjab available at: <http://msmedildh.gov.in/STATUS%20OF%20VARIOUS%20CLUSTERS%20.pdf>.

5. The estimation is based on the data extracted from Annual Survey of Industries.
6. The MSMED 2020 Notification dated 1st June 2020, effective from 1st July 2020, available at https://msme.gov.in/sites/default/files/MSME_gazette_of_india.pdf.
7. These points were discussed by the panelists during the 'Virtual Webinar- Decoding 20 Lac Crore and Liquidity Solutions' held on 23rd May 2020 at 12:30 PM, Confederation of Indian Industry (CII) Ludhiana. The author is thankful to the Chairman CII, Ludhiana Zone for providing the access to the webinar.
8. 20 lakh crore stimulus package has announcements to stimulate agriculture and allied activities, MNREGA, ease of doing measures etc. with the expectation to provide boost to demand also. Details available at: <https://www.thehindu.com/news/resourees/economic-stimulus-package-details-of-20-lakh-crore-package-announced-by-union-finance-minister-nirmala-sitharaman-in-five-tranches/article31606806.ece>
9. The discussion in the section is based upon the Webinar available at: CNI Channel on 'Future Business after quarantine released on 27 April' 2020; 'Industry Post Corona with Chamber of Industrial and Commercial Undertakings (CICU) President, Punjab' released on 8 May, 2020; 'Industry Post Corona with Federation of Industrial and Commercial Organization (FICO) President, Punjab' released on 9 May, 2020; 'Industry Post Corona with Confederation of Indian Industry (CII) Chairman, Punjab' released on 15 May, 2020 available at: <https://www.facebook.com/cnichannel/>.
10. Punjab imports raw material from different countries. For example 'active pharmaceutical ingredients (API) for drug manufacturing is largely imported from China, Merino wool in woolen industry is imported from Australia.
11. <http://documents.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>
12. Edquist (2005) define organizations as 'actors' that are 'consciously created and have explicit purpose'. For example, organizations like research and development labs, financial organizations, marketing facilities etc can be develop.
13. In other words, it is challenging to maintain growth if firm/ industry remained confined to production of low-technological intensive products or remained confined in primitive production process, especially in the era of fourth industrial revolution (IR 4.0). Therefore, it becomes imperative for industry at large and MSMEs in particular to upgrade so as to contribute more in value-chains with gainful employment opportunities.

References

- Ahluwalia, I.J. (1991) Productivity and Growth in Indian Manufacturing, New Delhi: Oxford University Press.
- Basu, K. (2009) China and India: Idiosyncratic Paths to High Growth, Economic and Political Weekly, 44(38), 43-49.
- Cohen, W. M. and D.A. Levinthal (1989) Innovation and Learning: The two faces of R&D, The Economic Journal, 99(397), 569-596.
- Department of Science and Technology (DST) (2020): Research & Development Statistics at a glance, 2019-20, Ministry of Science and technology, Government of India.
- Edquist, C. (2005) Systems of Innovation: Perspectives and Challenges in Fagerberg, J.D. C. Mowery and R.R. Nelson (2005) (eds) The Oxford Handbook of Innovation, New York: Oxford University Press, 181-208.
- EXIM (Export Exports-Import bank of India) (2019) Exports from Punjab: Trends, opportunities and policy insights, available at: <https://www.eximbankindia.in/Assets/Dynamic/PDF/PublicationResources/ResearchPapers/112file.pdf>

- Giulani, E., C. Pietrobelli and R. Rabellotti (2005) Upgrading in Global value chains: Lessons from Latin American Clusters, *World Development*, 33(4), 549-573.
- Kaldor, N. (1960) *Causes of Growth and stagnation in the in the world economy*, New York: Cambridge University Press.
- Malerba, F. (2005) Sectoral Systems: How and Why Innovation Differs across Sectors in Fagerberg, J.D. C. Mowery and R.R. Nelson (2005) (eds) *The Oxford Handbook of Innovation*, New York: Oxford University Press, 380-406.
- MSME (Ministry of Micro, Small and Medium Enterprises) (2018-19) Annual Report, GOI, downloaded from: <https://msme.gov.in/>.
- Porter, M. (2000) Location, Competition, and Economic Development: Local Clusters in a Global Economy, *Economic Development Quarterly*, 14(1), 15-34.
- Statistical Abstract of Punjab (2018), Economic Advisor, Government of Punjab downloaded from <https://www.esopb.gov.in/static/Publications.html>.
- Shyam Sundar, K.R. (2005) Labour Flexibility Debate in India: A Comprehensive Review and Some Suggestions, *Economic and Political Weekly*, 40 (22/23), 2274-2285.
- Times of India (2018) 'Punjab to get third international airport soon' dated 4th December available at: <https://timesofindia.indiatimes.com/city/ludhiana/punjab-to-get-third-international-airport-soon/articleshow/66931131.cms>
- The Tribune (2020a) 'Batala industrialists demand reduction in electricity tariff' dated 25th January.
- The Tribune (2020b) 'Industrialists demand mega textile park in Punjab' dated 28th February, available at: <https://www.tribuneindia.com/news/business/industrialists-demand-mega-textile-park-in-punjab-48710>

List of CDEIS Policy Brief Series on Punjab Economy

- 2020-01, Agricultural Sustainability in Punjab: A way forward by Sukhwinder Singh
- 2020-02, Impact of COVID-19- Lockdown on Punjab Agriculture by Kamal Vatta, Shruti Bhogal, Cameron A Petrie, Adam S Greens and Sandeep Dixit
- 2020-03, Addressing Air Quality Spurts due to Crop Stubble Burning during COVID-19 Pandemic: A Policy Brief by Rita Pandey, Shailly Kedia, and Anuja Malhotra
- 2020-04, Household Gardens: A Promising Approach to Enhance Food Security and Sustainability by Amarjit Bhullar
- 2020-05, Reforming Agricultural Markets in Punjab in the Federal Context for Post-COVID-19 Recovery, Sukhpal Singh
- 2020-06, Making Punjab's Urban Informal Sector More Resilient while Securing Livelihoods During Post-COVID-19 Times, Varinder Jain
- 2020-07, Covid-19 and MSMEs in Punjab: Challenges Ahead, Swati Mehta