

Kerala's manufacturing sector during COVID-19: Implications for policy

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Introduction

In economic theory, industrialisation is considered to be the key engine of economic prosperity. No country in the world's economic history seems to have achieved high economic development without rapid industrialisation. However, Kerala's development paradox with remarkable success in high social development indicators comparable with some of the advanced countries without concomitant performance in the productive sectors especially the manufacturing sector has attracted considerable scholarly attention (Isaac and Tharakan, 1986; Subramanian and Pillai, 1986; Subramanian, 1990; Thomas, 2005). Demystifying the conventional regional specific factors like characteristic of labour, nature of trade-unionism, high wage-cost economy and quality of entrepreneurship, Subramanian and Pillai (1986) and Subramanian (1990) argued that lack of modernisation and industrial diversification contributed to industrial backwardness in the state. The growth of the manufacturing sector in Kerala lagged behind the national level when the economy started accelerating in the 1980s (Subramanian and Azeez, 2000). An analysis of Kerala's economic performance in an open economy perspective by Joseph and Harilal (2003) analyzed the bearing of resource movement effect and spending effect associated with large-scale migration and highlighted their bearing on the deceleration in the performance of Kerala. Their findings highlighted the revival of the economy since the late 1980s and made the case for, along with earlier studies, restructuring with a focus on high-value-added products. They argued that Kerala, being a high-wage economy, cannot survive on low-value-adding traditional industries. Kerala witnessed high levels of economic growth, especially in the last

fifteen years before the floods in 2018-19. Against this background, this paper undertakes an analysis of the performance of Kerala's manufacturing sector with a focus on the recent trends as evidenced by the Kerala Economic Review 2021. Such enquiry assumes added importance in the current context wherein the policymakers are in search of reviving the COVID-19-ridden economy.

Two main data sources are used for the analysis. The national accounts data on gross value addition and state domestic product at current and constant prices are used for the aggregate analysis. The monthly Index of Industrial Production (IIP) data is used for analysing the COVID-19 impact on India's manufacturing. The IIP data on Kerala is obtained from the department of economics and statistics (DES), the government of Kerala.

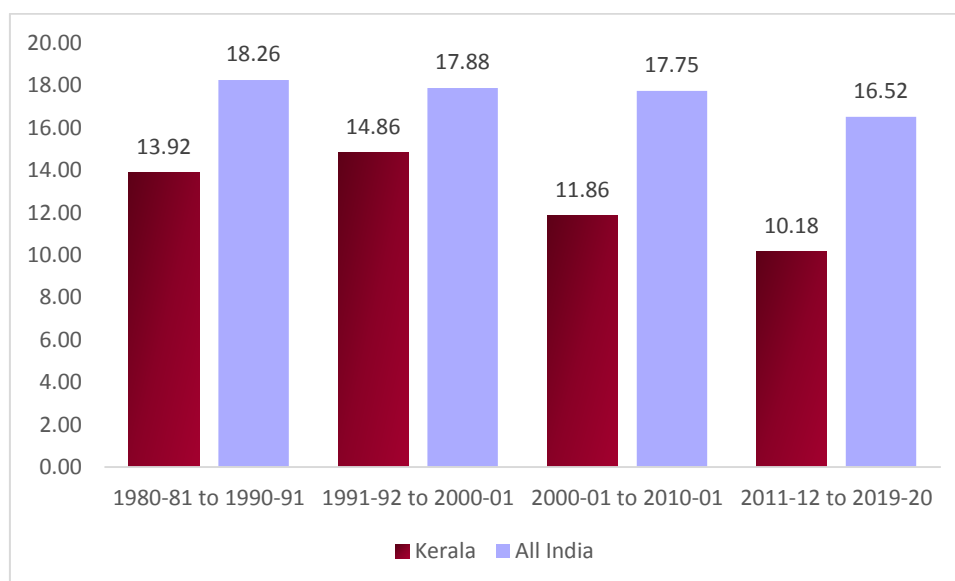
Manufacturing sector in Kerala: A long-term perspective

The growth performance of the manufacturing sector at the national level has been subjected to intense scholarly scrutiny. The discussion was centred around the performance of manufacturing after the economic reforms. More recently the focus has been on invigorating manufacturing-led growth which got manifested in the Make in India program and Aatma Nirbhar Bharat. In Kerala also manufacturing sector has been high on the policy agenda. Hence, Kerala's growth trends vis-à-vis all India appear to be in order. Our approach is to compare the manufacturing growth in Kerala and all India with that of GDP at the national level and GSDP at the state-level. The manufacturing growth trends in Kerala and all India shows different trends. In Kerala, it increased from 4.3 per cent to 6.1 per cent during 1980-90 through 1991-00 while manufacturing growth at all India level has shown a minor decline from 6.23 per cent to 6.1 per cent. In the subsequent decade manufacturing growth at the national level increased to 8 per cent whereas Kerala witnessed a decline (5.19%). The trend reversed again in 2011-19 with manufacturing growing at a higher rate in Kerala than all India (Table 1). Further, it is evident that the manufacturing sector registered higher growth than total GDP growth in all India for three decades from 1980 to 2010. During 2011-19, the manufacturing growth at the national level has been the lowest in the last four decades. On the contrary, Kerala recorded poor performance from the 1980s through 2010, followed by a turnaround in the growth of manufacturing in the last decade (2011-19). It is interesting to note that Kerala's manufacturing sector performed better while the national trend shows a decline. (Table-1)

	All India		Kerala	
	Manufacturing	GDP	Manufacturing	GSDP
1980-90	6.23	5.40	4.25	3.67
1991-00	6.09	5.73	6.13	5.61
2001-10	8.03	6.72	5.19	7.71
2011-19	5.87	6.24	7.91	5.76
Source: Authors' own calculation based on EPWRF				

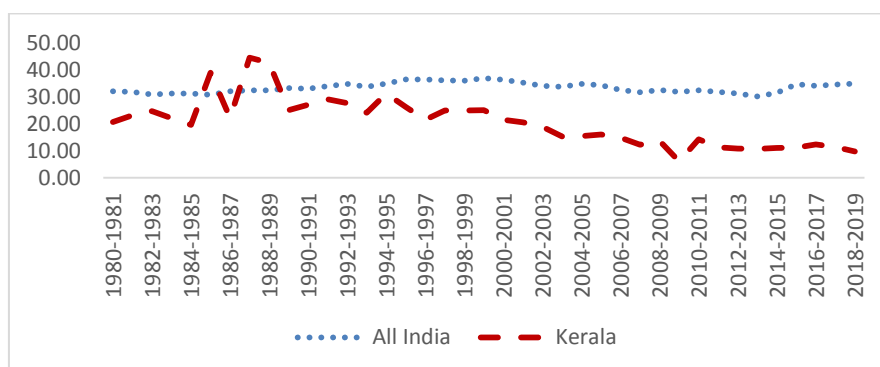
There is a growing literature indicating the prevalence of de-industrialisation in many of the developing countries after globalisation. In the literature, de-industrialisation is defined as the process involving a decline in the share of manufacturing output in the GDP or a decrease in the share of manufacturing employment (Tregenna, 2009). In this context, India's performance and that of Kerala with respect to the share of manufacturing total value-added deserve attention.

The share of manufacturing in Kerala's GSDP is compared with the national trend from the 1980s onwards when the growth momentum actually began in India. The data is averaged for ten years for smoothening the fluctuations. The share of manufacturing in total GSDP in Kerala was found to be considerably lower than all India average during the last four decades and the gap is increasing especially since 2000. Manufacturing share at all India level (18.3%) has been 1.3 times higher than Kerala (14%) during the 1980s which marginally declined to 1.2 times during the 1990s and increased thereafter (Figure 1). From, 2011 to 2019, the manufacturing share at all India level is 1.6 times higher than in Kerala. The trend suggests that both in Kerala and all India the share of manufacturing has been showing a declining trend right from the 1980s, albeit with more intensity in Kerala from the 1990s. The decline in the share of manufacturing was 3 per cent during 1990s to 2000-2010 while there was hardly any major decline at the national level. In the next decade (2011 to 2019), the rate of decline is higher for all of India as compared to Kerala. It appears that both Kerala and India are tending towards the deindustrialisation process with Kerala witnessing de-industrialisation at a faster rate. However, as will be evident from the discussion in the forthcoming section, in the recent past, there is some evidence of a marginal increase in the manufacturing share in GSDP in Kerala. (figure-1)

Figure 1: Share of Manufacturing in total GSDP in Kerala (%)

Source: Authors' own calculation based on EPWRF

As already indicated, scholars have made the case for industrial restructuring in Kerala with a greater focus on high-value-adding footloose industries. An analysis of the industrial structure focussing on technological intensity following OECD technology classification has shown that the share of the high-tech industry's output in total manufacturing output shows a continuous decline, especially from 1988 onwards. At the national also, there has been a decline in the share but the rate of decline has been much lower as compared to Kerala. It is a matter of great concern that the faster de-industrialisation in Kerala could be associated with greater a decline in the share of high-tech manufacturing underlying the need for a turnaround which should form the focus of future policy. (figur-2)

Figure 2: Share of high-tech in total manufacturing (in %)

Source: Authors' own calculation based on Annual Survey Industries, various years

Green shoots in Kerala's manufacturing sector

The economic review points to a turnaround in Kerala's manufacturing sector in the last four fiscal years after decades of southward trend in industrialization. It shows an increase in the share of manufacturing value-added from 9.8 per cent in 2014-15 to 11.1 per cent in 2019-20 which resulted in a marginal improvement of Kerala's share in gross value added in India's factory sector. As per PLFS 2017-18, the sector employs 15 lakh workers (which comprised 12.8 per cent of the State's total workforce of 127 lakh) of which 3.1 lakh people are employed in the organized manufacturing sector. The main bottleneck of Kerala's industrialization, as already argued by earlier scholars, is the lack of diversification. The industry is dominated by traditional industries and few resource-based industries. Four industries (food, petroleum, chemical and rubber) account for more than 50 per cent of total manufacturing value-added and a substantial part of the employment. A few resources-based industries accounted for 46.8 per cent or 1.52 lakh workers out of the 3.25 lakh workers in Kerala's factory sector (in 2017-18). However, the Economic Review notes an increase in the role of the modern industrial sector while the share of traditional industries decreases as the workers engaged in the manufacture of medical and dental instruments and supplies increased from 1,023 in 2012-13 to 2,730 in 2017-18. Kerala registered a higher value added growth in manufacturing sector as a whole as well as in number of industries including chemicals, garments, pharmaceuticals, furniture, jewellery and medical compared to the corresponding national averages (Economic Review, 2021) In this context, the economic review presents a comprehensive analysis of industrial performance in Kerala and various policies that have been put in place for enabling the revival of the sector post-pandemic.

Given the crucial role, the public sector played in Kerala's economic development of the state, the post-pandemic revival strategy puts heavy emphasis on boosting the performance of PSUs. There are 42 PSUs in the state which reported a loss of Rs.152.98 crores against a turnover of Rs.3,171.77 crores. However, in 2020-21, the loss declined to Rs.137.62 crores against a turnover of Rs.3,321.67 crores. Though the performance of PSUs in Kerala has been dismal in recent times, some PSUs involved in the production of chemicals and electrical machinery showed a turnaround since 2017. These PSUs showed a 5 per cent increase in turnover even during the COVID-19 period. This suggests a growing potential in the growth of pharmaceuticals, biotechnology, life sciences, and medical-equipment manufacturing industries. Similarly, the economic review highlights the potential to build a large electronics

hardware manufacturing sector in the state by harnessing the human capital and skills sets of its professionally qualified personnel.

Micro, Small and Medium Enterprises (MSMEs) which are the mainstay of Kerala's industrialization process have emerged as the pivotal sector as far as income and employment generation is concerned. Kerala accounts for 5.62 per cent of MSME enterprises in India. The economic review (2021) shows that in 2020-21, 11,540 new MSME units were started in the State with an investment of Rs.1,221.86 crores and provided employment to 44,975 persons. In 2019-20, 13,695 new MSME units were created with an investment of Rs.1,338.65 crores and provided employment for 46,081 persons. The sector-wise growth of MSME units over the last five years shows that there is a steady increase in the number of new agro and food-based MSME units from 2,395 units in 2016-17 to 3,359 units in 2020-21. The number of new service related MSME units increased from 3,057 in 2016-17 to 4,036 in 2019-20 and decreased to 2,725 in 2020-21. However, various challenges that MSMEs confront have been listed in the document. They include the promotion of formalization and digitalization, infrastructural bottlenecks, access to credit, and market linkage and tie-ups with public procurement platforms.

The third major part of the chapter deals with the performance and policies relating to traditional industries that include handicrafts, textile and garments, spinning mills, handlooms, coir industry, cashew industry etc.

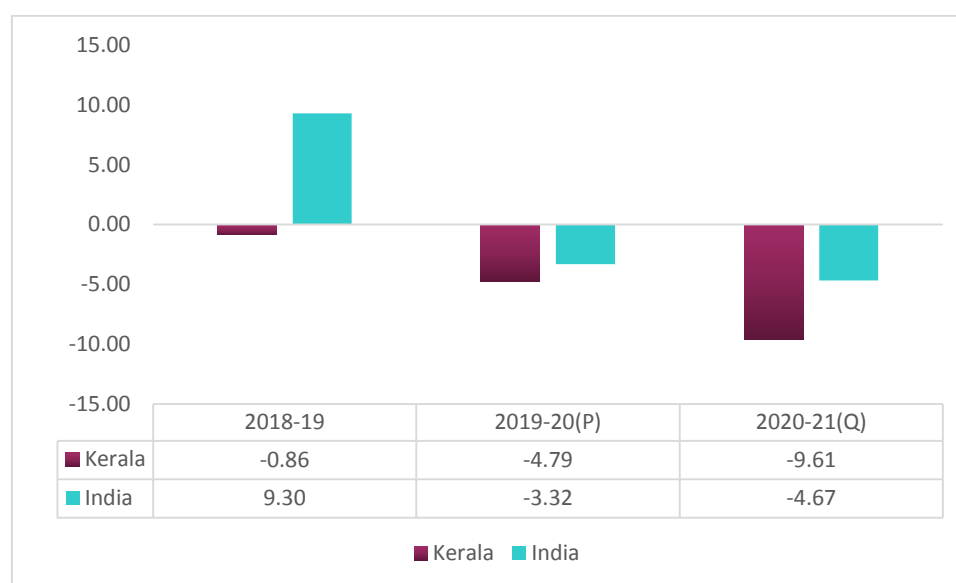
The major highlights of traditional industries in Kerala are listed below.1

- **Kerala industrial infrastructure development corporation (KINFRA)** has been playing a proactive role in the promotion of the food processing industry in the State. In the year 2020-21, KINFRA Food Processing Park, Kakkancherry, Malappuram, KINFRA Mega Food Park, Palakkad, and KINFRA Food Processing Park, Adoor, Pathanamthitta together attracted Rs 44052 lakh investment and created 2374 jobs.
- **Handicrafts industries in Kerala:** There are about 1.7 lakh handicrafts artisans actively engaged in producing 32 different listed handicrafts in Kerala. In 2020-21, Corporation has targeted a sales turnover of Rs.1,900 lakh but achieved only a total sale of only Rs.285.26 lakh due to the Covid-19 pandemic as the sales of the Corporation are mainly dependent on domestic and foreign tourists and also on fairs and exhibitions.

- **Textile and garment industry in Kerala:** The sector involves units in the public sector (both State and Central), cooperative sector, and private sector with a great potential for employment generation. The Government of Kerala is setting up a Textile Processing Centre at Nadukani. The total State Plan outlay for the textile sector (excluding State PSUs and Khadi) in the Annual Plan 2020-21 was Rs. 5,139 lakh and the amount spent was Rs. 6,000.78 lakh.
- **Handloom:** The total number of weavers in handloom sector in 2020-21 was 13,656. Compared to 2019-20, the total number of looms, total production, value of production, productivity, total turnover, number of weavers, person-days of work generated, and number of women employed fell drastically in 2020-21. HANTEX achieved a sale of Rs.1,432 lakh in 2020-21 of which, Rs.1303 lakh is showroom sales and Rs.129 lakh is department sales. The agency suffered a loss of sales to the tune of Rs.14.32 crore on account of Covid-19 pandemic-related issues in 2020-21. As a result of the Covid-19 lockdown, Hanveev suffered a production loss of about 2 lakh meters valued at Rs.350 lakh. In 2020-21, Government Share Participation was given to 14 Primary Handloom Weaver Cooperative Societies. 2,119 weavers benefitted from the Production Incentive Scheme.
- **Spinning mills:** The spinning sector includes 26 mills with a total spindle capacity of 7.03 lakh, employing about 7,600 people.
- **Khadi and village industries:** In 2020-21, the khadi sector in Kerala provided employment to 13,190 artisans and could generate 2,834 new employment through the village industries programme in 2020-21. Special Employment Generation Programme: money subsidy to small entrepreneurs and traditional artisans through bank linked projects.

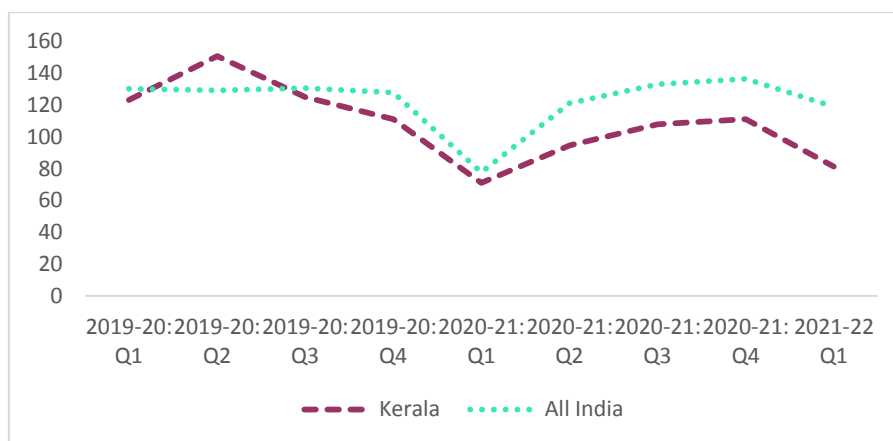
COVID-19 and manufacturing sector in Kerala: Higher loss and delayed recovery?

Kerala's manufacturing showed negative growth even before the pandemic due to massive floods experienced in 2018-19 and 2019-20. The manufacturing sector at the national level registered negative growth rates three quarters before the COVID-19 first wave. The pandemic has pushed down the growth further. The loss of manufacturing output during the pandemic in Kerala is almost double (-9.6%) compared to the national average (-4.6%). This clearly shows the severity of COVID-19 crisis in Kerala as the state witnessed high case load for a sustained period (Figure 3).

Figure 3: Manufacturing growth during the Pandemic

Source: Authors' calculations based on NSO and DES Kerala

The extent of the decline in manufacturing in Kerala is further evident from IIP data. The value of IIP declined by 40 per cent in Kerala and 50 per cent in all India in 2020-21 Q1 broadly represents the national lockdown during the first wave. Though manufacturing output at the national level declined more than Kerala during the lockdown, the recovery in production at the national level is almost 92 per cent compared to 75 per cent in Kerala in 2020-21 Q2. In the subsequent quarter, the manufacturing output recovered to pre-pandemic levels at the national level but Kerala's recovery has been lagging behind at 86 per cent. The second wave (2021-22 Q1) further impacted manufacturing production in Kerala where the IIP declined by 30 per cent whereas the decline at all India level was 15 per cent. In terms of recovery, IIP in Kerala is 35 per cent lower compared to its pre-pandemic level while at all India it is 8 per cent lower. The delayed recovery in Kerala is due to the intense second wave that Kerala experienced and the state's containment measures. (Figure-4)

Figure 4: Index of Industrial Production: India and Kerala during the pandemic

Source: Authors' calculations based on NSO and DES, Kerala, data

Towards an industry-driven economic vibrancy in Kerala

While the green shoots in the industrial sector highlighted by the economic review are highly encouraging. We need to travel a long distance in making industrial sector the key engine of economic growth and employment in Kerala. Such a revival in the Kerala economy becomes all the more imperative in the aftermath of COVID-19, wherein, while the state managed to be successful in to saves the lives and the livelihood of the people despite bearing almost 65% COVID-19 case load in the country.

The fight against COVID-19 indeed came at a cost. With a slackening economy and unprecedentedly high public spending in the social sector, Kerala's fiscal position has gone from bad to worse. The situation got further accentuated when the trajectory of fiscal federal relations in the country turned out to be one wherein the taxing powers and fiscal autonomy of the state got progressively diminished especially with GST. In such a context the survival of the state depends quintessentially on making the economy more vibrant on the one hand and raising the tax effort on the other while sparing no effort in exploring all the possible economic measures. While addressing the issue of making the economy more vibrant, the manufacturing sector holds the key. But going by the available evidence we have been able to make only a very modest beginning in the direction of growth and structural change. What is called for indeed is a big push towards making a structural transformation in Kerala's manufacturing.

It is encouraging to note that all the cornerstones for resorting to such a strategy have already been in place thanks to the earlier initiatives taken by the government in the form of KDISC Loka Kerala Sabha, KIFBI etc. The need of the hour, however, is to build on to these initiatives and articulate an industrial strategy that will make a turnaround in the structure of the manufacturing sector with a focus on the hi-tech industry and a marked revival in GDP growth driven by the industrial sector. In such a transformation, what is not adequately highlighted is the role of academia in general and the research community in particular. Kerala has been known for its high investment in education and health and resultant high HDI. While such a strategy has contributed to our debt burden, the manpower so generated was forced to leave the country. While the globally acclaimed 'competent Malayalees' contributed significantly to the economic growth of the migrating countries, we have been forced to get satisfied with their remittance that accounts only for a very small fraction of what they create in the country concerned. Hence at the core of the strategy shall be to ensure that the high human development index created by public action more specifically the highly educated human capital is instrumental in bringing about the change in structure and growth of Kerala's manufacturing sector.

The Chief Minister's one lakh enterprises scheme is in fact an initiative in the right direction. In addition to this, there are a number of projects that this budget has envisaged which could be instrumental making changes in the desirable direction. Especially notable, among others, the investment in establishing innovation centre for Graphene, a technology of the future. Having said this, we need to travel a long distance. What is important to ensure is that the education institutions particularly the Universities and colleges and the youth in general are to be sensitized to the need for creating new ventures and new employment opportunities. Following the practice of other countries like China, Makers Spaces and Idea Clubs are to be set up in each and every college/university as forums of interaction between students and experts. Kerala is one of the states with high per capita income and substantial remittance income. Hence, there shall be no shortage of capital. Further, the present credit deposit ratio (64%) of commercial banks in the State indicates scope for further credit availability. To this, we may add the potential offered by the vibrant cooperative sector indicating that capital is not the constraint. But what is missing apparently is an appropriate strategy to harness the learning and innovation potential of the young generation through their interaction with all the possible actors within and outside the state by being on the strong institutional edifices already built up.

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