

Estimated loss in manufacturing sector of Gujarat's economy due to COVID 2019 pandemic lockdown

Payal M. Pateriya¹

Abstract

Gujarat, with about 5 per cent population and 6 percent of geographic area of the Country, contributes to about 7.9 per cent to National GDP. Gujarat has witnessed a high growth trajectory with an average annual growth of 9.9 per cent in real terms during the span of 2011-2018; highest among the all major state economies of the country. The value of output of all registered factories is Rs. 13,58,650 crore, which comprises 16.8 per cent of the Country's aggregate manufacturing output. Amid the two months of April-May 2020 lockdown in Gujarat, the State Manufacturing sector has incurred a loss of Rs. 49182 crore, which indicates about 54 per cent loss against normal estimated production of Rs. 90,735 crore for FY: 2020-21. Industry groups which have incurred major loss in absolute terms are (i) Manufacture of coke and refined petroleum products at Rs 13,765 crore, (ii) Manufacture of textile and cotton ginning at Rs. 5790 crore. (iii) Manufacture of chemical and chemical products except pharmaceuticals, medicinal and botanical products at Rs 4869 crore and (iv) Manufacture of machinery and equipment n.e.c at Rs 3860 crore. However, recently, in the month of August, 2020, the State Government has revised its Industrial policy in the context of Post COVID 2019 Pandemic scenario. This policy would become one of the key instruments towards revival of manufacturing sector of Gujarat.

1 Introduction

1.1 State of Manufacturing sector of Gujarat

Gujarat, with about 5 per cent population and 6 percent of geographic area of the Country, contributes to about 7.9 per cent to National GDP. Gujarat has witnessed a high growth trajectory with an average annual growth of 9.9 per cent in real terms during the span of 2011-2018; highest among the all major state economies of the country. Gujarat is one of the highly industrialized states in India with its reputation of being a highly investor-friendly state. The state has a proven track record of most favoured investment destination in India. State manufacturing sector comprises more than 38 per cent of the Gross State Domestic Product.

1. Research Assistant, Directorate of Economics & Statistics, Government of Gujarat, working in the State GDP Unit.

As per Annual Survey of Industries, the number of factories has increased from 25,966 in the year 2016-17 to 26,586 in the year 2017-18 (P), showing a growth of 2.4% over the previous year. The Net Value Added (NVA) by factory sector in the State is Rs. 1,81,307 crore in 2017-18(P). Gujarat is the State having highest industrial output in the Country. The value of output of all registered factories is Rs. 13,58,650 crore, which comprises 16.8 per cent of the Country's aggregate manufacturing output. About 1.92 lakh employees increased in net employment in the organized manufacturing sector during the year 2017-18(P). Also, about 20% of Country's exports are from Gujarat.

1.2 The COVID 2019 Pandemic

In fact, the National and State economies were already under recession effect from quite a long time before the COVID 19 pandemic situation. Automobile industry, financial sector, real estate sector and the like have already witnessed slowdown during the pre COVID scenario. The Government also announced stimulus packages for revival. However, the economic impact of COVID 19 pandemic in the States vis a vis Nation has been hugely disruptive. This devastation has severely affected both demand and supply sides of the State economy. In particular, the informal sector as well as MSMEs are among the worst affected sectors. Also, Gujarat is one of the states having large number of in-migrant workers from across the Country and these migrant workers have moved to their residents' states. The disruption caused by COVID 19 pandemic in industrially developed state like Gujarat would severely impact the Country's economy also.

2.0 Estimates of economic loss in Gujarat's manufacturing sector

In this study, it is attempted to estimate an impact of lockdown due to COVID-19 pandemic on the manufacturing sector of the State economy. The sector is major contributor to Gujarat's GSDP with about 40 per cent share. The impact of lockdown varies with sectors of economy ranging from agriculture to public administration. Sectors such as construction, mining, manufacturing, financial services and hotels and restaurants have found to be severely affected. On the other hand, the impact on the sectors such as agriculture, communication,

health and storage, is considered to be less severe. Owing to reverse migration of all those who left their jobs due to the shutdown would take time to resume at work which could be at least a month, impeding a faster recovery. In addition, lockdown has lesser effect on food segment as during the lockdown the production of all essential goods was continued. Economic loss is a term used to describe circumstances when an individual or an organization loses money. The term covers financial loss that is usually visible in a balance sheet or other financial statements. While economic loss includes instances of loss in income suffered by a person or a business, it excludes any cases in which that loss of income is due to physical, personal injury.

3.1 Methodology adopted for loss estimates

The lockdown in the country as a whole and Gujarat State was imposed for two months of April, 2020 and May, 2020. However, the Government has given relaxations from April, 2020 to allow activities of Industrial Establishments, Health services, Cargo and essential services, Public Utilities, Agricultural services, Commercial services and Financial and Social services. These activities have led to productions of goods and services. The establishments having finished goods as a part of inventories are also used up for consumption in cases where no productions activities were taken up. Thus, during the lockdown of two months, the economic activities were continued, though there was a substantial loss due to labour migration as well as other ceasing of other supporting activities.

The supply side of GSDP has been considered which provides information on level of production.

The Directorate of economics and statistics has been preparing estimates of State Domestic Product at current and constant prices. Based on data availability, Advance Estimates are prepared over the quick estimates. The estimates are prepared Advance Estimates of the manufacturing sector for the FY 2019-20 have been considered as the basis for loss estimation. Based on advanced estimates of 2019-20, estimates of 2020-21 have been arrived by applying last two years' average growth trend. In fact, the year 2019-20 has

already witnessed economic slowdown, which has worsened due to COVID-2019 Pandemic lockdown. Therefore, higher growth rate in manufacturing sector may not be anticipated irrespective of the COVID 2019 scenario. The data as available for India's quarterly estimates as available on MoSPI website are used to work out the quarterly share of the state manufacturing sector. The quarterly share of first quarter (Q1) i.e April-June is applied to total GVA from Manufacturing sector for the FY 2020-21. The value of Q1 then, equally apportioned to the months of April, May and June for FY 2020-21. To arrive at the estimates of loss by various industries of Gujarat, an information received from more 254 establishments of Gujarat by NIC 2- digit level industry groups is considered. The information is analyzed to assess an extent of production loss in value terms. Thus, the proportion of loss in terms of production value is applied to monthly GVA of respective industry groups; separately for the months of April, 2020 and May 2020. It is done month-wise separately because it is observed that there is differential decline in production in the months of April 2020 and May 2020. The decline in production during April, 2020 is higher than that of May 2020. Then after, two months' separately estimated loss is aggregated to arrive at the total loss in production. the and arrived at the loss estimates. Based on the above methodology, the estimates of loss in manufacturing sector by NIC- 2 digit level are presented in the tables 1 below.

Table 1

Estimates of monthly GVA by NIC Groups for April-May 2020

(Rs. In Crore)

NIC - 2008	Activities	Total GVA 2018-19	Share (%)	Total GVA 2019-20 (As per Share)	Total GVA 2020-21 (As per Share)	Ave. share of Q1 for 2016-20	2020-21 Q1	Estimated GVA April & May 20 Q1	Actual GVA April & May 20	Loss	Loss in %
10	Manufacture of food products	37353.20	7.76	39194.66	43353.21	20.40	8844.06	5928.43	4850.47	1077.96	18
11	Manufacture of beverages	722.03	0.15	757.63	838.01	34.90	292.47	196.05	56.99	139.06	71
12	Manufacture of tobacco products	1898.91	0.39	1992.52	2203.93	24.35	536.64	359.73	1.44	358.29	100

13	Manufacture of textiles + cotton ginning	35951.62	7.47	37723.99	41726.51	25.64	10698.14	7171.28	1381.64	5789.64	81
14	Manufacture of wearing apparel, except custom tailoring	7923.73	1.65	8314.36	9196.52	23.89	2197.39	1472.98	388.44	1084.53	74
15	Manufacture of leather and related products	900.19	0.19	944.56	1044.78	26.72	279.22	187.17	1.35	185.81	99
16	Manufacture of wood and of products of wood and cork,	2479.99	0.52	2602.25	2878.34	19.38	557.74	373.87	198.65	175.22	47
17	Manufacture of paper and paper products	6214.91	1.29	6521.29	7213.20	24.94	1799.03	1205.94	480.95	724.99	60
18	Printing and reproduction of recorded media	4721.51	0.98	4954.28	5479.93	23.90	1309.49	877.79	168.66	709.13	81
19	Manufacture of coke and refined petroleum products	120293.47	24.99	126223.78	139616.12	25.68	35847.03	24029.33	10263.96	13765.37	57
20	Manufacture of chemical and chemical products	88201.89	18.33	92550.12	102369.69	24.87	25455.10	17063.31	12194.10	4869.21	29
21	Manufacture of pharmaceutical; medicinal chemicals and botanical products	27228.89	5.66	28571.23	31602.64	23.60	7458.50	4999.66	2468.50	2531.15	51
22	Manufacture of rubber & plastic products	15159.22	3.15	15906.55	17594.23	27.08	4764.69	3193.91	588.95	2604.96	82
23	Manufacture of other non-metallic	25110.72	5.22	26348.65	29144.24	25.73	7499.63	5027.23	2099.14	2928.09	58

	mineral products										
24	Manufacture of basic metals	23051.84	4.79	24188.26	26754.63	22.70	6073.30	4071.11	1638.98	2432.14	60
25	Manufacture of fabricated metal products	17936.16	3.73	18820.39	20817.23	21.80	4538.16	3042.06	1535.12	1506.94	50
26	Manufacture of computer, electronic and optical products	3730.13	0.78	3914.02	4329.29	24.10	1043.36	699.40	210.38	489.01	70
27	Manufacture of Electrical equipments	10363.14	2.15	10874.02	12027.76	25.90	3115.19	2088.20	1220.26	867.94	42
28	Manufacture of machinery and equipments n.e.c	28357.66	5.89	29755.66	32912.73	23.00	7569.93	5074.35	1213.91	3860.43	76
29+30	Manufacture of Transport	5084.97	1.06	5335.66	5901.77	20.30	1198.06	803.09	306.48	496.62	62
31	Manufacture of furniture	4722.42	0.98	4955.22	5480.97	19.32	1058.67	709.66	40.25	669.41	94
32+33	Other Manufacturing	13884.43	2.88	14568.91	16114.68	20.00	3222.94	2160.43	244.15	1916.28	89
	Total	481291.00		505018.00	558600.41		135358.72	90734.97	41552.78	49182.18	54

Source: Estimates by Authors

4 Major Findings

An estimation of economic loss has been categorized in three groups. (I) The most adversely affected industry groups (II) Adversely affected industry groups and (III) moderately affected Industry groups. These category wise major findings are narrated below:

4.1 Most adversely affected industry groups with Decline in production by more than 80%

It is observed that the industry groups: Manufacture of textiles including cotton ginning, Manufacturing of leather and related products, Manufacture of tobacco products, Manufacture of furniture, Manufacture of rubber & plastic products, Printing and reproduction of recorded media except publishing and

other manufacturing have substantially suffered in terms declined productions. The decline in productions is ranging from 80-100 per cent. The Industry group: Manufacture of textiles including cotton ginning, which has indicated an estimated loss of Rs 5790 crore; is one of the major industry groups of the Gujarat's manufacturing sector. Also, this activity, being predominantly a labour intensive activity has suffered due to reverse migration of labour also. Another important group very adversely hit under COVID 2019 Pandemic is Other Manufacturing industry group. It comprises of activities of Gems & Jewelry processing and manufacturing also. Gujarat is Gems & Jewelry processing and manufacturing hub of the Country. This activity is very important from employment perspectives as it is labour intensive and provides huge employment in formal and informal forms. Manufacture of rubber & plastic products is also one of the important manufacturing activities of Gujarat, which has hit very adversely with an economic loss to the tune of Rs. 2604.96 crore. The table:2 presented below, provides details on NIC -2 digit Industry group wise estimated loss during April-May 2020.

Table 2

NIC-2008	Activities	Estimated GVA April & May 20 Q1	Actual GVA April & May 20	Loss	Loss in %
12	Manufacture of tobacco products	359.73	1.44	358.29	100
15	Manufacture of leather and related products	187.17	1.35	185.81	99
31	Manufacture of furniture	709.66	40.25	669.41	94
32+33	Other Manufacturing	2160.43	244.15	1916.28	89
22	Manufacture of rubber & plastic products	3193.91	588.95	2604.96	82
18	Printing and reproduction of recorded media except publishing	877.79	168.66	709.13	81
13	Manufacture of textiles + cotton ginning	7171.28	1381.64	5789.64	81
Total		14659.96	2426.45	12233.52	

Source: Estimates by Authors

4.2 Adversely affected industry groups (Decline in production between 51% to 80%)

About 10 NIC 2-digit industry groups (i.e 50 per cent) of Gujarat have witnessed decline in productions from 51 to 80 per cent. Collectively, these 10 NIC 2-digit industry groups contributes to about 57.8 per cent (i.e Rs 28451.38 crore) of the total loss of Rs 49182.18 crore from State Manufacturing sector. The NIC groups as mentioned in Table 4 have adversely been affected during two months of lockdown in terms declined productions. These manufacturing activities are Manufacture of coke and refined petroleum products, Manufacture of machinery and equipments n.e.c, Manufacture of wearing apparel, except custom tailoring, Manufacture of beverages, Manufacture of computer, electronic and optical products, Manufacture of Transport Equipment, Manufacture of paper and paper products, Manufacture of basic metals, Manufacture of other non-metallic mineral, Manufacture of pharmaceutical; medicinal chemicals and botanical products. The NIC Group: Manufacture of coke and refined petroleum is the single largest contributor to State's manufacturing GVA with its share of about 25 per cent. Also, Gujarat is one of the leading states of the Country in manufacturing of refined Petroleum products. Gujarat is pharma market leader in India. Manufacture of pharmaceutical; medicinal chemicals and botanical products has incurred a loss of Rs 2542 crore; despite these activities were permitted under the Essential Commodities Act during the lockdown period.

Table 4

NIC 2008	Activities	Estimated GVA of April-May 2020 (Rs Crore)	Actual GVA of April-May 2020 (Rs Crore)	Loss in Rs Crore	Loss in %
28	Manufacture of machinery and equipments n.e.c	5074	1214	3860	76
14-14105	Manufacture of wearing apparel, except custom tailoring	1473	388	1085	74
11	Manufacture of beverages	196	57	139	71

26	Manufacture of computer, electronic and optical products	699	210	489	70
29+30	Manufacture of Transport Equipment	803	306	497	62
17	Manufacture of paper and paper products	1206	481	725	60
24	Manufacture of basic metals	4071	1639	2432	60
23	Manufacture of other non-metallic mineral products	5027	2099	2928	58
19	Manufacture of coke and refined petroleum products	24029	10264	13765	57
21	Manufacture of pharmaceutical; medicinal chemicals and botanical products	5000	2469	2531	51

Source: Estimates by Authors

4.3 Moderately affected industry groups (Decline in production by less than 50%)

The five NIC 2-digit industry groups categorized under moderately affected industries are Manufacture of fabricated metal products, Manufacture of wood and products of wood and cork, Manufacture of Electrical equipments Manufacture of chemical and chemical products and Manufacture of food products. These industries have witnessed declined productions of less than 50 per cent. Manufacture of chemical and chemical products is the second largest contributor in State Manufacturing sector with its share of about 18.3 per cent. Gujarat has 50% share in national exports of inorganic chemicals and ranks first. Similarly, Gujarat is a leader in production of Dyes, organic chemicals, fertilizers etc. This industry group has incurred an estimated loss of Rs 4869 crore. Gujarat is a hub of more than 10,000 food processing industries. Gujarat's share in the total processed foods & dairy products exported from India is more than 30% in 2016-17 Gujarat has a lion share of about 23 per cent in value added fish products exports in the Country. The NIC -

Table 5

NIC 2008	Activities	Estimated GVA of April-May 2020 (Rs Crore)	Actual GVA of April-May 2020 (Rs Crore)	Loss in Rs Crore	Loss in %
25	Manufacture of fabricated metal products, except machinery and equipments	3042	1535	1507	50
16	Manufacture of wood and of products of wood and cork, except furniture	374	199	175	47
27	Manufacture of Electrical equipments	2088	1220	868	42
20	Manufacture of chemical and chemical products except pharmaceuticals, medicinal and botanical products	17063	12194	4869	29
10	Manufacture of food products	5928	4850	1078	18

Source: Estimates by Author

5.0 Conclusion

During the two months of April-May 2020 lockdown in Gujarat, the State Manufacturing sector has incurred a loss of Rs. 49182 crore, which indicates about 54 per cent loss against normal estimated production of Rs. 90,735 crore. Industry groups which have incurred major loss in absolute terms are (i) Manufacture of coke and refined petroleum products at Rs 13,765 crore, (ii) Manufacture of textile and cotton ginning at Rs. 5790 crore. (iii) Manufacture of chemical and chemical products except pharmaceuticals, medicinal and botanical products at Rs 4869 crore and (iv) Manufacture of machinery and equipments n.e.c at Rs 3860 crore. However, recently, in the month of August, 2020, the State Government has revised its Industrial policy, in the context of Post COVID 2019 Pandemic scenario. This policy would become one of the key instruments towards revival of manufacturing sector of Gujarat.

References:

All India GDP Quarterly estimates, 2016-17, 2017-18 & 2018-19, Central Statistics Office, Ministry of Statistics & Programme Implementation web site, Government of India.

Advance GSDP Estimates 2018-19, Fiscal Responsibility & Budget Management Act, Publication, Finance Department, Government of Gujarat.