Emergence of Karachi as the Largest Industrial Region of Pakistan

Muhammad Jawed Iqbal^{1,*} and Ahsan Ullah²

¹Federal Urdu University of Arts Sciences and Technology, Karachi, Pakistan

²Khadim Ali Shah Bukhari Institute of Technology, Karachi, Pakistan

Abstract: The analysis based on the data published by the CMI (2005-06) remarkably brings out the outstanding position of Karachi as the largest industrial center of the country. Though the industrial development is spreading fast in other districts, Karachi continues to expand as the largest manufacturing region with unabated prospects and potential for further growth in the near future, since new areas in Karachi Division are being developed for export-oriented industry and hi-tech manufacturing. The high value addition in Karachi is a distinctive trend. McCarty's measure of excess value added has been employed to ascertain the rank of Karachi as an apex industrial district in Pakistan.

Keywords: Excess Value Added, Export-oriented Industry, Hi-tec Manufacturing, County Excess.

INTRODUCTION

This paper attempts to determine the status of Karachi as an industrial district of Pakistan demonstrated by its share of value added among the major industrial districts of Pakistan at different timeperiods i.e. 1969-70, 1979-80 and 1990-91. The analysis reveals that the spatial expansion of manufacturing in Pakistan caused continuous increase in the number of industrial districts over time. Throughout the period Karachi stood at the top-most position among all the industrial districts of Pakistan. Though the rank order of districts other than Karachi changed from time to time as a result of differential growth of manufacturing, Karachi retained the dominant position to emerge as the largest industrial region of Pakistan.

METHODOLOGY

McCarty's measure of excess value added has been employed to classify major and minor districts of manufacturing in Pakistan.

McCarty's formula of "excess value added" identifies areas/areal units such as districts/counties as principal and minor regions or sub-regions comprising a pattern of spatial distribution and areal specialization [1]. He used the measure of excess value added of a county above the national county average, calculating the value from a formula of a differential between an absolute value and a ratio. The formulation is as under:

County Excess = County value added-	Total US value added
County Excess - County value added-	Total number of US Counties

^{*}Address correspondence to this author at the Federal Urdu University of Arts Sciences and Technology, Karachi, Pakistan; Tel: 021-9244141-8; Fax: 021-92-44292; E-mail: mjawediqbal@yahoo.com

According to this measure counties or districts having excess value added above the national average are identified as the principal districts while those with value added below the national average are considered as minor industrial districts.

The above formula has been applied to determine the principal industrial districts of Pakistan and thereby to ascertain the status of the Karachi industrial district/complex with respect to the position of other industrial districts of Pakistan in three different census years to assess the size significance of Karachi in changing temporal and spatial pattern.

RESULT OF ANALYSIS: THE EMERGING PATTERN

Investment in manufacturing has been a remarkable trend in the economy of Karachi. Over the years Karachi acquired a variety of manufacturing industries which produced a high growth rate and diversification in terms of both in quality of manufactures and quantitative redistribution of industrial employment. By the year 2005-06, when the latest census of manufacturing was held, Karachi's industrial complex had grown to an enormous size with 21.15 per cent of country's industrial employment and 28.13 per cent of total value added of Pakistan's manufacturing [2]. According to the CMI, Karachi had 21 industrial categories out of total 22 categories listed by the CMI for Pakistan. Based on the analysis of variances of value added contributed by each industrial category, categories i.e. Coke seven and Petroleum. Manufacture of Textiles, Motor Vehicles and Trailers, Chemicals and Chemical Products, Food Products and Beverages, Basics Metals and Wearing Apparel were identified as major and fourteen as minor [3]. The major industrial categories contributed 82.88 per cent while the minor fourteen industrial categories 17.12 per cent

of the total value added of Karachi. This clearly demonstrated that Karachi had a distinct trend of specialization in the major industries for which it had tremendous potential for future growth as well.

In 1991 Karachi contributed 30.9 per cent of total value added of Pakistan's manufacturing. The industrial complex comprised Textiles as a dominant category with Basic Metals, Transport Equipment, Food Processing and Chemicals and Chemical Products as principal industrial categories [4].

The data provided by the census of manufacturing for three selected years i.e. 1969-70, 1979-80 and 1990-91 was analyzed and presented in the Tables **1**, **2** and **3** respectively. The selected years embraced and covered developments over a long period to bring out the status and position of manufacturing across the country [5].

According to the results of the tables, by the year 1969-70, 36 districts had acquired manufacturing which concentrated in 11 major districts with positive value (of

excess value added), and 25 minor districts with negative values. During the year 1979-80, the number of industrial districts went up to 43, of which 9 were identified as major districts with positive values, showing high concentration and 34 minor districts with negative values, showing a much lower concentration of industrial establishment. In 1990-91, 54 districts emerged as industrial districts, of which 13 were determined as major and 43 as minor districts [6].

Karachi occupies the highest position as the top ranking district with largest size of value added among all the industrial districts of Pakistan. The status of Karachi as the largest industrial center remained unchanged because of uninterrupted high growth from the initial period up to the recent years. It is in clear contrast with the change of rank of other major districts which changed places owing to much variation in their value added from one period to another. The size of both value added and excess value added of the Karachi industrial district has been exceptionally large as compared to other major districts.

S. No	Districts	McCarty's Measure	S. No	Districts	McCarty's Measure
Major			Minor		
1	Karachi	492.57	18	Sukkur	-100.83
2	Faisalabad	241.72	19	Dadu	-103.99
3	Other Districts	192.26	20	Bahawalnagar	-104.84
4	Lahore	190.79	21	Sialkot	-104.92
5	Sahiwal	157.23	22	Bannu	-105.21
6	Multan	147.15	23	Other Districts (NWFP)	-105.44
7	Hyderabad	72.91	24	Gujrat	-106.63
8	Sargodha	55.94	25	Mianwali	-106.13
9	Peshawar	52.52	26	Thatta	-114.84
10	Gujranwala	49.32	27	Tharparkar	-116.95
11	Sheikhupura	35.47	28	Sanghar	-119.54
	••••		29	Balochistan	-120.46
	Minor		30	Nawabshah	-121.79
12	Rawalpindi	-8.03	31	Cambellpur	-124.99
13	Rahim Yar Khan	-24.19	32	Dera Ismail Khan	-125.13
14	Mardan	-61.23	33	Jacobabad	-126.38
15	Hazara	-68.32	34	Larkana	-126.00
16	Khairpur	-74.09	35	Bahawalpur	-128.72
17	Jhelum	-93.56	36	Jhang	-129.00
17	Jhelum	-93.56			

Source: Ahmed, H. 1995.



Figure 1: Source: Ahmed, H. 1995.

Table 2:	Major and Minor Industrial Districts of Pakistar	. 1979-80 (McCart	v's Measure of Excess Value Added)

S. No	Districts	McCarty's Measure	S. No	Districts	McCarty's Measure
<u>Major</u>			Minor		
1	Karachi	8258.72	21	Muzaffargarh	-365.89
2	Rawalpindi	1532.41	22	Sargodha	-368.23
3	Lahore	835.73	23	Nawabshah	-381.71
4	Jhelum	611.17	24	Gujrat	-389.76
5	Peshawar	585.14	25	Sahiwal	-405.15
6	Faisalabad	560.39	26	Attock	-439.58
7	Sheikhupura	500.82	27	Tharparkar	-439.75
8	Hyderabad	326.73	28	Jhang	-454.63
9	Multan	181.46	29	Islamabad	-458.81
			30	Kohat	-480.2
	Minor		31	Vehari	-485.99
			32	Bahawalnagar	-494.84
10	Dadu	-12.11	33	Kasur	-524.52
11	Sukkur	-39.25	34	Bahawalpur	-527.78
12	Sialkot	-44.38	35	Dera Ghazi Khan	-535
13	Rahim Yar Khan	-57.87	36	Khairpur	-538
14	Abbottabad	-136.87	37	Bannu	-542.24
15	Mardan	-136.03	38	Larkana	-542.87
16	Mianwali	-145.34	39	Swat	-551.2
17	Badin Shikarpur	-295.02	40	Sanghar	-535.17
18	Gujranwala	-319.43	41	Jacobabad	-558.47
19	Thatta	-328.18	42	MalakandDir	-571.23
20	Balochistan	-350.44			

Source: Ahmed, H. 1995.



Figure 2: Source: Ahmed, H. 1995.

S. No	Districts	McCarty's Measure	S. No	Districts	McCarty's Measure
	Major			Minor	<u> </u>
1	Karachi	32382759	28	Islamabad	-1328433
2	Sheikhupura	5211831	29	Attock	-1369905
3	Dadu	4281664	30	Kohat	-1437062
4	Lahore	4038461	31	Jhang	-1476957
5	Faisalabad	3988718	32	Khanewal	-1501534
6	Jhelum	2933328	33	Sargodha	-1503581
7	Hyderabad	2899724	34	Chakwal	-1610620
8	Rawalpindi	2602021	35	Pakpattan	-1628802
9	Kasur	1525463	36	Vehari	-1664701
10	Lasbella	1372723	37	Bahawalpur	-1666778
11	Rahim Yar Khan	665598	38	Bhakkar	-1672834
12	Sukkur	594900	39	Bahawalnagar	-1685941
13	Thatta	272333	40	Okara	-1694636
			41	Jacobabad	-1696298
	Minor	-	42	Tharparkar	-1714370
			43	Sanghar	-1748722
14	Peshawar	-80246	44	Khairpur	-1754047
15	Multan	-354213	45	Toba Tek Singh	-1762148
16	Abbottabad	-460984	46	Bannu	-1765619
17	Muzaffargarh	-717743	47	Quetta	-1801307

Table 3: Major and Minor Industrial Districts of Pakistan, 1990-91 (McCarty's Measure of Excess Value Added)

(Table 3). Continued.

18	Badin	-1003458	48	Leiah	-1853938
19	Nawabshah	-1008643	49	Larkana	-1875983
20	Mardan	-1015878	50	Dera Ismail Khan	-1895237
21	Sahiwal	-1050411	51	Shikarpur	-1898478
22	Sialkot	-1112880	52	Swat	-1912278
23	D.G. Khan	-1176157	53	Mansehra	-1937313
24	Gujranwala	-1215828	54	Malakand	-1945460
25	Khushab	-1245892	55	Rajanpur	-1966031
26	Gujrat	-1284522	56	Nasirabad	-1982141
27	Mianwali	-1291509			

Source: CMI, 1990-91.



Figure 3: Source: CMI, 1990-91.

Comparing the size of value added and excess value added of the two largest industrial districts, Karachi and Faisalabad as recorded in the year 1969-70, it is found that Karachi's value added exceeded that of Faisalabad by 167.5 per cent, whereas the excess value added in the same year exceeded by 204.16 per cent [7]. This fact testifies to the high degree of concentration of manufacturing in Karachi despite a trend of increasing spatial expansion in Pakistan. As is evident from the analysis for the year 1979-80 and 1990-91 the trend continued unabated. During the year 1979-80 the value added of Karachi not only increased very appreciably but also exceeded that of the next

ranking district, Rawalpindi, by about 400 per cent and the excess value added about 547 per cent, confirming a trend of further accentuated concentration in Karachi, even though further spatial expansion of manufacturing occurred to the extent of 43 districts in that year [8]. The ratios of excess value added to value added given in the tables of 1969-70 and 1979-80 have also shown increases which signify considerably large size of value added in Karachi compared with other industrial districts .In the year 1990-1991, the number of industrial districts in Pakistan increased to 56 and the value added of Karachi increased enormously to the extent of about 486 per cent of the value of next

Table 4: Pakistan: Major Industrial Districts, 1969-70, 1979-80 and 1990-91 Percentage Share of Value Added

1969-70				
S. No.	District	Percent of Pakistan		
1	Karachi	13.02		
2	Faisalabad	7.80		
3	Lahore	6.74		
4	Sahiwal	6.05		
5	Multan	5.84		
6	Hyderabad	4.29		
7	Sargodha	3.94		
8	Peshawar	3.87		
9	Gujranwala	3.80		
10	Sheikhupura	3.51		
	1979-80			
S. No.	District	Percent of Pakistan		
1	Karachi	35.82		
2	Rawalpindi	8.55		
3	Lahore	5.80		
4	Jhelum	4.81		
5	Peshawar	4.71		
6	Faisalabad	4.61		
7	Sheikhupura	4.38		
8	Hyderabad	3.66		
9	Multan	3.09		
	1990-91			
S. No.	District	Percent of Pakistan		
1	Karachi	30.96		
2	Sheikhupura	6.48		
3	Dadu	5.64		
4	Lahore	5.42		
5	Faisalabad	5.38		
6	Jhelum	4.43		
7	Hyderabad	4.40		
8	Rawalpindi	4.13		
9	Kasur	3.16		
10	Lasbella	3.02		
11	Rahim Yar Khan	2.39		
12	Sukkur	2.32		
13	Thatta	2.03		
14	Peshawar	1.71		

Source: CMI, respective years.

industrial district i.e. Sheikhupura. Karachi's excess value added was higher by 640 per cent of that of Sheikhupura. The ratio of excess value added to value added of Karachi in the same year has also risen to 0.942 from 0.938 in 1979-80. This confirmed the trend of high expansion of value added manufacturing in Karachi along with the increase in concentration (Table **4**).

CONCLUSION

As a consequence of incessant industrial development in Pakistan, spatial expansion of manufacturing resulted in ever increasing number of districts that established industries over different periods. By the year 1969-70 manufacturing has developed in 36 districts with 11 major districts identified by the measure of excess value added (over the national average). The number of industrial districts continued to increase and reached the figure of 54 in the year 1990-91, where 13 districts emerged as major districts.

Among the major industrial districts, Karachi had the distinct position of the leading and the largest industrial district at all times. The size of next major industrial district has been comparatively far smaller than Karachi as measured in terms of both percentage share of value added and the amount of the excess value added. In the year 1969-70 Karachi contributed 13.02 per cent of total value added of Pakistan, while the next or the second major district Faisalabad had 7.80 per cent of total value added of Pakistan and accordingly

Received on 11-05-2016

Accepted on 15-07-2016

Published on 02-08-2017

https://doi.org/10.6000/1927-5129.2017.13.64

© 2017 Iqbal and Ullah; Licensee Lifescience Global.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<u>http://creativecommons.org/licenses/by-nc/3.0/</u>) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.

Karachi's value added was higher by 167.5 per cent over that of Faisalabad. In the year 1990-91 Karachi had a share of 30.96 per cent of total value added of Pakistan. Sheikhupura which had emerged as second major district had 6.48 per cent of Pakistan's total value added and in the same year Karachi's excess value added was 640 per cent of the value added contributed by Sheikhupura, testifying to the enormity of concentration and unmatched capacity of value addition as well as higher profitability compared with all other industrial districts of the country.

REFERENCES

- [1] McCarty, Harold H. The Geographic Basis of American Life, New York 1940; p. 428. see also McCarty, Harold H, Hook JC, Knos DS. The Measurement of Association in Industrial Geography, Iowa City Department of Geography, University of Iowa 1956.
- [2] Government of Pakistan, Census of Manufacturing Industries, Islamabad 1990-91.
- [3] Iqbal, Muhammad Jawed, Manufacturing Industries in Karachi: Diversification and Specialization Pattern, Ph.D. Thesis, Department of Geography, University of Karachi 2014.
- [4] Government of Pakistan, Census of Manufacturing Industries, Karachi 1990-91.
- [5] Ahmed, Hussain, Growth and Dispersion of Manufacturing Industries in Pakistan: A study in Location and Regionalization, Ph.D. Thesis, Department of Geography, University of Karachi 1995.
- [6] Government of Pakistan, Census of Manufacturing Industries, Islamabad 1990-91.
- [7] Government of Pakistan, Census of Manufacturing Industries, Karachi 1969-70.
- [8] Government of Pakistan, Census of Manufacturing Industries, Karachi 1979-80.