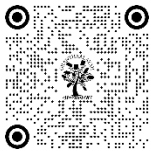


AN ECONOMIC ANALYSIS ON TRENDS AND GROWTH OF INDUSTRIAL SECTOR IN KARNATAKA

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ABSTRACT

This article examines the growth and development trends in the industrial sector of Karnataka, a leading state in India in terms of industrial growth. The industrial sector plays a crucial role in the state's economy and rural development, contributing significantly to employment generation, income improvement, GDP growth, and foreign exchange earnings. Karnataka is one of the fastest-growing states in India, with an industrial growth rate projected to be 4.8% in 2019-20, compared to a higher growth rate of 5.6% in 2018-19. The state's industrial sector encompasses various industries, including mining and quarrying, manufacturing, construction, and electricity, gas, and water supply. The industrial structure of Karnataka is characterized by a mix of modern, high-tech, capital goods, and knowledge-intensive industries, alongside more traditional consumer goods industries. This blend highlights the state's diverse industrial base, reflecting its overall economic progress. The study provides insights into the performance and growth trends of the industrial sector in Karnataka, analyzing the factors that have contributed to its development and the challenges that lie ahead in sustaining growth.

Keywords: Performance, Growth of GSDP, Industry Development, and Industry Production



1. INTRODUCTION

Karnataka is recognized as one of the fastest-growing states in India, maintaining its position among the high economic growth regions of the country. In 2019-20, the industrial sector, which includes mining & quarrying, manufacturing, construction, and electricity, gas, and water supply, was expected to grow by 4.8%, slightly lower than the 5.6% growth achieved in 2018-19.

The state's natural resources, favorable policy incentives, and well-developed infrastructure attract investments in various key sectors, including IT/ITeS (Information Technology/Information Technology Enabled Services), biotechnology, engineering, electronics, automotive, textiles, agriculture, and food processing.

In terms of economic performance, Karnataka's Gross State Domestic Product (GSDP) was estimated at around Rs.18.06 trillion in 2020-21. The state's GSDP is projected to grow at a compound annual growth rate (CAGR) of 11.70% between 2015-16 and 2020-21, reflecting strong economic expansion.

Per capita GSDP in Karnataka was Rs.253,444 in 2019-20, with the per capita GSDP growing at a CAGR of 11.70% between 2011-12 and 2019-20. This growth highlights the increasing standard of living and economic prosperity in the state.

2. RESEARCH OBJECTIVES

1. To study the role of industrial development in the economy of Karnataka state.
2. To examine the trends in growth and development of industry sector in the state.

3. RESEARCH METHODOLOGY

The research paper primarily relies on secondary sources of data, which have been gathered from various reports and publications. These include reports from the Department of Industry of Karnataka, the Directorate of Economics and Statistics, and the Economic Surveys of both India and Karnataka. Additionally, the paper draws from other published sources such as journals, magazines, and newspapers.

To analyze the data, the research employs several statistical tools, including percentage analysis, averages, Annual Growth Rate (AGR), and Compound Annual Growth Rate (CAGR). These tools help in examining the trends, growth patterns, and performance of various sectors within Karnataka's economy, particularly its industrial sector.

PERFORMANCE OF INDUSTRY DEVELOPMENT IN KARNATAKA ECONOMY

The industrial sector plays a pivotal role in the economy of Karnataka, significantly contributing to rural development and overall economic growth. It is instrumental in creating employment opportunities, enhancing income levels, driving GDP growth, and improving the exchange rate. Karnataka has emerged as a key driver in the growth of India's industrial landscape, especially in high-tech sectors such as electrical and electronics, information and communication technology (ICT), biotechnology, and more recently, nanotechnology.

The state's industrial structure is a unique combination of modern, high-tech industries, such as capital goods and knowledge-intensive sectors, alongside more traditional consumer goods industries. This blend fosters diverse industrial growth and strengthens Karnataka's economic resilience.

Karnataka is one of the fastest-growing states in India, with an industrial growth rate projected at 4.8% in 2019-20, compared to a growth of 5.6% in 2018-19. The industrial sector, which includes mining & quarrying, manufacturing, construction, and electricity, gas, and water supply, accounts for over 25% of the state's GDP. Notably, Karnataka holds a dominant position in India's Information Technology sector, contributing nearly 40% of the nation's total IT exports, which amounted to approximately 155 billion USD. This highlights the state's significant influence on India's technological and industrial progress.

INDUSTRIAL DEVELOPMENT IN KARNATAKA: AN ECONOMIC ANALYSIS

Karnataka, located in the southern region of India, plays a crucial role in the economic development of the country, largely driven by its industrial sector. As of 2020-21, the Gross State Domestic Product (GSDP) of Karnataka is estimated at Rs. 18.06 trillion (approximately US\$ 258.37 billion). Between 2015-16 and 2020-21, Karnataka's GSDP is expected to grow at a compound annual growth rate (CAGR) of 11.56%. In 2019-20, the state's per capita GSDP was Rs. 253,444, increasing at a CAGR of 11.70% from 2011-12 to 2019-20, reflecting significant economic progress.

Karnataka's merchandise exports reached US\$ 17.36 billion in 2018-19 and US\$ 12.94 billion in the period from April to December 2019. The state has a robust industrial base, with vibrant sectors including automobiles, agriculture, aerospace, textiles, garments, biotechnology, and heavy engineering. The state is home to sector-specific Special Economic Zones (SEZs) catering to IT, biotechnology, engineering, food processing, and aerospace industries, further enhancing its industrial infrastructure.

Karnataka is considered the IT hub of India, housing the fourth largest technology cluster in the world. The state hosts 23 operational IT/ITeS SEZs, five software technology parks, and dedicated IT investment regions, contributing to its prominent role in the global IT landscape.

In addition to its industrial prowess, Karnataka is a popular tourist destination, boasting a diverse flora and fauna and a 320 km long natural coastline. Tourist arrivals have grown significantly, from 36.7 million in 2006 to 214.85 million in 2018.

The state offers a variety of fiscal and policy incentives for businesses through the Karnataka Industrial Policy (2014-19). Under the Electronics System Design and Manufacturing (ESDM) Policy 2013, the Karnataka government aimed to promote the ESDM sector and position the state as a key investment destination in this domain. Furthermore, the introduction of the Karnataka Electric Vehicle and Energy Storage Policy in 2017 is expected to attract US\$ 4.82 billion in investment and create 55,000 jobs in electric vehicle manufacturing.

Karnataka has also been successful in attracting foreign direct investment (FDI), with equity inflows amounting to US\$ 46.61 billion between April 2000 and March 2020, according to the Department for Promotion of Industry and Internal Trade (DPIIT). This underscores the state's role as a significant investment hub in India.

Table-1

Contribution of Growth and Development of Industry Sector to GSDP in Karnataka (Period: 2011-12 to 2020-21)

Year	GSDP (At Current Prices)	AGR
2011-12	94.1	-
2012-13	107.9	14.67
2013-14	126.8	17.52
2014-15	141.7	11.75
2015-16	157.8	11.36
2016-17	175.8	11.41
2017-18	205.65	16.98
2018-19	210.09	2.16
2019-20	227.26	8.17
2020-21 BE	258.37	13.69
Average	170.54	
CAGR	11.56	

Source: Government of Karnataka (2019-20), Various Report of Directorate of Economics and Statistics (2011-12 to 2020-21), Bengaluru.

Table-1

Contribution of Growth and Development of Industry Sector to GSDP in Karnataka

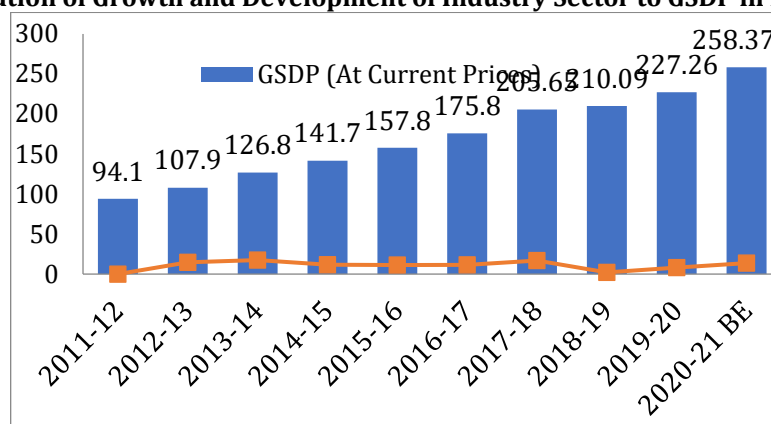


Table-1 and Graph-1 provide insights into the growth and development of the industrial sector in Karnataka during the period from 2011-12 to 2020-21. The data reveals significant economic progress in the state, driven by industrial growth.

GROSS STATE DOMESTIC PRODUCT (GSDP): The GSDP of Karnataka grew at a Compound Annual Growth Rate (CAGR) of 13.33%, reaching a value of US\$ 175.8 billion by the end of the period. In 2020-21, the GSDP is estimated to be about Rs. 18.06 trillion (US\$ 258.37 billion), with a projected growth rate of 11.70% CAGR between 2015-16 and 2020-21.

NET STATE DOMESTIC PRODUCT (NSDP): The NSDP of the state grew at a CAGR of 12.11%, reaching US\$ 158.6 billion by the end of the period, reflecting a similar trend in the overall economic growth.

PER CAPITA GSDP: The state's per capita GSDP stood at Rs. 253,444 (US\$ 3,595) in 2019-20. This reflects a steady increase, with a CAGR of 11.70% in per capita GSDP from 2011-12 to 2019-20.

The data clearly shows the impressive growth trajectory of Karnataka's industrial sector, both in terms of overall economic output (GSDP) and individual prosperity (per capita GSDP). The consistent annual growth rates (AGR) and compound annual growth rates (CAGR) highlight the state's strong economic performance, which is largely attributed to its robust industrial development.

GROWTH OF INDUSTRY DEVELOPMENT IN KARNATAKA

The industry sector (comprising mining & quarrying, manufacturing, construction and electricity, gas & water supply) is expected to grow by 4.8% in 2019-20 against a growth of 5.6 % during 2018-19. The general Index of Industrial Production (IIP) of Karnataka covering mining, manufacturing and electricity sectors stood at 201.3 during 2018-19. The overall organized industrial sector of Karnataka has registered 4.03 per cent growth in 2018-19 as compared to 2017-18. Within the organized industrial sector, Electricity sector shows the highest growth of 11.32 per cent followed by the Mining sector 5.89 per cent and manufacturing sector registered lowest growth of 3.01 per cent. As a result of this moderate growth of 4.03 per cent was observed in General Index. The compound average growth rate (CAGR) for this period for the entire organized industry was about 5.11 per cent, whereas it was 5.46 per cent for manufacturing and 5.26% for electricity. A decline of 1.22 per cent was seen in the output of the State's mining sector. In 2018-19, with reference to the use-based classification of industries among the four broad groups, Consumer goods registered the highest growth of 3.13 per cent followed by Basic goods at 3.08 per cent, Intermediate goods at 3.01 per cent & Capital goods at 2.69 per cent.

INDUSTRIAL GROWTH BY USE BASED CLASSIFICATION

Industry development and growth in terms of use-based classification of industries for four broad groups of organized manufacturing industries such as Basic goods, Capital goods, Intermediate goods, and Consumer goods consisting of durables and non-durables. Among the four broad groups, the consumer goods industry sector accounts for the highest weight followed by the basic goods industry. Within the consumer goods industry sector, nondurables account for 24.7% and durables account for 3.7% of the total weight of 28.5%. These weights indicate relative importance of the different groups in the manufacturing industry of Karnataka is illustrated in Table-1.

Table-2
Trends in Growth of Industry Development in Karnataka (2016 to 2018)

S. No	Industry	Weight	2016-17	2017-18	2018-19
1	Basic Goods	219.83	194.65 (1.75)	199.75 (2.62)	205.91 (3.08)
2	Capital Goods	132.86	215.04 (2.55)	220.44 (2.51)	226.38 (2.69)
3	Intermediate Goods	173.57	234.75 (2.70)	240.78 (2.57)	248.03 (3.01)
4	Consumer Goods	285.07	173.34 (2.85)	178.18 (2.80)	183.76 (3.13)
a)	Consumer durables	37.43	127.04 (2.21)	130.11 (2.41)	133.76 (2.81)
b)	Consumers non-durables	247.64	180.34 (2.92)	185.45 (2.84)	191.31 (3.16)

Source: Department of Directorate of Economics and Statistics (2019), Bengaluru.

Graph-1
Growth of Industry Development in Karnataka (Period: 2016-17 to 2018-19)

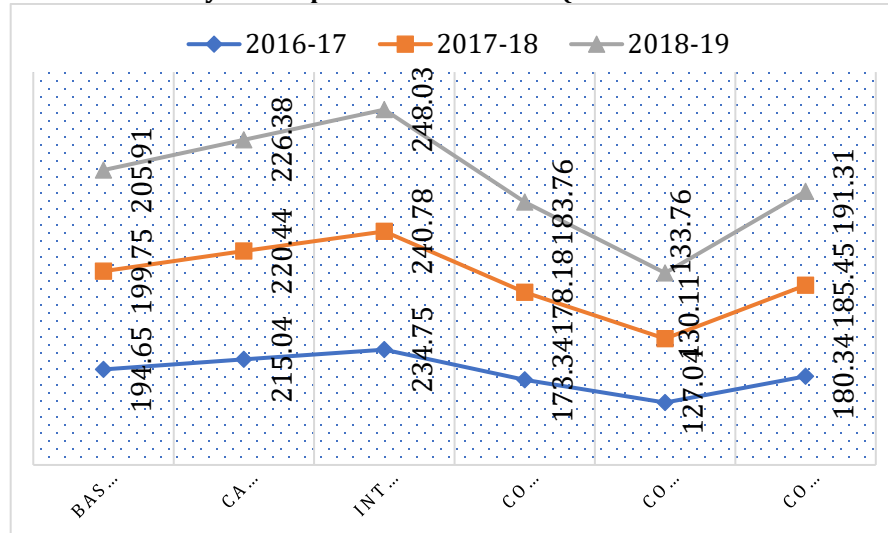


Table-2 and Graph-1 reflect that the growth and development of industry sector in Karnataka state during the period between 2016-17 and 2018-19. During 2018-19, among the four broad groups, Consumer goods registered the highest growth of 3.13% followed by Basic goods at 3.08%, Intermediate goods at 3.01% & Capital goods 2.69%. For the period

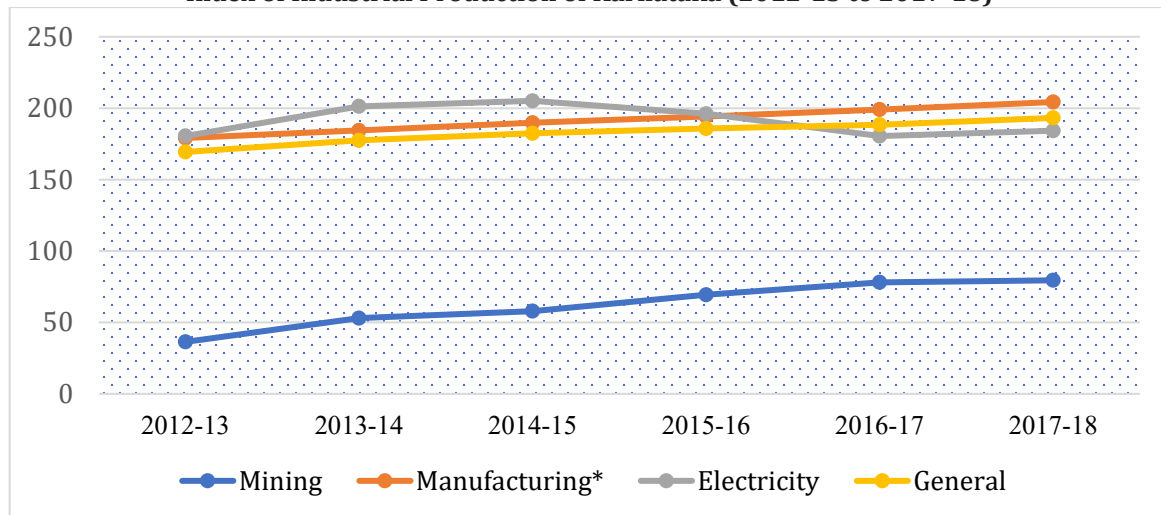
2005-06 to 2018-19, with the base year as 2004-05, the CAGR for all the groups in Manufacturing sector was 5.65% of which Basic goods stood at 5.46%, Capital goods at 6.01%, Intermediate goods at 6.70% and Consumer goods at 4.44%.

Table-3
Index of Industrial Production of Karnataka (Period: 2012-13 to 2017-18)
(Base Year: 2004-05)

Sector	Mining	AGR	Manufacturing*	AGR	Electricity	AGR	General	AGR
Weight	69.83		811.36		118.81		1000	
2012-13	36.42	-	179.19	-	180.59		169.38	-
2013-14	53.05	45.66	184.44	2.93	201.34	11.49	177.49	4.79
2014-15	57.94	9.22	189.85	2.93	205.19	1.91	182.46	2.80
2015-16	69.38	19.74	194.29	2.34	196.14	-4.41	185.79	1.83
2016-17	78.11	12.58	199.08	2.47	180.52	-7.96	188.43	1.42
2017-18	79.52	1.81	204.34	2.64	184.24	2.06	193.24	2.55
Average	62.40		191.87		191.34		182.80	
CAGR	16.17		2.63		-0.78		2.48	

Source: Directorate of Economics & Statistics. Note: 1) * Provisional figures.

Graph-2
Index of Industrial Production of Karnataka (2012-13 to 2017-18)



Karnataka's industrial sector has shown positive growth in the Mining and Manufacturing sectors, while the Electricity sector has experienced a negative growth rate during the year 2019-20. The Compound Annual Growth Rate (CAGR) for the entire organized industry was approximately 5.11% during this period. Specifically, the manufacturing sector grew at a CAGR of 5.46% and the electricity sector at 5.26%. However, the mining sector saw a decline, with a negative growth rate of 1.22% in its output.

The state's mining sector showed an increase from 36.42 in 2012-13 to 79.53 in 2017-18, indicating growth during this period. Similarly, the manufacturing sector grew from 179.19 in 2012-13 to 204.34 in 2017-18. The electricity sector also saw an increase, from 180.59 in 2012-13 to 184.24 in 2017-18. The general industry sector also demonstrated an upward trend, growing from 169.38 in 2012-13 to 193.24 in 2017-18.

The Annual Growth Rate (AGR) for the mining sector was 45.66% in 2014-15 but dropped to 1.81% by 2017-18. Similarly, the manufacturing sector's AGR was 2.93% in 2012-13, which reduced to 2.64% by 2017-18. The electricity sector's AGR also declined, from 11.49% in 2012-13 to 2.06% in 2017-18. The general industry sector's AGR decreased from 4.79% in 2014-15 to 2.55% in 2017-18.

Table-3 shows data on registered factories by industries in Karnataka for 2018-19. Out of the 69,278 units registered, approximately 9.43% (6,539 units) were in the manufacturing of textiles, making it the top category, followed by the manufacturing of food products and beverages, which accounted for 8.26% of registrations.

In terms of investment, the manufacturing of food products and beverages attracted 11.08% of the total investment in 2018-19, while textiles received 6.10%. Regarding employment generation, the manufacturing of wearing apparel,

dressings, and dyeing of fur accounted for 7.76% of the total employment, with the manufacturing of food products and beverages generating about 7.53% of total employment.

These figures indicate the significant role that the manufacturing and textiles sectors play in Karnataka's industrial landscape, both in terms of investment and employment generation..

4. CONCLUSION

In conclusion, the industrial sector plays a vital role in Karnataka's economy and rural development. It is a major driver of employment creation, income improvement, GDP growth, and the enhancement of the exchange rate. Karnataka has emerged as a key force in the growth of Indian industry, particularly in high-tech sectors such as electrical and electronics, information and communication technology (ICT), biotechnology, and, more recently, nanotechnology.

The state's industrial structure is a unique blend of modern high-tech capital goods and knowledge-intensive industries, coupled with traditional consumer goods industries, which together foster diverse industrial growth. This dual structure highlights the potential for further industrial development in Karnataka.

Karnataka is one of the fastest-growing states in India, and the current study illustrates the trends in the growth, development, and performance of the state's industrial sector. Key factors driving this growth include the state's strong industrial performance, the rapid expansion of various industries, and the potential for further industrial production increases.

The industrial sector's structure and its ongoing development highlight Karnataka's capacity for sustained growth and further advancements in high-tech industries, while continuing to support traditional sectors. This dual approach positions the state as a key player in India's industrial future.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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