

Research on the Path of Digital Economy Driving Anhui Manufacturing Industry to the Middle and High end of the Value Chain

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Abstract

Manufacturing industry is an important support for national economic development. In 2020, although the high-quality development index of Anhui's manufacturing industry ranks seventh in the country, there are still problems such as high-end shortage and low-end surplus. At present, the economic situation of various countries in the world is constrained by the epidemic situation, the economic growth has significantly declined, and the trend of deep integration of digital economy and various industries is becoming more and more obvious. Therefore, this project is based on the value chain theory and digital economy theory, with the digital economy as the background, and the manufacturing industry in Anhui Province as the research object, to analyze its development status, explore the mechanism of digital economy enabling the manufacturing industry in Anhui Province to move towards the middle and high end of the value chain, and finally improve the top-level design Breaking through the core technology and building a talent team put forward a reference path for digital economy to empower Anhui manufacturing industry and help its value chain jump, and also provide advice and suggestions for further promoting the high-quality development of Anhui manufacturing industry.

Keywords

Digital Economy; Manufacturing; Value Chain.

1. Introduction

At present, the economic situation of all countries in the world is constrained by the epidemic, and the economic growth has declined significantly. As one of the world's major economies, China's economy has been particularly affected by the epidemic. But at the same time, opportunities and challenges coexist. The large-scale epidemic has led to a decline in the flow of people around the world. People tend to choose a safer and more convenient online model in daily circulation. Digital economy has become a new way out. All walks of life have begun to focus on producing digital products and services that can meet consumer needs. Digital economy has become a new source of power to drive all walks of life to develop well in the context of the global epidemic.

The manufacturing industry has guided, guided and promoted the prosperity and development of other fields in China in a large range and multiple depths. The breadth and precision of a country's manufacturing industry development is the epitome of its economic development stage. With the gradual increase of people's demand for material and spiritual culture, people tend to pursue the characteristics, convenience and comfort of the products and services they receive. This puts forward new requirements for the transformation of China's industry to make a leap in the value chain. Although China has become a large manufacturing country in

recent years, there are still problems such as high-end shortage and low-end surplus. Therefore, the value chain of the manufacturing industry has been promoted, It is urgent to find a new way out.

In recent years, Anhui Province has attached great importance to the integration of digital economy and all walks of life. It has taken the promotion of high-quality construction of digital economy as a new method for the leap of its manufacturing value chain. The government departments attach great importance to it and continue to promote the construction of intelligent industries and parks. In 2020, the high-quality development index of Anhui's manufacturing industry will rank seventh in the country and first in the central China. Anhui has become a recognized manufacturing province nationwide, but even though the development of Anhui's manufacturing industry is improving in an all-round way, there are still some problems in the manufacturing industry, such as low degree of digitalization, insufficient production capacity, and lack of professional integration talents. Its development scale is still unable to compare with that of the developed eastern regions. How to effectively promote the digitalization of the manufacturing industry, extend the field of digital economy development, and promote the manufacturing industry to the middle and high end of the value chain are hot issues that need to be discussed and solved.

2. Literature Review

At present, scholars at home and abroad focus on three aspects of this project. First, the connotation measurement, accounting method and economic effect of digital economy; The second is the research of manufacturing value chain; The third is the integration analysis of digital economy and manufacturing industry.

In terms of digital economy, the concept of digital economy was put forward by Don Tapscott (1996) and divided into the basic part of digital economy (digital industrialization) and the integration part of digital economy (industrial digitalization) by China Academy of Information and Communications (2017). Although domestic and foreign scholars have not reached an agreement on the accounting method of digital economy, they can generally be divided into direct accounting method and indicator system accounting method (Chen Menggen, Zhang Xin, 2020) [1], In the study of its economic effects, Xu Xianchun and Zhang Meihui (2020) [2] mainly believed that it could be achieved by giving play to economies of scale, long tail effect and other ways.

In the aspect of manufacturing value chain research, domestic scholars mainly focus on the influencing factors and paths of the rise of manufacturing value chain. He Ling and Chen Zhiya (2021) [3] proposed that the integration of advanced manufacturing industry and modern service industry could promote the value chain of manufacturing industry to climb; Zheng Qiongjie and Wang Gaofeng (2021) [4] analyzed the core mechanism driving the value chain of manufacturing industry to climb from the perspective of artificial intelligence; Su Hua and Zheng Zhihao (2019) [5] obtained through empirical analysis that industrial transfer to developed countries can effectively promote the rise of China's manufacturing value chain, while industrial transfer to countries in transition and developing countries has no obvious effect on the rise of the value chain.

In terms of integration analysis of digital economy and manufacturing industry, foreign studies mainly believe that: first, ICT is conducive to promoting employment in manufacturing industry (Kilicaslan, Tongur, 2019; Falk, Biagi, 2017); Second, IoT technology expands the manufacturing value chain (Rymaszewska et al., 2017). Domestic research focuses on the digital economy to promote the transformation and upgrading of manufacturing industry. Zhou Rong (2019) showed that the digital economy can profoundly affect the traditional manufacturing industry from the demand side and the production side.

Through sorting out the above documents, it is found that there is no unified standard and method for the connotation and indicator accounting of digital economy and manufacturing industry in the academic circle, and there are few studies on the integration of the three. There is almost no research object in Anhui Province. Therefore, this project focuses on the digital economy, and it has certain theoretical and practical value to explore the new development path of Anhui manufacturing industry under the dual background of global value chain reconstruction and epidemic impact.

3. Current Situation of Manufacturing Development in Anhui Province

In 2021, the World Manufacturing Conference International Chamber of Commerce was successfully concluded in Anhui. Representatives of the Chamber of Commerce from all countries in the world, Taiwan and Hong Kong of China discussed hot issues related to the development of domestic manufacturing industry. In recent years, Anhui Province has taken the digital economy as a new breakthrough in the efficient and high-energy development of manufacturing industry, constantly pursued industrial intelligence and digital services, and made great achievements in many fields, Digital skills continue to enable the integration of industrial factor resources and the leap of manufacturing value chain, and the high-quality development of economic and trade cooperation. From a large agricultural province to a strong manufacturing province, Anhui's manufacturing industry has achieved a perfect transformation.

The prosperity of industry means the prosperity of the country, and the provincial competition lies in the core competitiveness of multi-industries. Anhui Province has also realized the role of industry as the power source for regional development. It always takes innovation and scientific and technological progress as the first priority of industrial deepening, constantly promotes the joint development of multi regions and multi-industries, and has made gratifying breakthroughs in the research and development of multi-industry intelligent equipment such as medical facilities, transportation, electronic information, etc. The flat panel display industry has a perfect industrial chain, with panel capacity accounting for about 10% of the world's total. It has become one of the industrial clusters with the largest panel capacity, the most complete industrial chain and the most advanced technology level in China. The intelligent voice industry has been selected as the first batch of advanced manufacturing clusters in the country. In addition, household appliances Great achievements have been made in automobile and other industries, and the output of new energy vehicles and household appliances industry has steadily ranked at the top of the national list.

3.1. Rapid Development of Advantageous Manufacturing Industry

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energy vehicles and household appliances industry has steadily ranked at the top of the national list.

3.2. Accelerated Innovation and Transformation of Manufacturing Industry

Innovation is the source of economic growth, industrial transformation and people's quality of life. Anhui Province has always focused on scientific and technological innovation as the focus of high-quality development of enterprises, constantly playing the role of integration and leap of enterprise leadership, government guidance and market guidance, taking the manufacturing industry as the leading industry of economic growth, and accelerating the process of building the manufacturing industry into the middle and high-end areas of the value chain. By the end of 2021, the number of high-tech enterprises in the province exceeded 10000 for the first time, 6.5 times that of 1742 in 2012, ranking eighth in the country in total. In the next stage, Anhui Province will also focus on selecting a group of manufacturing enterprises with higher core innovation ability and stronger growth performance as leading enterprises, and promote the further improvement of manufacturing innovation and transformation through various measures.

3.3. Remarkable Achievements have been Made in Enabling the Manufacturing Industry in the Digital Economy

The competition of enterprises in the market field is not a part of the competition, but the competition of the whole value chain. China's manufacturing industry is still at the middle and low end of the value chain, so it is urgent to seek a new development path. In the context of the global epidemic, the upgrading of enterprises' manufacturing industry and the reconstruction of value chain have become a general trend. It is currently a strategy to try to improve the position of manufacturing industry in the value chain in the wave of digital economy. As a new engine to stimulate economic growth in the new stage, digital economy still shows strong vitality under multiple blows. It will take digitalization and intelligence as the support for manufacturing value-added, transformation and upgrading, continuously improve the value chain status of manufacturing industry in Anhui Province.

4. Mechanism Study

The competition of enterprises in the market field is not a part of the competition, but the competition of the whole value chain. China's manufacturing industry is still at the middle and low end of the value chain, so it is urgent to seek a new development path. In the context of the global epidemic, the upgrading of enterprises' manufacturing industry and the reconstruction of value chain have become a general trend. It is currently a strategy to try to improve the position of manufacturing industry in the value chain in the wave of digital economy. As a new engine to stimulate economic growth in the new stage, digital economy still shows strong vitality under multiple blows. It will take digitalization and intelligence as the support for manufacturing value-added, transformation and upgrading, continuously improve the value chain status of manufacturing industry in Anhui Province.

5. Improving Path

5.1. Promote Deep Empowerment and Improve Top-level Design

Digital economy is a systematic process since it was put forward, which covers a wide range of contents, including multi-industry innovation, technology upgrading, etc. Digital economy is a new form of development after industrial economy, and plays a bottom supporting role in many fields. Therefore, it is necessary to improve the top design of digital economy enabling manufacturing industry, accelerate the construction strategy of Anhui, Yangtze River Delta,

eastern coastal areas and other developed regions, and plan emerging digital economy industries in an overall manner, Guided by the market demand, taking the characteristic demand of consumers as the source, extend the manufacturing service chain and intelligent chain, and explore the deep mechanism of digital economy enabling the manufacturing industry.

5.2. Adhere to Scientific and Technological Innovation

Scientific and technological innovation is the basis for the development of all walks of life. Adhering to scientific and technological innovation, we need to accelerate the research and development of cutting-edge core technologies in the manufacturing industry, promote the development level of the digital economy, make full use of the existing digital economy enabling manufacturing foundation in Anhui, speed up the building of a full process industrial chain of the manufacturing industry from beginning to end, build a multi-industry digital transformation and innovation system centered on electronic information, medical care and transportation, and attract core production factors outside the province Human capital and others have settled in the province, promoting the manufacturing industry in the province to realize the leap of value chain by virtue of digital transformation.

5.3. Build a Talent Team and Improve the Welfare System

To promote the digital transformation of the manufacturing industry in Anhui Province and the continuous rise to the middle and high end of the value chain, it is necessary to constantly build a perfect all-round talent team, promote the introduction of "digital+innovation" talents, give play to the leading and exemplary role of colleges and universities, create a new talent exchange and mutual assistance platform, expand the disciplines related to the practice and application of digital economy, and the government grants funds to help promote the implementation of digital scientific research bases and scientific innovation projects in Anhui, Encourage students to cultivate their own goal of all-round development and comprehensive growth, give corresponding rewards to teams or individuals who have made relevant scientific and technological achievements, and improve relevant legal reward and punishment mechanisms on this basis, so as to create a group of compound talents and backbone with strong theoretical basis, high scientific research ability, outstanding comprehensive application ability, and solid and capable.

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