

RESEARCH ARTICLE

Education and Economic Harmonious Development: A Path to Sustainable Development

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ABSTRACT

Education is one of the key avenues for investing in human capital and is also an important means of enhancing society's research and development capabilities and technological levels. Therefore, investment in education has become an overlooked factor, affecting the quality of economic growth. Since the reform and opening-up, with the continuous improvement of China's economic development level, the role of education has become increasingly prominent, and investment in education by central and local governments at all levels has continued to increase. Especially since achieving the goal in 2012 of having fiscal education expenditure exceed 4% of GDP, education funding has entered the "4% era," effectively ensuring the level of educational development. However, while educational development can positively drive economic growth, the relationship between the two is not simply linear. The impact of education on the quality of economic growth depends on multiple conditions, among which the matching of the education investment structure is one of the key factors determining the influence of education on the quality of economic growth^[1]. Comprehensive Financial Report. This article will delve into the structure of educational investment and its interaction with the quality of economic growth, aiming to provide recommendations for the effective policy arrangement of educational investment and industrial structure to improve the quality of economic growth.

Keywords: educational development; economic development; coordinated development

1. Introduction

The development of education and the economy is inseparable, with each influencing and complementing the other. Economic conditions determine the direction and extent of educational development, shaping its speed, scale, structure, and system. Conversely, educational development is also a significant driving force for economic growth. In the process of coordinated development, collaboration is an essential factor for achieving the organic integration of education and the economy, creating more favorable conditions for sustainable social prosperity. Since China established economic construction as the central focus in the late 1970s and introduced foreign educational economics research in the early 1980s, a favorable social environment for the development of educational economics has been created. Subsequently, China's educational economics began building a disciplinary system with research on the relationship between

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education and the national economy, characterized by distinct local features, as the starting point. The discipline's development has gradually flourished, attracting the attention and research of more experts and scholars.

The positive effects of education on economic development are mainly manifested in the human aspect. The most basic economic function of education is to transform potential labor into actual labor - labor holds a unique position in economic development, and education promotes economic development by optimizing human capital. Human capital refers to the knowledge, skills, and abilities exhibited by workers. This ability is a valuable asset with economic value and a major factor in economic growth. The economic development of human society is achieved through the development of productive forces. Productivity includes two elements: laborers and means of production, namely material capital productivity and human capital productivity. Material capital productivity refers to the productivity generated by the input of material resources such as land, tools, equipment, and raw materials; Human capital productivity refers to the productivity generated by the investment in individuals themselves. In periods when social productivity was relatively backward, the impact of material capital productivity on economic growth was greater. For example, in agricultural and pre industrial societies, the input of material capital directly determined the degree of socio-economic development. With the development of social productivity, humans have entered the more developed industrial or information society, and economic development increases with the investment of human capital. Human capital productivity begins to play a decisive role in economic development. At this point, the economic nature and role of education begin to manifest. Through education, high-quality workers can be trained to adapt to increasingly advanced production tools and technologies; Through education, we can cultivate scientific and technological talents who can create numerous technological achievements and apply them to the production process; It can further enhance the management ability of managers and promote social and economic development. In summary, education can comprehensively improve the quality of workers in a complex way, enabling them to achieve all-round improvement in morality, intelligence, physical fitness, aesthetics, and morality, and indirectly promoting economic development.

In addition to cultivating higher quality workers to promote economic development, education itself also has economic value and benefits - education consumption, that is, education directly promotes economic growth. The direct role of education in economic development is mainly manifested in two aspects: the contribution of education to economic growth (GDP) and the contribution of education to the labor market. One is the growing consumer demand of the people^[2]. The purchased educational services directly promote the growth of the social economy (GDP), and secondly, the increase in demand for educational consumption has created more educational service jobs for society. So, as a special investment, the education sector. It is also a special type of consumption. With the development of social economy, educational concepts have been updated and changed. People will gradually realize that a certain amount of education investment can yield considerable returns in future production. Therefore, while productivity continues to develop, the level of production is also constantly improving. The proportion of education consumption will continue to increase. As a result, it has had a direct impact on promoting economic development.

2. The Impact of Education on the Economy

It is often said, "The only way out for poor countries is education." The success of the Jewish people and the rapid economic development of Japan both prove the importance of education. The development of education has a profound impact on productivity and the economy, becoming an indispensable force in promoting social and economic development. Education plays a role through two main avenues: Firstly, it

lays the talent foundation for the development of social productivity. Economic productivity requires a high-quality workforce and overall social improvement. Developed countries emphasize universal education (including primary and secondary education) because it establishes the groundwork for social productivity. Secondly, economic and productivity development also requires specialized talents, which are primarily cultivated through specialized and higher education. Education plays an irreplaceable role in providing specialized personnel. A shortage of talent is a major obstacle to productivity and economic development, often resulting from underdeveloped education^[3]. Highly developed countries understand the importance of talent and thus prioritize education in social development. "Education first" has become a common policy in developed countries. According to a UNESCO report, "Currently, the global trend in education is oriented towards serving economic development, which may be a first in human history."

Additionally, education transforms scientific knowledge into real productivity, accelerating economic development. Science must go through several stages to become productivity, with education serving as a key intermediary in this process. Education converts scientific knowledge into forms of productivity. Thus, science achieves its function as a social productive force through education. The role of education in facilitating the transformation of science into social productivity will continue to grow.

2.1. Education is the fundamental method for carrying out possible labor education to the end.

The growth of individual life only constitutes possible labor force, but it may become a real productive force. Only through certain education and training, can one master the knowledge and skills of labor, and participate in the production of certain use values and the creation of certain wealth. This is the formation of labor knowledge and skills. Through education, society can cultivate high-quality workers who can adapt to constantly advancing production tools and technologies. Education can also cultivate scientific and technological talents who create and apply various technological achievements to the production process. In addition, education helps to enhance the management skills of managers and further promote socio-economic development. Overall, education comprehensively enhances the quality of workers in complex ways, improving their morality, intelligence, physical fitness, aesthetics, and labor skills, thereby indirectly promoting economic development.

2.2. Education can popularize scientific knowledge and continuously innovate it.

Science and technology are the primary productive forces, and innovation is the primary driving force behind economic development. Education is the means of popularizing scientific knowledge and the foundation of scientific innovation. We are increasingly concerned about the relationship between education and national development, and are closely linking the development of science education, the enhancement of public scientific literacy, and the interests of the country and the nation. Many countries are increasingly recognizing it as an important strategy for national economic development. Looking at the global landscape, the current international development competition is more intense than ever before, and China's demand for strategic technological support is more urgent than ever before. Developing science education and enhancing the scientific literacy of the entire population are inevitable choices for building China into an economic powerhouse. In addition to the need for arduous and complex scientific research, invention and creation, or innovative practices to enable more people to master scientific knowledge and labor skills, close cooperation between education and teaching is also required. Realize the transformation of potential productivity in the form of knowledge, summarize and promote the experience of technological achievements. Overall, science and technology can bring about extensive changes in national life, national economy, and international relations, promoting the takeoff of material life. Science education plays a role in reconstructing the spiritual

world, promoting the development of material life and economy, and in turn promoting the development of science and technology, forming a positive interaction.

2.3. Modern education is an important factor in improving labor productivity

Education enhances the potential productivity by optimizing its own structure, diverting workers and specialized talents, thereby improving labor productivity and achieving significant economic benefits. However, the complex historical conditions of education and economy are influenced by different factors, and education investment is not necessarily proportional to national income, especially personal income situations are more complex. The income of highly educated people may not necessarily be higher than that of low educated people. Therefore, simple analysis and judgment cannot be made, and the enormous role of education in the economy cannot be denied. In addition to cultivating higher quality workers to promote economic development, education itself also has economic value and benefits - education consumption, that is, education directly promotes economic growth. The direct role of education in economic development is mainly manifested in two aspects: the contribution of education to economic growth (GDP) and the contribution of education to the labor market. Firstly, the increasing consumption demand of people and the purchase of educational services directly promote the growth of the social economy (GDP). Secondly, the increase in educational consumption demand has created more educational service jobs for society. Therefore, education, as a special investment, is also a special consumption. With the development of the social economy and the updating of educational concepts, people will gradually realize that a certain amount of education investment can yield considerable returns in future production. Therefore, with the continuous development of productivity and production level, the proportion of education consumption will continue to increase, which will directly promote economic development.

3. The Impact of the Economy on Education

3.1. The Constraints of Productivity Development on the Scale and Speed of Education

The development of productivity directly affects the size and speed of education. The production of material resources is the foundation of human society's existence and development, and education must rely on certain human and material resources as guarantees. Therefore, the scale and speed of educational development ultimately depend on the level of social productivity. Education must adapt to the development of productivity, which is a law that school education must follow in social development. When the development speed of school education lags behind the requirements of productivity development for a long time, leading to obstacles in social and economic development, it is necessary to increase investment in education to keep pace with the needs of social development. However, when the scale and speed of school education exceed the level of productivity development, it will lead to a surplus of talents, difficulties in employment, and thus have a negative impact on the social economy. At this time, education strategies need to be adjusted in a timely manner.

3.2. The constraints of productivity development level on talent cultivation standards and educational structure

The level of development of productive forces determines what kind of education and training are carried out. The structure of schools must reflect the development and changes in the economic and technological structure, so that the talents cultivated by education for production can meet the needs of productivity development in terms of quantity, variety, and quality. Otherwise, even if there is a surplus in the total number of talents, a structural imbalance may still occur. Therefore, school education should not

only consider students' current occupational division of labor and needs, but also take into account the future evolution of professions in response to the challenges of accelerated technological and social development.

4. How Education and Economy Can Develop in Coordination

To promote more coordinated development of education and economy, it is necessary to emphasize the positive effects of education consumption on economic growth. At the end of the 20th century, the total education consumption in the United States had reached \$660 billion, accounting for 9.0% of the gross domestic product. In terms of high-level education services alone, its annual revenue has reached 250 billion US dollars, while also creating employment opportunities and providing jobs for 2.5 million people. This shows the contribution of the education industry to the economy. However, blindly expanding enrollment and raising education costs without planning, regardless of consequences, in order to stimulate education consumption is not advisable. The main function of education is to cultivate high-quality scientific and technological talents who can adapt to the times. Simply pursuing a temporary increase in educational consumption will lower the quality of education and affect the long-term development of the social economy in the future. Therefore, we should scientifically approach the role of education consumption in driving economic growth, and focus more on the long-term impact of education on economic and social development. At the same time, when formulating policies in our country, we need to consider the consumption capacity of residents. Currently, there is an imbalance in development between the east and west, as well as between the north and south. There is a large income gap between urban and rural residents, and their ability to consume education is limited. Boosting domestic demand by increasing education consumption may lead to a decrease in other aspects of consumption, thereby offsetting the economic benefits generated. When formulating and implementing policies, it is necessary to consider both the overall education consumption capacity of urban and rural residents nationwide, as well as the distribution of different income groups in different regions, in order to adapt to local conditions and times^[4].

The Chinese government has taken a series of active measures to promote the coordinated development of education and economy. Firstly, through the "Education Strong Country" strategy, the government has increased investment in education and improved school infrastructure. Teacher compensation has been increased. Ensure that the education system can effectively meet the rapidly upgrading economic needs. Secondly, in order to adapt to the structural changes in the economy, educational institutions have adjusted their curriculum, paying particular attention to vocational education that is aligned with market demand. In order to cultivate more professional talents that meet the actual employment needs. The government encourages innovation and research and development, promotes technological progress through funding scientific research projects, establishing innovation bases, and other means, providing greater growth momentum for the economy. It also provides opportunities for practice and development for higher education. In addition, to promote social equity and educational equality, the government has increased investment in educational resources in rural and impoverished areas to improve the chances of rural students receiving higher-level education. Strive to build a more inclusive educational environment. These efforts together constitute a comprehensive strategy for the coordinated development of education and economy in China, laying a solid foundation for sustained economic growth. At the same time, it ensures the comprehensive progress of society.

5. The Importance of Coordinating the Development of Education and the Economy

The coordinated development of education and economy is a crucial factor in ensuring national prosperity and social progress. With the continuous improvement of the education system, more high-quality and adaptable talents can be cultivated. Provide a solid and reliable guarantee for the economy and human resources. Having a high level of education can be helpful in improving the quality and skill level of the workforce. This will stimulate productivity improvement, stimulate technological innovation, and lay the foundation for long-term economic growth. In addition, universal education can also help reduce social inequality, provide equal opportunities for more people, and create a more just and harmonious social environment. The scope of education is not limited to professional skills training, but also includes cultivating citizens' critical thinking ability, sense of responsibility, and social participation awareness, providing comprehensive support for national construction. Therefore, it is necessary for the government, enterprises, and all sectors of society to work together and promote progress. Increase investment in education to ensure the formation of a virtuous cycle between education and the economy. Jointly promote sustainable prosperity of the country.

6. Example Analysis

6.1. The Impact of the Economy on Education in Developed and Developing Countries

Developed countries such as the United States/United Kingdom/Singapore/Australia/Canada. The economic foundation has multiple benefits for education and plays a crucial role in promoting the development of social education. Economic support for education drives continuous progress in technology and innovation. Cultivate a large number of scientists, engineers, and innovators, and make great contributions to the development of the world education field. Cultivate high-quality and highly skilled labor force, and provide competitive talents for various industries. The important aspect of a country's international competitiveness is a high-quality education system. Education enjoys a global reputation, attracting a large number of international students and creating cultural and academic exchange opportunities for the country. Reduce social inequality and improve the overall quality of education in society. Developed countries promote continuous progress in education innovation through sustained economic support, and cultivate high-quality and high skilled talents to enhance international competitiveness in education.

Economically weaker and poorer countries face various challenges that severely constrain the development of their education systems^[5]. Poor countries often face economic problems and find it difficult to provide sufficient funding to support education. This has led to the problem of outdated school facilities and insufficient teaching staff. The lack of teaching resources has an impact on students' learning environment. Has an impact on the quality of student education. Poor countries lack infrastructure such as electricity, transportation, and communication networks, which affects the normal operation of schools and makes it difficult for students and teachers to reach them. The school has insufficient capacity, insufficient teaching staff, and uneven distribution of educational resources. Economically underdeveloped and impoverished countries are facing serious challenges to their education systems. Economic difficulties have prevented these countries from providing sufficient funding to support educational development.

By comparing international cases, it can be seen that developed countries provide economic support to promote high-quality education systems, cultivate competitive talents, and enhance national international competitiveness. On the contrary, economically weaker and poorer countries face multiple challenges, making it difficult to provide sufficient education support and constraining the development of their education systems.

6.2. Education Supports Rapid Social and Economic Development

American economists Schultz and Becker established the human capital theory that believes that the accumulation of human capital is the source of socio-economic growth. Our education system is committed to improving individual labor productivity and increasing personal income. Promote the process of urbanization through the improvement of individual mobility. Improving people's living standards^[6]. Education plays a crucial role in driving economic development. Successful experiences provide clear examples. Taking Zhongguancun as an example, it gathers many first-class universities and research institutions, such as Tsinghua University and University of Science and Technology of China. These schools nurture a large number of scientists and engineers, promoting innovation in the field of information technology and thriving economic development. The German craftsman system demonstrates a successful model of vocational education, providing students with practical work experience, cultivating skilled workers and technical experts, and supporting the strong and global competitiveness of German manufacturing industry. South Korea has successfully transformed itself into one of the global leaders in technological innovation through large-scale education upgrades and training in STEM fields. Finland takes its comprehensive and personalized education system as an example, emphasizing the cultivation of problem-solving skills. Provide high-quality talent support for the country. These examples highlight the indispensable role of education in cultivating high-quality labor, promoting technological innovation, and facilitating industrial development. Provide students with extensive knowledge, skills, and experience. Education provides strong talent support for the economy and has become a key driving force for sustainable social prosperity.

In terms of extensive education reform, South Korea has cultivated a high-quality workforce, promoted technological innovation, increased employment rates, and laid a solid foundation for economic modernization and global competitiveness. In South Korea, education is considered one of the key factors for achieving economic success, playing a significant role in cultivating talent, technological innovation, and improving employment rates. The extensive education reform in the mid-20th century led to South Korea successfully improving the education level of its citizens. The reform not only popularized higher education institutions and improved the quality of primary and secondary education, but also created a high-quality national workforce. The modernization of the South Korean economy and its competitiveness on a global scale have laid a solid foundation. In terms of technological innovation, South Korea's education system focuses on cultivating students' scientific and technological literacy, encouraging them to participate in research and experimentation. The education environment that values technology has cultivated a large number of engineers and scientists, providing strong support for South Korea's innovation in the fields of semiconductors, electronic products, and information technology. South Korea enhances the employability of its successful population by providing high-quality vocational training and emphasizing vocational education. The close cooperation between the education system and industry ensures that the skills learned by students are in line with market demand, thereby reducing unemployment rates and creating a relatively stable employment environment for society. The successful experience of South Korea demonstrates the inseparable relationship between education and economy. By valuing education, cultivating high-quality talents, promoting technological innovation, and increasing employment rates, South Korea has laid a solid foundation for its thriving economy. This highlights the importance of coordinated development between education and economy. And how to promote sustainable economic growth through education.

Education plays a crucial role in promoting socio-economic development. The successful experiences of various countries have shown that a high-quality education system can generate a high-quality workforce. Promote technological innovation. Promote industrial development.

6.3. Achieving "Double Miracles" in Economic and Educational Development

In the early days of the founding of the People's Republic of China in 1949, due to a weak economic foundation, the per capita gross domestic product was less than 100 US dollars. The overall social and cultural literacy is low, and high-quality labor talents are difficult to meet the needs of socialist construction. However, the rapid rise of the Chinese economy is attributed to the promotion of reform and opening up. The flourishing development of education, which has attracted worldwide attention, has provided strong support for the economy. In 2003, the gross enrollment rate of higher education exceeded 15% for the first time, marking the entry into the stage of mass development. By 2009, this proportion had increased to 22.4%. In 2014, the gross enrollment rate of higher education in China reached 41.3%, exceeding the world average by 5.7 percentage points. 2019 was a landmark year. The gross enrollment rate of higher education has exceeded 50%, marking a new stage in the popularization of education. The thriving education industry not only meets the demand for talent in economic development, but also enables higher education to be more widely popularized nationwide.

We can learn from German funding support to update educational resources and enable students to receive education in a high-level learning environment. In Germany, economic prosperity has a positive impact on the education system. Reflected in financial support, employment opportunities, and social stability. Financial support: As one of the engines of the European economy, Germany's prosperous economy provides strong financial support for the education sector. The government has invested a significant amount of resources in the field of education. To improve school facilities, recruit high-quality teachers, and update educational resources. This funding support helps ensure that students receive education in a high-level learning environment, promoting the improvement of educational levels. Employment opportunities: The German economy is thriving, creating a large number of job opportunities. Especially in the fields of high technology and manufacturing. This prompts people to pursue higher levels of education. To adapt to the changing demands of the job market. The government and enterprises encourage students to choose majors that match market demand by providing scholarships, vocational training, and internship opportunities, thereby enhancing the adaptability of the workforce. Social stability: The relative stability of the German economy helps maintain social harmony and stability, providing a favorable environment for educational development. The stability of society creates a good atmosphere for learning and education, allowing students to better concentrate on their studies. The relatively low level of social unrest reduces the negative impact on the education system, ensuring the stable operation of schools. The example of Germany shows how a prosperous economy provides strong support for education, prompting people to pursue higher education while creating a more stable social environment. Conducive to the healthy development of the education system. This further emphasizes the mutual promotion between economy and education. To achieve coordinated development.

The mutually reinforcing relationship between education and economic development is the cornerstone of sustainable social prosperity. With the development of the times, we should pay attention to coordinated development and jointly promote society towards a more prosperous and sustainable future through economic support and educational innovation. The continuous popularization of education provides a broader talent base for economic development and achieves the "double miracle".

7. Conclusion

In the past 70 years of New China's history, the economy has been in the stage of industrialization. Education needs to be vigorously promoted, and human capital needs to be elevated to a higher level. It has a significant promoting effect on economic development. However, as the driving force of factor input

gradually weakens and society faces the pressure of transformation and upgrading, innovation driven has become an inevitable trend. In this context, the theory and improvement of education promoting economic development can better meet the challenges brought by global development trends, such as economic globalization and the Internet era. And the challenges of a knowledge-based and innovative economy. The close relationship between education and economic development is crucial for the overall prosperity and sustainable development of society. The economic situation determines the direction, speed, and structure of education, and the development of the education sector has become an important driving factor for economic growth. Collaborative cooperation is a key factor in achieving this organic combination, creating more favorable conditions for society.

Education and economy have a profound promoting relationship. The coordinated development of the two is crucial for the sustainable prosperity of a country or region A Brief Discussion on the Role of Education in Promoting the Economy^[7].

In the case of China, the government has made significant achievements through various efforts such as investing in education, adjusting curricula to meet market demand, incentivizing innovation and research and development, promoting social equity and educational equality. By increasing funding support for education, China has created a better learning environment, cultivated high-quality talents, and laid a solid foundation for economic modernization and global competition. Attention to vocational education enables students to better adapt to the needs of the market. The employment rate has been increased, and an effective match between labor force and market demand has been formed. The government's encouragement of innovation and research and development not only promotes technological progress, but also provides opportunities for higher education to practice and develop. The positive interaction between education and economy is further promoted. The Chinese government attaches great importance to social equity and educational equality, and expands investment in educational resources in rural and impoverished areas. Rural students have improved opportunities for further education. Created a more inclusive development environment for the entire society. This multi-faceted effort together forms an organic system, providing a successful example of coordinated development between China's education and economy. By establishing a positive interaction between education and economy. The country can achieve more sustainable development. Ensure balanced development in talent reserves, technological innovation, and social equity, thereby promoting the entire country towards a more prosperous and progressive future.

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