

# The Changing Role of Education in Economic Development: An Analysis of the Role of the State in Singapore's Education System

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**Abstract:** After Singapore's independence in 1965, the country successfully transformed itself from a developing country to a knowledge-based economy. Singapore has since achieved outstanding economic and academic performances in the following five decades. This paper analyses the relationship between education and economic development in Singapore. It will also look at the role of education from 1965 (Independence) to 1989, and then 1990 onward as it aims to analyse how Singapore's developmental state used education to promote economic development as the country develops.

**Keywords:** Developmental State; Role of Education in Economy; Singapore Education System; Education Reforms

## 1. Introduction

After World War II, Japan, South Korea, Taiwan, Singapore, and Hong Kong achieved rapid economic development with their unique development model. Typically, in the societies mentioned above, the state played a key role in promoting the rapid development of the nation (Abe, 2006). Chang (1999) stated that developmental states tended to have strong government with sufficient organization and an ability to realize the nation's development goals. In these societies, education and economic development collaborated under strong state guidance to accomplish certain national objectives. Thus, the national education system in these societies played an important role in supporting social cohesion and providing a well-trained labour force.

## 2. The role of education in fostering economic development in the earlier period

According to Ozturk (2008), education is vital in economic development, and heavily invested in human capital is needed to achieve sustainable economic growth. In Singapore's case, several education reforms were used to seek economic development in the earlier period. After the independence in 1965, the economic structure of Singapore was political economy and it had to face the hard situation of scarce resources and ethnic strife. The Singapore government formulated a policy of developing export-oriented and labor-intensive manufacturing. In order to address the needs of skilled workers for industrial development, the Singapore government had implemented many aspects of education reform, including the focus on primary and secondary education, especially the development of primary vocational and technical education. At the same time, in order to eliminate the hidden dangers of political turmoil, the Singapore government has implemented mixed schools policies. The system allows students with different languages to take classes in the same school, and through multi-language mixed teaching, it basically achieves the purpose of stabilizing domestic

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political development, economics, and solving ideological and cultural conflicts. In the initial stage of Singapore's economy, the government actively developed import substitution industries (Goh, 2005). The educational policy of "Practical Education to Meet the Needs of Industrialization and Economic Development" was established in the founding policy of Singapore. The educational goal is to train primary-level labor to support the needs of industrialization and economic development.

In the second stage of economic development, when labor-intensive export industries replaced import substitution industries, society needed a larger number of skilled workers, various levels of technology development, and management personnel. Vocational and technical education (construction, shipbuilding, electronics, engineering, petrochemical, business management) needed to be continually developed in order to maintain the economic growth. At the same time, the government established and implemented the policy of "Education must be matched with economic development", abandoned the old model of higher education that lacked practical values (Jiang, 2010). This means that the focus and role of education had been changed from merely providing knowledge in books to the practical aspect of applying the knowledge learnt in technical fields at work.

As previously discussed, the role of education in Singapore also focuses on fostering sustainable economic growth by raising people's productivity and creativity. At the same time, the importance of promoting entrepreneurship and technological advancements had risen. Developmental states, such as Singapore, realized that the primary factor of a country's standard of living depends on how the government succeeds in developing and utilizing the advanced skills and knowledge, as well as furthering the health and education prospects of its population (Chitty, 2000).

In the third stage from 1980s to 1990s, this period was dominated by the development of capital and technology-intensive export industries. This means that the development of Singapore society needed talents with unique thinking and resilience. And these talents included senior technicians and managers in sectors like mechanical or chemical engineering, Law, Finance, Accounting, Business, Computer Technology, or Communication Technology. The development of vocational and technical colleges was closely associated with the economic growth of Singapore. The government was now fully aware of the importance of higher education in cultivating such talents and begun to develop higher education vigorously. The interaction between universities and the society had also been further strengthened. On the one hand, it attached importance to the practical teaching of undergraduate education and increased investment in scientific research; On the other hand, it expanded the scale of higher education enrollment so that more people can receive education (Jiang, 2010). At this time, education actively cooperated with and promoted the needs of economic development, and this led to constantly improvement in national curriculum and teaching methods, highlighting the initiative of higher education for economic development.

### **3. The developmental state and its changing role in the later stage of development**

According to Chitty (2000), the most efficient allocation of education resources would be one that yields the highest social benefit per dollar spent. Research shows that, given the vast importance of social returns, this consideration is essential when designing educational policies to avoid under-investment in education (Kwon, 2005). In essence, a significant social return would justify policies to encourage more investment in education. Tang (2018) identifies centralized control, close alignment between the education and training system, and labour markets as one of the major characteristic features of the East Asian developmental states such as Singapore.

Singapore became independent in 1965 as a weak, tropical island with only a few natural resources, substandard housing, and rapid population growth (Kwon, 2005). Education at that time was not compulsory, and only a small number of students and skilled workers sought education. The state's role at that time, therefore, aimed at improving the quality and level of access to education, for example, by introducing free secondary and primary education. By introducing education reforms that focused on trends of science and mathematics, Singapore was able to develop an education system that best meets the needs of a competitive economy (Kwon, 2005). Singapore's political and economic vulnerability created a sense of urgency that continues to influence education policies to this day (Gopinathan, 2007). Thus, the developmental state sought to recruit the best and brightest individuals into its early government in the bid to promote economic growth and job creation.

According to Chitty (2000), in the 1960s, the emphasis of the Singapore developmental state was on attracting labour-intensive foreign manufacturing to provide jobs for its low-skilled workforce. As the economy gradually developed, a shift to more skill-intensive production led to an emphasis on technical fields (Chitty, 2000). The state's aim

to attain a globally-oriented economy was accompanied by the encouragement of more research and innovation-intensive industry, whilst also seeking to attract scientists and scientific experts around the globe. Research shows that political stability is key to keeping up with a developing economy (Abe, 2006). The country's desire to maintain a high-quality education system can only be achieved through continuing to foster a sustainable economic development that has changed from survival-driven strategies to forward-looking, integrated planning systems (Tang, 2018).

Studies find that the state plays an active role in contributing to economic development (Gopinathan, 2007). The government participates in productive activities, primarily through its monetary and fiscal policies, which guides the direction of economic activities. The government is also responsible for determining the distribution of goods and services in the economy (Gopinathan, 2007). In a developing economy, the widespread economic problems cannot be solved by private enterprises, and hence the state intervention is essential for their economic development.

## 4. Conclusion

The key issue for the future development of the country model lies not in the mid-level changes in curriculum and structure, but in broader social processes. For a multi-ethnic, small and strong country like Singapore, the key task is not only to cope with economic challenges, but also to generate greater social cohesion and more social capital in the context of greater social risks and uncertainties. Expanding educational opportunities, diversifying curricula, maintaining the quality and relevance of education, and critically matching these to the needs of the labour market, make the school system a true source of upward mobility (Gopinathan, 2007).

Over the years, the role of education in fostering economic and education development has changed significantly. The emerging mission for schools in Singapore is to prepare students to work in jobs that do not exist yet and creating ideas and economical solutions for products and problems that are, as of yet, not identified, using technologies that have not yet been invented (Chitty, 2000). Research proves that education is fundamental to both economic development and growth (Ozturk, 2008). Economic growth, development, and poverty reduction are dependent on the knowledge and skills rather than the number of years people sit in a classroom. The role of education in fostering economic development has hence changed in the sense that there is a transformation in the call to action to learning for all. Singapore, as a developmental state, therefore, must continue to adopt an education system that is knowledge and skills-oriented.

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