



The Intrinsic Mechanism of Education Promoting Economic Growth

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Abstract

Most scholars argued that higher education has a positive impact on the growth of the economy. Therefore, understanding the internal mechanism between education and economic growth can give us a clearer and better way of where to focus future changes to promote economic growth. This study implemented the systematic literature review method by searching the Google Scholar database to evaluate the intrinsic mechanism of education promoting the economic development, mainly analyzing and classifying all influencing factors. The findings show that there are 18 factors, from 4 aspects: educational institutions, the government, companies and society, influence education in promoting economic development. Besides, three suggestions are put forward for future research to prove the intrinsic mechanism, which is based on the DSBM (Dynamic Slacks-Based Measure) model, the use of surveys and quasi-experimental design, as well as other diverse influencing factors such as market structure and enterprise size, sustainable supply chain, and so on. Finally, recommendations which are beneficial for education to promote economic growth and development are made for higher education institutions, the government, companies and society.

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Keywords: Education, Economy, Intrinsic Mechanism, Influencing Factors

1. Introduction

Because of the exponential growth of knowledge and information in the 21st century, the two most important factors in determining overall societal production are human capital and technological advancement. Education is the most significant medium for the propagation of information, the enhancement of human capital accumulation, and the acceleration of technological advancement. The ascendance of the knowledge economy has brought greater attention to the significance of education. Because we now live in an age dominated by a knowledge-based economy, education as the most crucial link in the chain of rapid economic development has supplanted traditional economic pillars such as natural resources, simple labor, and physical capital. Education is a symbol of human civilization's advancement and a significant source of power for a nation's economic growth. Moreover, with the rapid development of scientific and technological innovation, higher education assumes the role of providing technical assistance and talents for society. With the advent of the era of economic globalization, higher education has a crucial role in economic growth. The significance of higher education in economic development is becoming more widely acknowledged. Sustained and stable economic growth is unquestionably crucial for any nation. Developed countries pay attention to it because they want to understand the true source that drives it in order to sustain prosperity; emerging countries pay attention to it because they want to find a way to escape poverty and become wealthy.

In the era of the information economy, the role of education is constantly improving, and the economic function of education has become a research hotspot in academia, yielding an abundance of research findings. Relevant studies have also verified this view: Bao and Chen (2021) ^[7] determined the percentage that China's higher education sector contributed to the country's economic growth, according to the findings, from 2001 to 2019, education in western China contributed 7.16 percent to economic growth, while education in eastern China contributed 7.08 percent. In the 1960s, Edward Fulton Denison used mainstream analysis based on human capital theory and combined with endogenous economic theory to show that education was estimated to contribute twenty percent to the expansion of the economy in the United States from 1922 to 1957 (Wang & Shi, 1997) ^[40]. Hussaini (2020) ^[18] researched and analyzed the ASEAN five countries' economic growth from 2000 to 2018, the findings indicate that secondary and tertiary enrollment can be beneficial to expanding the economies of the 5 ASEAN countries (Thailand, Indonesia, Malaysia, Singapore, and the Philippines). Besides, using empirical models, Volchik *et al.* (2018) ^[39] discovered that higher education has significant positive economic outcomes for Germany and the EU. Furthermore, in Lithuania, Ciburiene *et al.* (2019) examined 2005-2013 data, according to the findings, the population who accept higher education (aged 15-64) influence the proportion of available human resource in a significant way. Kocourek and Nedomlelová (2018) ^[20] investigated the contribution of three major phases of education to the rise of productivity in 125 nations using the period 1999-2014. According to the findings of this study, higher education had the greatest effect on the rise of productivity. Kabir Usman (2019) ^[19] explored the link between education and economic expansion in Laos from 1984 to 2013. They utilized the Johansen cointegration and Granger causality methodologies for this study. The Johansen cointegration test demonstrates that education and economic growth have a long-term link. Granger analysis indicates that all levels of education have a causal link with economic growth. Gnimassoun and Anyanwu (2019) ^[16] investigated the impact of African immigrants on Africa's economic growth. The results indicate that the African immigrants have made a positive, substantial, and robust contribution to the increase in Africa's economy. The more educated immigrants are, the bigger their impact on economic progress. Mendy and Widodo (2018) ^[25] evaluated the relationship between various

degrees of education and Indonesia's economic growth from 1984 to 2014. The Lucas endogenous growth model and the autoregressive distribution lag model were utilized in this investigation. The results indicate that education is vital to economic progress. As we know, education influences economic development and growth not only from internal factors, but also from external factors. So, this article summarizes the intrinsic mechanism of education promoting economic development and growth in the past five years, highlighting influencing factors that have been confirmed by previous research. It is vital to comprehend influencing factors of education promoting economic development. For policymakers, they can analyze the current status and problems of influencing factors in order to draw relevant conclusions, and then promote economic growth by improving or upgrading these influencing factors, thereby providing massive implications for the enhancement of measures to promote regional economic growth. For future scholars' research, they can explore some other influencing factors which are not been studied.

2. Methodology

This article will apply the systematic literature review method to evaluate the intrinsic mechanism of education promoting economic development. A systematic literature review is an effective way for incrementally advancing research based on past accomplishments (Lame, 2019). A specific hypothesis can be put to the test, and new ideas can be developed, through the process of summarizing, analyzing, and synthesizing a set of relevant literature (Xiao & Watson, 2019) ^[41]. The strength of a literature review is that it can answer research difficulties through the integration of findings and perspectives from multiple empirical studies, in addition to providing a diverse and interdisciplinary overview (Snyder, 2019) ^[36]. This article adheres to the SALSA (Search, Appraisal, Synthesis and Analysis) framework. Different literature review methods have been offered, however, the majority utilize the SALSA framework. The goal of the search phase within this framework is to compile a preliminary list of articles for analysis; During the appraisal phase, the preceding phase's acquired documents are reviewed to eliminate irrelevant ones; Finally, the synthesis and analysis phase collect pertinent data from selected publications and derives conclusions from them to generate a final report (García-Holgado *et al.* 2020) ^[15]. The SALSA process in this article can be seen in Table 1.

Table: 1 SALSA Process in this Article

Search	Appraisal	Synthesis	Analysis
Scrutinized Google Scholar database. The fields searched are title, abstract, keywords and name of the journal. The searching keywords are education, economic development and economic growth.	After applying keywords, only select articles which include all keywords in the title, abstract and keywords. The period was limited onwards 2018. And set up a series of excluding criteria.	Define and classify articles that include influencing factors.	Analyze influencing factors and methods, propose suggestions for future studies to study more influencing factors and use more different methods.

The specific process of the systematic literature review is shown in Table 2. We searched the Google Scholar database for studies in English from 2018 to 2021 based on the

keywords "education, economic development," and "education, economic growth".

Table: 2 Systematic Review Process

	Database	Keywords	Time	Language	Fields searched	Controlled terms	Studies
Identification	Google Scholar	Education, economic development	2018 - 2021	English	Title/abstract/ keywords/ journal	Including all keywords in the title, abstract and keywords	162
	Google Scholar	Education, economic growth	2018 - 2021	English	Title/abstract/keywords/ journal	Including all keywords in the title, abstract and keywords	204
	Studied identified through Google Scholar database (n=366)						
Excluding	Studies excluded for not meeting the criteria (n=314) -Criteria 1: Only introducing education is one way to boost the economy (n=148) -Criteria 2: Education in other fields (n=67) -Criteria 3: Prove that education promotes economy through human capital (n=27) -Criteria 4: Health and education (n=18) -Criteria 5: The economic impact brought by female education (n=16) -Criteria 6: The impact of ICT on the economy (n=13) -Criteria 7: Only prove that education boosts the economy (n=13) -Criteria 8: Education promotes ecology and thus promotes economy (n=8) -Criteria 9: Vocational education (n=4)						
	Duplicate studies removed (n=22)						
	Studied included for measuring (n=30): - Prove the relationship between education and economy through different variables (24) - The impact of government's spending on education (n=6)						

Note: Table is tabulated by authors.

3. Result and Discussion

After a series of exclusions, the remaining 30 papers are chosen for this analysis. 24 out of 30 relevant articles demonstrated different intrinsic mechanisms by which education promoted the economy through different influencing factors. And 6 out of 30 articles solely demonstrated the impact of government's spending on

education to the economy.

3.1 The impact of government's spending on education to the economy

As can be seen from Table 3, government's spending on education has a positive impact on economic growth through 6 reviewed articles.

Table: 3 The Impact of Government's spending on Education to the Economy in 6 Articles

Reference	Research subject	Results
(Ozatac <i>et al.</i> , 2018)	France, 1970-2012	When there was a 1% rise in the government's spending on education, there was a 0.217% increase in France's GDP.
(Özdoğan Özbal, 2021)	29 OECD countries, 1995-2018	Boosting their spending on higher education can have a positive effect on economic expansion.
(Liao <i>et al.</i> , 2019)	China, 2000-2016	Investment in education at the local level can have a large, beneficial effect on fostering long-term economic expansion.
(Suhaili <i>et al.</i> , 2020)	Indonesia	Government expenditures on education, both tangible and non-tangible, can stimulate economic growth.
(Chijioke & Amadi, 2020)	Nigeria	Growth in the economy is strongly correlated with the amount of money spent on education by the government.
(Radić & Paleka, 2020)	Croatia	An increase in government spending on higher education has been shown to boost the economy.

3.2 Various factors influencing the education to the economy

In addition to 6 articles which study solely the government's spending on education to the impact on the economy, here are 24 articles that examine a wide variety of influencing factors. The main contents listed in chronological order of writing are as follows. In 2018, there are 4 articles. Ogundari and Awokuse (2018) ^[26] argued that enrollment in primary and secondary schools, as well as average years of schooling, have a favorable impact on economic growth; and estimates of vocational education enrollment and government education spending are not statistically significant. Bouhajeb *et al.* (2018) ^[9] established that innovation (as measured by R&D investment and the number of patent applications) and higher education spending have a favorable impact on economic growth. According to the research of Stevanović *et*

al. (2018) ^[37], information technology, innovation, high-tech exports, and the quantity of R&D personnel have a favorable and significant effect on economic growth. Zhou and Luo (2018) used a vector auto-regression model to test sample data from China from 1997 to 2015. The findings demonstrate that a dynamic cycle is created by the interactions between technological innovation, economic expansion, and educational input. Higher education investment and technology innovation are two key variables influencing economic growth.

In 2019, there are 5 articles. Omar (2019) ^[27] investigated the relationships between innovation and economic performance in North Africa from 1996 to 2016 using the panel correction standard error method. According to the conclusions of the study, there is a positive correlation between the accumulation of fixed capital, labor, and human capital.

These results highlight how crucial innovation and education are to fostering economic progress. Popović *et al.* (2019) ^[32] applied multiple regression analysis, the connection between the variables from 2005 to 2017 was evaluated. The findings demonstrate that, in Bosnia and Herzegovina, average years of schooling and technological innovation are explanatory variables for economic growth, whereas foreign investment and the macroeconomic environment are controlling variables. Chijioke and Amadi (2019) ^[10] believed that education may play a role in the economy because of the amount and quality of higher education institutions, investments in health and education, as well as the appropriate direction and strategic planning of health and educational institutions. Marquez-Ramos and Mourelle (2019) ^[24] demonstrated that the higher the degree of education (both secondary and higher), the greater the economic growth in Spain; an educated workforce is also important to the economy; but governmental spending on education seems irrelevant. Awolusi (2019) ^[5] found that total government expenditure on education, expenditure on research, the number of registered patents and intellectual capital can reflect the relationship between education and the economy. In 2020, there are 10 articles. Xu *et al.* (2020) ^[42] discovered that the relationship between higher education, economic growth, and innovation ability has significant implications for regional sustainable development using data from China's Jiangsu Province from 2007 to 2017. Pio (2020) ^[31] measured the effect of innovation on GDP using classic panel and dynamic panel data methods using a database of 297 observations from per federal between 2000 and 2010. For decision-makers, knowing the results of innovation is essential since it allows them to develop new policies and refocus already-existing ones. Galindo-Martín *et al.* (2020) ^[14] identified two major groups—innovation-driven economies or efficiency-driven economies—by data from 31 nations. According to the research, innovation has a favorable impact on entrepreneurship and economic growth. Pavlenko *et al.* (2020) ^[30] considered that one of the factors influencing economic promotion through education is the quality of professional training. Eric and Ludger (2020) ^[13] believed that education may boost human capital and thus labor productivity; furthermore, education can boost the economy through the development of new technology; then education can help the distribution of knowledge required to comprehend and process new information, thereby promoting economic progress. Bilan *et al.* (2020) ^[8] involved comparing information from the 28 European Union members for the years 2015 to 2017. Utilizing a variety of techniques, the multi-factor productivity and labor productivity indicators were calculated, and the relationship between the two was examined. The study discovered that some influencing factors reflecting the relationship between education and the economy, such as the proportion of employees involved in R&D, the proportion of researchers, and the proportion of higher education levels to the total population. Arman *et al.* (2020) ^[4] analyzed data from 33 provinces in Indonesia from 2013 to 2015 using a data analysis panel method. The results show that the higher the level of educational quality, the more robust the economic expansion. Agasisti and Bertolotti (2020) ^[1] investigated the

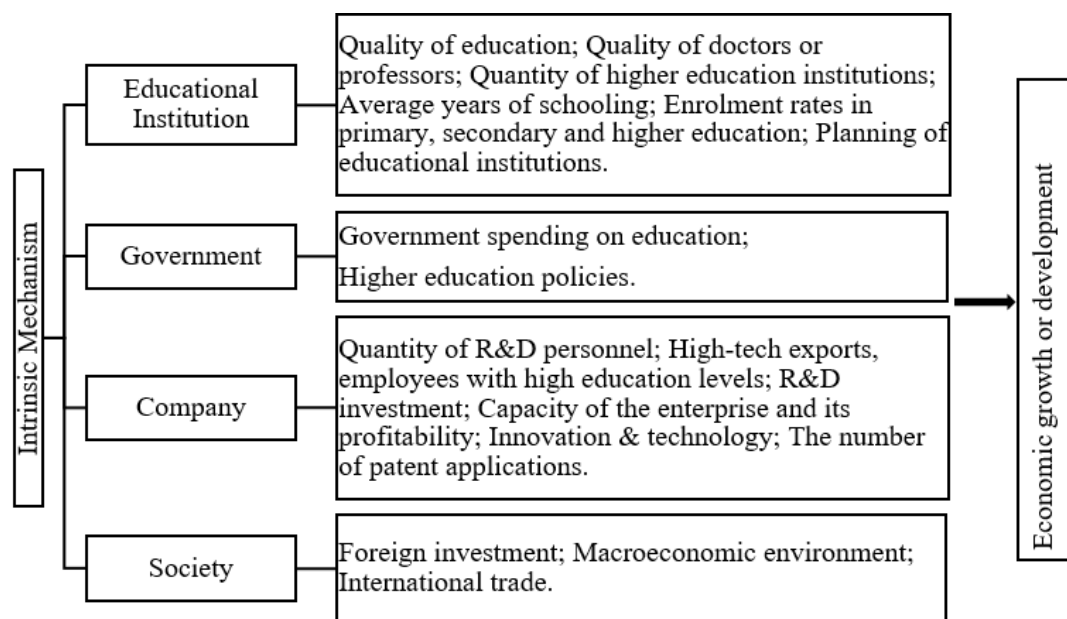
influence that higher education systems have on expanding regional economies over 18 years (from 2000 to 2017) based on 284 European regions. According to these findings, a higher number of educational institutions, such as universities, is linked to a higher economic growth rate. Hamdan *et al.* (2020) ^[17] examined the connection between spending on higher education and economic growth in Saudi Arabia. Based on econometric methods, the research model was unable to identify a correlation between higher education investment and economic growth in Saudi Arabia. Bai *et al.* (2020) studied the whole internal mechanism of education prompting the economy, they pointed out that education influences the economy through three divisions: first is through investment transition division, the amount and quality of higher education are influencing factors; second is through innovation commercialization division, the contribution of R&D personnel and government's support are influencing factors; third is through innovation commercialization division, the production capacity of the enterprise and its profitability are influencing factors. In 2021, there are 5 articles. Qamruzzaman *et al.* (2021) ^[33] investigated the relationship between financial innovation, human capital development, and economic growth in Bangladesh, India, Pakistan, Sri Lanka, Nepal, and Bhutan from 1981 to 2016. They used the Granger causality under the Autoregressive Distributed Lag and Error Correction Model. It was discovered that there is a short-term and long-term two-way causal link between the improvement of human capital and economic growth, as well as between the innovation of financial and economic development. Agasisti *et al.* (2021) ^[2] conducted research to determine the extent to which the effectiveness of the higher education system in Russia was correlated with the rate of economic growth in those regions. A method known as two-stage half-parameter data envelopment analysis is utilized in the process of computing the efficiency. The findings indicate that the availability and number of universities have a considerable favorable impact on regional economic growth. Maneejuk and Yamaka (2021) ^[23] found that the impact of education on economic growth is assessed through a variety of educational indicators, including public spending in higher education, enrolment rates in primary, secondary and higher education, the educated labor force, and new indicators of unemployment in higher education. Akcigit *et al.* (2021) ^[3] discovered via their research that R&D subsidies, higher education policies, and productivity growth are interconnected. Rahman & Alam (2021) ^[35] have researched the connections between international trade, human capital, and foreign direct investment. Table 4 shows that a total of 18 influencing factors were studied in the 24 articles of the review. Ten of these articles look at how innovation and technology are promoting the economy. With a total of six articles, the second most articles addressed the influencing factors of the quality of education and the quality of doctors or professors. 7 influencing factors are studied in only one article. Besides, 2 of the 18 influencing factors are irrelevant to economic development and growth, whereas the remaining 16 influencing factors can actively encourage economic development and growth.

Table: 4 Different Influencing Factors in 24 Articles

N	Influencing factors	Irrelevant (-) Relevant (+)	No.
1	Innovation, technology	+	10
2	Quality of education, quality of doctors or professors	+	6
3	The quantity of higher education institutions	+	4
4	Government spending on education	+	4
5	Government spending on education	-	3
6	Quantity of R&D personnel	+	3
7	High-tech exports, employees with high education levels	+	3
8	Average years of schooling	+	2
9	R&D investment	+	2
10	Enrolment rates in primary, secondary and higher education	+	2
11	The number of patent applications	+	2
12	Foreign investment	+	1
13	Higher education policies	+	1
14	Vocational education enrollment	-	1
15	The appropriate direction and strategic planning of educational institutions	+	1
16	Macroeconomic environment	+	1
17	International trade	+	1
18	The capacity of the enterprise and its profitability	+	1

As can be seen in Figure 1, the intrinsic mechanism of education to promote the economy from 24 articles can be

from four parts: educational institutions, the government, companies, and society.

Fig: 1 Intrinsic Mechanism from 4 Parts

3.3 Suggestions for future study

As shown in Figure 2, in 24 articles on the study of intrinsic mechanisms (various influencing factors), the number of articles from 2018 began to show a rising trend, reaching a

maximum of 10 articles by 2020. Following that, there is a declining tendency. As a result, we made three suggestions for future research, hoping to make a small contribution.

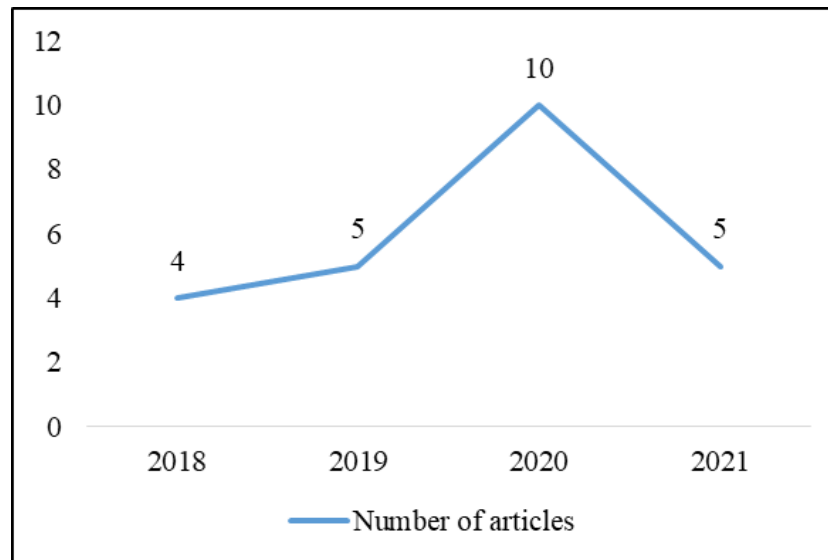


Fig: 2 He number of articles in different years

3.3.1 Using DSBM model

As seen in Table 2, after a series of exclusions, 24 studies prove the relationship between education and economy through different variables. Among these 24 studies, as can be seen in Table 5, 2 articles applied the DEA model. The DSBM (Dynamic Slacks-Based Measure) model was not applied in these 24 studies to study the intrinsic mechanism. While for the DEA model, in the absence of a dynamic, comprehensive evaluation over the long term, so a practicable, testable method to track the performance of an evaluation can be used. So, future research can be based on

the SBM model of a multi-cycle dynamic network. The accumulation of factors such as capital and talent can be studied from a dynamic perspective. In response to the long-term perspective, the dynamic DEA model incorporates carry-over activities, allowing us to measure cycle-specific efficiency based on long-term optimization, using the amount of junction transitions to evaluate the performance of decision cells from a long-term perspective. Therefore, future research on the inherent mechanism of education to promote economic growth can be based on the multi-cycle dynamic network DSBM model.

Table: 5 The Method and data sources used in 24 studies

N.	Author	Year	Method	Data
1	Ogundari & Awokuse	2018	The system generalized method of moments (SGMM) is used to build a dynamic model	Second-hand data from 1980-2008
2	Bouhajib <i>et al.</i>	2018	The panel cointegration test	Second-hand data from 1996-2014
3	Stevanović <i>et al.</i>	2018	Correlation and regression analysis	Second-hand data
4	Zhou & Luo	2018	Vector autoregression model	Second-hand data from 1997-2015
5	Popović <i>et al.</i>	2019	Multiple linear regression method	Second-hand data from 2005-2017
6	Chijioke & Amadi	2019	The ox-post facto research design	Second-hand data from 1986-2017
7	Marquez-Ramos & Mourelle	2019	A linear framework to a nonlinear one	Second-hand data from 1971-2013
8	Awolusi	2019	The Generalized Method of Moments (GMM) and Ordinary Least Square (OLS)	Second-hand data from 1990-2017
9	Omar	2019	Standard error method for panel correction	Second-hand data from 1996-2016
10	Bai <i>et al.</i>	2020	The DEA (Data Envelopment Analysis) model	Second-hand data from 2014-2017
11	Pavlenko <i>et al.</i>	2020	The chain method of substitutions	Second-hand data
12	Eric & Ludger	2020	Systematic review	Literature
13	Bilan <i>et al.</i>	2020	Using various methods to calculate Indicators	Second-hand data from 2015-2017
14	Agasisti & Bertoletti	2020	The empirical studies	Second-hand data from 2000-2017
15	Arman <i>et al.</i>	2020	Data analysis panel approach	Second-hand data from 2013-2015
16	Xu <i>et al.</i>	2020	Coupled coordination model	Second-hand data from 2007-2017
17	Pio	2020	Traditional panel and dynamic panel data methods	Second-hand data from

				2000-2010
18	Galindo-Martín <i>et al.</i>	2020	Least square method	Second-hand data from 31 nations
19	Hamdan <i>et al.</i>	2020	Establish a research model based on econometric tools	Second-hand data from 1978-2017
20	Agasisti <i>et al.</i>	2021	The bootstrap method and a two-step DEA	Second-hand data from 2012-2015
21	Maneejuk & Yamaka	2021	Models of nonlinear regression—kink regression for time series and panel kink regression for panel data	Second-hand data from 2000-2018
22	Akcigit <i>et al.</i>	2021	Establish an endogenous growth framework	Second-hand data from 2002-2013
23	Rahman & Alam	2021	(PMG) Pool Mean Group's panel autoregressive distributed lag method (ARDL)	Second-hand data from 1980-2018
24	Qamruzzaman <i>et al.</i>	2021	Autoregressive Distributed Lag (ARDL) and Error Correction Model (ECM)	Second-hand data from 1981-2016

3.3.2 Using surveys and quasi-experimental design

Table 5 shows when scholars study the intrinsic mechanism of education promoting economic development only using second-hand data. To strictly study the operation of higher education's internal mechanism to promote economic growth, it should first break free from the limitations of cross-sectional data, and panel data, and should gradually adopt surveys, quasi-experimental design, and other research methods. Second, consider whether to include lagging multi-order data rather than the restricted data itself and investigate the establishment of a disciplinary research paradigm. Surveys are a way of exploring current events and can learn about some attitudes and behaviors of respondents from questionnaires. Deeper reasons that can't be obtained from second-hand data, as well as deeper ideas, can be obtained from surveys.

3.3.3 Analyzing more influencing factors

There are many other factors from different parts influencing education promoting economic growth and development, so scholars can analyze more different influencing factors in future studies. For educational institutions, there are many other factors influencing economic growth, such as the employment rate of college graduates, scientific research rate, and a number of papers published in prestigious journals. For society, the market is also a factor, for example, some emerging technologies have volatile opportunities to develop, whereas the market may reject them. Overconfidence in market prospects will have disastrous consequences regardless of how good a new technology is. For a company, many factors would affect the transformation of knowledge innovation, for example, the environment of institutions, market structure, sustainable supply chain and enterprise size. Of course, including the level of industrialization, high-tech industries can transform knowledge more effectively in the entire industrial network. In this process, the region's industrialization can provide a good background for developing high-tech industries. In addition, incentives are also an influencing factor. If the income and incentives of executives and technical personnel are insufficient, it is not conducive to introducing talents and innovating technologies. For the government, the technology tax policy is also an influencing factor. If tax incentives are not enough to promote the commercialization of technologies, enterprises will not pay attention to R&D investment, thus affecting innovative commercialization.

3.4 Countermeasures to promote economic development by education

As shown in Figure 1, the factors influencing education to support economic growth originate from four key sources: educational institutions, the government, companies, and society. As a result, the following recommendations are provided for these four parts.

3.4.1 For educational institutions

Increasing the quantity and quality of professors in university is important. Universities are the core of the cultivation of talents; they are also centers for the concentration of research, and also many excellent strategies and plans are put forward in universities. As a result, the level of university lecturers has a significant impact on the quality of talent development. Without the support of high-level professors, it is difficult to supply high-level talents for companies to develop scientific research and innovative businesses, and to promote economic growth. As a result, it should focus on the development of the university professor team. While introducing excellent professors and expanding the number of professors, it should also improve the existing educators' quality. In addition, it is also vital to conduct a scientific assessment of the new and old excellent professors, to correctly train them. Besides, to attract more professional educators, for example, it must not only recruit excellent professors with high wages, but also provide an outstanding environment, good studios, and complete equipment. It is also critical to ensure that a proper academic environment is provided for professional educators, as well as that they have complete autonomy in the work and research processes. According to the desires of educators, regular or irregular training can be held to ensure that they can continue to improve their own capabilities and absorb more knowledge.

Expanding the number of higher education institutions is also necessary. The number of university enrollments will be increasing as the scale of higher education institutions expand. As a result, the scale and quality of higher education will be swiftly developed, and higher education's energy will gradually be accumulated. Knowledge acquisition is an inherent driver of economic growth, providing it with a continual and renewable force. Scientific and technological talents with superior knowledge play a significant role in economic development and can ensure overall economic growth.

3.4.2 For Government

It should develop good policies. The government should make and strengthen educational, technological, and industrial policies. Simultaneously, the optimization and improvement of higher education institutions' educational resource allocation will be increased. The government has combined the superior resources by developing advantageous policies for the development of higher education institutions. For example, first, continuously establish and improve laws and regulations, stipulate the rights and obligations of the government, enterprises and universities, and guide the development of higher education in a healthy direction; Second, the government should make policies such as tax cuts to encourage the birth of technologies and new industries, and encourage enterprises to transform the fruits of innovation into products that promote the economy; Third, the government should actively play a management and service function, promote cooperation between enterprises and universities, standardize the school-running concept and management mode of higher education institutions.

Increasing government spending on education and expanding funding sources is also considerable. According to the previous analysis, the government's investment in education has two distinct effects, three articles indicated that the relationship between the government's investment in education and the economy is not significant, and four articles indicated that the government's investment in education can promote economic development. This demonstrates that government investment in education will not have a negative impact, and, in some situations, it has a beneficial impact. As a result, the government should continue to boost financial investment in education and raise teacher and staff salaries. Especially in rural areas where local educational resources are scarce, more education funds need to be invested to ensure that every student has equal access to education. Simultaneously, the government can encourage society, enterprises, and individuals to participate in the construction of education in the name of social welfare, allowing the education investment model to achieve diverse development.

3.4.3 For Companies

Increasing companies' support is useful. To achieve coordinated development and a positive interaction between universities and the regional economy, it is necessary to maximize the role of enterprises as promoters in regional economic development, beginning with the enhancement of enterprise support. Higher education's contribution to regional economic development is mostly expressed in the form of talent output and scientific research results to boost the development of local firms, so achieving regional economic development and growth. As a result, firms play a crucial role in promoting the coordinated development of higher education and the regional economy. The key to the commercialization and industrialization process of scientific and technological achievements is depending on the development of local enterprises, the most important means of promoting the conversion rate of scientific and technological achievements are school-enterprise cooperation. Enterprises should sign contracts with universities, view the transformation of higher education achievements as an opportunity, and establish long-term cooperative relationships with universities, so that students

can enter the front lines of enterprise production. Through the school-enterprise cooperation model, maximize the advantages of universities and local businesses; integrate the innovation advantages of universities with the resource advantages of businesses; realize the complementary advantages of the two; and promote the industrial upgrading and technological advancement of the regional economy.

3.4.4 For Society

Society should establish a stable economic environment to ensure the continued development of enterprises. Second, enhance the market environment and encourage enterprises to have good competition. Encouraging the development of private enterprises and releasing the vitality of innovation can enhance the innovation efficiency of high-tech industries. Simultaneously, it is necessary to maintain industry competition on the basis of encouraging enterprises to grow larger and stronger. On the one hand, the scale of larger enterprises is more conducive to the improvement of innovation efficiency. On the other hand, it is also necessary to prevent industry monopolization. In addition, it should also improve the level of openness to the outside world. Opening to the outside world may successfully attract foreign investment, provide new technology and management experience, and let high-tech industries participate actively in global competition, thereby enhancing innovation efficiency.

4. Conclusion

Obviously, under the situation of population growth and limited resource supply, education has become the engine of a nation's economic, technological, and cultural development, and its enormous importance in socio-economic development is progressively being acknowledged. According to the introduction, the majority of researchers have concluded that education has a significant role in developing the economy. Therefore, it is vital to comprehend the factors that influence education for economic development. For policymakers, they can analyze the current status and problems of influencing factors in order to draw relevant conclusions, and then promote economic growth by improving or upgrading these influencing factors, thereby providing massive implications for the enhancement of measures to promote regional economic growth. This article mainly used the systematic literature review method which is guided by the SALSA framework. After searching some keywords in the Google Scholar database from 2018 to 2021, and after a set of excluding criteria, there are 30 articles are chosen for this review. 6 out of 30 articles that solely examine the impact of government expenditure on education to the economy and conclude that government investment on education promotes to economic growth. It is clear that governmental spending is a significant component of an essential intrinsic mechanism that enables the education to influence the economy. On the other hand, the scope of this study is limited to 24 articles in which a wider variety of factors can be considered.

The 24 articles studying the various intrinsic mechanism of education promoting economic growth and development, then through classifying, totally there are 18 influencing factors from 4 aspects: educational institutions, the government, companies and society. Then, based on the findings, four suggestions for future research were made in the hope of providing some research directions for future scholars' research: First, future research can apply the DSBM

model, which can evaluate the performance of decision-making units over time. Next, future research can use surveys, quasi-experimental Designs, and other methods to investigate the internal mechanism between higher education and economic growth. Besides, future research can determine other influencing factors, such as market structure and enterprise size, sustainable supply chain, and so on. Finally, recommendations which are beneficial for education to promote economic growth and development are made for higher education institutions, governments, companies and society.

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