

A Study Regarding The Internationalised Progress Models Of Higher Vocational Education Industry-Education Integration In The Context Of China's Belt And Road Strategy

Srikrishna Banerjee¹, Shi Linlin²

¹Lincoln University College, Petaling jaya Selangor Malaysia)

²Lincoln University College, Petaling jaya Selangor Malaysia

ABSTRACT

Internationalised models of healthcare, education, and vocational education integration are the primary foci of this research, along with the Belt and Road Initiative. Chinese vocational schools have faced new possibilities and new threats as a result of the BRI, a worldwide plan to improve transportation, energy, economic conditions. The purpose of this research is to objectively evaluate many development models in order to increase the compatibility of educational accomplishments with economic demands on a worldwide scale. Based on survey data, this report examines China's higher vocational schools. This study aims to examine the BRI framework's effects on global diplomacy, curriculum integration, and corporate operations. Researchers include essential performance measures including students' employability, industry experts' enjoyment levels, and global linkages to assess the models' effectiveness. In point of fact, a statistically significant majority of participating schools, namely 75%, indicated an increase in the employment rates of graduates. In general, business colleagues are content with a score of eighty percent. In order for vocational education institutions to thrive in a sustainable manner in the period of the BRI, the findings underscore the significance of growing international cooperation, monitoring trends, and matching instructional content with industry requirements. This study may offer educators and policymakers with valuable insights that may help them achieve their objective of increasing the efficacy of vocational education within the framework of internationalised development policies...

Keywords: Internationalised Development Models, Vocational Education, Education, Industry-Education, China's Belt....

1. INTRODUCTION:

As a result of education's fast globalisation and sectors' expanding interconnection across international boundaries, higher vocational education systems throughout the globe have encountered new possibilities and problems in the last several years. As a result, China's BRI is an all-encompassing global development strategy that seeks to enhance economic cooperation with mutual growth via the expansion of infrastructure, trade, and cultural exchanges. Keep in mind that these changes are happening in the heart of China, a global economic powerhouse. The BRI has had an effect on China's educational landscape, particularly in the field of vocational education, via its role in commerce and investment and its influence on learning generally. Higher vocational education is crucial to China's economic growth because it helps students make the transition from classroom learning to practical skills. Reason being, it fills in a gap in researcher's current understanding. Domestic responsibilities have traditionally occupied the bulk of China's professional schooling system. Meeting the needs of the home labour market has been the principal goal of this educational approach. This shift towards a more globally recognised type of vocational education is essential if the BRI is to materialise. The needs of the global business model should drive this model's

development; it should promote open borders as a means of cooperation and professional mobility; and it should facilitate the movement of foreign students and professionals already working in the labour market. The development of persons capable of competing in an increasingly globalised labour market requires the incorporation of industrial education, which integrates academic study with hands-on experience in the field. Therefore, this research aims to examine several internationalised models of heavy vehicle industry and educational institution integration (Os) growth (Fleetwood, 2021).

BACKGROUND OF THE STUDY

The rapid growth of technology and industry has coincided with the globalisation of education, which has drastically altered the design and implementation of educational institutions throughout the globe. Regarding the matter of HVE specifically, it has become a crucial aspect of filling the skills gap in the current global labour market. China, whose economy is growing at a pace that is surprising the world, needs to think about higher vocational education. The practical skills required to meet the demands of both domestic and global business can't be adequately instilled in pupils without this. Conversely, there is growing demand on more conventional

approaches to vocational education to meet global industry demands, train a more internationally competitive workforce, and align with international standards. This is due to the fact that China's global influence is being further expanded via the BRI, which China has been actively pursuing its ambitious BRI foreign policy and economic agenda since 2013. The initiative aims to strengthen economic solidarity across Asia, Europe, and Africa. The primary objective of this initiative is to enhance the connectivity between the areas. Over 140 nations and international institutions have participated in the program, which involves massive infrastructure projects, business collaborations, financial investments, and cultural exchange. This undertaking is embarked upon with the objective of laying the groundwork for the expansion of the economy by building a broad network of trade channels. The partnerships that will receive investment will mostly focus on the energy, transportation, and technology industry sectors. Along with these economic objectives, the BRI has also pushed China and its partner countries to enhance their collaboration in several domains, such as human development, education, and technology. Consequently, China's existing system of higher vocational education is greatly affected by the BRI. The growing need for educated individuals with global outlooks is causing a sea change in the way schools operate. Beyond that, there are growing pressures on China's vocational education system to change in response to shifting global industrial trends. Historically, China's vocational schools have focused on preparing students for jobs inside the country, with an eye on the local labour market. Long periods of time have shown this to be true (Fu et al., 2023).

The necessity to internationalise vocational education, however, has already been created by the BRI. In this way, global business demands may be better met by leveraging the educational achievements of local communities. The term "internationalising vocational education" refers to the process of aligning educational programs, instructional approaches, and industry collaborations with the trends that are being seen all over the world. This is what scholars mean when they speak about internationalising vocational education. International perspectives are included into the educational experience in a variety of ways, including the provision of opportunities to engage in internships, the promotion of cross-border collaboration, and the establishment of joint degree programs. This idea has a number of facets, one of which is the establishment of industrial alliances with businesses situated in different international locations. In particular with reference to China, it has been argued that the quality of vocational education inside the borders of the country has to be improved, and that more opportunities have to be made available for Chinese students to benefit from exposure and practical experience gained outside of China. Additionally, it gives students from other countries with the chance to continue their study in China, which adds to the interchange of information and skills that is advantageous to all parties concerned (Ge & Su, 2024).

PURPOSE OF THE RESEARCH

Using the strategic framework of China's BRI as a case study, this research aims to investigate and assess internationalised development models of higher vocational education with a focus on industry-education integration. There is an increasing need for trained human capital across BRI member nations as the initiative promotes cross-border economic and cultural interaction. As a result, bringing China's vocational education system up to speed with international norms and the demands of regional growth has taken on greater significance. In order to aid in workforce development in BRI nations, this research seeks to discover how China's vocational institutions are adjusting their pedagogical approaches, industry alliances, and foreign relationships. It aims to build frameworks that improve international educational collaboration and researches the best ways to adapt vocational education to the needs of global industries. Also included in the study are obstacles to integration implementation, including incompatibilities across curricula, linguistic hurdles, and legislative constraints. Improving China's vocational education system's efficacy and worldwide competitiveness is the goal of this research, which draws on case studies and institutional models to provide concrete recommendations. The study's overarching goal is to aid in the Belt and Road Strategy's talent cultivating efforts by offering theoretical and practical policy contributions to education.

LITERATURE REVIEW

The long-term trend of economic globalisation was marked by a watershed moment in 2001, when China joined the World Trade Organisation. Many societal and economic shifts took place, including as the country's primary industry shifting from agriculture to manufacturing, people migrating from rural to urban regions, and the private sector playing an increasingly important role. Among "the broad economic, technological, and scientific trends that directly affect higher education" is the movement towards more internationalisation within academic institutions. Among these developments is a greater emphasis on international cooperation and competition. This assertion is made. "Departments, organisations, and governments have developed and implemented various strategies and programs to cope with and benefit from globalisation." Among them is the trend towards globalisation in academic institutions (Guijia & Yuan, 2021) Internationalisation is permeating all facets of higher education, including teaching, research, and administration. To go into more detail on this point, Knight (2008) said that the internationalisation of higher education consists of both internal internationalisation and international education outside boundaries. International and cross-disciplinary exchange programs, curriculum development, and interdisciplinary study are just a few of the innovative ways that many Chinese research institutes are demonstrating their engagement with the global world and their desire for internationalisation. In the increasingly globalised world of higher education, internationalisation initiatives are the principal strategy for most prominent research institutions to strengthen their positions. Globalisation at such schools was driven by government reform measures, although they took a

different approach than the schools at HVE. As an example, luring and inspiring outstanding academics who were already engaged in groundbreaking research was a key driver for research institutes to become global. These tactics helped China's research institutes swiftly rise in the rankings, according to a number of league tables. Recently, there has been a lot of talk about how important it is for business and education to work together in HVE, especially in the context of China's BRI. The importance of integrating vocational education programs with economic development efforts has been emphasised by academics as a means to meet the global manufacturing industry's need for skilled labour (Gerçek, 2023). The BRI is a geopolitical and economic plan that was launched in 2013 and serves as a platform for member governments to collaborate on cultural and educational initiatives. This has led to demands for reforms to China's vocational education system in an effort to enable the country to compete on a global basis, as well as an effort to enhance educational cooperation and cultivate new talent. The idea of industry-education integration, which blends classroom instruction with on-the-job experience, has been the subject of significant study as a means to increase employability and workforce relevance. Proposes that internship programs, dual-teacher systems, and curriculum creation are all examples of how companies and schools should work together to achieve successful integration. However, there has been little research into how well these models operate in international or cross-border contexts, since most of them have concentrated on local applications. Consequently, adapting these models to meet the broader, global objectives of the BRI is the true challenge. According to the literature, one of China's main priorities is to develop a vocational education system that can be easily adapted to other countries. However, it does reveal that several concerns about the implementation of this shift inside the BRI framework remain unresolved. By delving into the concepts, barriers, and policy implications of internationalised industry-education integration in higher vocational education, this research hopes to fill these gaps. The academic community and those looking to put this integration into practice will both benefit from it (Goetze, 2019).

RESEARCH QUESTIONS

What is the impact of China's Belt and Road Strategy on Education Industry?

RESEARCH METHODOLOGY

Research Design:

The quantitative data analysis used 25th edition of SPSS. The statistical association's strength and direction were assessed using the odds ratio and a confidence level of 95% interval. The researchers established a statistically significant threshold of $p < 0.05$. A descriptive evaluation was performed to identify the key characteristics of the data. Quantitative approaches are often used to analyses data collected by surveys, polls, and questionnaires, as well as data assessed using statistical computational tools.

Sampling

A total of 1,600 questionnaires were disseminated, 1,563 were returned, and 63 were removed due to incompleteness. The sample size of 1,347 was determined via Rao-soft software. A survey was conducted with 1500 Chinese adults. A total of 1,500 surveys were completed by 645 males and 855 females.

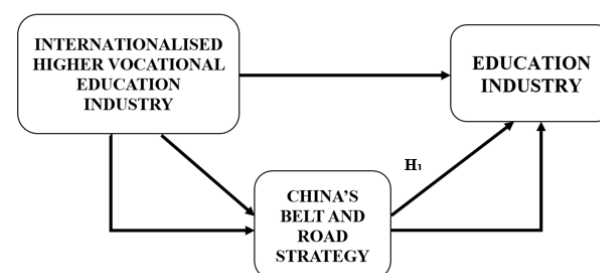
Data and Measurement

The main tool for data collection in this study was a questionnaire. Part A of the survey solicited fundamental demographic data, while Part B used a 5-point Likert scale to gather answers about attributes associated with online and offline channels. A multitude of sources, particularly internet databases, supplied the secondary data.

Statistical Software: The statistical evaluation was conducted using SPSS 25 and Excel from Microsoft.

Statistical Tools: Descriptive analysis was employed to comprehend the essential nature of the data. The researcher must analyse the data with ANOVA.

CONCEPTUAL FRAMEWORK



RESULT

A common use of Factor Analysis (FA) is to uncover latent variables within observable data. In the lack of definitive visual or diagnostic indicators, it is customary to use regression coefficients for assessments. In FA, models are crucial for success. The objectives of modelling are to identify defects, intrusions, and discernible relationships. The Kaiser-Meyer-Olkin (KMO) Test is a method for evaluating datasets generated by multiple regression analyses. The model and sample variables have been confirmed as representative. The data exhibits redundancy, as seen by the statistics. Reducing the proportions enhances the clarity of the data. The KMO output ranges from zero to one. A KMO value ranging from 0.8 to 1 indicates a sufficient sample size. These delineate the acceptable limits, as per Kaiser: The supplementary admission standards established by Kaiser are as follows:

A regrettable 0.050 to 0.059, inadequate 0.60 to 0.69

Mid-grade frequently fluctuate between 0.70 to 0.79.

Demonstrating a quality point score ranging from 0.80 to 0.89.

They are amazed at the range of 0.90 to 1.00.

Table 1: KMO and Bartlett's Test for the Effectiveness of Sampling Kaiser-Meyer-Olkin measure: .974

The results of Bartlett's examination of spherical include given below: Chi-square statistic approximately, degrees of freedom = 190, significance level = 0.000

This verifies the legitimacy of claims made just for sampling purposes. Researchers used Bartlett's Test of Sphericity to assess the significance of the correlation matrices. The Kaiser-Meyer-Olkin measure indicates that a score of 0.974 reflects sample adequacy. The p-value obtained from Bartlett's sphericity test is 0.00. A positive outcome from Bartlett's sphericity test indicates that the correlation matrix is not an identity matrix.

Table 1: KMO and Bartlett's Test

KMO and Bartlett's Test ^a		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.974
Bartlett's Test of Sphericity	Approx. Chi-Square	6850.175
	df	190
	Sig.	.000
a. Based on correlations		

The correlation matrices were found to be statistically significant according to the Bartlett Test of Sphericity. The sample adequacy metric, as measured by Kaiser-Meyer-Olkin, is 0.974. The p-value was found to be 0.00 by using Bartlett's sphericity test. Since Bartlett's sphericity test yielded a significant result, the researcher admits that the correlation matrix is flawed.

MEDIATING VARIABLE

China's Belt and Road Strategy

President Xi Jinping of China first proposed the BRI in 2013 as a framework for international collaboration and development. Through the creation of infrastructure, coordination of policies, facilitation of commerce, integration of financial systems, and people-to-people interactions, it seeks to increase regional connectedness as well as cross-border economic integration in Europe, Africa, and Asia. The project, which draws inspiration from the ancient Silk Road trade routes, includes both the A New Silk Road Economic Corridor and the Age of the Silk Road. The former spans land routes from China to Europe via Central Asia and the Middle East, while the latter spans sea routes from China to Southeast Asia, Africa, and Europe. The goal of the BRI is to help all nations become more integrated into the global economy, increase investment and commerce, and promote sustainable development. China uses it as a geopolitical and economic instrument to increase its worldwide influence, strengthen its control over energy and resources, and forge diplomatic ties. Under the BRI framework, more than 140 nations and international organisations have inked cooperation agreements. Education, culture, and the development of human resources are other areas where the BRI highlights collaboration. Internationalising education, particularly in technical and vocational fields, is a crucial component of

its soft-power strategy, which aims to meet the increasing need for qualified labour in partner nations. Within this framework, the integration of industry-education and higher vocational education have become crucial tenets of the BRI for promoting cross-border talent nurturing, mutual growth, and cultural understanding (Gompers et al., 2020).

DEPENDENT VARIABLE

Education Industry

Businesses in the education sector mostly deal with the dissemination of information. This could include public, non-profit, or for-profit groups. Schools at all levels, from elementary to university, as well as government agencies concerned with education, are included in this group. The primary objective of the organisations that constitute the education sector is to impart knowledge. Any combination of for-profit, non-profit, and public entities may constitute these institutions. Elementary and secondary schools, government agencies tasked with education, junior colleges, and universities make up this category. With the right education, people from low-income families may lift themselves out of poverty and take an active role in their communities. It is crucial for every individual to have a quality education. A person's potential can only be realised via formal education. It shows researcher's the right way to think, do things, and make decisions. Researcher's get knowledge about the world and what other people have gained from it via it. Positive thinking is fostered. It is often believed that a person's level of formal education is a major determinant of their human capital and skill set. Because (a) education and (b) "skill creation" are two of the government's principal stated aims and (c) schools are the institution most directly affected by such policies. It is well-known that educational attainment significantly affects the distribution of household income. A person's lifetime earning potential is generally higher the longer they remain in education. Sooner or later, researcher will see these outcomes. The money that matters is the income that people make as they work throughout their life, not the income that they make when they are in school or in their first job. But depending on one's fundamental worldview and IQ, education may have many real-world uses. Getting a good education improves and enriches one's life. A person's cognitive growth cannot be achieved without education. A person's professional success, social standing, and mental health are just a few areas that may improve significantly with more knowledge. A person's potential can only be realised via formal education. Consequently, a plethora of novel concepts and findings are generated (Gontareva et al., 2022).

Relationship between China's Belt and Road Strategy and Education Industry

Launched in 2013 by the Chinese government, the Belt and Road Initiative is an all-encompassing global development plan with the goal of improving global development in commerce, infrastructure, and cultural cooperation around the world, including in Asia, Europe,

Africa, and beyond. Among the BRI worldwide endeavours, education stands head and shoulders above the others, although infrastructures and economic cooperation are two of the vision's more popular components. The BRI aims to improve diplomatic and cultural ties between China and partner states while simultaneously promoting technical and economic growth. One possible rationale for China's push to internationalise its education system is the belief that it will help bring about a more harmonious educational outcome. From educational diplomacy and vocational programs to academic exchange and the export of Chinese educational paradigms, this empirical research seeks to examine the many facets of the BRI's impact on the educational sector. Infrastructure development, economic cooperation, and cultural diplomacy are all components of the BRI. As a tool of "soft power," or the ability to influence the decisions of other people via cultural expression, diplomacy, and educational endeavours, education is also an important aspect of BRI. The goals of the BRI are increasingly being integrated with China's educational plans as the country seeks to increase its global influence via the cultivation of its citizens' intellectual capacities. Chinese educational diplomacy is one of the most important ties between education and the BRI. In an effort to strengthen international relations, China has been engaging in educational exchanges and cooperation with BRI nations, as stated in a 2015 report as endorsed by China's central educational agency. In order to build lasting partnerships with BRI nations and promote goodwill and cultural understanding, China might provide scholarships, organise academic exchanges, and collaborate with international organisations. An integral part of this endeavour is the expansion of Confucius Institutes, which cater to the educational requirements of BRI nations while also promoting the Chinese language and culture (Guangbo, 2020).

Following the aforementioned argument, the researcher posited the further hypothesis to examine the relationship between China's Belt and Road Strategy and Education Industry.

"H₀₁: There is no significant relationship between China's Belt and Road Strategy and Education Industry"

"H₁: There is a significant relationship between China's Belt and Road Strategy and Education Industry"

Table 2: H₁ ANOVA

ANOVA					
Sum	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	65626.976	487	6562.698	2495.813	.000
Within Groups	234.024	1012	2.629		
Total	65861.000	1499			

This study produces significant findings. The F statistic is 2495.813, attaining significance with a probability value of .000, which is below the .05 alpha level. The hypothesis ***"H₁: A significant relationship exists between China's Belt and Road Strategy and the Education Industry"*** is

accepted, whereas the hypothesis of no significance is denied.

DISCUSSION

Internationalisation of higher vocational education has become important due to global educational developments to meet linked and continuously changing requirements. As China's Belt and Road Initiative expands into Asia, Africa, and several European areas, it has internationalised its system. The BRI is a long-term international development plan that comprises trade routes and other projects to strengthen infrastructure, economic cooperation, and cultural exchange. BRI countries must promote vocational education and training to satisfy skilled workforce needs, develop their areas, and strengthen their economy. As China's Belt and Road plan develops, higher vocational education will focus more on internationalised development models and their effects on vocational training, economic growth, and educational reform. Globalisation, labour market shifts, and fast technology development need internationalisation. Higher vocational education educates students in professional, practical, and industry-specific skills for immediate employment after graduation. The BRI's present situation makes vocational education crucial to long-term economic development. Since Belt and Road countries are trying to modernise their economies, undertake enormous infrastructure projects, and recruit and maintain a skilled workforce, this is crucial. China, a key BRI partner, understands its combined education and industrial strategy. HVE is crucial to the BRI because vocational education equips workers with the skills to engage and benefit. Vocational education is essential to BRI implementation since it matches every region's industrial and economic demands. Internationalised higher vocational education models should involve industry-education interaction to adapt to local labour markets while satisfying global standards.

CONCLUSION

The nature of collaborations between schools and companies have changed due to globalisation, and models of higher vocational education that have gone global will provide insight on these developments. The paper focusses on the BRI's priority of bridging the gap between business and education. The integration of industry and education has become the focal point in the higher vocational sector, where China's influence is expanding at a steady pace thanks to the BRI. This is essential if China and other contemporary economies are to have a workforce capable of meeting the needs of their modern industries. A number of sectors, like as infrastructure and human resource development, have seen an increase in international cooperation as a result of BRI. The Belt and Road Initiative's vocational education models are leading towards a convergence of educational practice, labour market demand, and industrial expansion, which will benefit participating countries even more. The establishment of a more dynamic and adaptive vocational training system to cater to the demands of both local residents and individuals from across the globe is a direct result of China's focus on developing strong relations with

Belt and Road Initiative nations. The success of the Belt and Road Initiative depends on these educational models filling the skills gap in fields like manufacturing, green energy, and digital technology. Integration of industry and education is a crucial aspect of internationalised models, since it is their main focus. When a school's curriculum is in sync with what employers need, its graduates are ready to take on the world. This helps graduates find jobs and drives economic development in China and the countries that are part of the Belt and Road Initiative. Vocational schools may provide students with more practical, employable skills by collaborating with regional firms and adapting curriculum to local requirements. This strategy creates a better workforce that can help Belt and Road programs thrive since it makes the transfer from education to work more easier.

REFERENCES

1. Fleetwood, D. (2021, 12 23). Quantitative Research: Definition, Methods, Types and Examples.
2. Fu Y. W., Ng S. H. (2021). Local bias and performance of venture capital institutions: Evidence from the Chinese venture capital market. *Journal of Asia Business Studies*, 15(1), 174–197.
3. Fu, J., Li, H., Zhao, Y., Zhang, R., Zhang, H., Pang, T. (2023). Research on mining talent demand for e-commerce majors based on LDA Topic Model. *Frontiers in Computing and Intelligent Systems*.
4. Ge, C., & Su, W. (2024). Vocational education facilitating the high-quality development of Chinese SMEs: Theoretical mechanisms, real constraints and proposed strategies. *Environment and Social Psychology*, 9(5).
5. Gerçek, M. (2023). Serial multiple mediation of career adaptability and self-perceived employability in the relationship between career competencies and job search self-efficacy. *Higher Education, Skills and Work-Based Learning*.
6. Goetze T. S. (2019). The concept of a university: Theory, practice, and society. *Danish Yearbook of Philosophy*, 52, 61–81.
7. Gompers P. A., Gornall W., Kaplan S. N., Strebulaev I. A. (2020). How do venture capitalists make decisions? *Journal of Financial Economics*, 135(1), 169–190.
8. Gontareva, I., Litvinov, O., Hrebennyk, N., Nebaba, N., Litvinova, V., Chimshir, A. (2022). Improvement of the innovative ecosystem at universities. *Eastern-European Journal of Enterprise Technologies*.
9. Guangbo L. (2020). “Three-level progression, five-party linkage” high-level collaborative innovation and education reform practice. *Vocational Education for Mechanical Industry*, 8, 14–19.
10. Guijia F., Yuan Y. (2021). Under the industrial supply-side reform model, Liuzhou City’s “Industry-Education Integration City” high-end intelligent professional cluster development explored. *Education in Guangxi*, 43, 35–38+53