



## ATTRACTIVENESS OF VOCATIONAL COLLEGES IN SHANXI: MYTH AND DEVELOPMENT IN CHINA

TIAN QING, ALI KHATIBI, JACQUILINE THAM, S. M. FERDOUS AZAM

Post Graduate Centre, Management and Science University, University Drive, Off Persiaran Olahraga, Section 13, 40100, Selangor, Malaysia

### Abstract

*The purpose of this study is to determine the factors affecting the attractiveness of vocational colleges in Shanxi, China. The public's bias towards vocational education has impeded its development. In such a case, the provincial government should actively help people understand vocational education, advocate for their relevance, and not write off vocational colleges after failing the college admission test. It is crucial to understand that higher vocational colleges are the reserve base of national technical talents and develop professional and technical talents with high skills and high quality. In recent years, the impact of rate of return on vocational college admissions has been widely explored. Although many researchers say the poor return on investment on vocational colleges is the main reason vocational colleges are less enticing, others say vocational colleges have a higher return on investment than regular colleges. In this study, the advantages of vocational education are looked at from the points of view of employment rate, wage, level of income from vocational labour, and change in identity. Nevertheless whether the level of return effects the reputation and attractiveness of vocational colleges still needs to be explored.*

**Keywords:** Attractiveness, Vocational, Education, College, Shanxi, China

### Introduction

China's vocational education has traditionally been an "opposition party" in the modernisation of education. It played the role of a cleanser of traditional feudal education throughout the early twentieth century. With China's reform and opening up, it emerged in adjusting its educational system and played a role in elite education shunt. It effectively expands its idea and breadth into higher education, assuming the role of academic corrector (Tham et al., 2017; Udriyah et al., 2019; Meng, 2021). China's vocational education is undergoing adjustment (Li, 2020). Teaching abilities, student employment, and enrollment are a few of the issues that many vocational and technical institutions face (Wang & Zhou, 2019; Rachmawati et al., 2019; Azam et al., 2021). Nowadays, higher vocational teaching is confronting several obstacles, many of which are exacerbated by limited teaching resources. The distribution of resources for higher vocational education needs to be more balanced. There is a significant disparity in economic development and education resources between the north and south of the nation (Haur et al., 2017; Meng, 2021). In Jiangsu (Southern provinces of China), most teachers at higher vocational colleges have studied overseas in nations with superior vocational education development. There needs to be more communication and learning for teachers in underdeveloped regions or even across colleges.

In recent years, higher vocational colleges have confronted the issue of students, slipping into the so-called "student crisis". If higher vocational colleges only continue in the conventional mentality of new graduates, mainly via the college admission exams to recruit students, the issue will be tough to solve. The supply of recent high college graduates is set and restricted. In 2021, about 10.31 million people took the college entrance test, but only 3.5 million enrolled in vocational colleges and universities (Dewi et al., 2019; Nguyen et al., 2019; Zhang et al., 2020). It is difficult to achieve the talent development channel of "vertical penetration" inside vocational education due to the slow reform of the vocational education enrollment test (Zhu & Shi, 2021). While the reform of vocational education enrollment examination in China has established various categorised examination enrollment patterns, most of them are restricted to the local design and exploration at the province level. They still need to form a nationwide unified system arrangement. The talent development



channel in vocational education is simply like a “limited road”, which is difficult to sustain the talent supply chain between middle and higher vocational colleges.

### **The Development of Vocational Education in China**

It said China issued a notice in June 2021 to encourage more suitable people to apply for vocational colleges and universities. In addition to encouraging veterans, migrant workers, laid-off workers, high-quality farmers, and other groups at the grassroots level to apply for the exam, the circular said it would actively mobilise eligible people with flexible employment to apply (State Council, 2019).

In the early stages of China’s vocational education development, the path chosen has always been to learn from the experience of advanced countries, which is conducive to the rapid establishment of a systematic and comprehensive vocational education system in a short period to serve the country’s social and economic development. With the enhancement of China’s overall national strength and the long-term support of the Party and the state for vocational education, the development of vocational education in China has made significant progress and shifted from “introducing” to “getting out.” China’s vocational education has grown more confident in its development, steadily “building its image and brand” in other nations, ultimately showcasing the vocational education model with Chinese features and enhancing its global competitiveness and impact (Pushpakumara et al., 2019; Zhu & Shi, 2021).

One of the major themes of Shanxi vocational education development in the future is to enhance college operations consistently. It is essential to boost teacher training at our province’s vocational colleges (Wang & Zhou, 2019; Pambreni et al., 2019; Do et al., 2019; Do et al., 2020). The key to the survival and development of vocational colleges in Shanxi Province is to have multiple high-quality and high-quality “double-qualified” teachers. High-quality teachers are essential to the ongoing and healthy development of vocational education in Shanxi Province. Fully implement the relevant policies and documents on strengthening the training of “double-qualified” teachers in our province, formulate and provide a variety of training systems adapted to the development of teachers in vocational colleges, and improve the professional theoretical level practical application ability of teachers in vocational colleges. Second, we should organise majors rationally. The professional planning of vocational colleges should be reasonable, and the professional content should be explicit by the actual demands of the development of different sectors in various parts of our province (Meng, 2021). Improve and modify the current professional layout to fulfil the requirements of shifting the development emphasis of different sectors in our province (Wang & Zhou, 2019).

In 2006, The People’s Government of Shanxi Province issued the “Decision on Vigorously Developing Vocational Education,” which stated that vigorously developing vocational education is a necessary condition for the scientific development of education in our province as well as an essential measure to realise the prosperity of industry and talent. The July 2015 conference on vocational education and the related policy documents confirmed that vocational education in Shanxi is an important part of the Shanxi education system. It said that Shanxi vocational education is critical to the growth of Shanxi education, and the development of Shanxi vocational education has a base and guarantee in the system.

### **The Myth of Vocational Education in Shanxi**

Shanxi province parents’ feel they should seek employment if their children cannot attend loyment. According to their opinions, sending children to vocational college is a waste of time and money. Parents’ perceptual biases impact children. Youngsters at vocational colleges feel inferior to their peers merely because they attend vocational colleges (Safarmamad, 2019). The public’s prejudiced opinion of vocational education has hampered its development. Facing such a situation, the provincial government should actively guide people to correctly understand vocational education, advocate for people to correctly evaluate the importance of vocational education, and not view vocational colleges as a hopeless option after failing the college entrance examination (Hoelscher et al., 2008). It is vital to recognise that higher vocational colleges are the reserve basis of national technical talents and train professional and technical talents with high skills and high quality.

With the shift in China's demographic structure, the existing high college education college-age population is steadily declining. Along with the increase of undergraduate enrollment, vocational and technical education is facing a tough test in the form of a dramatic fall in student enrollment (Huang, 2020). The decline in the number of students contributes to the growing cost of enrolment. Furthermore, the drop in student population is certain to have an effect on student quality (Hoelscher et al., 2008). The majority of students attending vocational-technical colleges detest studying, do not do well, and are behind owing to the education system and the aforementioned background (Bano et al., 2022). So, it is appropriate to refer to vocational and technical colleges as shelters for the destitute. Thus, the majority of pupils are very hostile to vocational colleges.

Skilled workers are the driving force behind the development of the manufacturing industry, while some senior technical treatment of workers at even more than the white-collar level, the living standard is higher, but overall, most of the technology of the wage level of most skilled workers is still relatively low, giving and receiving is out, big workload, work environment humble, basic material life is difficult to guarantee, and there are few opportunities for further study and no platform for development. Some skilled employees' fundamental rights and interests are not protected (Liang, 2016). They lack insurance, have no formal job contract, are unable to pay their salary on time, and cannot get numerous subsidies. In the early days of the foundation of the People's Republic of China, "worker" was for a long time an attractive position against the backdrop of agrarian culture due to the generous welfare benefits (Liang, However, throughout the age of the commodity however, the "worker's" role as a master progressively diminished. In the public's mind, skilled workers are just "craftsmen," physical labourers, and those with inferior education and quality. These deeply ingrained erroneous ideas also cause a great deal of difficulty for skilled professionals in their everyday lives, and many workers lack a feeling of professional dignity. Because only the division of labour is different, and there is no difference between high and low, this is not true; in this period of promoting equality for everyone, they work hard in silence and contribute to society development, but are not given the attention they deserve. (Liang, 2016). As a result, it is evident that the social standing and wage levels of VTI graduates are not very high, which is highly correlated with the students and their families.

The second is the increase of Chinese undergraduate enrolment. Lu and Zhang (2021) wrote that during the 1990s, state-owned enterprises and industrially-competent departments were very active in vocational skills training and job placement. Secondary vocational education has long enjoyed the graduation allocation policy directed by industry competent departments. Secondary vocational education, represented by secondary colleges and technical colleges, pr quite distinct roles and employment options. Secondary vocational education was once regarded as a crucial means of obtaining regular employment opportunities and entering state-owned departments and institutions, particularly medical colleges and teachers' colleges, which can attract many high-quality employment students when separated by the secondary examination. At the same time, prior to the enrollment expansion of vocational education, due to the limitation of the enrollment scale of vocational education, ordinary high college vocational education faced a high risk of admission failure, and a large number of excellent junior high college vocational graduates actively shunned and accepted higher vocational education. China has implemented the employment market, the reform of state-owned enterprises, and the strategy of growing enrolment in higher education from the middle and late 1990s. Consequently, the appeal to secondary vocational education has steadily declined. It has even become a passive option after the failure of "bad student education" and family struggle for the possibility of ordinary education. According to statistics, from 1995 to 2006, the number of secondary vocational colleges in which enterprises engaged in management and construction declined from 2,850 to 520. (Lu& Zhang, 2021). The absence of industrial authorities and enterprises is a significant factor contributing to the decline in graduates' employment quality, so the technical advantages of secondary vocational graduates on the labour market cannot be used effectively.

The number of students enrolled in different forms of education other than obligatory education from 1995 to 2018 is shown in the graph below (source: China Statistical Yearbook). With the enrollment

expansion of higher education in 1999, the number of students enrolled in ordinary senior high colleges and undergraduate and junior colleges has increased, while the number of students enrolled in secondary vocational education has seen a growing period. From 2009 to 2018, enrollment declined from 8.7 million to 5.59 million. The data shown that the attractiveness of secondary vocational education did not increase when enrollment size reduced, which may be connected to the poor returns of vocational education.

Last but not least is the impact of employment rates on the attractiveness of vocational colleges. According to Wang (2018), most vocational colleges have engaged in college-business collaboration, but this cooperation is often superficial and must be expanded. For example, just 20% of professional courses, only 24% of training bases, and only 19% of assessments were collaboratively built-in college-enterprise collaboration. At the same time, the motivation of enterprises in the process of college-enterprise cooperation is insufficient, as evidenced by the fact that only 22 cooperative enterprises said that college-enterprise cooperation is for talent cultivation, accounting for 15% of the total number of surveys; 232 enterprises (83%) said they had little or no involvement in the talent development process. Based on in-depth interviews with teachers, students, and enterprises, it is clear that some enterprises engage in college-enterprise cooperation for reasons other than talent cultivation (such as to meet their own employment needs, to gain a good reputation, to occupy the resources of the college, etc.), and the effectiveness of college-enterprise cooperation is not guaranteed.

Furthermore, college-business collaboration is also regional. In southeast coastal cities and economically developed areas, college-enterprise collaboration between vocational colleges and universities is more in-depth, whereas in interior and economically backward regions like as Shanxi Province, it is the reverse. (Gao & Ren, 2021) As a consequence, it is evident that the employment rate of vocational colleges could be more assured and more appealing to students.

### **Level of Investment in Shanxi Vocational Education**

Shanxi vocational education investment level is in the centre of the total investment spectrum. From 2007 to 2014, the average investment in vocational education in Shanxi was 6.9625 billion yuan, which was at the level of medium investment regions and lower than more developed provinces. According to the data, the top five provinces with the biggest investment in vocational education in 2013 were Guangdong, Jiangsu, Shandong, Zhejiang, and Henan, whose annual investment in vocational education was 3.24 times, 2.97 times, 2.67 times, 2.16 times, and 1.98 times that of Shanxi. It can be noted that there is still a disparity between Shanxi's investment in vocational education and that of provinces with high investment (Han, 2017). The investment in vocational education in Shanxi exhibited a quick development trend from 2007 to 2014, yet there still needs to be a significant disparity when compared to the investment in general education. According to statistics from 2007 to 2015, vocational secondary education students made up 41.66 percent of senior high college students, while vocational higher education students made up 46.11 percent (Han, 2017). In contrast, vocational education comprises over half of the nation and is comparatively underfunded. The average annual expenditures on secondary and higher vocational education were 3.886 billion yuan and 3.076 billion yuan, respectively, while the average annual expenditures on higher undergraduate education and regular senior vocational college were 5.924 billion yuan and 6.696-billion-yuan, accounting for only half of the total vocational investment in the same period (Liang, 2020). Less investment will significantly affect the quality and level of vocational education since it is a form of education with a relatively high cost. According to the data, there is a large disparity in the total investment in vocational education in Shanxi Province, and the unreasonable investment in funding may affect the construction of hardware and software in vocational colleges, which is also a major factor in the low attractiveness of vocational education colleges.

In addition, there were 25167 full-time teachers in secondary vocational education in 2015, including 7,830 teachers in regular secondary vocational colleges and 2,059 in senior professional and technical positions, accounting for 26.30 percent of the total and 1.16 percentage points higher than the previous year. There were 3,141 intermediate professional and technical positions, accounting for

40.11 percent of the total, 0.02 percentage points higher than the previous year; there were 7,236 people with bachelor's degrees or higher, accounting for 92.41 percent of the total, an increase of 0.84 percentage points over the previous year. The student-teacher ratio was 17.8610. The number of full-time teachers at adult secondary professional colleges was 3,340, 137 lower than in the previous year. 437 of them held senior professional and technical roles, accounting for 13.08 percent of the total, 0.4 percentage points higher than the previous year. There were 1,651 intermediate professional and technical posts, accounting for 49.43% of the total, a decrease of 0.24 percentage points from the prior year. There were 2,509 persons with a bachelor's degree or higher, accounting for 75.12% of the total, 1.26 percentage points higher than the previous year. The number of full-time teachers at vocational high colleges was 13,997, an increase of 326 over the previous year. Full-time teachers had a qualification rate of 88.4 percent, which is 1.75 percentage points higher than the previous year. The student-teacher ratio was 12.7910.

In comparison, there were 61,946 full-time teachers in ordinary senior high colleges, and the qualification rate of full-time teachers was 97.41%, 0.45 percentage points higher than the previous year. The student-teacher ratio was 12.8110 (Wu&Liu, 2015). Regarding the number of full-time teachers and the ratio of teachers to students, the teaching force of secondary vocational colleges is lower than that of conventional high colleges, and the construction of teaching staff needs to catch up. According to the data shown above, vocational education teachers continue to be much less qualified than those in ordinary high colleges, who make many students to be hesitant about enrolling in vocational and technical colleges.

Concerning the major arrangement of vocational colleges, there are 926 majors in 48 independent higher vocational colleges in Shanxi Province, and the average number of specialisations is 19.29 (Wu&Liu, 2015). The average number of students in the major is 251, 84 every year, which is fair overall. However, certain majors have an over-carrying capacity. Among the majors, computer application technology, hotel management, mechatronics technology, logistics management, accounting computerisation, and other majors with a high repetition rate are established. Nursing, accounting computerisation, mechatronics technology, construction engineering technology, and accounting have the highest number of students in each of those majors. The number of students in these five majors accounts for 23.37% of the total number of full-time students at vocational colleges in the province. Green food production and management, highway supervision, mining transportation and upgrading, power plant chemistry, water information technology, and other majors have higher employment rates. Suppose the professional courses of vocational colleges cannot successfully handle the employment issue of graduates. In that case, it will definitely lead to the decline of the college's reputation and subsequently lead to the "student crisis" (Li, 2015).

### **External Factors and the Attractiveness of Vocational Collegess**

In recent years, the impact of rate of return on vocational college admissions has been intensively researched. While many scholars assert that the low rate of return on vocational education is the primary reason why vocational colleges are less appealing, others assert that vocational education delivers a higher rate of return on investment than traditional colleges (Hanushek, 2017). In this study, the benefits of vocational education are looked at from the points of view of employment rate, salary, level of income from vocational work, and change in identity (Lu, 2021). Yet if the level of return impacts the reputation and attractiveness of vocational colleges still needs to be examined. Hanushek et al. (2017), using data from 11 countries and constructing policy differences in DID model evaluation of vocational education and ordinary education influence on personal development, believe that vocational education in the labour market and medium-term advantage is more obvious, with lower unemployment and higher average wage, but this advantage over vocational education will gradually lose.

Arthur, Aneke, and Otiji (2020) investigated the impact of technical and vocational education on dimensions of nation building. The study was a questionnaire, and the authors utilised final-year students from the College of Business Education at Enugu State College of Education as a sample. It was found that Enugu State College of Education (Technical) offers a great deal of vital technical






knowledge and vocational skills for agricultural, industrial, commercial, and economic growth, which makes graduates of technical and vocational colleges self-employed and employers. With these skills, graduates of technical and vocational colleges can make things that used to be imported. People in Enugu State educational (technical) colleges get enough training and skill transfer to be able to support themselves financially. This study concludes that teaching the skills the market needs will make the college much more appealing. If the attractiveness of the college and the expectations of employers in the market remain positively associated and whether this further influences the performance of the college still needs to be examined.

Of the 16,037 information samples Lu (2021) obtained, 2,029 were from regular high colleges, 1,023, 1142 were from junior colleges, and 1,057 were undergraduates. Lu & Zhang (2021) uses the difference of different education types and graduation queues affected by enrollment expansion to construct a differential-difference model, and finds that enrollment expansion of higher education not only significantly reduces the return rate of college and junior college education, but also secondary vocational education, but has no significant impact on the return rate of ordinary high college education. As a consequence, the rate of return for secondary vocational education is comparable to that of regular high college, while the rate of return for higher education is still rather high. At the same time, the expansion of higher education has significantly raised the rate of college admission examinations, and this has reduced the appeal of secondary vocational education. At the same time, due to the relative rarity of colleges and universities in Shanxi, it must be determined if the findings of this study still hold true in Shanxi.

Ma & Liu (2011) once studied skilled employees' awareness of their own class. By means of multi-stage random sampling and questionnaire survey, the author analysed the population aged 18-69 years in 28 provinces and cities of China, with a total of 10151 valid samples. As research samples for this article, 1152 skilled workers with comprehensive information were selected from this data set. The study's main goal was to find out how skilled workers' gender, age, type of household registration, marital status, level of education, level of vocational qualification, income, and number of years on the job relate to their sense of class. The findings indicate that skilled employees' subjective class identification has minimal bearing on factors like household registration, marriage status, and other factors. Factors such as gender, age, education level, vocational qualification level, and in-between years are directly associated with it.

The level of education has a significant impact on the social standing of skilled workers. The education level of skilled workers is strongly connected with their perceived class identification. The proportion of technical workers with a college education or higher who consider themselves to be in the upper middle class of society (including the middle class) is 54%, which is higher than the proportion of technical workers with a high college education, technical secondary college, or technical college (42%), and about 12 percentage points higher than skilled workers with a secondary college education or less (25.6 percent) about 28 percent. They are more likely to believe they are in a higher social standing the higher the level of education and the higher the class rank. The subjective class identification of skilled workers is significantly improved by education at the level of human capital.

The causes for the poor rate of return include the expansion of college enrolment and the strain on jobs. In China, senior high colleges have long been the primary supply of students for higher vocational colleges. The number of students enrolled in vocational colleges continues to increase, but the distribution of college from various sources varies dramatically, with 81 percent coming from conventional high college graduates, which is four times as many as the other four sources combined (Wang, 2011). Yet, most ordinary high colleges have historically neglected higher vocational colleges. The rating of a college's undergraduate enrolment rate in this area impacts how much government support the college may obtain (Fu&Chen, 2022). At the same time, due to the impact of China's special education system, Chinese parents think that going to college is their first option regardless of their children's grades. Using Beijing Vocational Colleges as an example, Li, Xue, and Yang (2019) conducted a survey and research. They gathered samples and data from 2006 to 2018 in Beijing and found that the total number of applicants for the China College Entrance Test in the city has declined



dramatically over the previous 12 years. The number of individuals taking the unified examination in Beijing decreased from 110 299 in 2006 to 56 370 in 2018, a decrease of 49% in 12 years. The number of students taking the China College Admission Test has declined throughout this time period, but enrolment in undergraduate colleges has expanded. For instance, in 2017, Beijing had a total of 37 327 undergraduate students, of whom 40 550 were enrolled and 3 223 were expanded. The total number of applicants is 60 638, of whom 40 550 are accepted for undergraduate study, leaving 20 088 students. Some college students will return to college or study overseas, and the number of college students who can become the source of higher vocational colleges is fewer than 20,000. There are 26 higher vocational colleges in Beijing, each with an average enrollment of 1,100 students. Total enrollment should be 28 600, with an enrollment deficit of 8 600 students. It is evident that the primary cause of the recruiting challenges faced by higher vocational colleges is the general decline in college entrance test takers in Beijing.

### **Internal Factors and the Attractiveness of Vocational Colleges**

Yu, Dai, and Zhao (2015) contend that enrollment and classroom instruction at private higher education institutions are strongly intertwined, and that there is no firm basis for enrollment work without outstanding classroom instruction. The combination of enrollment and classroom teaching quality in private higher education institutions needs a reference, namely the quality of talent training, which has a substantial impact on enrollment and classroom teaching quality in private higher education institutions. The quality of classroom instruction in private college higher education institutions can lay the groundwork for cultivating qualified talents and improving the social recognition of students who have graduated from private college higher education institutions, which directly affects the social reputation of the college and determines the attractiveness of college higher education institutions.

According to Leney and Green (2004), attractiveness indicates a system's responsiveness to the concepts and requirements of learners. A system's attractiveness is defined by the views of stakeholders, who are directly impacted by the system's responsiveness to the external world via its openness to the needs and ideas of learners and other stakeholders. Also, these authors' study implies that boosting VET programmes' quality, their accessibility, and their openness may increase the quality of our lives. In addition to enhancing the quality of vocational education and training programmes, these writers propose making them more accessible and transparent to increase their appeal.

Huang (2021) is also mentioned in the study that the kind of vocational college instructor and gender are very substantially connected with the attractiveness of vocational colleges. More focused recruiting of technical experts as adjunct professors for hands-on instruction courses is attractive to new students. Additionally, the findings of the investigation suggest that male instructors have a negative impact on participation rates in vocational colleges, whereas female teachers have a demonstrated impact.

Majors are the fundamental structure of the college, and the function and contribution of each major to the overall growth of the college varies depending on the stage of building it is in. An essential criterion for determining which majors should be produced as a priority, which majors should be supported as a priority, and how to alter and organise the majors is whether they align with the college's mission. Each major's construction direction, construction objective, and building method should emphasise and highlight the college's orientation. (Hu, 2014). The impact of significant settings on enrolment was the subject of a study by Liu (2014). In the study, majors were divided into two groups: group A is the popular majors with good employment prospects, clear job positions, and high salary packages, and group B is the public career majors that face emerging industries, have prominent service characteristics of job positions, and are relatively unfamiliar to candidates. The admittance rate demonstrates that group A has a much higher admission rate than group B. Group A performs much better than group B, as shown by the admittance rate. This demonstrates how appealing the so-called popular majors are to applicants. At the same time, the study (Liu, 2014) mentions that enterprises some time directly participate in the academic training process, and that

both colleges and enterprises jointly set up majors that meet the production needs of enterprises, and such majors become order or orientation training majors, and students can directly enter specific positions in enterprises for employment after graduation. In 2013, there are 15 enrollment majors at 4 higher vocational colleges in Beijing, and the acceptance rate of all majors is more than 100%, indicating that order majors are also extremely desirable to applicants.

In 2014, only Jiangsu Institute of Information Technology scored 231 points above the provincial control line, while other colleges were admitted at or below the provincial control line, according to an empirical study conducted by Gu (2019) in Wuxi. Although the rest of the colleges had provincially restricted entrance, Wuxi Vocational and Technical College nevertheless got the top score for liberal arts admission in 2016. The remainder of the colleges are still at the provincial level, with Wuxi Vocational and Technical College having the highest scientific score of 224. The admissions scores of other colleges in Wuxi have considerably decreased between 2014 and 2016, with the exception of Wuxi Vocational and Technical College. The enrollment plans of colleges and universities are mostly unfinished, as seen by the current state of provincial control line admittance. Hence, their study found that a decline in the attractiveness of vocational students and a decrease in the number of vocational colleges would result in a decrease in the quality of vocational colleges, which in turn would impair the performance of vocational colleges.

Wang's (2018 ) survey demonstrates that the motivation of enterprises in the process of college-enterprise cooperation is manifestly insufficient, as evidenced by the fact that only 22 cooperative enterprises said that college-enterprise cooperation is for talent cultivation, accounting for 15% of the total number of respondents; 232 (83%) enterprises said that they did not or rarely participated in the process of talent cultivation, which is consistent with the "extent of enterprises' participation in college-enterprise cooperation." This is mostly compatible with the research data on "the degree of firms' engagement in college-enterprise collaboration." We know from in-depth interviews that in the process of college-enterprise collaboration, firms are mostly in a passive position, engage in "exploitative" conduct, and the primary motivation is "profit." It is vital to look at whether the performance of vocational and technical colleges meets the expectations of businesses. Better enrollment data will also help colleges and universities establish the scope of learning in a scientific manner.

## Discussion and Conclusion

There are several research findings on vocational education in China, spanning a variety of topics and orientations. The current literature focuses primarily on the current situation of vocational education, focusing on the analysis of the layout and professional structure of vocational colleges, the construction of teachers, the cultivation of vocational education personnel, and the cultivation of vocational education funds, focusing on the cultivation of vocational education personnel, the investment of funds, and the development of regional economies. The findings indicate that there are still some problems in vocational education, such as unreasonable speciality setting, relatively lagging teaching staff development, insufficient total investment, low level of investment per student, large gap between vocational education and general education, and discord between vocational education and regional economic development. In addition, the literature makes a number of suggestions, such as, in the future, we should set up vocational education majors rationally, train full-time teachers vigorously and invest in vocational education, improve the vocational education structure and enhance the coordination among regional economic industries, in order to improve the time and level of vocational education.

The majority of recent research has found that there are several problems in the development of vocational education in China, including problems in the external environment and regulations as well as problems inside colleges and universities. Yet, the majority of research is centred on the perspective of higher vocational students, with few from the perspective of colleges. Higher vocational colleges not only appeal to the cause of students is caused by poor vocational education development in China, the cause of less attractive in terms of high college graduates, there are also many other factors, such as graduates of family education to change, The influence of high college




education on them, the influence of high college education on them, the change of the graduates career planning for the future, as well as the graduates for enrolment in higher vocational colleges to investigate factors change, and so on.

The development of vocational education in China is constantly examined in tandem, and contemporary research on vocational education are largely global in scope. Yet, in actuality, there are enormous disparities in the development of vocational education in Diverse areas of China. For instance, the need for vocational and technical skills in the north and south is entirely different. Also, the internal and external environments of developed and underdeveloped regions are distinct. Last but not least, there is a major vacuum in the research on the development of vocational education in Shanxi Province. There are few studies on the study of vocational education in Shanxi Province, and the majority of these studies begin with the perspective of matching economic development with higher vocational education colleges. The first issue that Shanxi's higher vocational colleges must address is how to encourage more high college graduates to opt to study in higher vocational colleges at the same time.

## References

- [1] Arthur, O., Aneke, S. C., & Otiji, O. (2020). *An Empirical Review Of The Impact Of Technical And Vocational Education In Nation Building*. *British International Journal of Education And Social Sciences*, 7(2), 5-25.
- [2] Azam, S. M. F., Yajid, M. S., Tham, J., Hamid, J. A., Khatibi, A., Johar, M. G. M. & Ariffin, I. A. (2021). *Research Methodology: Building Research Skills*. 1<sup>st</sup> Ed., McGraw-Hill Education (Malaysia) Sdn. Bhd.
- [3] Bano, N., Yang, S., & Alam, E. (2022). *Emerging Challenges in Technical Vocational Education and Training of Pakistan in the Context of CPEC*. *Economies*, 10(7). doi: <https://doi.org/10.3390/economies10070153>
- [4] Dewi, N, Azam, S. M. F. and Yusoff, S. K. M. (2019). *Factors influencing the information quality of local government financial statement and financial accountability*, *Management Science Letters*, 9 (9): 1373-1384
- [5] Do, N., Tham, J., Azam, S., A Khatibi, A. (2019). *An empirical analysis of Cambodian behavior intention towards mobile payment*. *Management Science Letters* 9 (12), 1941-1954
- [6] Do, N., Tham, J., Azam, S., A Khatibi, A. (2020). *The effects of factors influencing on user behavior intention to use mobile payment: Evidence from Cambodia*. *International Journal of Data and Network Science* 4 (2), 213-224
- [7] Fu Bajun & Chen Jia (2022), "Only score" in basic Education: Causes, Influences and Governance. *Journal of teaching*, (1):92-96
- [8] Gu Yinqiu (2019), *Discussion on strategies of recruitment publicity in higher Vocational Colleges under the background of decreasing student resources*. *Modern Business Trade Industry*, (17):60-61
- [9] Hanushek, E.A., G. Schwerdt, L. Woessmann, and Zhang, L. (2017), "General Education, Vocational Education, and Labor-Market Outcomes over the Lifecycle", *Journal of Human Resources* 52(1):48-87
- [10] Haur, C. H., Khatibi, A. and Azam, S. M. F. (2017), "Antecedents of Consumers' Perception towards Online Advertising in Malaysia: The Structure Equation Modeling Approach", *European Journal of Management and Marketing Studies*, 2 (3): 15-30
- [11] Hoelscher, M., Hayward, G., Ertl, H., & Dunbar-Goddet, H. (2008). *The Transition from Vocational Education and Training to Higher Education: A successful Pathway*. *Research Papers in Education*, 23(2), 139-151.
- [12] Hu Jianjun. (2014). *An empirical analysis and countermeasures research on the setting and adjustment of majors in higher vocational colleges and universities--Take Zhejiang Province as an example*. *Adult Education* (09), 78-81.
- [13] Huang Yunfei & Yang Yuping (2021), *Analysis of vocational education in the new era under the background of Huang Yanpei's vocational education thought*. *Journal of Modern Vocational Education*. (6) :30-31
- [14] Leney, T., & Green, A. (2004). *Archiving the Lisbon goal: The contribution of vocational education and training*. *European Journal of Education*, 40(3), 261-273.
- [15] Li Yanfang, Xueyun & Yang Xinrun (2019), *Difficulties and Countermeasures in Enrollment of Higher Vocational Colleges in Beijing— Taking Beijing Vocational College of Agriculture*. *Journal of Xingtai Polytechnic College*, (2): 55-60

- 
- [16] Liang You (2016), *On the importance of improving the treatment and status of skilled workers*. *China Economist*, (3): 233-234
  - [17] Lu WanJun& Zhang Binbin (2021), "Higher Education Expansion, Employment Squeeze and Changes, in the Benefits of Secondary Vocational Education", *Economic Perspectives*, (12):72-89
  - [18] Ma Jiqian& Liu Junjie (2011), *Skilled Workers 'Individual Characteristics and Their Stratum Identification*. *Journal of Hebei Normal University of Science & Technology*, (12): 20-25
  - [19] Nguyen, H. N., Tham, J., Khatibi, A. and Azam, S. M. F. (2019). *Enhancing the Capacity of Tax Authorities and its Impact on Transfer Pricing Activities of FDI Enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong Province of Vietnam*, *Management Science Letters*, 9 (8): 1299-1310
  - [20] Pambreni, Y., Khatibi, A., Azam, S. M. F. and Tham, J. (2019). *The Influence of Total Quality Management toward Organization Performance*, *Management Science Letters*, 9 (9): 1397-1406
  - [21] Pushpakumara, W. D. H., Atan, H., Khatibi, A., Azam, S. M. F. and Tham, J. (2019). *Developing a Framework for Scrutinizing Strategic Green Orientation and Organizational Performance with Relevance to the Sustainability of Tourism Industry*, *European Journal of Social Sciences Studies*, 4 (3): 1-18
  - [22] Rachmawati, D., Shukri, S., Azam, S. M. F. and Khatibi, A. (2019). *Factors Influencing Customers' Purchase Decision of Residential Property in Selangor, Malaysia*, *Management Science Letters*, 9 (9): 1341-1348
  - [23] Tham, J., Yazid, M. S. A., Khatibi, A. A. and Azam, S. M. F. (2017), "Internet and Data Security - Understanding Customer Perception on Trusting Virtual Banking Security in Malaysia", *European Journal of Social Sciences Studies*, 2 (7): 186-207
  - [24] Udriyah, U., Tham, J. and Azam, S. M. F. (2019). *The Effects of Market Orientation and Innovation on Competitive Advantage and Business Performance of Textile SMEs*, *Management Science Letters*, 9 (9): 1419-1428
  - [25] Wang Wei (2013), *Higher Vocational Education: The Forgotten Corner*. *Human resources development of China*, (4): 78-90
  - [26] Wang Xiuli (2011), *Discussion on the source of students in higher vocational education*. *Chinese Vocational and Technical Education*, (21): 15-19
  - [27] Wang Yujie (2018). *Exploration of school-enterprise cooperation in higher vocational colleges in Shanxi Province--a survey based on 14 higher vocational colleges in Shanxi Province*. *Educational Theory and Practice*, 2018, 38(30):26-28.
  - [28] Wang, A., & Guo, D. (2018). *Technical and vocational education in China: enrolment and socioeconomic status*. *Journal of Vocational Education and Training*, 71(3), 1-18. doi:10.1080/13636820.2018.1535519
  - [29] Yu, Jingbo, Dai, Jing & Zhao, Zhenqiao. (2015). *Analysis of enrollment strategies of private higher education institutions based on classroom teaching quality*. *Journal of Beijing City College* (02), 89-94.
  - [30] Zhang Zhiyong (2020) *Promote strategic restructuring of education*. [EB/OL] [https://news.gmw.cn/2020-11/10/content\\_34353511.htm](https://news.gmw.cn/2020-11/10/content_34353511.htm), 2020-11-10