

# EXPLORING THE SIGNIFICANCE AND CONTRIBUTION OF VOCATIONAL EDUCATION & TRAINING IN MEETING THE INDUSTRIAL DEVELOPMENT NEEDS IN CHINA

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**ABSTRACT-** Education is widely recognized as one of the most invaluable assets in the world. Educational attainment is categorized into diplomas, bachelor's degrees, and graduate studies. From the standpoint of stakeholders, the competencies necessary for individuals graduating with varying levels of education have been cultivated. Vocational training encompasses educational programs or courses explicitly targeting acquiring the required skills for a specific job role or industry. On the contrary, vocational education emphasizes equipping students with the necessary skills and knowledge for occupations, often at the expense of traditional, unrelated academic subjects. The primary objective of this research is to examine the role of vocational education and training in China and its impact on the country's industrial advancement. Researchers will employ qualitative methodologies to interview pertinent stakeholders, encompassing graduates of vocational education institutions, administrative staff, and lecturers. They will also use additional secondary data about vocational education and training in China. Education is widely recognized as one of the most invaluable assets in the world. Educational attainment is categorized into diplomas, bachelor's degrees, and graduate studies. From the standpoint of stakeholders, the competencies necessary for individuals graduating with varying levels of education have been cultivated. Vocational training encompasses educational programs or courses targeting acquiring skills essential for a specific job role or industry. On the contrary, vocational education emphasizes equipping students with the vital skills and knowledge required for occupations, often at the expense of traditional, unrelated academic subjects. The primary objective of this research is to examine the role of vocational education and training in China and its impact on the country's industrial advancement. Researchers will employ qualitative methodologies to interview pertinent stakeholders, encompassing graduates of vocational education institutions, administrative staff, and lecturers. They will also use additional secondary data about vocational education and training in China.

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## INTRODUCTION

Education can be regarded as the dissemination of societal values and shared knowledge. In this regard, it can be compared to what social scientists call socialisation or cultural integration. Children are inherently devoid of cultural influences at birth, regardless of whether they are born into the New Guinea tribal community, Renaissance Florentine society, or the middle-class Manhattan milieu. Education facilitates individuals to comprehend a culture, matures their behaviour into that of an adult, and directs them towards fulfilling their ultimate societal role (Goldstick, 2012). Vocational education and training encompass the instruction of skills and knowledge directly relevant to industries or professions, intending to prepare students or employees for their planned career paths. People could develop their skills and provide services through vocational training, enhancing their ability to deliver professional and high-quality outcomes. This project has garnered international acclaim and has facilitated the establishment of additional vocational training institutions (Eneka Albizu, 2011). Education can be regarded as the dissemination of

societal values and shared knowledge. In this regard, it can be compared to what social scientists call socialisation or cultural integration. Children are inherently devoid of cultural influences at birth, regardless of whether they are born into the New Guinea tribal community, Renaissance Florentine society, or the middle-class Manhattan milieu. Education facilitates individuals to comprehend a culture, matures their behaviour into that of an adult, and directs them towards fulfilling their ultimate societal role (Goldstick, 2012). Vocational education and training encompass the instruction of skills and knowledge directly relevant to particular industries or professions to prepare students or employees for their intended career paths. People have the opportunity to develop their skills and provide a range of services through vocational training, thereby enhancing their ability to deliver professional and high-quality outcomes. This project has garnered international acclaim and has facilitated the establishment of additional vocational training institutions (Eneka Albizu, 2011).

The primary objective of numerous industrialized and emerging economies is to establish a connection between industry and education and training systems. This objective is also considered a fundamental component of policy reform. As Byrne (2005) highlighted, establishing a comprehensive vocational education and training system requires a solid and practical linkage between industry and commerce across all levels. The sector should be able to effectively coordinate with governmental bodies to establish collaborative efforts in vocational education and training strategies and policies at the national and local levels.

At the same time, higher education institutions can benefit from establishing cooperation and partnership agreements with industries. Industry and higher education institutions collaborate, forming a formidable catalyst for innovation and economic advancement (Eneka Albizu, 2011). Higher education pertains to post-secondary education that confers academic degrees. In recent years, there has been a notable and remarkable transformation in the growth of the Chinese industry, which unquestionably impacts the industrial relationship with vocational education and training (VET). (Eneka Albizu, 2011). Higher education pertains to post-secondary education that confers academic degrees. In recent years, there has been a notable and remarkable transformation in the growth of the Chinese industry, which unquestionably impacts the industrial relationship with vocational education and training (VET).

Vocational education and training play a crucial role in enhancing the skills of individuals, thereby equipping them to secure and retain employment while meeting the ever-evolving economic demands. Ensuring that graduates possess the requisite skills for their respective positions is of utmost importance as it not only aids in their job search but also serves as a source of motivation for emerging professionals to excel in their chosen career paths. Individuals who possess inadequate skills will encounter difficulties when transitioning into unfamiliar roles. Individuals may experience self-doubt and uncertainty regarding their course of action. The provision of vocational education plays a pivotal role in fostering skill acquisition and enhancing individuals' prospects for gainful employment. The differentiation between theoretical knowledge and practical skills unequivocally underscores the significance of career advancement. In non-vocational education, students often dedicate much time to conducting extensive research on various subjects. They save a significant portion of their time conducting research and composing academic papers, utilising both library resources and computer technology. This facilitates the further development of their theoretical knowledge in specific subjects. Consequently, their class hours are typically limited to a few weekly hours.

According to the syllabus developed by Parks and Harris, it functions as a permanent record that contains essential information for evaluating teachers, courses, and projects. The document additionally delineates the content of the course, the degree of complexity, the allocation of credits, and the prerequisites. This enduring documentation provides significant benefits for students, as it provides valuable insights into the pedagogical methods utilised by the teacher, the educational objectives pursued, and the specific subject matter covered. According to the third section of the syllabus, the objectives encompass a range of factors.

These include the instructor's pedagogical approach towards course content and teaching methods, the importance and relevance of the course to students, strategies for organising information throughout the semester, including self-management abilities, prerequisite courses or skills, the availability of instructors and teaching assistants, as well as the provision of campus resources and support services for disabled students. According to the syllabus developed by Parks and Harris, it functions as a permanent record that contains essential information for evaluating teachers, courses, and projects. The document additionally delineates the content of the course, the degree of complexity, the allocation of credits, and the particular prerequisites. This enduring documentation provides significant benefits for students, as it provides valuable insights into the pedagogical methods utilised by the teacher, the educational objectives pursued, and the specific subject matter covered. According to the third section of the syllabus, the objectives encompass a range of factors. These include the instructor's pedagogical approach towards course content and teaching methods, the importance and relevance of the course to students, strategies for organizing information throughout the semester, including self-management abilities, prerequisite courses or skills, the availability of instructors and teaching assistants, as well as the provision of campus resources and support services for disabled students.

The Chinese Ministry of Education has recently released curriculum standards for five core courses in secondary vocational schools. This study aims to elucidate the parameters for achieving academic excellence and emphasize the unique characteristics of vocational education. The revised standard incorporates five courses: mathematics, information technology, sports and health, physics, and chemistry. The Ministry of Education has issued an official statement wherein they have delineated the fundamental principles and objectives of the curriculum and provided additional clarification on its content. Compared to the previous iterations of the teaching syllabus, the recently implemented curriculum standards prioritise the development of students' problem-solving abilities and the establishment of a framework for progressive assessments and academic examinations. Previous iterations of the teaching syllabus and the recently implemented curriculum standards prioritise the development of students' problem-solving abilities and the establishment of a framework for progressive assessments and academic examinations.

## **PROBLEM STATEMENT**

China has emerged as the global leader in the magnitude of vocational education and has successfully established a distinctive path for developing modern vocational education with Chinese characteristics (Liu He, 2019). In the current era, the Chinese economy has shifted from rapid expansion to a phase that focuses on high-quality development. The quick acceleration of industrialisation, informatization, marketisation, urbanisation, and internationalization has created a pressing need for the high-quality advancement of vocational education. The emergence of this phenomenon on has presented considerable obstacles to developing vocational skills. China has emerged as the global leader in the magnitude of vocational education and has successfully established a distinctive path for developing modern vocational education with Chinese characteristics (Liu He, 2019). In the current era, the Chinese economy has shifted from rapid expansion to a phase that focuses on high-quality development. The quick acceleration of industrialization, informatization, marketisation, urbanization, and internationalization has created a pressing need for the high-quality advancement of vocational education. The emergence of this phenomenon has presented considerable obstacles to the development of vocational skills.

When analyzing the significance of vocational education and training in promoting a country's industrial advancement, it is imperative to highlight the importance attributed to the acquisition of practical skills. Additionally, students must demonstrate a significant level of preparedness as they transition into the

professional domain. Practical learning holds a higher level of significance in comparison to theoretical knowledge. Vocational school students dedicate much of their time to refining practical skills that are directly relevant and applicable in professional environments. Their educational pursuits aim to obtain the essential knowledge and skills required for proficient performance within their chosen professional field. By incorporating this pedagogical approach, the curriculum seamlessly integrates work experience, preventing students from pursuing internships or engaging in low-skilled employment outside their designated course hours. Students are given a valuable opportunity to gain practical experience in their chosen field, which helps them develop a realistic perspective when working full-time. The labour force's competencies and capabilities depend on the quality of the domestic education and training system. Vocational education is widely acknowledged as pivotal in augmenting economic productivity (Min, 1995).

Multiple researchers have observed that government subsidies significantly impact the promotion of on-the-job training. The current policy mandates that every student participate in a one-year on-the-job training program as an essential element of their high school curriculum. The degree of collaboration with employers, however, demonstrates variability. Acknowledging the absence of established quality standards for workplace training is crucial. Furthermore, there needs to be more regional, departmental, or national institutions that actively foster employer involvement and facilitate their integration into the vocational education and training system.

Furthermore, there exists a prevailing belief that the current strategies aimed at meeting the requirements of the labour market need to be revised. Each province assumes direct administrative control over specific schools through the Education Commission, while others are overseen by diverse government entities such as the Agricultural Bureau. Additionally, a considerable proportion of educational institutions fall under the purview of district and county authorities. Regarding the aspect of demand, there is often a lack of available data regarding labour market demand. As per the recommendations delineated in previous assessments conducted by the Organization for Economic Cooperation and Development (OECD) on China, it is advisable to augment the overall investment in education, encompassing a particular emphasis on vocational education and training. Employers acknowledge the significance of prior work experience and specialised training for a specific industry, as they contribute to the candidates' ability to effectively carry out essential tasks and expedite the hiring process for the organisation. Students are allowed to engage in professional careers and receive equitable remuneration. The statement mentioned above highlights the significant economic prospects that can be attained by individuals who have completed vocational programs. Career graduates frequently possess an extensive array of valuable resources that can propel their professional trajectories, owing to their comprehensive understanding of the industry. Professional careers and receive equitable remuneration. The statement above highlights the significant economic prospects that can be attained by individuals who have completed vocational programs. Career graduates frequently possess an extensive array of valuable resources that can propel their professional trajectories, owing to their comprehensive understanding of the industry.

Despite the current situation, there is a noticeable lack of contemporary academic research about the significance of vocational training and education in China's economic growth and industrial advancement. In 2009, Christine Velde conducted a study to investigate employers' perspectives and anticipated developments regarding the competencies and aptitudes of graduates from Chinese higher vocational education institutions. The author emphasised China's need to establish more compelling connections between educational institutions and professional environments. Velde (2009) argues for further examination of the relationship between formal education and employer demands. Based on the perspective mentioned earlier, the researcher aims to emphasise the utmost significance of vocational

education in promoting the development and progress of China's industrial sector. Despite the current state of affairs, there is a noticeable lack of contemporary academic research on the significance of vocational training and education in China's economic growth and industrial advancement. In 2009, Christine Velde conducted a study to investigate employers' perspectives and anticipated developments regarding the competencies and aptitudes of graduates from Chinese higher vocational education institutions. The author emphasised China's need to establish more compelling connections between educational institutions and professional environments. Velde (2009) argues for further examination of the relationship between formal education and employer demands. Based on the perspective mentioned above, the researcher aims to emphasise the utmost significance of vocational education in promoting the development and progress of China's industrial sector.

The main aim is to improve the quality and relevance of the labour market by implementing competency standards, providing competency-based training, and promoting collaboration between educational institutions and industries. There is a notable disparity between the skill requirements of the industry and the skill set possessed by recent graduates as they enter the job market. Because of the prevailing circumstances, the author emphasises the importance of vocational education and training in promoting the development of industries in the modern era. The main aim is to improve the quality and relevance of the labour market by implementing competency standards, providing competency-based training, and promoting collaboration between educational institutions and industries. There is a notable disparity between the skill requirements of the industry and the skill set possessed by recent graduates as they enter the job market. Given the prevailing circumstances, the author emphasises the importance of vocational education and training in promoting the development of industries in the modern era.

### **Research Questions**

1. What are the prevailing practices of vocational education and training institutions in China?
2. What issues can be observed in the practices of vocational education and training institutions in China?
3. What challenges do vocational education and training institutions encounter in China?
4. What is the importance of vocational training and educational practices in fostering industry development and economic growth in China?
5. What are the recommended strategies for successfully implementing vocational education and training practices to promote industrial and economic development in China?

Conducting a comprehensive analysis of the vocational education and training system is imperative. According to the literature provided by the author, deficiencies have been identified within the vocational education system. Specific educational and training practices do not align with the industrial demands of our nation, thus posing a significant obstacle to the advancement of the industrial sector. Li, Zhang, and Mattley (2003) argue that the advancement of entrepreneurship education in China plays a crucial role in cultivating long-term competitive advantage and stimulating economic growth. According to Li (2003), there is a strong advocacy for incorporating entrepreneurship education into a comprehensive vocational education and training framework in China. This integration is deemed crucial as it encompasses all major economic sectors in the country.

The research findings support students and research participants in acquiring academic knowledge. The research findings have the potential to be applied in the context of vocational education to foster

industrial development in any given country. In addition, this study aims to explore the potential growth of vocational education systems in specific countries. The research findings support students and research participants in acquiring academic knowledge. The research findings have the potential to be applied in the context of vocational education to foster industrial development in any given country. In addition, this study aims to explore the potential growth of vocational education systems in specific countries.

## **LITERATURE REVIEW**

### **1. Overview of Literature Review 1. Overview of Literature Review**

Researchers engage in the examination of prior research conducted by their peers within the same field. To effectively analyse the subject matter, it is necessary to deconstruct the topic and provide comprehensive remarks. This study examines the educational background, the intersection of technology and education, and vocational education and training in China as subtopics. Subsequently, a comprehensive review of vocational education and training courses, project-based learning, and vocational education training and education in China was undertaken. Finally, the present article aims to provide a comprehensive review of the current state of Chinese industrial development while highlighting the importance of vocational education and training within the country.

### **2. China's Educational Background 2. China's Educational Background**

Education can be defined as the process of imparting societal values and acquired knowledge. In this context, it can be likened to socialisation or cultural integration, as discussed by social scientists. The term 'education' is applicable primarily in primitive civilisations, where it denotes the process of cultural dissemination. A primitive individual possesses a relatively steadfast perception of cultural continuity and infinity, as their culture encompasses their entire realm of existence. The advancements made by individuals to various challenges and improve their quality of life have been disseminated and accumulated as knowledge throughout history. Education is vital in transmitting knowledge, promoting learning, and cultivating innovation, contributing significantly to personal and social development (Lijia et al., 2019). China has consistently faced the issue of inadequate funding for its education system, which continues to persist. During the 1990s, the percentage of education expenditure concerning GDP remained below 2.4% (Rong Heshi, 2001, p. 107). After the 1985 Decision on the Reform of China's Education System, there was a decentralisation of power in the education sector, resulting in a shift away from the central government's role as the primary funder and manager of compulsory education. Local governments assume the primary financial responsibility for mandatory education and bear the financial burden of high school education (Lin & Zhang, 2006, p. 256). The level of public support for public schools has experienced a significant decline. The impacts have led to a heightened significance of Chinese language education in examinations. Education can be defined as the process of imparting societal values and acquired knowledge. In this context, it can be likened to socialisation or cultural integration, as discussed by social scientists. The term 'education' is applicable primarily in primitive civilisations, where it denotes the process of cultural dissemination. A primitive individual possesses a relatively steadfast perception of cultural continuity and perpetuity, as their culture encompasses their entire realm of existence. The advancements made by individuals to overcome various challenges and improve their quality of life have been disseminated and accumulated as knowledge throughout history. Education is vital in transmitting knowledge, promoting learning, and cultivating innovation, contributing significantly to personal and social development (Lijia et al., 2019). China has consistently faced the issue of inadequate funding for its education system, which continues to persist. During the 1990s, the percentage of education expenditure relative to GDP remained below 2.4% (Rong Heshi, 2001, p. 107). After the 1985 Decision on the Reform of China's Education System, there was a decentralisation of power in the education sector, resulting in a shift away from the central government's role as the primary funder and manager of compulsory education. Local governments assume the primary financial responsibility for mandatory education and bear the financial burden of high school education (Lin & Zhang, 2006, p. 256). The level of public support for

public schools has experienced a significant decline. The impacts mentioned above have led to a heightened significance of Chinese language education in examinations.

According to Palit et al. (2020), the fundamental basis of China's education system lies in the comprehensive structure of the school education system, which comprises preschool, primary, secondary, and higher education. According to Congress (1986), China's educational system encompasses various levels, including preschool, primary, secondary, and post-secondary education. According to the Compulsory Education Law of the People's Republic of China, the government ensures that all eligible children receive nine years of mandatory education. Children between 3 and 6 commonly attend preschool education. Children six or seven years old must commence their formal education, encompassing six years of primary education followed by three years of junior high school education. The three-year high school curriculum includes general and vocational education with a mandatory education policy. After completing secondary education, individuals can pursue higher education, which consists of a range of academic programs such as short-term courses, bachelor's degrees, master's degrees, and doctoral education. Adult education, lifelong learning, open and online learning, literacy programs, and special needs education are additional educational services offered (Lijia et al., 2019). According to Palit et al. (2020), the fundamental basis of China's education system lies in the comprehensive structure of the school education system, which comprises preschool, primary, secondary, and higher education. According to Congress (1986), China's educational system encompasses various levels, including preschool, primary, secondary, and post-secondary education. According to the Compulsory Education Law of the People's Republic of China, the government ensures that all eligible children receive nine years of mandatory education. Children between 3 and 6 commonly attend preschool education. Children six or seven years old must commence their formal education, encompassing six years of primary education followed by three years of junior high school education. The three-year high school curriculum encompasses both general and vocational education, with a mandatory education policy. After completing secondary education, individuals can pursue higher education, which includes a range of academic programs such as short-term courses, bachelor's degrees, master's degrees, and doctoral education. Adult education, lifelong learning, open and online learning, literacy programs, and special needs education are additional educational services offered (Lijia et al., 2019).

### **3. Technology and Education**

According to data from the International Society for Educational Technology (ISTE), a substantial proportion of the current high-demand job positions were established during the initial decade. With the rapid progress of technology and its impact on globalisation and the digital revolution, educators have a pivotal role in facilitating the acquisition of essential skills among children, enabling them to thrive in their professional endeavours. The most recent research on the preferences of modern students regarding technology usage and its influence on their learning indicates that incorporating contemporary tools, technologies, and equipment can significantly augment students' learning outcomes and level of engagement. When technology offers support, individuals perceive it as a more interactive and engaging experience, brimming with intriguing possibilities. Disseminating knowledge is greatly facilitated, offering increased convenience and effectiveness. This statement suggests that in various domains, such as school education, our cognitive processes are frequently enhanced by the assistance of contemporary technology (R. Raja \*, 2018). A prominent trend in educational institutions is the concerted effort to establish a strong correlation between online activities and in-person interactions with educators. For instance, one way to address this issue is by involving teachers in selecting software for students to utilise. Additionally, collaboration between stakeholders can be beneficial in ensuring that online courses offer teachers access to relevant data, which can aid them in making informed teaching decisions (Herold, 2020). According to data from the International Society for Educational Technology (ISTE), a substantial proportion of the current high-demand job positions were established during the initial decade. With the rapid progress of technology and its impact on globalisation and the digital revolution, educators have a pivotal role in facilitating the acquisition of essential skills among children, enabling them to thrive in their professional endeavours. The most recent research on the preferences of modern students regarding technology usage

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#### **4. Vocational Education and Training (VET)**

Vocational education and training enhance young individuals' skills and abilities, facilitating their transition into the labour market. In addition, the acquisition of exceptional technical skills is also a crucial aspect (Goldstick, 2012). Companies, intermediary organisations, and countries cooperate to provide vocational education and training through shared skill formation systems, as demonstrated by countries like Germany, Austria, and Switzerland (Busemeyer & Trampusch, 2012). National stakeholders have delegated significant responsibilities to intermediate associations to establish a robust correlation between vocational education and the labour market's demands. These responsibilities include defining vocational archives. These associations are crucial in managing, maintaining, and modifying these systems. Dual VET (Vocational Education and Training) systems are widely recognised as the prevailing approach, as they encompass a blend of instruction provided by educational institutions and practical training conducted in natural work settings. The most observed type of dual vocational education and training (VET) is dual apprenticeship, as Gessler (2017) states. The importance of vocational education and training (VET) has been widely recognised in different educational contexts (Serafni, 2018). Vocational education and training enhance young individuals' skills and abilities, facilitating their transition into the labour market. In addition, the acquisition of exceptional technical skills is also a crucial aspect (Goldstick, 2012). Companies, intermediary organisations, and countries cooperate to provide vocational education and training through shared skill formation systems, as demonstrated by countries like Germany, Austria, and Switzerland (Busemeyer & Trampusch, 2012). National stakeholders have delegated significant responsibilities to intermediate associations to establish a robust correlation between vocational education and the labour market's demands. These responsibilities include defining vocational archives. These associations are crucial in managing, maintaining, and modifying these systems. Dual VET (Vocational Education and Training) systems are widely recognised as the prevailing approach, as they encompass a blend of instruction provided by educational institutions and practical training conducted in natural work settings. The most commonly observed type of dual vocational education and training (VET) is dual apprenticeship, as stated by Gessler (2017). The importance of vocational education and training (VET) has been widely recognised in different educational contexts (Serafni, 2018).

For students currently enrolled in technical vocational education and training programs, the future demands and implications on their employment prospects will pose considerable anticipated challenges (Delcker & Ifenthaler, 2021). Today, vocational education offers a wide range of courses and programs that effectively teach essential skills to a significant level of expertise. The program provides a direct pathway for many young individuals to engage in higher education alongside an esteemed apprenticeship system. Traditional academic research needs to fully capture the comprehensive value and demands of the labour market. Vocational education, on the other hand, can offer a diverse range of content, skills, and teaching



methodologies (Wolf, 2011). In England, Germany, and Denmark, a comprehensive or widely accepted hybrid approach that adequately caters to the unique needs of secondary school students is needed. In Germany and Denmark, the education system is distinguished by its division into various academic institutions, vocational schools, and dual-system apprenticeships. This feature allows students to choose from multiple educational paths based on their unique interests and professional goals (Fuller, 2015). There is a prevailing perspective among a subset of scholars and policymakers that vocational education and training have become obsolete. Nevertheless, empirical evidence suggests a significant need for individuals in blue-collar occupations, particularly those who have completed vocational education and training (VET) programs. Additionally, upward wages have been observed within this sector (Meerhas have been observed, 2007).division into various academic institutions, vocational schools, and dual-system apprenticeships. This feature allows students to choose from multiple educational paths based on their unique interests and professional goals (Fuller, 2015). There is a prevailing perspective among a subset of scholars and policymakers that vocational education and training have become obsolete. Nevertheless, empirical evidence suggests a significant need for individuals in blue-collar occupations, particularly those who have completed vocational education and training (VET) programs. Additionally, this sector has observed an upward wage trend (Meer, 2007).

According to the theory of social efficiency, scholars argue that educational institutions provide students with the necessary knowledge and skills to improve their productivity and significantly contribute to a nation's economic growth (Finch, 1993; Labaree, 1997), without vocational education and labour, labour mobility, flexibility, and productivity enhancement become unattainable. Without a workforce possessing a comprehensive set of technical and professional skills, attaining economic growth and technological progress becomes unattainable. The enrollment of teachers in vocational colleges is significant, as Khanji (2012) highlighted. The optimal allocation of public funds aims to maximise employee productivity cost-effectively. Better training and education possess the potential to augment the competencies of individuals in the workforce, thereby resulting in a rise in their earnings and an enhancement in their quality of life. The facilitation of earning one's income and cultivating a sense of self-satisfaction is enabled by this ability. The implementation of this policy functions as a protective measure against unemployment for individuals. Vocational graduates exhibit a significant level of preparedness to engage in the fiercely competitive job market. The observation of the reduction in gender differences, immigration, and dependency ratios is evident. According to Fatima (2018), individuals with advanced skills and abilities can secure better job opportunities, thereby playing a crucial role in the economic development of specific countries. According to the theory of social efficiency, scholars argue that educational institutions provide students with the necessary knowledge and skills to improve their productivity and significantly contribute to a nation's economic growth (Finch, 1993; Labaree, 1997). Without the incorporation of vocational education and training, labour mobility, flexibility, and productivity enhancement becomes unattainable. Without a workforce possessing a comprehensive set of technical and professional skills, attaining economic growth and technological progress becomes unattainable. Enrolling teachers in vocational colleges is essential, as Khanji (2012) highlighted. The optimal allocation of public funds aims to maximise employee productivity cost-effectively. Better training and education possess the potential to augment the competencies of individuals in the workforce, thereby resulting in a rise in their earnings and an enhancement in their quality of life. The facilitation of earning one's income and cultivating a sense of self-satisfaction is enabled by this ability. The implementation of this policy functions as a protective measure against unemployment for individuals. Vocational graduates exhibit a significant level of preparedness to engage in the fiercely competitive job market. The observation of the reduction in gender differences, immigration, and dependency ratios is evident. According to Fatima (2018

## **5. The Curriculum of Vocational Education and Training Curriculum of Vocational Education and Training**

The educational curriculum can be broadly defined as the extensive array of experiences in which students participate during their academic trajectory. This statement often reflects a deliberate intention to establish a well-organized instructional sequence or express a perspective on the student learning process that aligns with the instructor's or institution's educational objectives. A comprehensive curriculum is crucial in cultivating the fundamental social attitudes and skills necessary for lifelong learning. These encompass various essential aspects such as tolerance and respect, efficient management of diversity, harmonious resolution of conflicts, promotion and protection of human rights, gender equality, justice, and inclusiveness. The course also fosters critical thinking skills and the acquisition of subject-specific knowledge, which can be effectively utilised in academic endeavours, daily routines, and professional engagements. The curriculum aims to enhance student's personal growth by fostering their motivation, aspirations, and self-esteem. Course: International Bureau of Education (Unesco.org, 2018). To effectively compete with the principles and methods of the global market and effectively address the challenges posed by globalisation, it is imperative to implement substantial enhancements in vocational education and training. The integration of distinctive attributes into the design of the curriculum facilitates the attainment of this objective. Promoting "modernisation" in technical and vocational education and training (TVET) projects holds significant importance for policymakers, educators, and educational researchers. It is crucial to ensure that promotions of projects are undertaken only when they are based on newly developed courses that have undergone comprehensive market research. The educational curriculum can be broadly defined as the extensive array of experiences in which students participate during their academic trajectory. This statement often reflects a deliberate intention to establish a well-organized instructional sequence or express a perspective on the student learning process that aligns with the instructor's or institution's educational objectives. A comprehensive curriculum is crucial in cultivating the fundamental social attitudes and skills necessary for lifelong learning. These encompass various essential aspects such as tolerance and respect, efficient management of diversity, harmonious resolution of conflicts, promotion and protection of human rights, gender equality, justice, and inclusiveness. The course also fosters critical thinking skills and the acquisition of subject-specific knowledge, which can be effectively utilised in academic endeavours, daily routines, and professional engagements. The curriculum aims to enhance students' personal growth by fostering motivation, aspirations, and self-esteem. Course: International Bureau of Education (Unesco.org, 2018). To effectively compete with the principles and methods of the global market and effectively address the challenges posed by globalisation, it is imperative to implement substantial enhancements in vocational education and training. The integration of distinctive attributes into the design of the curriculum facilitates the attainment of this objective. Promoting "modernisation" in technical and vocational education and training (TVET) projects holds significant importance for policymakers, educators, and educational researchers. It is crucial to ensure that promotions of projects are undertaken only when they are based on newly developed courses that have undergone comprehensive market research.

## **6. Project-Based Learning (PBL)**

Project-based learning (PBL) is a pedagogical approach that fosters active student engagement in investigating authentic, real-world problems and challenges, facilitating a deeper understanding of the subject matter. Students can acquire comprehensive expertise in a specific study area by allocating adequate research time and exploring intellectually stimulating topics, challenges, or solutions. This instructional approach utilises an inquiry-based active learning methodology. Students use various tools, including word processors, databases, and spreadsheets, to proficiently accomplish tasks such as paper organisation and

composition, digital data processing, and information tracking. Email, email lists, forums, and other online applications are valuable tools that can significantly enhance communication and facilitate collaboration with individuals outside the traditional classroom environment. The internet allows individuals to access museums, libraries, and remote physics research facilities. Students can produce electronic texts, music, and artistic creations. Engaging in simulations or virtual worlds can serve as a valuable method for attaining practical objectives or augmenting comprehensive comprehension on a global scale.

## **7. China's Vocational Training and Education**

The Chinese government places considerable emphasis on vocational education and has implemented various policies and procedures to facilitate its rapid expansion. In recent years, there has been a consistent growth in the range of vocational education (Cevik et al., 2013). According to the study conducted by Volodina et al. (2015), the role of higher vocational education as a significant catalyst in advancing higher education in China has been identified. Despite this, the subject's social status continues to be notably low. After the implementation of China's economic system reform, it is anticipated that a transitional phase will occur in the industrial structure. In addition, higher education institutions must align themselves with the production mode of social material life. Education plays a vital role in individuals' lives, significantly impacting their overall quality of life. Education is closely intertwined with individuals' livelihoods, particularly their rights and interests within the professional domain (Ding et al., 2015). Previously, the local government expeditiously hired individuals who completed vocational education. Lower-grade students are commonly enrolled in vocational schools, where they typically focus on developing skills for careers as operators, technicians, or in other occupations frequently associated with lower wages.

Furthermore, the growth of the Chinese economy has significantly impacted the policies and practices adopted by vocational education institutions. Vocational education institutions are increasingly shifting their focus from solely registering applicants to ensuring the quality of the courses they provide. According to Chung (2021), there has been a significant increase in the enrollment of students in higher vocational education in China. However, a concerted effort exists to improve this sector's education quality and standards. In 2020, the employment landscape for individuals who have recently completed their college education is anticipated to present significant difficulties. This can be attributed to the confluence of two major factors: an economic downturn and the unprecedented outbreak of the novel coronavirus pneumonia epidemic. The employment situation will consequently be characterised by complexity and severity. The school's employment work is guided by the ideology of "employment-oriented, entrepreneurship-driven employment, and serving the comprehensive development of students." The successful establishment and operation of an employment information service platform and a comprehensive employment service station have substantially impacted high-quality employment outcomes, resulting in a stable overall employment situation (source: "2021 China Higher Vocational Education Quality Annual Report"). The Chinese government places considerable emphasis on vocational education and has implemented various policies and procedures to facilitate its rapid expansion. In recent years, there has been a consistent growth in the range of vocational education (Cevik et al., 2013). According to the study conducted by Volodina et al. (2015), the role of higher vocational education as a significant catalyst in advancing higher education in China has been identified. Despite this, the subject's social status continues to be notably low. After the implementation of China's economic system reform, it is anticipated that a transitional phase will occur in the industrial structure. In addition, higher education institutions must align themselves with the production mode of social material life. Education plays a crucial role in individuals' lives, significantly impacting their overall quality of life. Education is closely

intertwined with individuals' livelihoods, particularly their rights and interests within the professional domain (Ding et al., 2015). Previously, the local government expeditiously hired individuals who completed vocational education. Lower-grade students are commonly enrolled in vocational schools, where they typically focus on developing skills for careers as operators, technicians, or in other occupations frequently associated with lower wages. Furthermore, the growth of the Chinese economy has significantly impacted the policies and practices adopted by vocational education institutions. Vocational education institutions are increasingly shifting their focus from solely registering applicants to ensuring the quality of the courses they provide. According to Chung (2021), there has been a significant increase in the enrollment of students in higher vocational education in China. However, a concerted effort exists to improve this sector's education quality and standards. In 2020, the employment landscape for individuals who have recently completed their college education is anticipated to present significant difficulties. This can be attributed to the confluence of two major factors: an economic downturn and the unprecedented outbreak of the novel coronavirus pneumonia epidemic. The employment situation will be characterised by complexity and severity as a consequence. The school's employment work is guided by the ideology of "employment-oriented, entrepreneurship-driven employment, and serving the comprehensive development of students." The successful establishment and operation of an employment information service platform and a comprehensive employment service station have substantially impacted high-quality employment outcomes, resulting in a stable overall employment situation (source: "2021 China Higher Vocational Education Quality Annual Report").

## **8. Industrial Development**

As Becker (1993) defined, human capital refers to the collective abilities and skills that enable individuals to actively engage in the labour market and make valuable contributions to economic development. This includes the knowledge, expertise, and competencies acquired through formal education, training programs, and practical experience. From a financial perspective, the relationship between the enhancement of human capital and the subsequent growth in a country's economic output highlights the crucial importance of investing in human capital (Barr, 2004). Industrial processes have a significant impact on the worsening of global environmental degradation. Environmental regulation and adopting innovative technologies have played a crucial role in alleviating the environmental impacts of industrial production in developed countries. However, despite concerted efforts to mitigate their effects, industrial activities and the ever-growing demand for goods and services persistently exert substantial pressure on the environment and deplete precious natural resources (European Commission, 2006). To achieve sustainable industrial development, enterprises and industries must transform their production structure and product portfolio. Industrial policies should play a crucial role in facilitating this transition. This objective requires a comprehensive approach to sustainable development, which involves strengthening the interconnection between environmental and industrial policies. The European Commission (2006) emphasises the importance of business in achieving sustainable development.

## **9. Industrial Development in China**

Before the implementation of economic reforms in the late 1970s, the industrial sector in China was primarily characterised by state ownership and was concentrated in urban areas. In 1978, most industrial output was produced by state-owned enterprises, constituting 78% of the overall production. Furthermore, these enterprises played a crucial role in employing a substantial proportion of the industrial workforce, accounting for 76% of the overall employment within the sector. Between 1975 and 1980, there was a notable observation regarding the growth in industrial industrial. It was found that this growth was

predominantly propelled by state-owned enterprises, which accounted for approximately 84% of the overall development. Small collective enterprises produce surplus industrial goods in urban and rural areas under the ownership and supervision of local governments. The emergence of the rural collaborative economy can be traced back to the implementation of the Great Leap Forward policy in the late 1950s. In the 1960s and 1970s, rural communes in China were notably expanded, focusing on agricultural endeavours (Perkins, 1977). In the industrial sector, the allocation of resources is primarily managed by administrative departments, which regulate prices to ensure that all manufacturers, except for the most efficient final product manufacturers, can generate positive cash flow and accounting profits. China's planning system prioritises quantity over quality in multiple domains, including production, delivery, customer service, and other aspects. Before the implementation of economic reforms in the late 1970s, the industrial sector in China was primarily characterised by state ownership and was concentrated in urban areas. In 1978, most industrial output was produced by state-owned enterprises, constituting 78% of the overall production. Furthermore, these enterprises played a crucial role in employing a substantial proportion of the industrial workforce, accounting for 76% of the overall employment within the sector. Between 1975 and 1980, there was a notable observation regarding the growth in industrial fixed assets. It was found that this growth was predominantly propelled by state-owned enterprises, which accounted for approximately 84% of the overall development. Small collective enterprises produce surplus industrial goods in urban and rural areas under the ownership and supervision of local governments. The emergence of the rural collaborative economy can be traced back to the implementation of the Great Leap Forward policy in the late 1950s. In the 1960s and 1970s, rural communes in China were notably expanded, focusing on agricultural endeavours (Perkins, 1977). In the industrial sector, resources are allocated primarily by administrative departments, which regulate prices to ensure that all manufacturers, except for the most efficient final product manufacturers, can generate positive cash flow and accounting profits. China's planning system prioritises quantity over quality in multiple domains, including production, delivery, customer service, and other aspects.

China initiated a comprehensive corporate reform initiative in the late 1970s. Industrial reform can be categorised into two distinct periods, although it is imperative to acknowledge the potential risks of oversimplifying the issue. In the initial fifteen-year period, endeavours were undertaken to enhance the impact of incentives and market forces on the distribution and allocation of resources. Since the mid-1990s, China has implemented substantial reforms to restructure resource allocation. These reforms have resulted in significant workforce reductions within the state-owned sector and the privatisation of government-controlled companies (Loren & Rawski, 2008). During the mid-1990s, the reform agenda was substantially expanded, encompassing the comprehensive restructuring of labour and capital portfolios inherited from previous periods. In response to the growing financial challenges posed by emerging competitors, the organisation has adopted a strategic approach to circumvent the utilisation of surplus personnel, bureaucratic management structures, and costly fringe benefits inherited from previous planning systems. Employers operating within the state-owned sector have implemented substantial workforce reductions, resulting in a considerable decrease in the employee count by tens of millions. Due to the privatisation of TVE, a significant number of rural industries underwent a swift process of privatisation (Li & Scott, 2004). China initiated a comprehensive corporate reform initiative in the late 1970s. Industrial reform can be categorised into two distinct periods, although it is imperative to acknowledge the potential risks of oversimplifying the issue. In the initial fifteen-year period, endeavours were undertaken to enhance the impact of incentives and market forces on the distribution and allocation of resources. Since the mid-1990s, China has implemented substantial reforms to restructure resource allocation. These reforms have resulted in significant workforce reductions within the state-owned sector and the privatisation of government-controlled companies (Loren & Rawski, 2008). During the mid-1990s, the reform agenda was significantly expanded, encompassing the comprehensive restructuring of labour and capital portfolios inherited from

previous periods. In response to the growing financial challenges posed by emerging competitors, the organisation has adopted a strategic approach to circumvent the utilisation of surplus personnel, bureaucratic management structures, and costly fringe benefits inherited from previous planning systems. Employers operating within the state-owned sector have implemented substantial workforce reductions, resulting in a considerable decrease in the employee count by tens of millions. Due to the privatisation of TVE, a significant number of rural industries underwent a swift process of privatisation (Li & Scott, 2004).

## **METHODOLOGY**

### **1. Research Design**

This study utilizes induction as the selected qualitative research methodology. Researchers use qualitative methods when the nature of the study could be more transparent. A novel approach has been proposed for the analysis of qualitative evaluation data, employing a general inductive method. The application of induction serves multiple objectives. The primary aim is to compress the initial textual data into a concise summary format. Secondly, the aim is to establish a cohesive connection between the evaluation or research objectives and the summary outcomes obtained from the primary data. Lastly, the aim is to develop a framework that delineates the fundamental structure of the experiences or processes observed in the raw data. The Universal Induction Method provides a user-friendly framework for analyzing qualitative data, resulting in reliable and significant outcomes. Therefore, it is argued that qualitative methods are more suitable for this study than statistical methods. In this context, scholars endeavor to gather data using qualitative data collection methods and subsequently conduct qualitative analysis.

### **2. Population and Sample**

According to the nature of the study, the researcher hopes to conduct it among three types of populations. These are the administrators in vocational education institutions, lecturers, and students who followed these institutions' vocational training and education. The researchers aim to identify and select five vocational education institutions in China, specifically focusing on the administrative departments within these institutions and the graduating students in 2020. The researchers aim to identify and select five vocational education institutions in China, specifically focusing on the administrative departments within these institutions and the graduating students in 2020.

### **3. Sampling Technique**

According to the study, the sampling method utilised is a non-probability sampling method. Sampling techniques are commonly employed in exploratory and qualitative research studies. Purposeful sampling is a widely used technique in qualitative research that involves strategically identifying and selecting cases that offer significant information related to the phenomenon being investigated. For this study, the researchers used purposeful sampling to select the participants carefully. Interviews were conducted with respondents until the point of theoretical saturation was achieved. While purposive sampling can be a viable approach for data collection, it is imperative to acknowledge that this method only produces a sample representative of some of the population. A purposive sample is a deliberate and non-random selection of a population subset, typically chosen to represent it coherently. This task can be achieved by acquiring a comprehensive comprehension of the demographic attributes of the population by carefully selecting a sample that effectively captures its diverse variations.

#### **4. Data Collection**

Further data collection plays a pivotal role in the research process as it is essential for obtaining a reliable and conclusive research study analysis. Semi-structured interviews were employed as a methodological approach in the survey to gather primary data from the participants. A semi-structured interview is a data collection method that involves asking participants open-ended and probing questions to explore their responses and the subject being investigated further. Conducting semi-structured interviews provides researchers with several advantages, as it enables them to clarify questions with respondents effectively. Various methodologies can be employed for data collection, such as interviews, observations, questionnaires, physical measurements, and unobtrusive techniques (Saunders et al., 2009). Two interview protocols were utilised to facilitate the acquisition of data.

#### **5. Measurement/Trustworthiness**

Results from qualitative studies that may be trusted are those that are high in both quality and authenticity. It concerns how much faith (or assurance) readers put in the findings. So, the standard of quality confirms the standard questionnaire.

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