

Research On Management Strategy Of Entrepreneurial Quality Training For College Students In Higher Vocational And Technical Schools In China: A Meta-Analytic Review

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Abstract

The study aimed to evaluate the management strategies that can ensure imparting quality education and training among the students in higher vocational and technical institutions in China. For this purpose an interpretivist paradigm has been adopted, where data collection was performed with the qualitative data collection methodology using the systematic literature review approach, while analysis and interpretation of the collected data were done through the thematic analysis approach and inductive reasoning simultaneously. The Prisma-Scr screening mechanism was used for the selection and inclusion of relevant articles for the purpose of performing a systematic literature review, and 26 articles were finally selected for the purpose of performing a critical review of the literature. The findings of the study has revealed that entrepreneurial management strategies and education among the students of higher vocational and technical training institutions can be improved by increasing awareness and familiarity among the students about the benefits of the entrepreneurial education, initiating quality assurance procedures and practices through regular monitoring and control, improving collaboration among the vocational and technical institutions and corporate management of organizations, so that students can be provided with ample opportunities for apprenticeship and other practical training facilities to polish their technical and management skills, and development or provision of the best possible infrastructural facilities would help the faculty and students learn entrepreneurial skills in an effective manner. In addition to that practical implications of the findings have been provided for both the academicians and future researchers, and limitations of the study are also discussed, while recommendations are provided to the future researchers to overcome these limitations and reach more thorough and valid conclusion on the subject matter in the future.

Keywords: Entrepreneurial education, management strategies, technical and vocational education institutions, quality learning, quality assurance, technical and entrepreneurial skills.

Introduction

In the wake of the 21st century, educational management and strategies have shifted their focus on the consideration of risks and challenges associated with changing business environments across the globe due to the integration of technology and digitalization into almost all walks of life. In addition to that, the rapid

industrialization and technology integration into the business processes have demanded a shift in skills and knowledge of employees and entrepreneurs as well; therefore, in order to produce talented and skillful workers, who are updated with the changing dimensions of the business world, the vocational education and training institution needs to significantly update

their curriculum and management strategies in accordance with the challenges posed by the real-world scenario (Ahmed et al., 2020). In response to this increased need and demand concerning the upgradation of the vocational education and training institutions, the 2030 Education Framework for Action (EFA) has been launched by UNESCO with an objective to promote vocational and technical education for the attainment of a sustainable future in the long run (UNESCO, 2015). Similarly, governments of developed countries across the globe have also implemented and promulgated several legislations to support vocational education and training institutions; for instance, the Strengthening Career and Technical Education for the twenty-first Century Act were promulgated by the US government to improve the educational facilities and promote investment in the vocational and technical education (CBO, 2018). Similarly, another framework known as “Berufsbildung 4.0” has been launched by the government of Germany to promote digital integration into entrepreneurial and vocational education with an objective to improve capabilities and understanding of industry 4.0 in such institutions (BMBF, 2017). In spite of such an increase in the initiatives and activities of the developed countries towards the promotion of entrepreneurial programs and vocational training and education centers, there are several challenges that are being faced by the countries in accomplishing their objectives, which include a lack of integration between the educational institutions and industry, lack of competent faculty, ineffective infrastructural facilities, rapidly changing dimensions and demands of the industry, and increasing gap between the enterprises and students due to lack of apprenticeship programs. Therefore, a need has been felt by researchers across the globe to explore and develop such management strategies that can help promote entrepreneurial and vocational education, along with the development

of skills among the students in higher vocational and technical education institutions.

Unprecedented growth has been experienced by the Chinese economy during the past few decades, which significantly increased the demand for skilled labor and technical facilities in the country. The government of the country has taken several steps for the development and promotion of vocational and technical institutions to enable the economy to meet its increasing demand for skilled labor; however, still the country faced several issues concerning transformation, digitalization, structural optimization, and upgradation of skills and facilities (Cao, 2004). According to the findings of a research study, there are only 26.8% of skilled workers working in the entire employed workforce of China, which renders it far behind the other developed countries like the USA and Germany, which have more than 40% of their workforce as skilled labors (Xu et al., 2021). The Chinese government has taken several steps towards addressing this deficiency of skilled labor, among which the recent one was the development of the National Plan for The Implementation of Vocational Education Reform in 2019, according to this plan, the country aimed to increase the number of vocational and technical training institutions across different regions of the country to almost 2 million by the end of 2021. However in spite of such an increase in the number of vocational and technical training institutions, the country still faces a lack of technical and well-educated entrepreneurs, it is because of the lack of entrepreneurial education and management across the vocational and technical institutions in China. It is also observed that Chinese institutions are capable of generating highly technical workers, but when it comes to entrepreneurs, the country significantly lacks quality entrepreneurs in the market. Therefore, it is highly important for the education policymakers of the country to develop or

integrate such management policies and practices across the vocational and technical institutions of the country that can help develop quality entrepreneurs, who are also equipped with extended technical skills, so that they can be capable of making both the tactical and managerial decisions simultaneously (Huang et al., 2021). Hence, the present study attempts to evaluate the management strategies that can ensure imparting quality education and training among the students in higher vocational and technical institutions in China. For this purpose, the present study attempts to answer the question “How does the management strategies can be improved concerning imparting quality education and training among the students in higher technical and vocational institutions in China?”

Literature Review

The term entrepreneurship can be broadly defined as a process of creating value. Entrepreneurship is the process of the assessment of current and potential business opportunities, construction plans for businesses, evaluation of the available resources, and the entity's management (Allawadi, 2007). Technical education and vocational training are unique forms of education employed to equip the graduates with the latest techniques and developments by imparting them with technical skills, and abilities, altering their attitudes and enabling them to complete the modern world's competitive work environment and practically training the graduates in a way to become self-employed (Winer, 2000). Despite their uneven distribution, the four fundamental components of territory, manpower, finance, and entrepreneurship are present in all economies around the world. The goal of entrepreneurship education is to give students the necessary knowledge, abilities, and inspiration to support successful entrepreneurship (Onweh, Akpan, and Caleb, 2013). The indulgence of the students in technical and vocational training programs has immensely increased in the past few decades

because the majority of the researchers and academicians have argued about the future of the business which would be reshaped by small enterprises, self-businesses, and self-employment (Shinnar, Pruett and Toney, 2009). Therefore the management is intended to motivate and engage the students towards the entrepreneurship culture in the higher technical and vocational schools after the completion of their graduation courses.

Entrepreneurship practices in the education institutes bring many career opportunities in the future yet a vast number of graduates and students are unaware of the importance and value of entrepreneurship and considered to be an unpopular term and many graduates do not give priority to entrepreneurship education and training due to the lack and ignorance about the future potential of this sector. A study by Hj Othman and Ishak, (2011) was conducted to understand the student's perceptions and attitudes towards entrepreneurship practices in their careers after graduation from Malaysian universities. The survey is conducted through structural questionnaires for collecting the data from 266 participants of the entrepreneurship scheme studies. The data also contains interview sessions to extract the student's perceptions about the entrepreneurship through snowball technique. The perception of the students as result showed a positive response by the graduates towards entrepreneurship, which is mainly attributed to their exposure to the entrepreneurship training programs. The study also concluded that entrepreneurship training leads to altering the perceptions of the individuals by considering entrepreneurship as a future career goal. Souitaris, Zerbinati, and Al-Laham, (2007) conducted a study to acquire an answer to the question of whether entrepreneurship training and programs affect the entrepreneurial intents of the science student. The evaluation is based on the data collected before and after the commencement of the entrepreneurship

programs. The study concluded that the familiarization of the students with the entrepreneurship training programs enhances the student's attraction toward entrepreneurship. According to Ibrahim et al., (2015) and Fretwell, (2003), the technical and vocational training programs for entrepreneurship are often considered an economic activity with the motive to create high-value and self-sustained individuals, who can then compete in all professions globally. Entrepreneurship is a concept and strategy which enables individuals to transform their conceptual ideas into reality and implement them in real-life businesses with the possibility of getting lucrative rewards and returns. Entrepreneurship among graduates can bring prosperity to society and the overall economy. The importance of entrepreneurship in teenagers is highlighted by the work of Taylor, (2008). The research argues that teenagers engage in entrepreneurship practices to attain autonomy and self-ownership in small businesses. It is argued in the research work of Myamba, (2013) that technical and vocational education training institutes tend to come in line with the latest entrepreneurial approaches to eradicate unemployment in passing out graduates. The academicians and researchers agreed upon the benefits and the positive change in the economic developments of the nations that can be brought by the introduction of entrepreneurship training in their higher technical and vocational training institutes.

Furthermore, it is provided that entrepreneurship is a powerful tool to combat economic competition and bring economic developments (Kelley, Bosma, and Amorós, 2011). Modern societies and communities are in desperate need of such women and men that can be hired by the enterprises and entities that can result in decreasing the negative effects of mass unemployment and eradicating poverty through the skills offered by technical and vocational

training schools (Maigida and Saba, 2013). The study conducted by Bhatta, (2021) attempted to determine the relationship between effective technical and vocational education and the assurance of quality. As most researchers and policymakers intend to consider quality assurance as a base to extract the possible goals from the technical and vocational training programs. The study used a quantitative research method to analyze the data collected through a survey. The statistical analysis of the data comes up with the findings that technical and vocational education training is not effective as desired without proper assurance of quality and the possible goals and targets of technical education and training (TVET) can not be achieved without proper quality control and management of the training.

A comprehensive study is conducted by Agsornsua et al., (2020) to assess and determination of management strategies for enhancing entrepreneurship among the students of vocational and community schools. A mixed method research strategy is implied in the analysis. The sample of the data comprises directors and teachers from vocational and community schools in Thailand. Questionnaires are circulated for data collection. Data is screened through statistical tools like means, medians, percentages, and frequency distributions. The findings of the research work revealed that in all the proposed management strategies the entrepreneurship enhancement in the students existed at a higher level, in all the strategies the entrepreneurship factor remained the priority of the management, especially in the incubation centers for entrepreneurship and the development of teachers. The investigations of Chatchai, (2010) and Laurent, (2011) determined five main features of the management strategies regarding entrepreneurship in technical and vocational high schools under the umbrella of the vocational education commission. This comprises

participatory management, which includes the mutual working of the technical and vocational management for conducting joint ventures, creating opportunities for all the participants to get benefits from the entrepreneurial decisions, and right to get the opinions of all the participants included in the management; development of new and improved curriculum such that it comprises of the latest trends and techniques existed in the contemporary entrepreneurial practices. The curriculum should be modeled such that it is in line with the modern skills, equipped with the latest teaching techniques and professionalism having a close relevance with practical life experiences; the systematic management development which includes alterations and changes in the operational methods comprises different departments and members as well as the whole operational team that can be utilized to make the technical and vocational training more effective and productive; development of teachers which, comprises of different types of procedures to enhance the knowledge, practical skills and experiences of the teaching staff and personnel involved in technical and vocational training programs.

Moreover, it is also provided that empowerment of the teachers and personnel is crucial for carrying out the operations which are necessary to be fulfilled such that the organizational goals and targets are easily achieved; establishment of technical collaborations in management between the technical and vocational institutes and the practical workplace. This management strategy is employed to build a strong collaboration between the technical education skill institutes and the skilled professional to provide skilled manpower to grasp the global labor market. With this strategy, the graduates should be able to come out as a professional, managers, and good entrepreneurs. The management strategy makes the learners self-employed individuals and

professionals. Various quality indicators are used by policymakers and academicians to evaluate the effectiveness and performance of technical education and vocational training programs. The major quality indicators according to the UNICEF, (2002) are; the knowledge gained by the learners, the quality of the training environments, the quality of the course contents of the training programs, methods of evaluating the quality, and the possible benefits and outcomes of the learning processes. While other indicators of evaluating the quality of the technical training include, the behavior of the learners regarding demographic factors, the competency of the teaching staff, the curriculum, and the environment (Ehinder, 2004). The study conducted by Gabadeen and Raimi, (2012) investigated the major challenges that may be faced during the management strategies regarding technical education and vocational training that incorporate entrepreneurship training. The key challenges include matters related to policies in higher education institutes of technical education, the availability of required manpower, the availability of necessary funds and grants from the governments for the training programs, scarcity of skilled professionals and teaching staff, and environmental and cultural factors.

Furthermore, in the research work conducted by Onweh, Akpan, and Caleb, (2013) a random sample is collected from a total of 48 respondents, which are technical education and vocational training lecturers in 30 different Nigerian Universities. The analysis of the data through statistical tools revealed that interactions between academic institutions and the practical industrial environment are important for developing entrepreneurship. Other factors that contributed to entrepreneurship skills development are creativity, the attitude of taking risks and solving problems, and team working skills. In technical education, the strategy refers

to the competence of the instructors in selecting an appropriate and efficient teaching approach and designing the contents of the lesson such that it is in line with the objective of the training program. The application of appropriate strategy enables the students to positively engage in the lectures and achieve the goals and objectives (Norfadzliah, 2017). Concerning entrepreneurial education in technical and vocational training, there is no specific strategy applied related to teaching (Kuratko, 2005).

However, it solely depends on the instructor to select the best possible strategy to deliver the knowledge and achieve the required goals of the lessons regarding entrepreneurship in high schools (Turner and Gianiodis, 2017). In modern economic conditions, the sustainability of businesses and entities depends upon the flexibility in adopting the new trends and strategies within the required time and manner, which are required by the modern and changing business world (Chaffin et al., 2016). The management strategies comprise mainly two components i.e., goals and means. The goal component represents the overall structure of the future goals of the organization while the means factors consist of strategies for how the target objectives and goals of the organization can be achieved (DeSantola and Gulati, 2017). Strategic management is the mirror that shows the future directions of the organization and sets short-term goals for the current conditions (Camuffo et al., 2020). The management strategy regarding the technical education and vocational training in higher technical schools comprises the planning for the entrepreneurship training, organization of different factors, motivating the students towards the future prospect and potential of the entrepreneurship training, and strategies to efficiently implement and control the entrepreneurship quality training (Yurii et al. 2020).

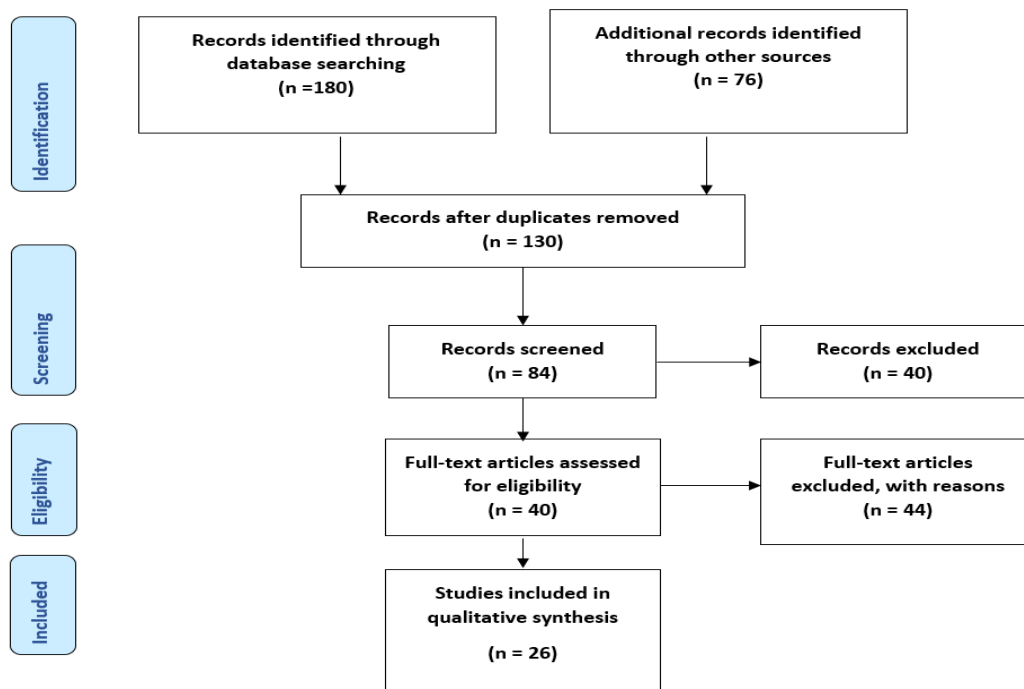
Research Methodology

This study attempts to answer the research question “How the management strategies can be improved concerning imparting quality education and training among the students in higher technical and vocational institutions of China?” Since the study attempts to answer subjective questions by asking “how”, therefore, an interpretivist philosophical approach is adopted for the present evaluation. Interpretivism suggests the collection and exploration of subjective data, which requires judgemental explorations in a natural context, whereas as opposed to this philosophical school of thought, the positivism involves collection and evaluation of objective data through experimentation or statistical analysis, which is not suitable for the present context. Furthermore, the present study has adopted a qualitative methodological approach for the purpose of data collection and inductive reasoning for its subsequent analysis, which involves the use of a systematic literature review approach, where the researcher identifies and selects relevant literature concerning the topic of the study, and looks for evidence in the forms of common themes or patterns or meanings, which are then analyzed using the thematic analysis approach while utilizing inductive reasoning. The scholarly articles and past literature for the purpose of a systematic review were selected and screened for inclusion in the present study using the Prisma-SCR screening mechanism, as a result of the mentioned screening exercise a total of 26 scholarly articles were finalized for the purpose of a systematic literature review as exhibited in the figure – 1 below. Moreover, for the purpose of searching relevant articles, different keywords including entrepreneurial education, quality training, vocational and technical institutions, quality management, entrepreneurial management, etc. have been used, while articles were accessed through different databases including ScienceDirect, Frontiers, Emerald, ResearchGate, Jstor, Springer, etc. Whereas with

respect to inclusion and exclusion of articles, the study considered all such scholarly articles fit for inclusion that have a valid abstract, are written in the English language, address the research

question and aims, contain primary explorations, and were published between 2000 to 2022, while all other articles that didn't meet the inclusion criteria were excluded from selection.

Figure 1: Prisma-SCR Screening Framework



Results and Discussion

The study has adopted a systematic literature review approach for the purpose of collection and analysis of data from secondary sources, and a thematic analysis approach has been used for the identification of common themes or patterns of meanings concerning the management of entrepreneurial quality education and training among the students of higher vocational and technical institutions. For this purpose, 26 scholarly articles were selected and critically reviewed in a systematic manner to identify common themes or patterns of meanings, the findings from the studies selected for SLR along with descriptions of each study are provided in this section.

Across the selected 26 studies for SLR (characteristics and description of each study are provided in Table – 1) a number of factors that affects the quality management of entrepreneurial education and training in the higher vocational and technical education centers of China have been identified. It is revealed that management should first spread awareness among the students concerning the potential benefits of entrepreneurial education and training in their professional careers, which would help them motivate to pursue such education with greater enthusiasm. The studies of Souitaris, Zerbinati, and Al-Laham, (2007); Ibrahim et al., (2015); Fretwell, (2003); Taylor, (2008); Myamba, (2013); Hj Othman and Ishak, (2011); Shinnar, Pruett, and Toney, (2009); Onweh, Akpan and

Caleb, (2013); Winer, (2000), and Allawadi, (2007) have revealed that the extent of familiarization of the students from the benefits of entrepreneurial programs, especially in the vocational and technical institutions has a significant impact in determining their seriousness and interest in pursuing such programs. These studies have also revealed that the integration of entrepreneurial programs in vocational and technical training institutions improves the business and management skills of the students pursuing technical education, which in turn makes them highly competent professionals and benefits the market in the long run. Furthermore, the studies conducted by Kelley, Bosma, and Amorós, (2011); Maigida and Saba, (2013); Bhatta, (2021), and Agsornsua et al., (2020) revealed that quality assurance in the management of entrepreneurial education can be achieved through goal setting and regular monitoring of the education and training programs. It is provided that regular monitoring is highly essential to ensure the provision of quality facilities and learning opportunities to the students in vocational and technical training institutions. Moreover, the studies conducted by Chatchai, (2010); Laurent, (2011); Gabadeen and Raimi, (2012); UNICEF, (2002); Ehindero,

(2004); Onweh, Akpan, and Caleb, (2013); Norfadzliah, (2017), and Kuratko, (2005) have revealed that in order to improve the management and provision of quality entrepreneurial education and training to the students, it is important to establish technical collaborations in management between the technical and vocational institutes and the practical workplace. Such collaborations will help the students get opportunities in the corporate sectors for employment and also identify opportunities to start their own businesses by visualizing some innovative ideas or bringing innovative products or services into the market. Finally, the studies conducted by Turner and Gianiodis, (2017); Chaffin et al., (2016); DeSantola and Gulati, (2017); Camuffo et.al, (2020), and Yurii et al., (2020) have revealed that an effective management strategy for entrepreneurial education can be of no use without the provision of proper means or resources for its effective implementation and execution in the vocational and technical training institutions. Therefore, it is highly integral to provide infrastructural facilities and necessary equipment to the vocational and technical training institutions for imparting quality education and entrepreneurial practices.

Table 1: Description of Selected Studies

SR. NO.	Author + Date	The main theme of the selected article	Problem being discussed	Database	Journal Name
1	Allawadi, (2007)	Entrepreneurship education, need assessment and management strategies.	This study aimed to evaluate the need assessment and develop management strategies that can help improve entrepreneurship education and skills among the students.	Research Gate	World Journal of Education
2	Winer, (2000)	Healthcare leaders, students, and entrepreneurial skills.	This study aims to explore the need for bringing entrepreneurial education to the healthcare sector or institutions.	ERIC	American Vocational Journal

3	Onweh, Akpan and Caleb, (2013)	Youth Empowerment, Entrepreneurial education, management of entrepreneurial education in vocational and technical colleges.	This study explored the appropriate strategies that can help in the integration of entrepreneurial education in VET.	Research Gate	Academic Journal of Interdisciplinary Studies
4	Shinnar, Pruett and Toney, (2009)	Management of entrepreneurship education, and students' attitude.	The study addresses the student's and faculty members' attitudes toward entrepreneurship and entrepreneurial education.	Taylor & Francis	Journal of Education for Business
5	Hj Othman and Ishak, (2011)	Entrepreneurship education, and management schemes, entrepreneurial opportunities.	It addresses how entrepreneurial education management helped in grasping or addressing entrepreneurship opportunities.	Research Gate	Journal of Technology
6	Souitaris, Zerbinati and Al-Laham, (2007)	Entrepreneurial programs and their impact on entrepreneurship intentions of students.	It addresses whether the integration of entrepreneurial programs into the technical or higher education institutions enhances the intentions of the students towards building entrepreneurial intentions.	Scientific Research	Journal of Business Venturing
7	Ibrahim et al., (2015)	Entrepreneurial programs and their impact on entrepreneurship intentions of students.	It explores the management strategies and integration of entrepreneurial programs into higher education institutions and their corresponding impact on entrepreneurial intentions among students.	Frontiers	International Education Studies
8	Fretwell, (2003)	Evaluating the role of vocational training institutions in promoting entrepreneurship.	It addresses the role of VETs in promoting entrepreneurship and bringing other developments in the market and society.	Wiley Library	European Journal of Education
9	Taylor, (2008)	Entrepreneurial education, management strategies.	It addresses the role of management strategies in promoting quality entrepreneurial education and skills among the students of higher education institutions.	Research Gate	International Journal of Entrepreneurial

					Behavior & Research
10	Myamba, (2013)	Streamlining Vocational Education Institutions for entrepreneurship development.	It addresses the management strategies and approaches adopted for the upgradation or streamlining of the VETs for entrepreneurship development.	Research Gate	CAPA Scientific Journal
11	Kelley, Bosma, and Amorós, (2011)	Entrepreneurial education, management strategies.	It addresses the role of management strategies in promoting quality entrepreneurial education and skills among the students of higher education institutions.	Global Entrepreneurship Monitor	N/A
12	Maigida and Saba, (2013)	Youth Empowerment through the integration of entrepreneurial education in technical and vocational institutions.	It addresses how the integration of entrepreneurial education into technical and vocational institutions has contributed to youth empowerment in Nigeria.	Research Gate	International Journal of Humanities and Social Science
13	Bhatta, (2021)	Importance of Quality assurance and monitoring in technical and vocational education and training.	It addresses the importance of quality assurance and assessment procedures for monitoring technical and vocational education and training.	Research Gate	Journal of Technical and Vocational Education and Training
14	Agsornsua et al., (2020)	Management Strategies in entrepreneurial education for enhancing the quality of entrepreneurial education among higher education institution students.	It addresses the role of management strategies in enhancing entrepreneurial skills among higher education vocational and technical institutions.	Research Gate	World Journal of Education

15	Chatchai, (2010)	Education management, integration of entrepreneurial skills among agriculture students.	It explores the management strategies concerning the successful integration of entrepreneurial skills among agriculture students.	Research Gate	Ph.D. thesis submitted to the Northeastern University
16	Laurent, (2011)	Pedagogical concerns in initial vocational training and entrepreneurial education integration.	It addresses the pedagogical concerns and challenges faced in initial vocational training and entrepreneurial education integration.	ScienceDirect	Journal of Vocational Education and Training
17	Yurii et.al (2020)	Enterprise management strategies in entrepreneurial training.	It explores how enterprise management strategies help in the promotion of entrepreneurial training.	Springer	International Journal of Management
18	Ehindero, (2004)	Quality assurance and accountability in managing the entrepreneurial education.	It addresses the role of accountability and quality assurance in the promotion and management of entrepreneurial education.	Research Gate	A thesis submitted to the. Olabisi Onabanjo University
19	Gabadeen and Raimi, (2012)	Entrepreneurship education management strategies.	It addresses the entrepreneurship education management strategies used in Nigerian higher education institutions for ensuring the quality of entrepreneurial education.	ScienceDirect	Abuja International Journal of Education and Management Sciences
20	Onweh, Akpan, and Caleb, (2013)	Youth Empowerment through the integration of entrepreneurial education in	It addresses how the integration of entrepreneurial education into technical and vocational institutions has contributed to youth empowerment in Nigeria.	Emerald	Academic Journal of Interdisciplinary Studies

		technical and vocational institutions.			
21	Norfadzliah, (2017)	Entrepreneurial education, management strategies.	It addresses the role of management strategies in promoting quality entrepreneurial education and skills among the students of higher education institutions.	Research Gate	e-Proceeding National Innovation and Invention Competition Through Exhibition
22	Kuratko, (2005)	Development of Entrepreneurial Education.	It explored the trends, development, and challenges concerning the development of entrepreneurial education.	ScienceDirect	Entrepreneurship Theory and Practice
23	Turner and Gianiodis, (2017)	Entrepreneurial education and management strategies.	It explored the management strategies involved in imparting quality entrepreneurial education, and how it affects the professional competencies of students in practical life.	Research Gate	Journal of Small Business Management
24	Chaffin et al., (2016)	Infrastructural development needs entrepreneurial education management strategies.	It explores the need for infrastructural development and equipment provided in the promotion of entrepreneurial education.	Springer	Organizational Research Methods
25	DeSantola and Gulati, (2017)	Development and growth in entrepreneurial approaches.	It addresses the growth and development of entrepreneurial approaches and ventures.	Research Gate	Academy of Management Annals
26	Camuffo et.al, (2020)	Entrepreneurial decision-making and motivation for becoming an entrepreneur.	It addresses the role of entrepreneurial education in entrepreneurial decision-making and motivation for becoming an entrepreneur.	ScienceDirect	Management Science

Results of Thematic Analysis

Thematic analysis has been performed to identify the common themes or patterns of meanings

across the selected articles for systematic literature review purposes. The findings of the thematic analysis are presented in Table – 2 below:

Table 2: Thematic Analysis

Themes	Sub-Themes or Words representing a theme	Frequency	Meaning	Evidence
Spreading Awareness and Familiarity with Entrepreneurial education	Social empowerment, familiarity, awareness, entrepreneurial management, entrepreneurial education, autonomous business venture, quality decision making, and unpercented growth opportunities.	6,230	It relates to spreading awareness among the students to make them familiar with the potential benefits and positive implications of quality entrepreneurial education on their professional lives.	The familiarization of the students with the entrepreneurship training programs enhances the student's attraction toward entrepreneurship.
Quality assurance in the management of entrepreneurial education	Quality assurance, assessment, and evaluation of educational programs, entrepreneurial education management, monitoring and control of activities in entrepreneurial education.	4,576	It considers the measures and procedures adopted for assuring, measuring, and monitoring the quality of entrepreneurial education and how management practices can be developed and enhanced to ensure quality.	As most researchers and policymakers intend to consider quality assurance as a base to extract the possible goals from the technical and vocational training programs. The study used a quantitative research method to analyze the data collected through a survey.

<p>Establish technical collaborations in management between the technical and vocational institutes</p>	<p>Technical collaboration, communication and joint ventures between vocational institutes and management of corporations, provision of apprenticeship programs.</p>	<p>4,810</p>	<p>It focuses on the role of establishing technical collaborations and joint ventures in the improvement of management quality in entrepreneurial education in the context of management of corporations and technical institutions; for instance the provision of apprenticeship programs.</p>	<p>Participatory management, includes the mutual working of the technical and vocational management for conducting joint ventures, creating opportunities for all the participants to get benefits from the entrepreneurial decisions, and right to get the opinions of all the participants included in the management; development of new and improved curriculum such that it comprises of the latest trends and techniques existed in the contemporary entrepreneurial practices.</p>
<p>Provision of Infrastructural means and resources for the promotion of quality entrepreneurial education and management.</p>	<p>Infrastructural means and resources, quality management, entrepreneurial education, facilities, and curriculum.</p>	<p>4,719</p>	<p>It refers to the establishment and provision of quality resources to the technical and vocational colleges, which would assist the management in the implementation of quality practices for imparting entrepreneurial education in an effective manner.</p>	<p>The management strategies comprise mainly two components i.e., goals and means. The goal component represents the overall structure of the future goals of the organization while the means factors consist of strategies for how the target objectives and goals of the organization can be achieved.</p>

Discussion

The findings of the study have revealed four themes that include spreading awareness and familiarity among the students about entrepreneurial education, quality assurance and

management of entrepreneurial education, establishing technical collaborations in management between the technical and vocational institutes, and the provision of Infrastructural means and resources for

promotion of quality entrepreneurial education and management. Moreover, in relationship to the spreading awareness and familiarity among the students about entrepreneurial education, the studies conducted by Syden and Shaw, (2014); Parreira, et al., (2018), and Berglund, Hytti, and Verduijn, (2020), who revealed in their respective studies that it is important to make the students of higher vocational and technical education centers regarding the benefits associated with acquiring entrepreneurial education and strength along with their technical education in order to motivate them to learn entrepreneurial education of skills. Similarly, it is also provided that entrepreneurial education gives social and professional empowerment, and making the students familiar with such benefits encourages them to pursue entrepreneurial education along with their technical courses. Whereas, concerning the quality assurance and monitoring of the entrepreneurial education programs, the findings of the present study are in line with the explorations done by Li, Shen, and Lv, (2020), and Hernández-Sánchez, Sánchez-García and Mayens, (2019), who revealed in their respective studies that quality assurance is an integral component of ensuring the provision of quality entrepreneurial education in the higher education institutions. It is also provided that regular monitoring and quality assurance exercises, also enable the management to get benefited from the useful insights of the students concerning the teaching techniques and management strategies employed by the institutions in imparting entrepreneurial education. Whereas, concerning the last two themes which are the provision or development of infrastructural facilities, and establishment of technical collaborations, the findings of the present study are in line with the general perceptions at large. However, the studies conducted by Ndala and Pelsler, (2020), and Seo, (2021), suggested that technical education and skills are equally important as entrepreneurial skills; therefore, institutions should have quality

infrastructural facilities to help their student remain updated on the recent developments in digital technologies. It is also provided that most of the entrepreneurial skills can be learned through effective practical demonstration, for which it is highly integral to equip the institutions with quality resources and capabilities. Whereas the studies conducted by Bennett, (2019), and Babajide et al., (2020), revealed that both technical and entrepreneurial education are practical educations in nature; therefore, acquiring only theoretical knowledge is not sufficient for becoming an effective entrepreneur in the market; rather, practical training through apprenticeship programs are highly integral for the development of certain effective entrepreneurial and technical skills. It is also provided that corporations and educational institutions should make close collaboration to provide opportunities for college students for acquiring practical skills and knowledge about the industry.

Conclusion

The study aimed to evaluate the management strategies that can ensure imparting quality education and training among the students in higher vocational and technical institutions in China. The findings of the study revealed that entrepreneurial management strategies and education among the students of higher vocational and technical training institutions can be improved by increasing awareness and familiarity among the students about the benefits of entrepreneurial education, initiating quality assurance procedures and practices through regular monitoring and control, improving collaboration among the vocational and technical institutions and corporate management of organizations, so that students can be provided with ample opportunities for apprenticeship and other practical training facilities to polish their technical and management skills, and development or provision of the best possible

infrastructural facilities would help the faculty and students learn entrepreneurial skills in an effective manner. It is provided that entrepreneurial and technical skills cannot be built merely on the basis of acquiring theoretical knowledge; rather, the acquisition of practical skills and knowledge is highly integral for becoming a competent entrepreneur, which is only possible by the provision of opportunities for practical training through strong collaboration between the corporate sectors and educational institutions.

The findings of the study brought about broader theoretical implications because a wide range of literature has been consulted in the completion of the present study; therefore, academicians and future researchers can use these findings in expanding their knowledge base in the future concerning the topic under consideration. Furthermore, the policymakers and management of institutions can use these findings to improve their curriculum, technical facilities, infrastructure, and strategies concerning the management of entrepreneurial education to integrate quality education and entrepreneurial skills among the technical and vocational students in higher education institutions in China. Moreover, the study used only qualitative methodology, which is inherently limited in the context of giving greater exposure to the researcher for data collection and analysis, which might have affected the outcomes of the present study due to the exercise of the researcher's personal bias or judgments. Therefore, the future researcher should conduct explorations by adopting both the qualitative and quantitative approaches to reach more valid and thorough findings.

References

1. Agsornsua, P., Chusorn, P., Prasertporn, V., Pimtong, A. and Samranruen, N., 2020. Management Strategies for Enhancing Students' Entrepreneurship in Industrial and Community Education Colleges of Northeastern Thailand. *World Journal of Education*, 10(6), p.143.
2. Ahmed, T., Chandran, V., Klobas, J., Liñán, F. and Kokkalis, P., 2020. Entrepreneurship education programmes: How learning, inspiration and resources affect intentions for new venture creation in a developing economy. *The International Journal of Management Education*, 18(1), p.100327.
3. Allawadi, S., 2007. Entrepreneurship Challenges in the 21st century. . Indian Institutes of materials management CBN (2003) Central bank Report. Nigeria. Nigeria.
4. Babajide, A., Lawal, A., Asaley, A., Okafor, T. and Osuma, G., 2020. Financial stability and entrepreneurship development in sub-Saharan Africa: Implications for sustainable development goals. *Cogent Social Sciences*, 6(1).
5. Bennett, D., 2019. Infrastructure investments and entrepreneurial dynamism in the U.S. *Journal of Business Venturing*, 34(5), p.105907.
6. Berglund, K., Hytti, U. and Verduijn, K., 2020. Navigating the Terrain of Entrepreneurship Education in Neoliberal Societies. *Entrepreneurship Education and Pedagogy*, 4(4), pp.702-717.
7. Bhatta, K., 2021. Ensuring Quality Assurance in Technical and Vocational Education and Training. *Journal of Technical and Vocational Education and Training*, 1(15), pp.71-82.
8. BMBF. 2017. Berufsbildung 4.0—den digitalen Wandel gestalten. Available online at: https://www.bmbf.de/upload_filestore/pub/Berufsbildung_4.0.pdf [Accessed March 28, 2022].
9. Camuffo, A., Cordova, A., Gambardella, A. and Spina, C., 2020. A Scientific Approach to Entrepreneurial Decision Making:

- Evidence from a Randomized Control Trial. *Management Science*, 66(2), pp.564-586.
10. Cao, C., 2004. Challenges for Technological Development in China's Industry. *China Perspectives*, 2004(4).
 11. CBO. 2018. Strengthening Career and Technical Education for the 21st Century Act. Available online at: <https://www.cbo.gov/system/files/2018-08/s3217.pdf> [Accessed March 28, 2022].
 12. Chaffin, D., Heidl, R., Hollenbeck, J., Howe, M., Yu, A., Voorhees, C. and Calantone, R., 2016. The Promise and Perils of Wearable Sensors in Organizational Research. *Organizational Research Methods*, 20(1), pp.3-31.
 13. Chatchai, K., 2010. Development of a model to drive the philosophy of sufficiency economy to educational management of the College of Agriculture and Technology. Ph.D. Under the Office of Vocational Education Commission of the Northeast. Doctor of Philosophy Thesis in Educational Administration, Northeastern University.
 14. DeSantola, A. and Gulati, R., 2017. Scaling: Organizing and Growth in Entrepreneurial Ventures. *Academy of Management Annals*, 11(2), pp.640-668.
 15. Ehindero, S., 2004. Accountability and quality assurance in Nigerian education. In: e international conference of the Institute of Education. Olabisi Onabanjo University.
 16. FRETWELL, D., 2003. A Framework for Evaluating Vocational Education and Training (VET). *European Journal of Education*, 38(2), pp.177-190.
 17. Gabadeen, W. and Raimi, L., 2012. Management of entrepreneurship education in Nigerian higher institutions: Issues, challenges and way forward. *Abuja International Journal of Education and Management Sciences*, 2(1), pp.1-26.
 18. Hernández-Sánchez, B., Sánchez-García, J. and Mayens, A., 2019. Impact of Entrepreneurial Education Programs on Total Entrepreneurial Activity: The Case of Spain. *Administrative Sciences*, 9(1), p.25.
 19. Hj Othman, N. and Ishak, S., 2011. Kecenderungan Terhadap Pemilihan Kerjaya Keusahawanan Mengikut Persepsi Peserta Skim Usahawan Siswa. *Jurnal Teknologi*, pp.47-63.
 20. Huang, Y., Zhang, Y., Long, Z., Xu, D. and Zhu, R., 2021. How to Improve Entrepreneurship Education in "Double High-Level Plan" Higher Vocational Colleges in China. *Frontiers in Psychology*, 12.
 21. Ibrahim, W., Bakar, A., Asimiran, S., Mohamed, S. and Zakaria, N., 2015. Impact of Entrepreneurship Education on the Entrepreneurial Intentions of Students in Technical and Vocational Education and Training Institutions (TVET) In Malaysia. *International Education Studies*, 8(12), p.141.
 22. Kelley, D., Bosma, N. and Amorós, O., 2011. *Global Entrepreneurship Monitor 2010. Global Report*.
 23. Kuratko, D., 2005. The Emergence of Entrepreneurship Education: Development, Trends, and Challenges. *Entrepreneurship Theory and Practice*, 29(5), pp.577-597.
 24. Laurent, F., 2011. Pedagogical aspects of initial vocational training in the context of the Swiss VET system. *Journal of Vocational Education and Training*.
 25. Li, Y., Shen, W. and Lv, Y., 2020. Quality Evaluation of Entrepreneurship Education in Chinese Medical Colleges—From the Perspective of Student Cognition. *Frontiers in Psychology*, 11.
 26. Maigida, J. and Saba, T., 2013. Entrepreneurial Skills in Technical Vocational Education and Training as A strategic Approach for Achieving Youth Empowerment in Nigeria. *International*

- Journal of Humanities and Social Science, 3(5).
27. Myamba, B., 2013. Streamlining the TVET system for entrepreneurship development. CAPA Scientific Journal,.
 28. Ndala, N. and Pelsler, T., 2020. Exploring the entrepreneurship policy-making and outcomes undertaken by public institutions involved in entrepreneurship development in Malawi. *Journal of Contemporary Management*, 17(se1), pp.1-21.
 29. Norfadzliah, M., 2017. Kesediaan pelajar program pemasangan elektrik Kolej Komuniti Bukit Beruang untuk menceburi keusahawanan bidang elektrik. In: e Proceeding National Innovation and Invention Competition Through Exhibition.
 30. Onweh, V., Akpan, N. and Caleb, E., 2013. Youth Empowerment and the Integration of Entrepreneurship Education into Technical Vocational Education and Training (TVET) in Nigeria. *Academic Journal of Interdisciplinary Studies*,.
 31. Parreira, P., Mónico, L., Carvalho, C. and Silva, A., 2018. Entrepreneurship in Higher Education: The Effect of Academy, Motivation, Resources, Incentives, and Self-Efficacy in the Entrepreneurship Potential. *Entrepreneurship - Development Tendencies and Empirical Approach*,.
 32. Seo, R., 2021. Collaborative Entrepreneurship for Continuous Innovation: A Strategic Alliance Perspective. *Entrepreneurship - Contemporary Issues*,.
 33. Shinnar, R., Pruett, M. and Toney, B., 2009. Entrepreneurship Education: Attitudes Across Campus. *Journal of Education for Business*, 84(3), pp.151-159.
 34. Souitaris, V., Zerbini, S. and Al-Laham, A., 2007. Do entrepreneurship programs raise the entrepreneurial intention of science and engineering students? The effect of learning, inspiration, and resources. *Journal of Business Venturing*, 22(4), pp.566-591.
 35. Syden, M. and Shaw, G., 2014. Entrepreneurial Awareness among High School Learners: Case Study of Buffalo City Metropolitan Municipality. *Mediterranean Journal of Social Sciences*,.
 36. Taylor, D., 2008. *The Entrepreneur in Youth: An Untapped Resource for Economic Growth, Social Entrepreneurship, and Education* 20082M.L. Kourilsky and W.B. Walstad. *The Entrepreneur in Youth: An Untapped Resource for Economic Growth, Social Entrepreneurship, and Education*. Cheltenham: Edward Elgar 2007. , ISBN: 978-1-84542-250-9. *International Journal of Entrepreneurial Behavior & Research*, 14(5), pp.367-369.
 37. Turner, T. and Gianiodis, P., 2017. Entrepreneurship Unleashed: Understanding Entrepreneurial Education outside of the Business School. *Journal of Small Business Management*, 56(1), pp.131-149.
 38. UNESCO. 2015. Education 2030 Framework for Action to be Formally Adopted and Launched. Available online at: <https://en.unesco.org/news/education-2030-framework-action-be-formally-adopted-and-launched> [Accessed March 28, 2022]
 39. UNICEF, 2002. *Quality Education For All: From a Girl's Point of View*. New York: digitalibrary.un.org, p.13.
 40. Winer, R., 2000. Rung by up the health career ladder. *American Vocational Journal*, 48(7), pp.18-27.
 41. Xu, W., Qin, X., Li, X., Chen, H., Frank, M., Rutherford, A., Reeson, A. and Rahwan, I., 2021. Developing China's workforce skill taxonomy reveals extent of labor market polarization. *Humanities and Social Sciences Communications*, 8(1).
 42. Yurii, K., Kyrychenko, N. and Stukan, T., 2020. FORMATION OF ENTERPRISE MANAGEMENT STRATEGIES AND

ENTREPRENEURSHIP TRAINING.
International Journal of Management, 11(6),
pp.793-800.