

The Pressing Needs of Human Resource Management Renovation of Higher Vocational Schools in China: From the Perspective of Teacher Competency

Yang, Z.¹, Sheikh, K.²& Sheikh, M. H.³

¹Changzhou Vocational Institute of Engineering, No, 33 Middle Gehu Rd., Wujin District, 213164, Changzhou, Jiangsu, CHINA

^{2,3}Universiti Kuala Lumpur, 1016, Jalan Sultan Ismail, 50250 Kuala Lumpur, MALAYSIA

*Corresponding author: 49505021@qq.com

Received 15 May 2022, Revised 29 May 2022, Accepted 12 June 2022, Available online 13 June 2022

To Cite This Article:

<https://doi.org/10.53797/iccmjssh.v1i3.3.2022>

Abstract: This conceptual article explores the pressing need of Human Resource Management (HRM) renovation of Higher Vocational Education (HVE) in China, and to propose plausibly and concrete significance for HVE schools in China the impending demand of human capital utilization improvement to ensure the high-quality educational performance and eventually to meet the high-caliber talent requirements of market home and abroad. The study defines and evaluates the core concepts of teacher competency, performance and organizational support, and majorly illustrates that it is the time's call for the HVE schools in China to face the reality that the HRM system applied in enterprises cannot be duplicated directly and the traditional HRM methods formed shall be well-renovated in order to get a better educational performance. The study utilized a desk review research approach targeting literature from a variety of references such as studies, research journals, books, online resources of reports, articles and electronic databases. A failure to strengthen the function of teacher competency in performance appraisal of HVE schools in China results in the lag development of vocational education, which eventually will influence the social and economic competitiveness of the country. The mechanism in between competency and performance is presented explicitly and a mediator as organizational support is also introduced to make the study be systematic from a different angle. Based on the discussion, it is presented that an urgent need for the HVE schools in China to be aware of the application of appropriate competency-based performance appraisal in response to the challenges of providing solid vocational human capital for the booming market, which is identified as the result of this paper.

Keywords: Human Resource Management, Renovation, Higher Vocational Education, Teacher Competency

1. Introduction

Competency research has been a focus in the field of Human Resource Management (HRM) while most of researches were concentrated on competency research application in enterprises; and how to utilize the theory of competency in the sector of Higher Vocational Education (HVE) where teachers are as the majority human capital in colleges and universities in the field of HRM is still very much limited. Teaching performance appraisal can be regarded as a part of educational evaluation for schools and as the core of student cultivation, teachers as the subject of schooling, are inevitably included in the assessment system, being the research object. What sorts of competencies shall teachers possess, what features the colleges and universities present under the new time's circumstance and whether there is a correlation between teacher competency and teaching performance improvement shall be explored with theoretical and practical meanings.

Theoretical support and methodological guidance for educational performance improvement of HVE schools in China is increasing day by day as a need of the era from the perspective of applying theoretical research of teacher competency and performance appraisal. The main purpose of the paper is to make an explicit analysis on the essentialness of HRM renovation of HVE schools in China from the perception of influence of teacher competency on teaching quality

*Corresponding author: yang.zhen@s.unikl.edu.my

<https://iccmjssh.com/> All right reserved.

performance. The necessity analysis will be conducted based on review of literature, from which the interrelationship between teacher competency and school performance are excavated and a different angle of organizational support importing as a mediating factor in fulfilling the objective of performance improvement is introduced.

2. Problem Statement

China was once one of the poorest countries in the world, although, since the implementation of economic reform and opening policies in 1978, it has become one of the fastest-growing major economies. This transition has major implications to China's education system, the HVE in particular. As China turns to be the world center of booming infrastructure construction and the base of providing diversified goods for the global market, a great amount of technical workers is needed from the HVE system. And the most pressing demand is absolutely turning from common workers to high-caliber technical ones. However, the balance between the quantity and quality of qualified vocational students supply and the market demand is not even. The government of China has realized and issued frequently a wide range of reforms and implemented a radical expansion of HVE in response to the substantial increase in facing the need of skillful labor.

During the 13th Five Year Plan period (2016-2020), China has built the world's largest vocational education system and has trained 10 million high-quality technical talents every year. Facing the increasing fierce competition among HVE colleges home and abroad, the reform and development of China's vocational education with the title of "deepening the integration of industry and education, empowering vocational education for industrial development" is clearly issued in the country's "14th Five Year Plan" (2021-2025). And a national "double high" A-level institution (High Vocational Colleges and Majors with High Level and Unique Chinese Characteristics) authentication in the country has been put forward as a national supportive policy to inspire HVE schools to pursue high-quality performance, which stimulates the schools all over the nation continue to deepen the reform, promote the integration of production and education, enhance school enterprise cooperation, so as to cultivate more skilled technical personnel and craftsmen and to be nominated as members occurred on the "double high" lists. So it becomes the internal desire of the schools to rely on the establishment and development of a team of high-caliber of faculty in order to realize this achievement, which evolves to be an essential for the performance upgrade of the colleges as well as for the demand of the times.

Despite positive indications, still, there is a shortage of highly skilled talents and skills mismatch in China due to the imperfection of curriculum, shortage of qualified teacher, weak monitoring & evaluation, and poor connections with industry with the perspective of HVE sector. Since being different from undergraduate and post-graduate students doing research and study in universities, vocational students are aimed to be cultivated to promptly grasp solid technical knowledge and skills in the front-line of manufacturing and service industries. From this perspective, HVE schools can be regarded as the HR departments of companies and enterprises to train the students as front-line workers and teachers spontaneously as the trainers. Can the current teachers group of HVE be qualified for this fast-developing challenges? It seems to be interesting to conduct relevant theoretical and practical research for the HVE performance improvement in China from the view of applying theoretical support on teacher competency and teaching performance appraisal in order to improve the whole organization's performance quality.

Besides, it is commonly generated that the development of teachers refers to an integrated multi-dimension development from perspectives of personal growth, teaching innovation, specialty upgrade and organizational development. Though the concept of "Teachers Development Centre" have been adopted booming in colleges of the country and relative projects were launched to make the objective placed, however, it turns to be gradually clear that the goal of performance improvement cannot be simply attempted merely on teacher's personal development. A dynamic support system from the organization while can be considered as a stimulation for teachers in ways of teaching, scientific research and services at school. That is to say, the organizational support from the schools for teachers is developing as a respective element in teacher development for improving educational performance.

3. Research objective

The article is designed to figure out the pressing need of HVE schools to adjust current HRM policies utilizing theoretical guidance from the views of teacher competency analysis and improving performance appraisal accuracy and teacher's organizational perception, which is not only a dominant problem for the faculty themselves during their personal professional development, but also a hidden problem reflecting the imperfection of application of organizational support system design as well as HRM of HVE schools in China.

4. Methodology

A meta-analysis used to gather all of information based on the factors of students' reading abilities. The method of extinction involves reading and gathering relevant materials or resources in written form such as journals and past studies by scholars. Significant and relevant articles related to past studies by many scholars were also referenced for more detailed analysis. Appropriate articles are also carefully selected using only articles published in 2018-2022 to ensure that the data obtained remains relevant. Therefore, only articles published in the last five years are used for analysis in this study.

38 articles were used in this study. The article was obtained from several countries such as USA, Indonesia, China, Korea, and many more. The selection of articles from overseas scholars is to ensure that the data obtained is more extensive and detailed. The findings proven that this issue is a global issue and does not only occur in China. Table 1 below shows the article based on the countries involved.

Table 1 - Articles Related to competency and performance research based on the country involved

Country	Total	Researcher
Poland	1	(Dymek et al., 2022)
Russia	1	(Smirnova Z.V. et al., 2019)
China	5	(Na & Li, 2020; Huang & Deng, 2021; Guo, 2021; Li, 2021; Liu & Li, 2021)
US	4	(Baez-Hernandez, 2019; Crawford et al., 2018; Leupold et al., 2019; Smith et al., 2021)
Kazakhstan	1	(Bekbayeva et al., 2021)
Korea	2	(Ryu et al., 2021; Lee et al., 2021)
Croatia	1	(Držaić et al., 2018)
Latvia	1	(Kabashkin et al., 2019)
Indonesia	2	(Hartanto et al., 2020; Muslihudin et al., 2019)
Lebanon	1	(Zeenny et al., 2021)
Malaysia	2	(Lee et al., 2020; Kiong et al., 2022)
Nigeria	1	(Francis et al., 2019)
Japan	1	(Carandang et al., 2019)
Sweden	1	(Sofia Antera, 2016)
Ukraine	2	(Nanivska et al., 2020; Korniienko, 2020)
Iran	1	(Shafi et al., 2021)
Portugal	2	(Castro et al., 2019; Maconi et al., 2020)
Pakistan	1	(Ansa Bajwa, 2019)
Switzerland	1	(Hofmann et al., 2019)
Netherlands	1	(Janssen et al., 2020)
Turkey	1	(Koç & Fidan, 2022)
Australia	1	(Bartels et al., 2019)
Northen Cyprus	1	(Gülyüz Debeş, 2021)
Poland	1	(Justyna Dymek et al., 2022)
Canada	1	(Wong & Bouchard, 2021)
Ghana	1	(Cobbinah & Eshun, 2021)

5. Findings

After a thorough study and systematic analysis of the literature, it is clear to understand that teacher competency is a major indicator that affects the quality of school performance, which requires to be well researched in order to improve educational performance. And based on a further study, it is not difficult to find that organizational support perceived by employees in the institution poses a positive influence on performance behaviors. Figure 1 below shows a meta-analysis of structural relationship among teacher competency, school performance and organizational support. Fig. 1 illustrates the findings regarding to the relationship among teacher competency, organizational support and school performance.

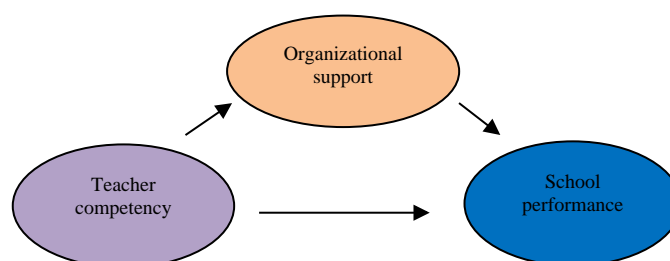


Fig. 1 - Findings of meta-analysis on teacher competency and school performance.

Oriented from basic theories, targeted to apply results for application, the article is molded to discuss the ontology components of social phenomena in HVE schools of China, to search the interactions between teacher competency and HVE school educational performance. The terminology of “Competency” is focused and illustrated in sequence of historical and dependency research theories. Furthermore, with a perspective of illustrating the relationship variable teacher competency to variable educational performance, studies on performance management and appraisal are another key aspect to be reviewed. And in order to make the research to be comprehensive, the conception of organizational support as a mediating variable also worthies to be illustrated.

5.1 Competency

The results of the analysis found that competency is an important element that required in development of teacher’s personal career as well as the improvement of educational performance for the schools. McClelland (1973) published a paper, “Testing for Competence Rather Than for Intelligence,” in which he examined studies showing that traditional academic tests did not predict job performance or success in life. And under the guidance of McClelland, Boyatzis (1982) published a book, “The Competent Manager: A Model for Effective Performance”, in which he pointed out that competence and job requirement together with organizational environment consist of the three major elements of work performance and combined with the 21 characteristics of effective management, competence is conceptually defined into three layers, namely basic features and motive, self-image & social role and skills & behavior. The study of competencies till then formed a general research knowledge system. American economists as Prahalad et al. (1997) brought the concept of competence into organizational strategic management and put forward the concept of “Core Competence of the Corporation”. He regarded the most fundamental competitiveness that guarantees the long-term and steady competitive advantage and stable excess profit is the core competence of the corporation. The study of competence and business organization reached a new stage from in the late 20th century.

Now the conception is widely researched in fields of academics, social and economic sectors all around the world. Competence is knowledge, skills, and experience to fulfil the demands of the role and expertise in industrial standards (Armstrong, 2003). The research of competency gradually develops into a comprehensive theoretical system. A series of important theories have been generated, such as Personality-Job Fit Theory, Scientific Management Theory and Triarchic Theory of Intelligence, which laid a solid foundation for the formation of Competency-based theoretical research system. Identification of competencies has become an integral part of HRM functions. While there is no particular competency that works effectively, but it is a cluster of competencies which work well. Lee et al. (2020) pointed out that issues should be highlighted where teaching competency or performance among in-service teachers are varied during teaching practice observation. The teacher's professional competence is the proficiency of extensive and in-depth learning material, which includes the subject curriculum materials mastery in schools and the scientific substance that houses the material, as well as the science structure and methodology mastery (Prasetyono et al., 2021). And specifically, Wong & Bouchard (2021) concluded that the 13 dimensions of teacher competencies included: (1) helpfulness, (2) encouragement, (3) enthusiasm, (4) promptness, (5) fairness in grading, (6) level of difficulty in expectations, (7) constructiveness of feedback, (8) clarity of communication, (9) concern for progress, (10) approachability, (11) knowledgeableability of course topics, (12) professionalism and (13) overall competence.

The competencies such as knowledge, skills, ability, attitude, and trait on individual have a strong effect on key performance in the organization. Therefore, organizational objectives can be achieved when individual holds these competencies (Anitha et al, 2014). Bartels et al. (2019) indicated that efforts to measure the competencies – in a European tradition usually understood as knowledge, skills, and dispositions to act (e. g., Lindmeier, 2011) of teachers in ways that credibly predict their performance is an important part of improving science teacher education (Aufschnaiter & Blömeke, 2010).

Therefore, competency improvement can be used to bridge the gap between actual and expected level of organizational performance. So, what are the values of utilizing the theories of competency when it comes to the HVE schools in China nowadays? And what are the performance orientation can the HRM of colleges and universities lead for the teachers facing the current challenges? Up-to-date competency mapping of teachers’ performance appraisal in HVE sector is currently still in an unplanted process in China.

The table below shown indicators tested by previous researchers regarding teacher competency.

Table 2 - Meta-analysis of indicators related to teacher competency.

	Indicator	Researcher
1	Knowledge	(Lee et al., 2020; Zeeny et al., 2021; Castro & Pereira, 2019; Nanivska et al., 2020; Držaić et al., 2018; Francis et al., 2019; Antera, 2021; Altunova & Kalman, 2020; Smith et al., 2021; Liu & Li, 2021)
2	Teaching implementation	(Lee et al., 2020; Zeeny et al., 2021; Maconi & Sousa, 2020; Shafi et al., 2020; Kornienko, 2020; Koç & Fidan, 2019; Altunova & Kalman, 2020; Bartels et al., 2019; Dahlback et al., 2020; Prasetyono et al., 2021; Smith et al., 2021; Liu & Li, 2021)

3	Innovative ability	(Ryu et al., 2021; Lee et al., 2020; Francis et al., 2019; Kabashkin & Tikanashvili, 2019; Antera, 2021; Bajwa, 2019; Smith et al., 2021; Liu, 2021; Liu & Li, 2021)
4	Personality	(Lee et al., 2020; Zeeny et al., 2021; Castro & Pereira, 2019; Nanivska et al., 2020; Antera, 2021; Dymek et al., 2022; Liu & Li, 2021)
5	Communication skills	(Zeeny et al., 2021; Castro & Pereira, 2019; Castro & Pereira, 2019; Kiong et al., 2022; Bekbayeva et al., 2021; Smirnova Z.V. et al., 2019; Gülyüz Debe, 2021; Liu & Li, 2021)
6	Modern technology application	(Bekbayeva et al., 2021; Francis et al., 2019; Smirnova Z.V. et al., 2019; Kabashkin & Tikanashvili, 2019; Koç & Fidan, 2019; Bajwa, 2019; Bartels et al., 2019; Liu, 2021)

5.2 Performance

In addition, the correlation between competency and performance have been attached great importance to many researchers historically and in the field of education, it is also a hotspot of research interests. American industrial psychologist Hugo Munsterberg was one of the earliest scholars who studies work performance and he mainly focused on personal performance. And early in the 20th century, he defined performance as the result outcome of work. Bemarddin et al. (1984) considered performance as the result of particular activities, job responsibilities and behaviors in a specific time and space. And later some scholars deepened the conception and development of performance as the result or outcome, such as Gilley (2005). Despite of the definition of performance as the accomplishment of task completion, he also put forward the methods of performance appraisal representing by responsibilities, objectives, work description and capabilities.

Performance management is an effort to obtain higher quality results by providing the facilities for individuals to support their duties within a mutually agreed framework. This involves a shared understanding of something that must be achieved and how to achieve it (Armstrong et al, 2014). Performance management is the process of ensuring that a series of activities and results meet organizational goals effectively and efficiently. Performance appraisal is a process of systematic evaluation of employee performance by paying attention to standards and how to communicate that information to them. This tool is an important part of performance management because it helps employees improve their performance (Mathis & Jackson, 2015). Performance Improvement, which is about feedback on performance that is beneficial for employees, managers, supervisors, and HR specialists in the form of appropriate activities to improve performance in the future (Roggio, 2017).

As for the application of performance management in the perspective of education, Bartels et al. (2019) indicated that Teacher Performance Assessments have been used frequently in teacher education programs in order to assess candidates' abilities to teach and performance tests as a means to measure action-related competencies in standardized, authentic situations have their origin in medical education (e.g., Miller, 1990) but can be found in various domains of professional training. And Crawford et al. (2018) suggested that additional resources to create specific, detailed performance descriptors are warranted to provide teachers with feedback that will support improved outcomes for students in interventions.

The table below shown indicators tested by previous researchers regarding teaching performance.

Table 3 - Meta-analysis of indicators related to teaching performance.

Number	Indicator	Researcher
1	Facilities and Infrastructure guarantee	(Francis et al., 2019; Muslihudin et al., 2019; Na & Li, 2020)
2	Training and observation	(Lee et al., 2020; Kiong et al., 2022; Francis et al., 2019; Smirnova Z.V. et al., 2019; Antera, 2021; Lee et al., 2019; Hofmann et al., 2021; Crawford et al., 2018; Dahlback et al., 2020; Gülyüz Debe, 2021; Prasetyono et al., 2021; Na & Li, 2020; Huang & Deng, 2021; Guo, 2022)
3	Self & Group-assessment	(Držaić et al., 2018; Maconi & Sousa, 2020; Dymek et al., 2022; Shafi et al., 2020; Janssen et al., 2020; Bartels et al., 2019; Cobbinah & Eshun, 2021; Crawford et al., 2018; Dahlback et al., 2020; Leupold et al., 2019; Wong & Bouchard, 2021; Na & Li, 2020; Guo, 2022)
4	Student success	(Castro & Pereira, 2019; Držaić et al., 2018; Shafi et al., 2020; Kornienko, 2020; Muslihudin et al., 2019; Koç & Fidan, 2019; Hofmann et al., 2021; Altunova & Kalman, 2020; Crawford et al., 2018; Dahlback et al., 2020; Prasetyono et al., 2021; Smith et al., 2021; Wong & Bouchard, 2021; Huang & Deng, 2021)

5.3 Organizational support

Based on an intended study to make the research more comprehensive, the mediating factor as organizational support in the relationship between competency and performance is founded. Organizational Support Theory, first defined by Eisenberger (1986) from the perception perspective, pointed out that employees psychologically compose a personalized feature on their organization, predict that their value and contribution is important and care about their degree of benefits, including physical and non-physical considerations, and they voluntarily transfer this sort of feelings perceived to their own commitment, loyalty and performance to the organization. The introduction of organizational support broke up the limitation that few concerns are laid on commitment devoted by the organization to employees in HRM. So far, organizational support has become an important standard in sourcing the relationship among employees, positions and organizations in the field of HRM. And the measurement of organizational support perception became a focus in this research field. Mcmillin (1997) pointed out that the interior mechanism to employee's attitude and behavior by organizational support cannot be well explored using single dimensional scale. Kraimer et al. (2004) stated that organizational support perception should be conducted multi-dimensional research via perspective of behavioristics.

Lopina & Erickson (2019) found that when an employee perceives a high degree of fair treatment, sees their supervisor taking voluntary action to demonstrate their genuine concern for their well-being, and appreciates organizational rewards and working conditions as satisfying and motivating; they are likely to believe that their organization truly wants them as members and thus will report a high level of perceived organizational support. Based on the research of Cobbinah & Eshun (2021), the participants agreed that they would recommend it to schools as a support system that would be used to improve performance since it gives teachers the opportunity to assess their strengths and weaknesses in terms of how their students perform so that they can improve on it. And some of the reasons given by the teachers include the Teachers' self-evaluation is an important component in teachers' professional development and could lead to overall school improvement because when teachers are performing well it impacts the school and the performance of the students, which is basically the ultimate goal of every school.

The table below shown indicators tested by previous researchers regarding organizational support factors.

Table 4 - Meta-analysis of indicators related to moderating effect of organizational support

Number	Indicator	Researcher
1	Motivation	(Nanivska et al., 2020; Bajwa, 2019; Leupold et al., 2019; Na & Li, 2020)
2	Job engagement	(Nanivska et al., 2020; Janssen et al., 2020; Bajwa, 2019; Cobbinah & Eshun, 2021; Gülyüz Debe, 2021)
3	Effective administrative management	(Kabashkin & Tikanashvili, 2019; Lee et al., 2019; Janssen et al., 2020; Bajwa, 2019; Cobbinah & Eshun, 2021; Na & Li, 2020; Guo, 2022)
4	Job satisfaction	(Janssen et al., 2020; Bajwa, 2019; Crawford et al., 2018; Leupold et al., 2019)

6. Discussions

Based on the analysis described above and the interpretations, preliminary studies on competency and performance embodied apparently that there is a clear correlation between the two variables, which will also be a referential for the relationship of teacher competency and educational performance of HVE schools. Therefore, the analysis of teacher competency is needed in performance appraisal if schools intend to improve teaching performance to inspire the educators. Schools shall be advised to look for effective strategies to further advance the understanding of teacher competencies for performance appraisal, which in turn will improve the institutional performance in order to generate a new HRM system of high efficiency.

It is not difficult to find that the application of competency and performance appraisal research is widely used in business administration and abundant research accomplishments and actual benefits have been produced. While in the field of education and scientific research, especially in the aspect of HVE schools, the research angles seem to be much restricted. Based on the previous research about the conceptual and operational definitions of competency and performance, it is not hard to find that the research is either narrowly concerned about the teachers singularly as an entire unit which to some extent causes deviation, or mechanically imitate the mode of enterprise HRM which result in a broad denotation. These two types of research modes either lack a perspective angle of overall viewpoint or targeted attention to the HVE teachers. Logically, conceptual connotation refers to the characteristics and essential attributes of the research objects and denotation refers to the range. Therefore, in this paper, it is expected that limitations of thinking patterns can be eliminated, HVE teachers are targeted as the research object, based on the essential fundamental qualities and functions of HVE schools, their types, structure, and features of competency shall be analyzed and the multiple structural dimensions between teacher competency and teaching performance shall be explored in order to enrich the connotation of the theories of competency and performance appraisal. Meanwhile, through combination research of management and pedagogy, the understanding of HVE school teacher competency and performance appraisal shall be more distinct and complete, which will make the connotation and denotation of competency theory more abundant.

Different from the development of enterprise employees, HVE school teachers, being a special community of organization – employee relationship as a new type, exhibit a developing process of continuous seek of being

professionalized, which demands the teachers to improve their professional knowledge level and vocational capabilities through perpetual study and practice. Competency is the critical factor that can distinguish the excellent from the commons; and it also indicates the formation mechanism and development process of teacher's professional knowledge level and professional qualifications, accordingly, providing basis and orientation for the theoretical research of teacher's professional development. Likewise, based on the social exchange theory, the principle of reciprocity and the personification ideology of organization, the presence of organizational support theory overcame the one-sidedness that only the commitments devoted by the employees to the organization were witnessed while the commitments undertaken by the organizations shall be concerned as well, which emphasizes that organizational support perceived by the employees is the essential that make them volunteer to stay and to contribute; that is to say, with commitments converted by the organization then will the employees realize their promises. As a group of knowledge-based employee, HVE school teachers are full of autonomy, independence, and high self-value, which make them more desperate for accomplishment. Whereas the current HRM in HVE schools commonly ignores the divergence and differentiated levels of incentive objects and lacks of targeted incentive measures for teachers, which destroys their enthusiasm and creativity at work. To broaden the knowledge of organizational support theory as an incentive mechanism for teachers will promote the theoretical development of HRM in HVE schools.

A competency based HRM will be an essential for schools that want to become competitive under the new era of the constantly changing knowledge society. The essence of management is not techniques and procedures but to make knowledges productive (Drucker, 1994). Representative of advanced knowledge as higher education, teachers in colleges and universities are the employees who will not wholly be concerned about salaries, bonus and welfare but more reflected in means of non-physical reimbursement of self-development, professional knowledge expand and spiritual returns of self-achievement in the career. As one key role in HRM of higher education, teachers as the main human resource have been attached more importance to and apart from the previous major research on the functions to school development by teachers, there emerges a new horizon that to input powerful incentives for teachers in order to improve their positions in the organizational system, which placed a challenging task for HRM in higher educational schools. Internationally, some top universities have already realized that organizational support perceived by the teachers can stimulate their working performance rather than the support provided, just as the school motto of The Hong Kong University of Science and Technology, "Recruit the best people and keep them happy". Therefore, it is causally clear that teachers shall be guaranteed to obtain greater organizational support and conversely to motivate school performance, so a new appropriate HRM system shall be well developed accordingly in the field of incentive mechanism for HVE in China.

However, till now, the fundamental requirements issued by the Ministry of Education of China merely focus on applicant's basic physical and psychological health, such as the visible qualifications of degree, teaching experience and papers issued, which cannot guarantee all candidates to be qualified with the key competencies needed for high-quality teaching performance. With the increasing demand of high-quality colleges and universities construction and renovation in China, the traditional HRM of HVE schools is hard to meet the requirements of the new era. It becomes an urgent need for the management authority to reconstruct a new HRM system under the call upon new circumstance. An efficient competency model analysis will represent teachers' behavior and qualified performance with great probability. The work of teacher recruitment, training and performance appraisal can be carried out from the perspective of competency diagnosis. Besides, pointed management measures can be withdrawn from the perspective of incentive organizational support that can be perceived by the teachers in order to stimulate their enthusiasm and loyalty to the schools, which will definitely promote the HRM of HVE schools to develop in a more scientific and valid way.

Furthermore, students are the straight reactors of teaching results and teachers are the ones fulfilling the task of actual education at schools. Imputing the theory of competency in to HVE education is conducive to the promotion of teacher's professional development and self-appraisal. Competency analysis will form a series of standards and qualification requirements for teachers, that is because competency that can be measured reliably is a personal feature which can be utilized to distinguish excellence from the common in ways of functional performance appraisal approaches. The research results will not only improve the evaluation system for teachers, but also orient directions of competency attainment for those with average performance at schools. The analysis of relationship and functional mechanism between teacher competency and performance appraisal will be an appropriate and efficient method to differentiate teachers with extraordinary performance from mediocrities. And relatively, targeted training projects can be arranged in purpose to increase the underperforming ones or renovate the weak points. Meanwhile, the results of competency analysis can also be a reference and self-appraisal standard for the teachers themselves to prompt them for teaching reflections, continuous classroom teaching methods renovation and scientific research level improvement in order to meet the higher educational performance requirement, and eventually, a higher level of professional development.

Last but not the least, the great-leap-forward development of China is witnessed by the globe, which cannot be accomplished without the heart and soul devoted by the people. And it is easy to acquire perception that China is a nation "concerns more about organizational benefits than personal interest", which is largely influenced by traditional beliefs and long-term doctrine. Spontaneously and inevitably, for individual employees in the working environment, they are mostly lack of emotional and physical support from the organization. It is sensible that organizational performance can be stimulated if employees are getting enough support, as constructive suggestions will be put forward in order to avoid potential risks, or performance will be improved voluntarily since they are standing in-line with their institution. While

as for the research blank, there are few theoretical reports on the role and functional analysis about the internal relation between teachers in HVE schools and the organizational support they can obtain from the perspective of performance improvement, which shall be attached importance in order to get a thorough picture of this research topic.

7. Conclusion

The paper is designed to research the phenomenon of HVE school performance in China and its reform urgency at the current stage of social and economic challenges for the country, and as the essence of escalating skillful labor supply-demand imbalance problem, the human capital, teachers at school, are targeted as the HRM research object of the study in the sector of HVE performance in China. The study supports major implications for HVE schools in China with the objective of considering the various types of teacher competency that exist as important factors must be studied to support educational performance, since most of the HVE sectors have realized the importance of assessing competencies of teachers but is still in a preliminary stage. Teacher competency shall be the key performer for educational quality and performance improvement in HVE schools. The success to link the technical knowledge and skills taught in HVE schools to those required in the labor market of China will form long-term implications, for technical skill learners' transitions as well as for the country's all-around competitiveness. The results of the paper highlight the need for future research to explore the specific teacher competencies that truly matter and the degree of influence evidently in a causal relationship with mediating effect of organizational support and decisive role in performance improvement.

Acknowledgement

The authors would like to thank the fellow authors and organizations whose intellectual properties were utilized for this study.

Conflict of Interest

The authors declare no conflicts of interest.

References

- Anitha, J. & Reema, P.M. (2014). Competency mapping model: Drive for Educational institution. *International Journal of Research and Development - A Management Review*, 2(4), 24-30.
- Antera, S. (2021). Professional Competence of Vocational Teachers: a Conceptual Review. *Vocations and Learning*, 14, 459-479. <https://link.springer.com/article/10.1007/s12186-021-09271-7>
- Armstrong, M. & Taylor, S. (2009). *Handbook of Human Resource Management Practice*. Kogan Page Limited.
- Altunova, N. (2020). Factors Influencing Objective and Subjective Career Success. *Research in Pedagogy*, 10(2), 285–312. <https://doi.org/10.5937/IstrPed2002185A>
- Baez-Hernandez, R.A. (2019). Impact of Instructional Alignment Workshop on Teachers' Self-Efficacy and Perceived Instruction Performance. *Education Reform Journal*, 4(1), 1–13. <http://dx.doi.org/10.22596/erj2019.04.01.1.13>
- Bajwa, A. (2019). The influence of high commitment HR practices on employees' behaviors under perceived organizational support and affective commitment. *Journal of Human Resource Management*, 22(2), 52–69.
- Bartels, H., Geelan, D. & Kulgemeyer, C. (2019). Developing an approach to the performance-oriented testing of science teachers' action-related competencies. *International Journal of Science Education*, 41(14), 2023–2048. <https://doi.org/10.1080/09500693.2019.1658241>
- Bekbayeva, Z.S., Galiyev, T.T., Albytova, Z., Zhazykbayeva, Z.M. & Mussatayeva, A.B. (2021). Fostering postsecondary vocational students critical thinking through multilevel tasks in learning environments. *World Journal on Educational Technology Current Issues*, 13(3). <https://doi.org/0000-0002-2522-943X>
- Bemarddin, H.J, Beatty R. W. (1984). *Performance Appraisal: Assessing Human Behave at Work*, 35-37. Kent Publishers.
- Boyatzis, R.E. (1982). *The Competent Manager: A Model for Effective Performance*. John Wiley.
- Crawford, A.R. Johnson, E. S., Moylan, L.A. & Zheng, Y. (2018). Variance and Reliability in Special Educator Observation Rubrics. *Original Research*, 1–13 <https://doi.org/10.1177/1534508418781010>

- Cobbinah, J.E. & Eshun, E.S. (2021). School Self-Evaluation and the Nature of Support System for Basic Schools in Ghana. *Original Research*, 1–13. <https://doi.org/10.1177/21582440211022732>
- Dahlback, J., Berg O., Hanne, S., Ann L. & Wolden, A. (2020). The importance of authentic workplace-based assessment: a study from VET teacher education. *International Journal for Research in Vocational Education and Training*, 3, 302-324. <https://doi.org/10.25656/01:21232>
- Drucker, P.F. (1994). The age of social transformation. *The Atlantic Monthly*, 274(5), 53-80.
- Držaić, M., Kummer, I., Mucalo, I., Bruno, A. & Hadžiabdić, M.O. (2018). Identifying self-assessed competencies and areas for improvement within community pharmacist-preceptors support during pre-registration training. *BMC Medical Education*, 18, 303-311. <https://doi.org/10.1186/s12909-018-1413-x>
- Dymek, J., Kowalski, T.M., Golda, A., Nowakowski, M. & Skowron, A. (2022). The influence of OSPE and PBL on competency-based pharmacy student self-assessment. *BMC Medical Education*, 22, 190-196. <https://doi.org/10.1186/s12909-022-03246-5>
- Eisenberger, R. & Huntington, R. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507.
- Francis, B. S., Latib, A.B.A, Kamin, Y. B., Nordin, M. S. N. & Subari, K. (2019). Internet Skills for Expediting Students' Learning. *International Journal of Recent Technology and Engineering*, 8(3), 1893-1897. <https://doi.org/10.35940/ijrte.C4460.098319>
- Gilley, J.W. & Maycunish, A. Translated by Kang Q. (2005). *Organizational Learning Performance, and Change ---- An Introduction to Strategic Human Resource Development*, 174-180. The People's University Press.
- Gülyüz D. (2021). Teachers' Performance of Crisis Management In Schools. *International Online Journal of Education and Teaching*, 8(2), 638–652. <https://orcid.org/0000-0001-7894-8174>
- Guo, Kai. (2021). On Mechanism Innovation of Human Resource Management of Universities Based on the Theory of Competency. *China Adult Education*, 17, 24-27.
- Hofmann, C., Müller, X., Krauss, A. & Häfeli, K. (2021). Transition from Low-Threshold Vocational Education and Training to Work in Switzerland: Factors Influencing Objective and Subjective Career Success. *International Journal for Research in Vocational Education and Training*, 8(2), 136-159. <https://doi.org/10.13152/IJRVET.8.2.1>
- Huang, Fei & Deng, Yuwei. (2021). Explorations on the Approaches of Teacher Competency Improvement of Vocational Education Teachers in Tourism Specialty under the Circumstance of Production-Education Integration. *Tourism Today*, 19, 87-88.
- Janssen, M., Heerkens, Y., Van der Heijden, B., Korzilius, H., Peters, P. & Engels, J. (2020). A study protocol for a cluster randomised controlled trial on mindfulness-based stress reduction: studying effects of mindfulness based stress reduction and an additional organisational health intervention on mental health and work-related perceptions of teachers in Dutch secondary vocational schools. *Trials*, 21, 376-393. <https://doi.org/10.1186/s13063-020-4189-3>
- Kabashkin, I & Tikanashvili, N. (2019). Ontology-Based Approach For Human Competency Gap Analysis In Air Traffic Management. *Transport and Telecommunication*, 20(3), 279-285. <https://doi.org/10.2478/tjt-2019-0024>
- Kiong, T.T., Ahmad Puad, F.N., Kamis, A., Heong, Y.M., Idayu, R., Hamid, A., Shafie, S. & Abu Bedor, S. (2022). Enhancing cosmetology students communication skills in Malaysian upper secondary vocational education program. *International Journal of Evaluation and Research in Education*, 11(1), 260-271. <https://10.11591/ijere.v11i1.22285>
- Korniienko, A.Y. (2020). The Use of Debates as an Approach to Deliver the Course Entitled “The Impact of US Policy on Integration Processes in Europe in the Post-Bipolar Era”. *International Journal of Higher Education*, 9(2), 321-329. <https://doi.org/10.5430/ijhe.v9n2p321>
- Koç, M.H. & Fidan, T. (2022). The Comparison of the Adaptation of Public and Private School Teachers to Distance Education during the COVID19 Pandemic. *International and Multidisciplinary Journal of Social*, 11(1), 27-53. <https://doi.org/10.17583/rimcis.8000Math>
- Krainer, M.L. & Wayne, S. J. (2004). An Examination of Perceived Organizational Support as a Multidimensional

- Construct in the Context of an Expatriate Assignment. *Journal of Management*, 30 (2) 209-237. <https://doi.org/10.16/j.jm.2003.01.001>
- Lee, J., Han, J. & Song, E. (2019). The effects and challenges of vocational training in Korea. *International Journal of Training Research*, 17(S1), 96–111. <https://doi.org/10.1080/14480220.2019.1639272>
- Lee, M.F., Lim, S.C.J. & Lai, C.S. (2020). Assessment of teaching practice competency among in-service teacher degree program (PPG) in Universiti Tun Hussein Onn Malaysia. *Journal of Technical Education and Training*, 12(1), 181-188. <https://doi.org/10.30880/jtet.2020.12.01.019>
- Liu, Rensan. (2021). Analysis on Teacher Competency under the Background of Modern Apprenticeship. *Zhi Shi Chuang*, 4, 74-75.
- Liu, Jingyue & Li, Yajun. (2021). Higher Vocational Education Teacher Competency Model Framework Construction under the “Double High” Policy. *Vocational Education Forum*, 12, 86–94.
- Leupold, C. R., Lopina, E. C. & Erickson, J. (2019). Examining the Effects of Core Self-Evaluations and Perceived Organizational Support on Academic Burnout Among Undergraduate Students. *Psychological Reports*, 1-22. <http://dx.doi.org/10.1177/0033294119852767>
- Maconi1, G. & Sousa, M. (2020). State of the art in the teaching of digestive ultrasound. *Med Ultrason*, 22(1), 71-74. <https://doi.org/10.11152/mu-2273>
- Maria de Castro, R. & Pereira, D.I.F. (2019). Education and Attachment: Guidelines to prevent school failure. *Multimodal Technologies and Interaction*, 3(10). <https://doi.org/10.3390/mti3010010>
- Mathis, R.L., Jackson, J.H., Valentine, S.R. & Meglich, P.A. (2015). *Human Resource Management* (15th ed.). Southwestern College publishing.
- McClelland, D. C. (1973). Testing for Competency Rather Than Intelligence. *American Psychologist*, 28(1), 1-14. <https://doi.org/10.1037/h0034092>
- Mcmillin. R. (1997). *Customer Satisfaction and Organizational Support for Service Providers*. University of Florida.
- Ministry of Education of the People’s Republic of China. (2014). *Planning for Building Modern Vocational Education System (2014-2020)*. Beijing: Ministry of Education. <http://language.chinadaily.com.cn/a/202104/15/WS6078dcd3a31024ad0bab5e8a.html>
- <https://www.kaosee.cn/home/news/article/id/9051.html>
- Ministry of Education of the People’s Republic of China. (2000). Advice on strengthening human resource supply by higher vocational education and junior college education (No.2). Retrieved from <http://www.lcvc.cn/office/Article/ArticleShow.asp?ArticleID=5257>
- Ministry of Education of the People’s Republic of China. (2009). Notice of accelerating higher vocational education reform and facilitating graduate employment at vocational and technical colleges. Retrieved from http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_737/201001/xxgk-79641.html
- Munsterberg, H. (1913) Scientific Books: Psychology and Industrial Efficiency, *Science*, 38, 56-57.
- Muslihudin, M., Trisnawati, Mukodimah, S., Hashim, W., Ayshwarya, B., Nguyen, P.T., Shankar, K., Peteraitis, S.Kh., & Maselena, A. (2019). Performance of SAW and WP Method in Determining the Feasibility of Motorcycle Engineering Workshop for Competency Test of Vocational High School Student. *International Journal of Recent Technology and Engineering*, 8, 348-353. <https://doi.org/10.35940/ijrte.B1060.0782S219>
- Na, Guangli & Li, Lin. (2020). The Application of Competency Theory and Performance Management Theory in the Management of University Teachers. *Teaching Staff Development*, 18, 76-78.
- Nanivska L.L., Shcherba, O.V., Pasichnyk, S.M., Kozyar, M.M. & Savka, I.V. (2020). Future Translator Training Based on an Integrated Approach. *Journal of Education and e-Learning Research*, 7(4), 353-359.

<https://10.20448/journal.509.2020.74.353.359>

Prahalad, C.K., Hamel, G. (2006). *The Core Competence of the Corporation*. Springer.

Prasetyono, H., Abdillah, A., Djuhartono, T., Ramdayana, I. P. & Desnaranti, L. (2021). Improvement of teacher's professional competency in strengthening learning methods to maximize curriculum implementation. *International Journal of Evaluation and Research in Education*, 10 (2), 720-727. <https://doi.org/10.11591/ijere.v10i2.21010>

Roggio, Ronald E. (2017). *Introduction to Industrial/Organization Psychology* (7th ed.). Routledge.

Ryu, J., Park, S., Park, Y., Park, J. & Lee, M. (2019). Innovative Culture and Firm Performance of Medical Device Companies: Mediating Effects of Investment in Education and Training. *International Journal of Environmental Research and Public Health*, 18, 8926. <https://doi.org/10.3390/ijerph18178926>

Shafi, M.M., Neyestani, M.R., Jafari, S.E.M & Taghvaei, V. (2021). The Quality Improvement Indicators of the Curriculum at the Technical and Vocational Higher Education. *International Journal of Instruction*, 14(1), 65–84. <https://doi.org/10.29333/iji.2021.1415a>

Smith, T.D., Hendricks, K.S., Kos Jr., R.P. & Goodrich, A. (2021). Balancing String Instruction in an Instrumental Lab Setting: An Intrinsic Evaluative Case Study. *String Research Journal*, 11, 19-38. <https://doi.org/10.1177/19484992211020735>

Smirnova, Z.V., Vaganova, O. I., Konovalova, E. Y., Kulagina, J.A., Zhitnikova, N.E., Frolova, N. & V. & Lukina, E. V. (2019). Modern Communication Technologies In Professional Education. *International Journal of Innovative Technology and Exploring Engineering*, 8(11), 3751–3756. <https://doi.org/10.35940/ijitee.K2110.0981119>

Spencer, L.M. & Spencer, P.S.M. (1993). *Competence at Work*. John Wiley and Sons, Inc.

Wong, J. S. & Bouchard, J. (2020). Are students gender-neutral in their assessment of online teaching staff? *Assessment & Evaluation in Higher Education*, 46(5), 719-739. <https://doi.org/10.1080/02602938.2020.1805410>

Zeenny, R.M., Akel, M., Hajj, A., Sacre, H., Hallit, S. & Salameh, P. (2021). Descriptive assessment of graduates perceptions of pharmacy related competencies based on the Lebanese pharmacy core competencies framework. *Pharmacy Practice*, 19(2), 2320. <https://doi.org/10.18549/PharmPract.2021.2.2320>