




Enhancing key competencies-based performance assessment in higher vocational education: A sustainable approach to general education curriculum

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ABSTRACT

Article History

Received: 18 October 2024

Revised: 31 January 2025

Accepted: 20 February 2025

Published: 4 March 2025

Keywords

Core-competences based
performance assessment
Higher vocational educational
institutional
Innovation adoption
Institutional support
Staff skills
Staff training.

The competency-based assessment has been a significant factor for higher vocational educational institutional performance and this aspect needs researchers' emphasis. The objectives of the present article are to investigate the impact of staff skills and training and innovation adoption on competencies-based performance assessment (CBPA) of higher vocational educational institutions in China. The study also investigates the moderating role of institutional support among staff skills and training, innovation adoption and CBPA. The study collected the primary data from the students of the higher vocational educational institutions in China using survey questionnaires. The study also employed Smart-PLS to check the data reliability such as convergent and discriminant validity and the relationship among understudy variables. The outcomes revealed that the staff skills and training and innovation adoption have a positive linkage with CBPA. The results also exposed that institutional support significantly moderates staff skills and training, innovation adoption and CBPA. The study guides the regulators in making regulations regarding improving the CBPA using effective staff skills and training and effective innovation adoption. It also provides help to educational institutions in improving CBPA using skilled staff and innovation adoption.

Contribution/Originality: The competencies-based performance assessment has been one of the first attempts in the high vocational educational institutions using factors such as staff skills, training, and innovation adoption. In addition, institutional support as a moderator of the relationship among variables is also a significant contribution to the study.

1. INTRODUCTION

With time, the world has become a global village. Such globalization resulted in affecting every aspect of the business. Similarly, the concept of assessment is completely different today compared to a few years back. Assessment is considered one of the highly important but tough jobs in human resource (HR) management. In the past, there was a lack of competency assessment concepts. However, the phenomenon of staff assessment also evolved with time. In this era, competence is not only considered very high but also assessed which is referred to as competency-based performance assessment (CBPA). CBPA focuses on the actual performance of an individual not on the theoretical knowledge (Sharma, Bakshi, & Kumar, 2019). This results in a more accurate reflection of staff capabilities to perform tasks in real situations. Knowledge as well as abilities related to a specific role or learning

objective is referred to as CBPA to measure the individual's skills. The process of CBPA is a) self-assessment. b) Workplace review. c) Understanding development needs. d) Off-job learning, e) re-assessment, and f) continuous improvement (Akala, 2021). Furthermore, the CBPA methods are as follows: a) self-assessment. b) Manager and supervisors' assessment. c) Expert and experienced operative. d) Multi-rater and 360-degree feedback. e) Registered training organizations, and f) CBPA tools (Jabarullah & Iqbal Hussain, 2019).

In the vocational education field, the CBPA's aim is to ensure that an individual possesses the competencies required for success in academic performance. The institution established a series of activities that correspond to the requirements of the function or learning aims to learn more about the individual. After that, you assess a person's performance in relation to these abilities (Yamtinah et al., 2022). In the education system, the curriculum is considered as key as it leads to the achievement of proficiency in the content and applied learning skills. The curriculum serves as the primary source of guidance on critical teaching and learning practices for all teachers to ensure that every student has access to challenging academic experiences. In such a scenario, the CBPA is necessary to have a better picture of the students as well as faculty (Williams, 2019). A curriculum that works provides teachers, learners, school officials, and community members with a measurable plan and framework for providing high-quality education. The learning objectives, criteria, and competencies that students must meet to advance to the next level are outlined in the curriculum. Modernized vocational education and training shouldn't be seen as a magic bullet for meeting the demands of globalization. Countries are able to benefit from globalization depending on two main aspects. Two key factors are how each country reacts to the demands of globalization at home and how it works to influence international policies and procedures to promote more open trade (Mulenga & Kabombwe, 2019). Further tactics that will help people and countries alike reap the rewards of globalization include (a) expanding markets. (b) The interdependence of economies throughout the world. (c) International activities. (d) Labor mobility and (e) a global marketplace (Hall et al., 2020; Kubai, 2023).

The present study has addressed the following gaps in the literature investigation of the model consisting of the factors i.e., competence-based assessment, staff training, innovation, and staff skills along with employing the moderating effect of institutional support. Fejfarová and Fejfar (2022) and Echols, Neely, and Dusick (2018) assessed the competency-based assessment concepts and staff training but ignored the innovation factor. However, the present study added factors like innovation and staff skills along with employing the moderating effect of institutional support. Bohlouli et al. (2017) and Gikandi (2019) check the relationship between competency-based assessment and innovation. This article added factors like staff training and staff skills along with innovation. Lockyer et al. (2017) and Seal et al. (2015) analyze the competency-based assessment impact on staff skills but the current article added factors like staff training and innovation. Suwija, Ekasriadi, Yarsama, and Geria (2022); Ishaq, Sarwar, Aftab, Franzoni, and Raza (2024) and Wu, Xie, Lassala, and Ribeiro-Navarrete (2024) explored the moderating effect of institutional support in multiple relationships at different times; hence, the same is also employed here in the relationship among competence-based assessment, staff training, innovation and staff skills. Hence, the research questions of the study are as follows:

1. What is the role of staff training on core competency-based performance assessment?
2. What is the impact of innovation on core competency-based performance assessment?
3. What is the influence of staff skills on core competency-based performance assessment?
4. How does institutional support moderate among staff training, innovation, staff skills and core competency-based performance assessment?

Similarly, the significance of the present study is as follows: 1) it highlights the need as well as the importance of competency-based assessment. 2) This article is a significant addition to the literature. 3) This paper is also helpful to professionals regarding competency-based assessment to have more understanding and application of the concept.

2. LITERATURE REVIEW

The ultimate aim behind the concept of training is to enhance the skills of the employees. Furthermore, to get the employee aware of the modern era tools and technology enabled them to bring perfection in their field. Core competency-based assessment is a topic of the time. It's gaining more attention because it provides a true picture of employee competency. The rapid change in the world required employees to get more skilled in this field to have a better understanding of competency-based assessment. In this regard, [Fejfarová and Fejfar \(2022\)](#) explored whether there is any sort of relationship between employee training and development and the competency approach. The investigation was carried out in the Czech Republic. The study used the data of 1360 respondents as a sample. The study employed the stratified sampling technique for data collection and analyzed the collected data by employing the ML regression analysis approach. The results of the investigation proposed that there is a significant association between employee training and development and the competency approach. Further, the training results in enhancing their skills which enables them to have a better competence-based assessment of the employees. Further, just 21.8% of organizations employ the competency-based approach to management. The fact that 93.2% of organizations using the competency-based approach encourage staff growth and training is a significant result. The findings demonstrated a correlation between the competency-based approach's application and training and development within the company ($p < 0.001$, Cramer's $V = 0.178$) as well as the competency-based approach's application and the company's assessment of its training and development effectiveness ($p < 0.001$, Cramer's $V = 0.299$). The ultimate aim behind the training is the skills development in the employee which helps them to have skillful command over their profession. In this context, [Singh and Pathak \(2016\)](#) also worked on competence-based management from the employee training perspective. The results of the study proposed that employee training results help to have a better assessment of the targeted population's competencies. Furthermore, training helps the employees learn modern-era concepts associated with the competence-based assessment. [Echols et al. \(2018\)](#) worked on the importance of faculty training in the competency-based curriculum assessment. The results of the study revealed that the training creates skills in the employee which helped them in better competency-based assessment of the staff.

H₁: Staff training is significantly associated with core competency-based performance assessment.

We are living in the transition phase as the world is witnessing changes at a rapid pace in the form of innovation. Every passing minute is causing more ideas to urge in the human mind. Innovation is playing a vital role in every aspect of life. Whether its firms or the education field innovation provides its support in the form of creating ease of work. Similar is the case with assessment. Innovation enables humans to have more accurate and fast assessments of human competencies. In this regard, [Bohlouli et al. \(2017\)](#) worked on the relationship between innovation and competence assessment in the human resource system. The results of the study revealed that both innovations along with the mathematical and statistical methods significantly influence the competence-based assessment in the HR management system of any firm. Furthermore, a tool-assisted analysis, which involves utilizing advanced software and algorithms to evaluate performance metrics, and competency-based grouping, which categorizes workers based on their skills and expertise. The human resources competencies gap is scientifically analyzed and shown. Using actual data from human resources to implement and illustrate the idea. Knowledge representation tailored to a particular job that may be utilized in hiring decisions. Similarly, [Gikandi \(2019\)](#) proposed that innovation plays a vital role in competence-based assessment. The innovation enables the individuals to apply the modern era tools and techniques to assess the individual's competencies. Innovation in the form of technology also covers those areas that are usually omitted by the human approach. Moreover, [Alves, Barbieux, Reichert, Tello-Gamarra, and Zawislak \(2017\)](#) worked on the innovation and dynamic capabilities of the firm from the competence assessment perspective. The study was carried out in Brazil. The study used the data of 1107 firms as a sample. The data used the simple random sampling technique. The study analyzed the collected data by employing the regression and factor analysis approaches. The results of the investigation proposed that there is

a significant association between innovation and dynamic capabilities. Innovation plays a vital role in competency-based assessment. Moreover, out of all the competencies, capability is the least dynamic and has the least impact on innovation. The idea is that management, development, and transaction capabilities are more appropriate to describe a firm's dynamism and innovation while operations capabilities are considered "ordinary capabilities".

H₂: Innovation is significantly associated with core competency-based performance assessment.

It's narrated all around the globe that employees sold their skills. The higher the skills, the greater the demand. The employee works more on their skills development resulting in high professional demand. These skills help the employees to have a better assessment of the working situation, environment and culture and act accordingly. The competency-based assessment is a technical concept and resources high skills for better assessment. Literature proposed that there is a relationship between employee skills and competency assessment. In this regard, [Lockyer et al. \(2017\)](#) worked on the core principles of competency-based assessment. The results of the study proposed that there are numerous factors that result in better competency-based assessment but particularly the most important is employee skills. These skills enabled the employee to have a better and deeper understanding of all aspects of employee competency and then express the logical results. Similarly, [Struyven and De Meyst \(2010\)](#) also worked on the competence bases of teachers' education. The study was carried out in Belgium. The study used the data of 218 trainee teachers as a sample. The study employed the stratified sampling technique. The results proposed that competence-based education is now being implemented in actual schools. The procedure has not ended yet. While certain competencies such as the role of the teacher as a mentor for learning and growth and as an authority on the subject are evident in the policies and practices of the institutions, others are not as well represented. In addition, there are four main ways that teacher trainers implement competencies: (1) during an internship. (2) Through program planning and policies of the institution. (3) By integrating the competencies into theoretical and practical curriculum components and (4) by not implementing the competencies at all because the teacher trainers believe they are not sufficiently applicable. Moreover, [Seal et al. \(2015\)](#) worked on competence-based assessment and proposed that skills play a vital role in competence-based assessment.

H₃: Staff skills are significantly associated with core competency-based performance assessment.

The aim of the training is to explore skills development in the employee. Such skills development through training helps them to perform their assigned duties in a better way. Many times, despite having proper training the staff skills development remained the same. There are numerous factors that are behind it like poor training, institutional culture, leadership, and training staff skills. In such a case, institutional support enables the employee to communicate and overcome the issues causing them to stick to their skills. In this context, [Lukman et al. \(2021\)](#) explored the moderating effect of institutional support in the relationship between diaspora students and social entrepreneurship intentions. The study results of the investigation proposed that there is a significant relationship between diaspora students and social entrepreneurship intentions using institutional support as a moderator. Similarly, [Nuseir, Aljumah, and El Refae \(2022\)](#) conducted a study on institutional support the relationship between e-learning, m-learning, and d-learning and student performance. The output proposed that there is a significant relationship between e-learning, m-learning, and d-learning and student performance and institutional support have played a moderating role. Moreover, [Falola, Oludayo, Akinnusi, Osibanjo, and Salau \(2018\)](#) also investigate the institutional support as moderator among faculty commitment and the effectiveness of job responsibilities. The outcomes proposed a significant relationship between faculty commitment and the effectiveness of job responsibilities. Further, institutional support acts as a significant moderator.

H₄: Institutional support significantly moderates the relationship between staff training and core competency-based performance assessment.

Innovation is the source of advancement. It helps the employees to perform their tasks in a better and faster way. Many times the innovation leads to complications for employees such as a lack of proper understanding due to many issues like staff confidence for usage, staff skills and institutional environment. In such a way, the institutional

support intervention helped them to overcome these issues. In this context, Suwija et al. (2022) explored the moderating institutional support in the relationship between faculty commitment and the effectiveness of job responsibilities. The investigation proposed a significant relationship among faculty commitment and the effectiveness of job responsibilities using institutional support as a significant moderator. Similarly, Ishaq et al. (2024) examine the relationship between leaders' competencies green entrepreneurial orientation, and innovation. The study used the data of 329 small and medium enterprises (SME) respondents as a sample. The study analyzed the collected data by employing the multiple partial least squares-structural equations modeling (PLS-SEM) analysis approach. The outcomes investigated a positive relationship between leaders' competencies green entrepreneurial orientation and innovation and institutional support has played a moderating role in the association. Moreover, Wu et al. (2024) examined the relationship between bribery, female start-ups, and product innovation performance. The results exposed a relationship between bribery, female start-ups, and product innovation performance with the help of institutional support as a moderator.

H₂: Institutional support significantly moderates the relationship between innovation and core competency-based performance assessment.

Skills are significant to a timely better solution to matters. Sometimes the existence of skills leads to complications for better analysis. In such a way, the institutional support helps the employee to enhance their skills for better assessment of their competence. In the context of moderation, Ojeleye, Ojeleye, Kareem, and Abdullahi (2023) checked the relationship between proactive personality and entrepreneurial intentions. The results exposed a positive relationship between proactive personality and entrepreneurial intentions along with a positive moderating role of institutional support. Similarly, Martono, Sucihatiningsih, Yulianto, Purwanta, and Dwiningrum (2022) checked the relationship between optimism, self-efficacy, and goal achievement motivation. The outcomes investigated that institutional support significantly moderates the relationship between optimism, self-efficacy, and goal-achievement motivation. Moreover, Shubbar, Ali, and Khasanovich (2024) explored the moderating institutional support in the relationship between the COVID-19 pandemic and banks' performance. The study analyzed the collected data by employing the Smart PLS analysis approach. The results exposed a significant relationship between the COVID-19 pandemic and banks' performance. Further, institutional support acts as a significant moderator.

H₃: Institutional support significantly moderates the relationship between staff skills and core competency-based performance assessment.

3. RESEARCH METHODOLOGY

This section provides the research design, research population, sampling, sample size along with the research model and data analysis techniques such as measurement and structural assessment models.

3.1. Research Design

The article investigates the impact of staff skills and training and innovation adoption on CBPA and also investigates the moderating role of institutional support among staff skills and training, innovation adoption and CBPA of higher vocational educational institutions in China. The study used the quantitative method of data collection. The study collected the primary data from the students of the higher vocational educational institutions in China using survey questionnaires.

3.2. Research Population and Sample Size

The study used the students of the higher vocational educational institutions as the respondents. The study selected the ten top vocational educational institutions in China based on quality education. The study selected the senior students as respondents and around 1180 senior students in selected institutions. According to Krejcie and

Morgan (1970) sample size of the 1180 population is 290. The surveys were sent to the students by visiting their institutions. The students were selected based on simple random sampling. A total of 546 surveys were distributed but after two weeks only 290 surveys were received that shows approximately a 53.11 percent response rate.

3.3. Measurements

The constructs are measured with questions taken from past literature such as staff skills which has five questions (Tomczyk, 2021). Staff training has six questions (Gkioka et al., 2020). Innovation adoption has five questions (Marzi, Manesh, Caputo, Pellegrini, & Vlačić, 2023). Institutional support has four questions (Doolittle, 2021) and CBPA has six questions (Propst et al., 2020).

3.4. Validity and Reliability

In addition, the study also employed the Smart-PLS to check the data reliability along with the relationship among variables. This effective statistical tool deals with primary data and provides the best outcomes using complex frameworks (Hair Jr, Howard, & Nitzl, 2020). It used two assessment measurement model assessment deals with data reliability while the structural assessment deals with association among variables (Hair, Hult, Ringle, Sarstedt, & Thiele, 2017). In addition, the alpha, composite reliability, average variance extracted and factor loadings were used to test the reliability. The article used three independent variables such as staff skills (SS), staff training (ST) and innovation adoption (IA) while the article also used one moderating variable such as institutional support (IS) and one predictive variable such as competence-based performance assessment (CBPA). Figure 1 shows these variables.

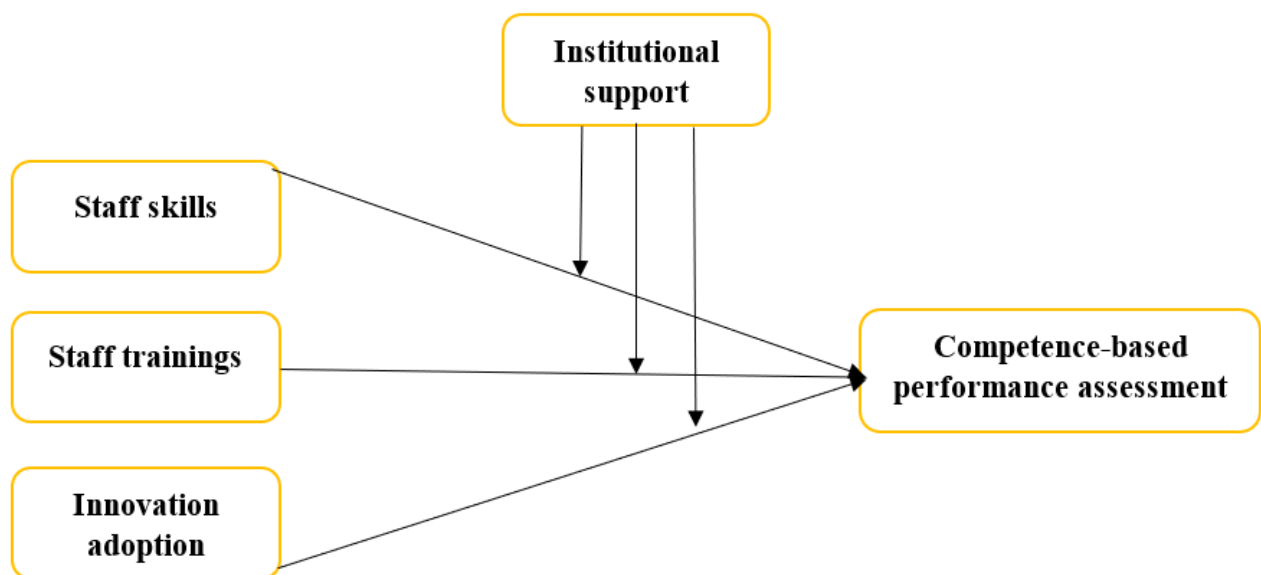


Figure 1. Theoretical framework.

4. RESEARCH FINDINGS

The outcomes show the convergent validity that exposed the correlation between the items. The results indicated that alpha values are bigger than 0.70, factor loadings are higher than 0.50, composite reliability (CR) values are not less than 0.70 and average variance extracted (AVE) are not lower than 0.50. These values exposed a high correlation between items and indicated a valid convergent validity. Table 1 shows these outcomes.

Table 1. Convergent validity.

Constructs	Items	Loadings	Alpha	CR	AVE
Competence-based performance assessment	CBPA1	0.849	0.909	0.929	0.687
	CBPA2	0.808			
	CBPA3	0.820			
	CBPA4	0.864			
	CBPA5	0.767			
	CBPA6	0.862			
Innovation adoption	IA1	0.535	0.844	0.880	0.608
	IA2	0.892			
	IA3	0.919			
	IA4	0.908			
	IA5	0.538			
Institutional support	IS1	0.865	0.899	0.929	0.766
	IS2	0.875			
	IS3	0.881			
	IS4	0.881			
Staff skills	SS1	0.761	0.837	0.884	0.603
	SS2	0.797			
	SS3	0.729			
	SS4	0.785			
	SS5	0.808			
Staff trainings	ST1	0.861	0.906	0.928	0.681
	ST2	0.854			
	ST3	0.838			
	ST4	0.787			
	ST5	0.771			
	ST6	0.837			

The outcomes show the discriminant validity that exposed the correlation between the variables. The results indicated that cross-loadings and Fornell Larcker criteria values that exposed the correlation with the construct itself were bigger than the values that exposed the correlation with other constructs. These values exposed a low correlation between variables and indicated valid discriminant validity. Tables 2 and 3 show these outcomes.

Table 2. Fornell Larcker.

Constructs	CBPA	IA	IS	SS	ST
CBPA	0.829				
IA	0.431	0.780			
IS	0.396	0.526	0.875		
SS	-0.178	-0.143	-0.124	0.777	
ST	0.520	0.494	0.426	-0.066	0.825

Table 3. Cross-loadings.

Constructs	CBPA	IA	IS	SS	ST
CBPA1	0.849	0.347	0.343	-0.135	0.442
CBPA2	0.808	0.407	0.319	-0.164	0.450
CBPA3	0.820	0.342	0.337	-0.151	0.413
CBPA4	0.864	0.294	0.300	-0.132	0.378
CBPA5	0.767	0.432	0.359	-0.170	0.481
CBPA6	0.862	0.282	0.293	-0.119	0.393
IA1	0.162	0.535	0.660	-0.102	0.246
IA2	0.392	0.892	0.376	-0.158	0.466
IA3	0.406	0.919	0.395	-0.119	0.448
IA4	0.426	0.908	0.354	-0.096	0.447
IA5	0.167	0.538	0.662	-0.097	0.247
IS1	0.339	0.446	0.865	-0.106	0.319
IS2	0.338	0.475	0.875	-0.106	0.392
IS3	0.318	0.441	0.881	-0.113	0.362
IS4	0.386	0.477	0.881	-0.109	0.413

Constructs	CBPA	IA	IS	SS	ST
SS1	-0.124	-0.090	-0.121	0.761	-0.055
SS2	-0.140	-0.160	-0.131	0.797	-0.059
SS3	-0.096	-0.049	-0.044	0.729	0.006
SS4	-0.145	-0.120	-0.048	0.785	-0.070
SS5	-0.168	-0.116	-0.123	0.808	-0.059
ST1	0.482	0.417	0.347	-0.098	0.861
ST2	0.445	0.430	0.367	-0.033	0.854
ST3	0.438	0.455	0.352	-0.024	0.838
ST4	0.395	0.400	0.348	-0.009	0.787
ST5	0.405	0.389	0.332	-0.122	0.771
ST6	0.402	0.353	0.367	-0.034	0.837

The outcomes show the discriminant validity that exposed the correlation between the variables. The results indicated that Heterotrait Monotrait (HTMT) values are lower than 0.85. These values exposed a low correlation between variables and indicated valid discriminant validity. Table 4 shows these outcomes.

Table 4. Heterotrait Monotrait ratio.

Constructs	CBPA	IA	IS	SS	ST
CBPA					
IA	0.443				
IS	0.432	0.716			
SS	0.195	0.166	0.138		
ST	0.565	0.540	0.471	0.088	

The outcomes show the convergent validity that exposed the items' correlation. The results indicated that factor loadings are higher than 0.50. These values exposed a high correlation between items. Figure 2 shows these outcomes.

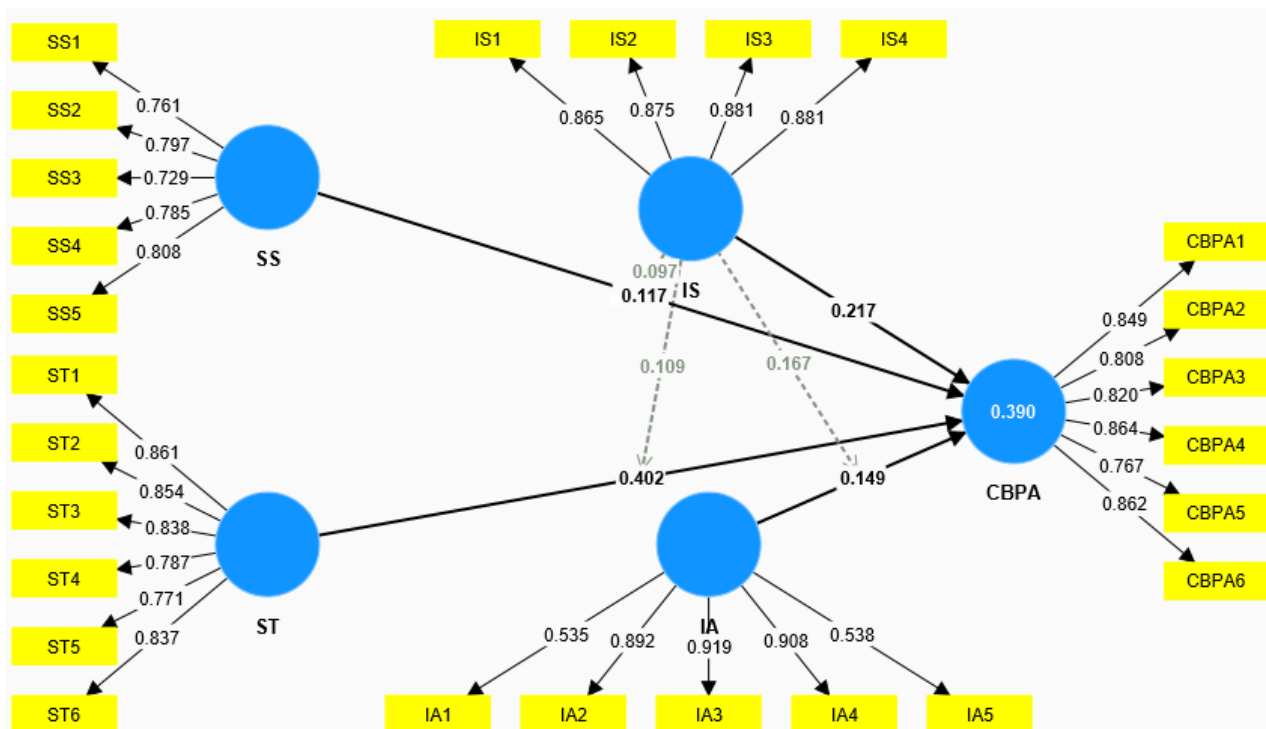


Figure 2. Measurement assessment model.

The outcomes revealed that the staff skills and training and innovation adoption have a positive linkage with core-competence-based performance assessment and accept H1, H2 and H3. Finally, the results also exposed that institutional support significantly moderates among staff skills and training, innovation adoption and core-competence-based performance assessment and accept H4, H5 and H6. Table 5 and Figure 3 showed these associations.

Table 5. Path analysis.

Relationships	Beta	Standard deviation	T statistics	P values
IA -> CBPA	0.149	0.067	2.241	0.027
IS -> CBPA	0.217	0.063	3.432	0.001
SS -> CBPA	0.117	0.044	2.651	0.009
ST -> CBPA	0.402	0.060	6.650	0.000
IS x IA -> CBPA	0.167	0.063	2.663	0.009
IS x SS -> CBPA	0.097	0.044	2.195	0.031
IS x ST -> CBPA	0.109	0.052	2.101	0.038

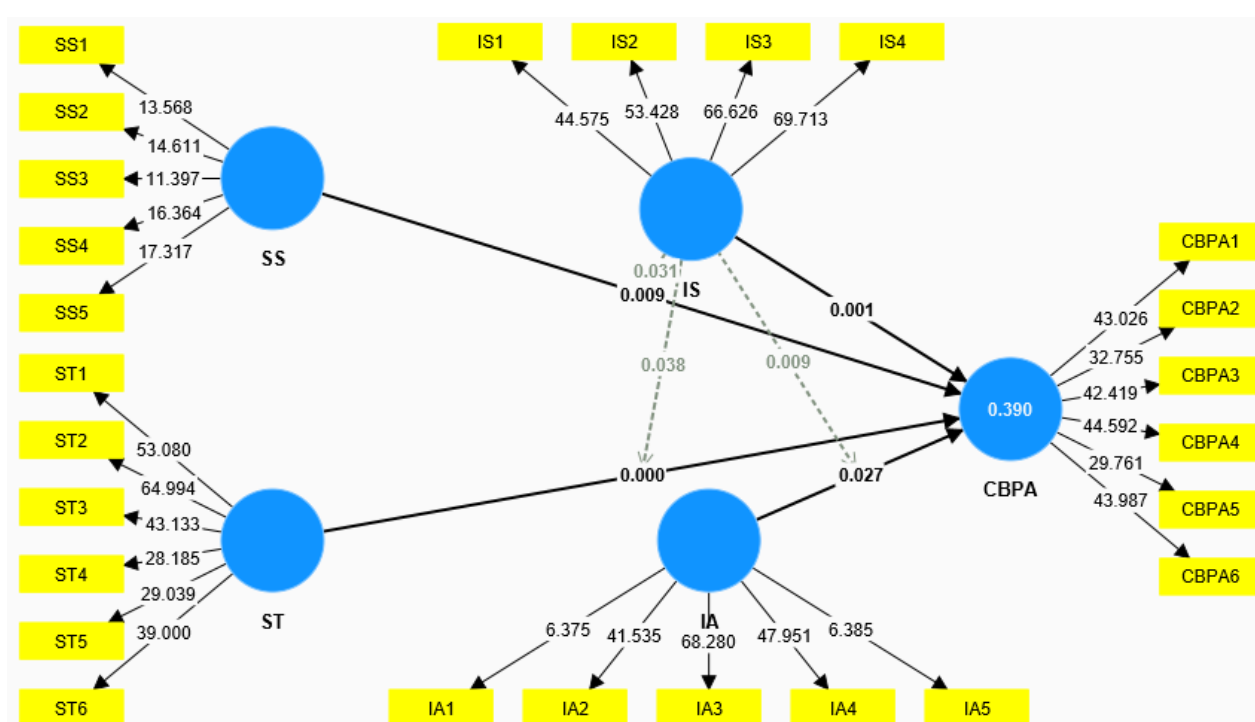


Figure 3. Structural assessment model.

5. DISCUSSION

The study is an elucidation of the complex interdependence between the competency of the staff and the institutional environment, and technological adoption complemented by an examination of the influences of CBPA in China under the context of higher vocational education and general education curriculum. The findings call attention to these variables as significant for learners' achievement and stress the impact of institutional support as a mediating variable in increasing the efficiency of CBPA. This study shows that institutional support moderates the effectiveness of CBPA implementation. The competence of the staff becomes an important factor in this formula. Previous studies like Glaesser (2019) and Race (2019) show that competent staff possess knowledge of what needs to be taught and how best to teach it, thus they are in a position to devise tests that measure the students' capabilities appropriately. This approach is very relevant in the vocationally based education system in China due to the focus on the achievements of set competencies in particular occupation. The research also establishes the significance of well-qualified staff in ensuring that the existing gap between theory and the practice enrolled is

narrowed; hence, a better-quality education is delivered. This integration of theory and practice assists to guarantee that whereas accentuating the academic information supply of a student, their capability to relate to it practically is not compromised (Bao & Zhang, 2022).

The institutional environment in China also has a direct impact on the degree of CBPA. As people are all knowledgeable, having support and all the resources enables everybody in the company to embrace the culture of more improvement and coming up with better solutions (Zabala, Campos, & Narvaiza, 2022). This research also reveals that China's institutions that invest in their employees' professional development, supply sufficient resources, and promote collaboration among human resources staff are likely to have more efficient CBPA systems. Ajjawi et al. (2020) explore that it is the environment that can help to track the developments in the industry and the effectiveness of the given approaches to teaching which brings relevance and challenges to the assessments. Besides, a positive institutional environment can encourage the involved staff members to devote more time to the assessment procedures which ultimately results in more reliable and worthwhile evaluations of the students' performance (Constantinou & Wijnen-Meijer, 2022). The research underlines that the circumstances fostering academic freedom, free speech and collaboration can improve the effectiveness of CBPA. Another slightly broader but also important area considered in this research is technology adoption. Concerning the applicability of advanced technological tools in the assessment process, it is pertinent to note that it has the potential of improving the effectiveness and preciseness of CBPA in China. The research finds out that technology enables the development of various assessments such as simulation, e-portfolios and computerized tests which offer a better way of assessing students' competencies. However, it is worth to notice that technology can be helpful in making some administrative tasks within the assessment process simplified and save time on such workloads for teachers and thus, free them up for more qualitative type of assessment (St-Onge, Ouellet, Lakhal, Dubé, & Marceau, 2022). Nevertheless, the study acknowledges the fact that effective implementation of the technologies is greatly dependent on institutional support and staff training for better utilization of the tools. According to the results of the study, it is recommended that institutions should dedicate resources to professional development for the continual improvement of technology adoption by teachers on teaching-learning transactions as well as assessments.

Institutional support is another important finding that is revealed in this study as playing the role of a moderating variable. Studies like Sepúlveda-Rivillas, Alegre, and Oltra (2022) and Villajos, Tordera, Peiró, and van Veldhoven (2019) show that institutional support comprises factors that will act as a booster to reinforce the staff competency, institutional environment, and technology that determine CBPA. The study elucidates that when institutions invest heavily in infrastructure support such as PD funding from human capital, the latest technologies, and enhancement of a "community of practice", competence from staff and technology utilization repercussions are magnified. According to Akala (2021) institutional support guarantees that teachers have all the requisite tools and encouragement for properly enacting CBPA. It also makes the constant feedback and improvement possible thus making the assessment practices more flexible and effective. The study brings out the fact that when supporting institutions are offering resources, they are equally supporting educators by ensuring that they empower and trust them.

6. CONCLUSION

The study concluded that the staff training along with the skills of the staff and innovation adoption has been the significant element for the core-competences-based performance assessment of the students. In addition, the institutional support also plays a significant role to improve the skills of the staff by providing proper training and innovation. The educational institutions that have focused on the staff training and improved staff skills and provided the innovation have significantly improved the core-competence-based performance assessment.

6.1. Implications

The study has numerous policy implications for higher vocational schools. This gives credence to the fact that institutions should pay much attention towards improving the competency of staff through a process of professional development. Another useful condition that has to be established before starting the discussion is the construction of appropriate institutional conditions that should stimulate innovation and cooperation. The incorporation of IT in the assessment processes may improve the precision and speed of the assessments that are based on the competence frameworks. The study also emphasizes organizational backup as playing a role in enhancing such initiatives since adequate backup enhances assessment results. This implies that policymakers and educational leaders are increasing the investment in resources and approaches that enhance the teachers' professional knowledge and promote improvement as well as the proper technology support. These measures can help to increase the effectiveness of the curricula in general education, thus preparing students for the demands in the modern workplace. The study guides the regulators in making regulation regarding to improve the core-competences-based performance assessment using effective staff skills and training and effective innovation adoption. For further research, exploring different types of institutional support and their impact on different educational outcomes would offer deeper insights as well as examining the long-term effects of innovation adoption on performance assessments.

6.2. Limitations

This research has certain limitations. First, it is highly contextualized to higher vocational education only. Therefore, the implications of study results can be restricted only to this setting. The results could be biased from the side of the teachers or institutions in question due to the use of cross-sectional survey data. Similarly, this study is cross-sectional meaning the data collected is only a view of the subject at a specific point in time and the relationships between the variables of the study cannot be explained causally. Consequently, the findings that are established under the theme of technology adoption may turn out to be quite outdated because of the ever-evolving nature of technologies. Moreover, the study might not capture all the facets of institutional support mechanisms and the variation in their effects on competence-based performance assessment. Future research should elaborate on the use of cross-sectional designs and investigate the current topic in more diverse educational environments.

Funding: This study received no specific financial support.

Institutional Review Board Statement: The Ethical Committee of the Heilongjiang Vocational College of Tourism, China has granted approval for this study (Ref. No.: EJ23312162).

Transparency: The authors declare that the manuscript is honest, truthful and transparent, that no important aspects of the study have been omitted and that all deviations from the planned study have been made clear. This study followed all rules of writing ethics.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: Both authors contributed equally to the conception and design of the study. Both authors have read and agreed to the published version of the manuscript.

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