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Organizational creativity strategy and strategic partnership in improving positional advantage of vocational high schools in west java

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ABSTRACT

This study aims to examine the role of organizational creativity strategies in improving positional advantage in Vocational High Schools (SMK) Centers of Excellence in West Java, by considering the influence of Organizational Creativity and Partnership Program. This study uses a quantitative approach with a data collection tool in the form of a questionnaire distributed to 165 schools from a total of 288 SMK Centers of Excellence in West Java. Sampling was carried out using a stratified random sampling technique. Data were analyzed using the Partial Least Squares (PLS) method, using a Likert measurement scale to assess the variables in the study. The results showed that Organizational Creativity and Partnership Program had a significant influence on positional advantage, with Partnership Program having a greater impact. The main finding of this study is the importance of strengthening organizational creativity in dealing with the dynamics of the external and internal environments of schools. The novelty of this study lies in the integration of two factors Organizational Creativity and Partnership Program—in developing positional advantage in SMK, which has not been widely discussed in previous literature.

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Introduction

Vocational High Schools (SMK) play a crucial role in Indonesia's education system, particularly in preparing students with practical skills tailored to meet the demands of the industry and workforce (Pambudi & Harjanto, 2020). In addition, the school encourages students to become entrepreneurs (Mulyadi et al., 2018) so that the graduates can contribute more to the development of the local and national economy. However, despite their strategic role, SMKs in regions such as West Java face significant challenges in achieving a strong positional advantage (PA) in the competitive education landscape. Positional advantage refers to an institution's ability to stand out as the preferred choice among stakeholders—students, parents, and industries—based on criteria such as reputation, graduate quality, and program relevance (Iyer et al., 2019). And referring to several previous literatures related to PA in the education sector, there are at least six aspects that are often used to measure PA in vocational schools, namely: (1) Academic Reputation; (2) Quality of Facilities and Resources; (3) Quality of Teaching and Teaching Staff; (4) Industry Involvement and Partnerships; (5) Accreditation Status; and (6) Alumni Success (Brittingham, 2020; Fernandes & Singh, 2022; Hillman & Baydoun, 2019; Kumar et al., 2020).

The primary challenge for SMKs in West Java lies in their ability to effectively position themselves as institutions capable of producing work-ready graduates who meet the evolving demands of the industrial sector. Data from the Directorate of Vocational Education (Ditjen Vokasi, 2023) reveals that Indonesia has 14,445 vocational schools, of which 1,840 are in West Java. However, many of these schools struggle to establish strong collaborations with industries and face limitations in facilities, teaching quality, and accreditation—key aspects that directly influence their competitive position. For instance, only a fraction of SMKs in the region are part of the Center of Excellence Vocational Schools (SMK PK) program, which aims to strengthen partnerships with industries and enhance the quality of education. Through programs such as the Center of Excellence SMK (SMK PK), the government encourages the transformation of SMK to be more capable of producing graduates who not only have technical competence but are also able to adapt to changes in technology and the needs of the labor market (Heryani et al., 2024). With an emphasis on solid cooperation between schools and the industrial world, as well as improving the quality of human resources in vocational schools, SMK is expected to play a role in reducing unemployment rates, increasing labor productivity, and supporting national economic growth through the creation of a competent and work-ready workforce. While this program holds potential, its implementation across West Java remains uneven, leaving many SMKs unable to capitalize on its benefits.

Furthermore, one of the critical issues is the limited organizational creativity among SMKs in adapting to technological advancements and building sustainable partnerships with the industrial sector. Studies indicate that close collaboration between vocational schools and industries leads to better internship opportunities and job placements for students (Mustafa et al., 2022). However, in West Java, many vocational schools lack strong industry ties, which hampers their ability to align their curriculum with market needs and provide students with relevant work experience. Additionally, accreditation status remains a significant concern; SMKs with lower accreditation often struggle to gain public trust and attract prospective students (Andriansyah & Kamalia, 2021).

Additionally, a tracer study—a method used to track alumni outcomes such as employment, entrepreneurship, and further education—can be an effective tool to assess the success of SMK graduates and their alignment with industry expectations (Mulyadi et al., 2018). According to (Kemdikbud, 2024), successful alumni can serve as role models and enhance the school's reputation, but data on alumni success still needs to be provided. Unfortunately, comprehensive data on alumni success in West Java—such as employment rates or entrepreneurial achievements—is either unavailable or inconsistently collected, further complicating efforts to evaluate and improve the performance of SMKs.

Based on various literature related to positional advantage, especially in the context of vocational education, various factors influence it. Partnership Program (PP) is one of the implementation strategies that strengthen the dimensions of Positional Advantage (PA) in vocational schools. Collaboration and partnership between schools and the industrial world can increase the relevance of education, the quality of facilities, and the absorption of graduates, as well as strengthen the school's reputation and accreditation in the education sector (Pambudi & Harjanto, 2020). The relationship between Positional Advantage (PA) in vocational schools and Partnership Program (PP) as an implementation of school strategy can be explained through the strategic role of industrial partnerships in strengthening the competitive advantage of schools. At least, the success of the implementation of PP can be seen from (1) Teacher Competence, (2) Curriculum Relevance, (3) Program Implementation, and (4) Monitoring/Evaluation (Areli et al., 2020; Mustafa et al., 2022; Novika et al., 2022; Sudarsono et al., 2020).

The success of PP in supporting the increase in PA is also inseparable from the role of the Organizational Creativity (OC) strategy in building partnership programs with the business world and industry to strengthen positional advantage in the context of this vocational school. In theory, Organizational Creativity (OC) can be a very effective strategy for vocational schools in improving Partnership Programs (PP) and Positional Advantage (PA) through: (1) Innovation in Curriculum Development, (2) Strengthening Partnerships with Industry, (3) Human Resource Development, (4) Utilization of Technology, and (5) Fostering a Culture of Innovation (Ağalday & Dağlı, 2021; Hamouda & Abd El-Aliem, 2020; Hirudayaraj & Matić, 2021; Özkan et al., 2021).

Research gaps in the organizational creativity strategy model in improving the positional advantage of vocational schools in West Java can include (1) Limitations in empirical studies on how organizational creativity is applied in vocational schools to respond to external environmental challenges, such as competitive and technological turbulence; (2) Lack of research exploring the synergistic role between organizational creativity and transformational leadership in shaping the positional advantage of vocational schools; (3) Lack of longitudinal studies measuring the long-term impact of the implementation of organizational creativity strategies on positional advantage, especially in the context of partnership relationships with industry (implementation of partnership programs); (4) Limited literature linking partnership programs as the implementation of strategies that focus on increasing the relevance of graduates to industry needs, and how this supports the positional advantage of vocational schools; and (5) Lack of geographic focus on vocational schools in West Java, which

have unique characteristics. Thus, the background of this study highlights the existence of problems in varying positional advantages in vocational schools, especially in the West Java region. Through a study of the implementation of partnership programs and organizational creativity strategies, the proposed, tested, and developed research model can be one of the novelties that various interested parties can utilize.

Organizational Creativity (OC) is an organization's ability to generate new, innovative, and valuable ideas that can improve the organization's processes, products, services, or strategies (Ağalday & Dağlı, 2021). This creativity depends not only on creative individuals but also on the environment, culture, structure, and processes that support innovation throughout the organization. Examined in more depth, Organizational Creativity is a collective process within an organization that involves creating, developing, and implementing new ideas that can provide added value or solutions to problems faced by the organization (Hirudayaraj & Matić, 2021). This concept is often considered a combination of individual creativity and contextual factors that encourage or inhibit creativity, including leadership, organizational culture, resources, and work environment (Özkan et al., 2021). Organizational Creativity Strategy in the education sector is more directed at how schools as organizations carry out various innovations in curriculum development. In this case, schools also strengthened their partnerships with the industry. To excel, of course, schools must be consistent in developing their human resources. In this age of information technology, schools must utilize the latest technology optimally. For that, fostering a culture of innovation needs to be continuously developed. This study raises five dimensions in measuring Organizational Creativity: (1) Innovation in Curriculum Development, (2) Strengthening Partnerships with Industry, (3) Human Resource Development, (4) Utilization of Technology, and (5) Fostering a Culture of Innovation (Ağalday & Dağlı, 2021; Hamouda & Abd El-Aliem, 2020; Hirudayaraj & Matić, 2021; Özkan et al., 2021).

Partnership Program (PP) is a collaborative framework that involves cooperation between educational institutions and various external parties, such as industry, government, and communities, to achieve common goals related to improving education quality and graduates' relevance (Epstein et al., 2018). This concept emphasizes the synergy between the world of education and the world of work, where both parties contribute with their resources, knowledge, and expertise to create programs that support relevant and up-to-date learning. PP is usually based on two main underlying theories: Collaboration Theory and Interdependence Theory. Collaboration Theory emphasizes the importance of cooperation between various entities to achieve common goals greater than those that can be achieved individually (Williams, 2015). In the context of Partnership Programs in Vocational High Schools, this theory is relevant because collaboration between schools and industry, government, or other educational institutions allows for creating synergies that produce more relevant and effective educational programs. The Interdependence Theory states that organizations or institutions often can only achieve their goals optimally with interdependence and cooperation with other entities (Cockerill et al., 2018). Partnership programs in the world of education, especially in vocational schools in Indonesia, can refer to models and measurements related to (1) Teacher Competence, (2) Curriculum Relevance, (3) Program Implementation, and (4) Monitoring/Evaluation (Areli et al., 2020; Mustafa et al., 2022; Novika et al., 2022; Sudarsono et al., 2020).

Positional Advantages (PA) generally refer to an organization or institution's competitive advantages in its market position or environment. PA includes factors that make the organization more attractive, superior, or recognized than its competitors. PA can be a strong reputation, better product or service quality, superior innovation, or better relationships with stakeholders. In the context of education, PA refers to the ability of an educational institution or school to stand out among other institutions, attract better students and partners, and produce competent graduates who are sought after by the world of work (Rahayu et al., 2014). In Indonesia, Vocational High Schools play an essential role in the national education system with the primary objective of preparing students to enter the world of work directly after graduation. However, the challenges vocational schools face is enormous, including the suitability of the curriculum to industry needs, the quality of teaching staff, and the availability of adequate facilities. The position of vocational schools is often faced with competition with general high schools (SMA) and other vocational schools, both in terms of the number of applicants and the quality of graduates (Machmud, 2024). Measurement of Positional Advantages in Vocational High Schools (SMK) includes six main dimensions that are indicators of the institution's advantages: (1) Academic Reputation; (2) Quality of Facilities and Resources; (3) Quality of Teaching and Teaching Staff; (4) Industry Involvement and Partnerships; (5) Accreditation Status; and (6) Alumni Success (Brittingham, 2020; Fernandes & Singh, 2022; Hillman & Baydoun, 2019; Kumar et al., 2020).

The study of the positional advantage model in vocational schools, through organizational creativity strategy and partnership programs can refer to the strategic management model of (Wheelen et al., 2018). Middle-range theories can refer to organizational creativity theory (Ağalday & Dağlı, 2021; Özkan et al., 2021) dan co-creation theory (Brackenbury et al., 2022; Heryani et al., 2024) At the strategy formulation stage, information obtained

from the previous stage is used to formulate a strategy. Organizational Creativity Strategy is the main focus at this stage. This means that schools must think creatively to develop a unique strategy different from their competitors. Next, at the Strategy Implementation stage, the Partnership Program is an integral part of strategy implementation, namely establishing cooperation with industry to increase the relevance of education to the world of work. The last stage evaluates how the implemented strategy has achieved its goals. Vocational School Positional Advantage is the ultimate goal of strategy implementation, placing vocational schools in a superior position compared to other schools. A framework, presented in Figure 1, can be created based on several previous studies that examine the various relationships between each variable studied in this research model.

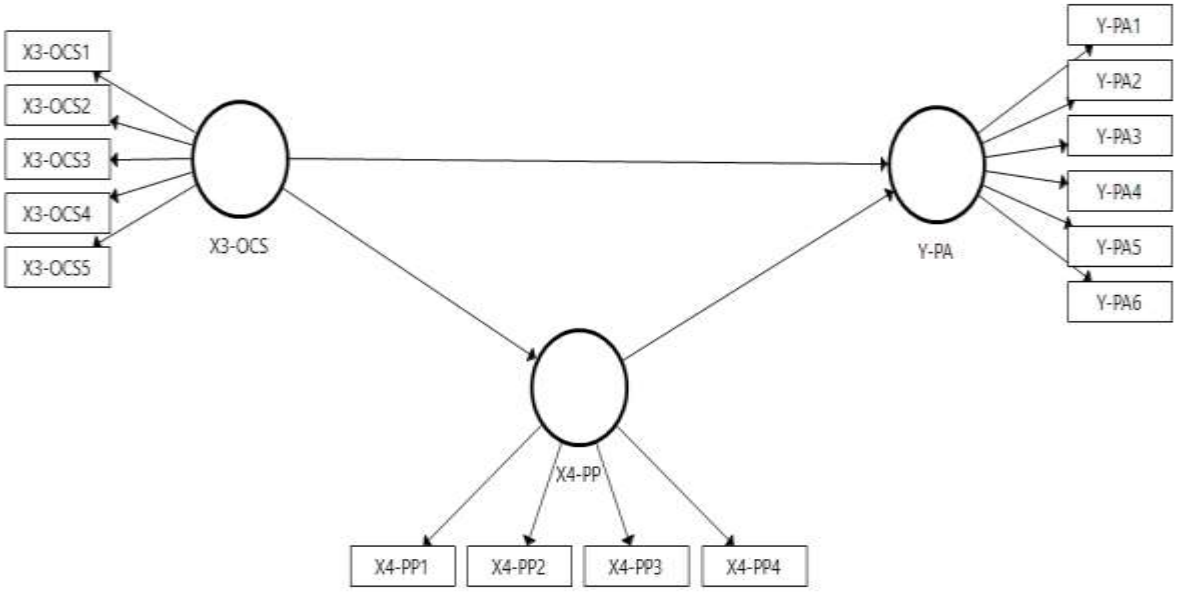

Figure 1 <Research Framework>

Four hypotheses will be tested from the framework: (1) Hypothesis 1: Organizational Creativity positively affects Partnership Program; (2) Hypothesis 2: Organizational Creativity positively affects Positional Advantage; (3) Hypothesis 3: Partnership Program positively affects Positional Advantage; (4) Hypothesis 4: Partnership Program mediates the relationship between Organizational Creativity and Positional Advantage

Method

This study's research subjects or units of analysis are all State Vocational High Schools in West Java that have implemented the Center of Excellence program. The observation unit (respondent) is the principal, vice principal, or a designated group that can represent them, ensuring that the respondents are knowledgeable about the school's implementation of the program. From a total population of 288 State Vocational High Schools PK in West Java, a sample of 165 schools was selected using proportional stratified random sampling. This method ensures that the sample is representative of the population by taking into account factors such as school location and size. The sampling process involved categorizing schools into strata based on these characteristics, followed by random selection within each stratum to achieve proportional representation. This sampling strategy was designed to ensure that the findings could be generalized to the broader population of State Vocational High Schools in West Java. The implementation of the study is planned for May-August 2024, during which data will be collected from the selected respondents to provide insights into the program's outcomes and challenges.

The object of research refers to information regarding the variables studied, research subjects (unit of analysis and unit of observation), and place and time of research implementation. The variables in this research model include Organizational Creativity Strategy (X3-OC) as an independent variable, Partnership Program (X4-PP) as a mediating variable, and finally, Positional advantage (Y-PA) as a dependent variable. Measurement of variables, dimensions, and indicators for each latent variable can be presented in Table 1.

The methodology used in this investigation adopted a quantitative approach, where the questionnaire served as the primary instrument for data acquisition. The research followed a systematic process comprising several stages. First, the planning phase involved defining the research objectives, identifying the target population, and designing the questionnaire, which included closed-ended questions utilizing a Likert scale to ranging from 1

(strongly disagree) to 5 (strongly agree) to measure perceptions and attitudes. The questionnaire underwent a pilot test to ensure clarity and reliability before full deployment.

Table 1 <Measurements of Variables, Dimensions, and Indicators>

Variables	Dimensions	Indicators
Positional Advantage (PA)	1. Academic Reputation	1.01. Student academic achievement at the local/national level.
		1.02. Recognition from external institutions (awards, rankings).
		1.03. The reputation of the institution among prospective students and parents.
	2. Quality of Facilities and Resources	1.04. Availability of laboratory and practice equipment.
		1.05. Student access to modern technology and learning resources.
		1.06. Quality of supporting facilities (library, study room).
	3. Quality of Teaching and Teaching Staff	1.07. Professional qualifications and experience of the teaching staff.
		1.08. Innovative and industry-based teaching methods.
		1.09. Student satisfaction with the quality of teaching.
	4. Industry Involvement and Partnerships	1.10. Partnerships with related companies or industries.
		1.11. Internship programs provided through industry partnerships.
		1.12. Industry involvement in curriculum and training.
	5. Accreditation Status	1.13. Accreditation from national accreditation bodies.
		1.14. Recognition of education quality standards by external parties.
		1.15. Evaluation and improvement of the curriculum based on accreditation.
	6. Alumni Success	1.16. Absorption of graduates in the world of work.
		1.17. Alumni who are successful entrepreneurs or in professional positions.
		1.18. Alumni network that supports the careers of current students.
Partnership Program (PP)	1. Teacher Competence	2.01. Material Integration
		2.02. Technology Mastery
		2.03. Teacher Professional Development
	2. Curriculum Relevance	2.04. Curriculum alignment with industry
		2.05. Curriculum flexibility
		2.06. Industry involvement in the curriculum
	3. Program implementation	2.07. Internship program
		2.08. Availability of industrial facilities in schools
		2.09. Student participation
	4. Monitoring/Evaluation	2.10. Program Success
		2.11. Periodic Evaluation
		2.12. Feedback
Organizational Creativity Strategy (OCS)	1. Innovation in Curriculum Development	3.01. Project-based curriculum
		3.02. Technology integration
		3.03. Flexibility of Curriculum Innovation
	2. Strengthening Partnerships with Industry	3.04. Strategic partnerships
		3.05. Innovative internship program
		3.06. Co-creation
	3. Human Resource Development	3.07. Teacher training
		3.08. Leadership development programs
		3.09. Cooperation with Universities

Scale = Interval

Next, data collection was conducted using an online survey distributed through Google Forms. The sampling strategy ensured a representative subset of the population, and respondents were informed about the purpose of the study and the confidentiality of their responses. Given that data were collected at a single point in time, the study is classified as a cross-sectional study, aiming to characterize conditions and behaviors within a specific population.

After data collection, the raw data were coded and prepared for analysis. Descriptive statistical techniques were employed to summarize each variable, providing an overview of trends and patterns. The instrument used in this study was a questionnaire that displays an interval scale of five numeric values, accompanied by appropriate statements. This design allows participants to evaluate each variable indicator more objectively in the questionnaire statement. Before distributing the instrument to participants, an initial assessment of the validity and reliability of the research instrument (questionnaire) was carried out. Convergent validity testing was conducted using Confirmatory Factor Analysis (CFA) by reporting the Average Variance Extracted (AVE) for each construct, with a value expected to be greater than 0.5. Discriminant validity was assessed using the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT). Reliability testing employed Cronbach's Alpha, with a threshold value of 0.7 or higher considered acceptable for internal consistency.

Descriptive analysis was used to describe each variable studied. The categories for respondents' responses were divided into four categories, namely low, reasonably low, reasonably high, and high. Verification analysis techniques were used to see the effect of a variable on other variables. This study uses the Partial Least Squares (PLS) analysis technique. PLS was chosen because it is suitable for analyzing complex models with multiple constructs and indicators, particularly when the research involves exploratory objectives or when the sample size is relatively small. The analysis was conducted in two stages: (1) evaluation of the measurement model to assess reliability, validity, and indicator loadings, and (2) evaluation of the structural model to examine the relationships between variables and test the proposed hypotheses, ensuring the robustness of the findings

This research approach is relevant to the research objectives as it uses quantitative methods to analyze the relationship between variables objectively and measurably, in accordance with the research focus to identify specific influences and patterns. The research design, such as the use of Likert scales, validity testing with CFA, and reliability with Cronbach's Alpha, ensures that the data collected is valid and consistent. In addition, the Partial Least Squares (PLS) method was chosen for its ability to handle complex research models and ensure the analysis results can be interpreted accurately to support the research conclusions.

Results and Discussions

Results

Vocational education is one of the important pillars in preparing the younger generation to become competent and competitive workers in the industrial world. In line with this vision, the Indonesian government, through the Directorate General of Vocational Education of the Ministry of Education, Culture, Research, Technology, has launched an education program to improve the quality and performance of Vocational High Schools through the Center of Excellence Program (SMK-PK). The primary objective of the SMK-PK is to realize the development of vocational schools with specific expertise programs to increase quality and performance in the field of vocational education. This program must be supported and strengthened by cooperation and partnerships with the business and industrial world to achieve this goal. In addition, support from the local government and vocational colleges is also the key to the success of this program. The Directorate General of Vocational Education explained that SMK PK should not create an "ivory tower" or a favorite school superior to others.

On the contrary, schools that become SMK PK are expected to become reference schools and centers for improving the performance and quality of schools in the surrounding area. Thus, SMK PK is expected to be increasingly relevant to the needs of industry and the world of work. The SMK PK program continues several previous vocational education programs, namely SMK Revitalization and SMK Center of Excellence (CoE). The SMK Revitalization Program provides physical assistance incentives for SMK in five priority sectors: tourism, maritime, creative industry, agriculture, and technology. This program involves the active role of the local government. The SMK Center of Excellence (CoE) focuses on developing human resources (HR) in Vocational High Schools, which will impact other schools through physical and non-physical assistance incentives. This program also trains principals and vocational teachers in several priority sectors.

Respondent Characteristics

The respondents in this study were the leadership ranks and their representatives at the state vocational schools that implement CoE, which were the samples in this study, totaling 165 (each respondent represented one school). Table 2 presents the respondents' profiles in terms of gender, age, education level, and length of service.

Table 2 <Respondents' Profiles>

Gender	Frequency	Percentage
Male	107	64,8
Female	58	35,2
Total	165	100,00
Age	Frequency	Percentage
less than 30 years old	2	1,2
between 30-40 years old	36	21,8
between 41-50 years old	72	43,6
between 51-60 years old	51	30,9
Above 60 years old	4	2,4
Total	165	100,0
Education Level	Frequency	Percentage
Bachelor	90	54,5
Magister	65	39,4
Doctoral	10	6,1
Total	165	100,0
Length of Service	Frequency	Percentage
less than 10 years old	4	2,4
between 10 - 20 years old	72	43,6
between 21 - 30 years old	74	44,8
more than 30 years	15	9,1
Total	165	100,0

Table 2 reveals that from a total of 165 respondents, the majority were male with a frequency of 107 people or 64.8%. Meanwhile, female respondents numbered 58 people, or 35.2%. This shows that the participation of male respondents is more dominant than female respondents. The distribution of respondent ages is dominated by the 41–50-year age group, with a total of 72 people or 43.6%. Followed by the age group of 51-60 year (51 people or 30.9%) and the 30–40-year age group as many as 36 people (21.8%). Respondents under 30 years old were only 2 people (1.2%), while those over 60 years old were 4 people (2.4%). In the educational level, most respondents had a Bachelor's degree, namely 90 people (54.5%). Respondents with Masters education numbered 65 people (39.4%), and those with Doctoral education numbered only 10 people (6.1%). Based on the length of service, most respondents have work experience between 21-30 years with a total of 74 people (44.8%), followed by respondents with a length of service between 10-20 years with a total of 72 people (43.6%). Respondents who have worked for more than 30 years numbered 15 people (9.1%), and those with less than 10 years of work experience numbered 4 people (2.4%).

Based on each variable description in the previous sections, the following Table 3 can be used to summarize the descriptions for all variables in the research model.

Table 3 <Summary of Descriptions of All Variables in the Model>

Variables	Achievement Score	Ideal Score	Mean	S.D.	%	Category
Organizational Creativity	9,947	12,375	4.02	0.83	75.5	High
Partnership Program	7,391	9,900	3.73	0.86	68.3	Reasonably High
Positional Advantage	11,031	14,850	3.71	0.86	67.9	Reasonably High

Organizational creativity is perceived as high because vocational schools in West Java have implemented innovative strategies that encourage creative problem-solving and adaptability in response to environmental challenges. The schools have fostered a culture that promotes continuous improvement and the development of creative ideas, which is crucial in maintaining their competitive edge in the education sector. The Partnership Program is assumed to be reasonably high because these vocational schools have established strong collaborations with industry partners. Vocational schools need to expand and deepen these partnerships so the existing collaborations can significantly align their curriculum with industry needs and enhance student skills through real-world applications. Positional Advantage is perceived as reasonably high due to the schools' ability to maintain a strong academic reputation, provide quality resources, and cultivate industry partnerships. While the schools have established a solid foundation in these areas, further efforts could be made to strengthen their competitive positioning, particularly in attracting more students and ensuring long-term sustainability in a competitive educational realm.

Test Result

The measurement model can be seen from several criteria: (1) Indicator Reliability, which reports the loading value of each indicator (or dimension) on each construct (latent variable), with an ideal value above 0.7; (2) Internal Consistency Reliability, namely by referring to Composite Reliability (CR) and Cronbach's Alpha (CA) for each construct and the value must also be more than 0.7; (3) Convergent Validity or Discriminant Validity, namely reporting the Average Variance Extracted (AVE) for each construct whose value is expected to be greater than 0.5; and (4) Discriminant Validity using the Fornell-Larcker criterion or Heterotrait-Monotrait ratio (HTMT).

Table 4 presents reliability indicators that show the outer path loadings values for each manifest and latent variable, complete with coefficient values (Coef.) with bootstrap results, standard deviations (S.D.), t-statistics (t-stat), and probability values (p-value). Table 4 shows that all values of the outer path are more than 0.7 (proven by the bootstrapping process resulting in t-stats and p-values that meet the reliability criteria. Each indicator can consistently reflect the measured construct, as indicated by the significant outer loading value and p-value below 0.05.

Table 4. Indicator Reliability (Outer Path Loadings)

Path	Coef.	Bootstrap	S.D.	t-stat	p-value
X3-OCS1 ← X3-OCS	0.881	0.880	0.020	44.254	0.000
X3-OCS2 ← X3-OCS	0.835	0.836	0.026	32.100	0.000
X3-OCS3 ← X3-OCS	0.876	0.875	0.021	42.135	0.000
X3-OCS4 ← X3-OCS	0.884	0.883	0.017	53.396	0.000
X3-OCS5 ← X3-OCS	0.913	0.912	0.016	56.917	0.000
X4-PP1 ← X4-PP	0.850	0.851	0.023	36.304	0.000
X4-PP2 ← X4-PP	0.830	0.829	0.024	34.633	0.000
X4-PP3 ← X4-PP	0.803	0.803	0.035	22.914	0.000
X4-PP4 ← X4-PP	0.897	0.896	0.014	62.296	0.000
Y-PA1 ← Y-PA	0.754	0.754	0.044	17.239	0.000
Y-PA2 ← Y-PA	0.753	0.752	0.037	20.097	0.000
Y-PA3 ← Y-PA	0.856	0.858	0.020	43.851	0.000
Y-PA4 ← Y-PA	0.763	0.761	0.051	15.069	0.000
Y-PA5 ← Y-PA	0.825	0.824	0.019	44.433	0.000
Y-PA6 ← Y-PA	0.755	0.756	0.035	21.441	0.000

Source: SmartPLS Output (2024)

Internal Consistency Reliability calculation shows the reliability of internal consistency through Composite Reliability (CR) and Cronbach's Alpha (CA) estimates for each construct. Table 5 presents the results of the calculation. It is known from Table 5 that all CR and CA values for each latent variable (construct) are above 0.7. Each construct has good internal reliability and adequate internal consistency. Thus, it can be ascertained that the indicators used to measure the construct have a high correlation.

Table 5. Internal Consistency Reliability

Construct	Cronbach's Alpha	Composite Reliability
X3-OCS	0.926	0.944
X4-PP	0.867	0.909
Y-PA	0.876	0.906

Source: SmartPLS Output (2024)

The convergent or discriminant validity calculation here can use the Average Variance Extracted (AVE) criteria for each construct. The calculation of AVE can be shown in Table 6. Table 6 shows that the AVE value (marked in bold) is greater than each correlation for each variable. Thus, it can be stated that all latent variables have met the requirements of convergent validity or determinant validity. So, each construct can better explain the variance of its indicators compared to the shared variance explained by other constructs.

After estimating the measurement model, the next step is to estimate the structural model. There are several criteria for evaluating this structural model: (1) Path Coefficients, which report the estimated path coefficients and their significance levels, indicating whether the hypothesis is supported or not supported; (2) R^2 values, presenting the R^2 value for the endogenous construct, indicating the amount of variance explained by its

predictor variables; (3) Effect Size (f^2) reports the effect size for each predictor variable, indicating the contribution of each predictor to the R^2 value of the endogenous construct; and (4) Predictive Relevance (Q^2), using the Stone-Geisser criterion to report the Q^2 value, indicating the predictive relevance of the model. The overall PLS model in this study can be illustrated in Figure 2.

Table 6. Convergent Validity (using AVE)

	X3-OCS	X4-PP	Y-PA
X3-OCS	**0.878**		
X4-PP	0.752	**0.846**	
Y-PA	0.779	0.750	**0.785**

Source: SmartPLS Output (2024)

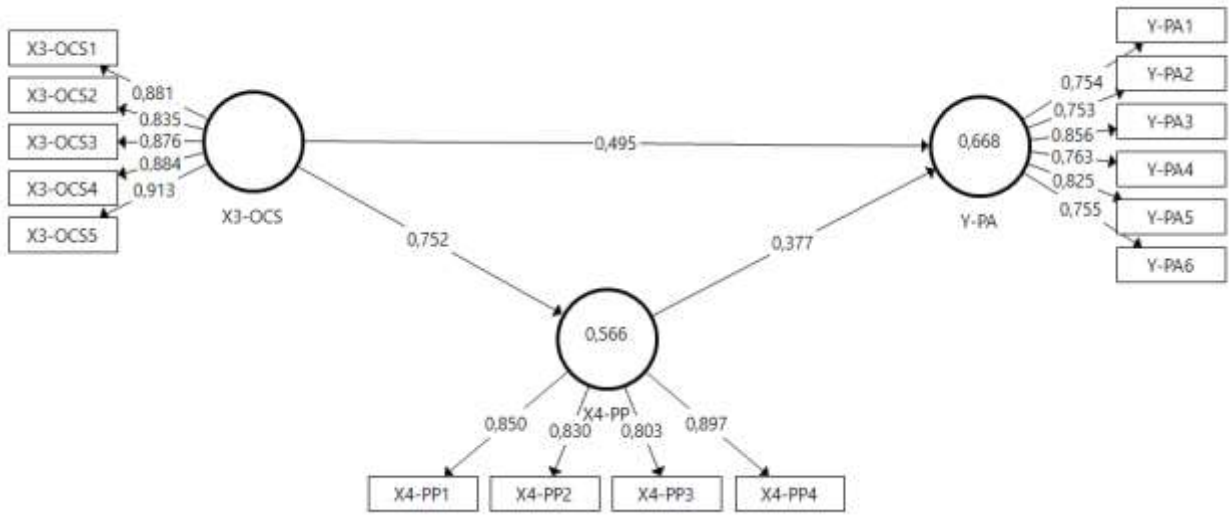

Figure 2. Overall Model

Hypothesis Result

The path coefficient (inner model) obtained can be seen in Table 7. The determination of t-stat is obtained from the bootstrapping results. This table shows the direct effects and indirect effects estimated from the path coefficient (Coef.) value, the path coefficient value from bootstrapping results, and the standard deviation (S.D.) value so that the t-statistics value, probability value (p-value), and determination of the hypothesis test results that are supported or not supported can be known.

Table 7. Direct and Indirect Effects

Path	Coef.	Bootstrap	S.D.	t-stat	p-value	Hypotheses
X3-OCS → X4-PP	0.752	0.754	0.037	20.232	0.000	Supported
X3-OCS → Y-PA	0.495	0.493	0.063	7.858	0.000	Supported
X4-PP → Y-PA	0.377	0.381	0.065	5.801	0.000	Supported
X3-OCS → X4-PP → Y-PA	0.284	0.288	0.054	5.276	0.000	Supported

Source: SmartPLS Output (2024)

Table 7 presents the results of hypothesis testing for various paths in a model. All hypothesized paths were found to be statistically significant. Specifically, Organizational Citizenship Behavior (OCS) was found to have a direct and indirect effect on Partnership Program (PP), and both OCS and PP were found to have direct effects on Positioning Advantage (PA). The indirect effect of OCS on PA through PP was also significant. These findings suggest that OCS is a strong predictor of both PP and PA, and that the relationship between OCS and PA is partially mediated by PP.

The coefficient of determination (R^2 or R-squared value) is used to evaluate how well the independent variables explain the variation in the dependent variable, which provides an indication of the model's goodness of fit. In this study, (1) the R^2 value is 0.566, meaning that 56.6% of the variation in the Partnership Program

(PP) is explained by its independent variables, which suggests a moderately strong relationship between the predictors and PP. The remaining 43.4% of the variation is due to factors not included in the model, (2) the R^2 value is 0.668, indicating that 66.8% of the variation in Positioning Advantage (PA) is explained by the independent variables Organizational Climate and Structure (OCS) and Partnership Program (PP). This represents a stronger explanatory power of the predictors for PA, with only 33.2% of the variation attributed to external or unmodeled factors.

The f^2 index (effect size) evaluates the individual impact of each latent variable on the dependent variable. The effect sizes for the following relationships were calculated, OCS → PP, OCS → PA, and PP → PA, all f^2 values are greater than 0.35, which indicates substantial effects according to Cohen's guidelines. This demonstrates that the independent variables have a significant and meaningful influence on their respective dependent variables. The Q^2 values are used to measure the predictive relevance of the model for endogenous constructs by applying the Stone-Geisser test. Positive Q^2 values indicate that the model has predictive relevance for the variables, (1) Q^2 for Partnership Program (PP) value is 0.396, which is close to 0.4, indicating that the model demonstrates strong predictive relevance for this construct, (2) Q^2 for Positioning Advantage (PA) value is 0.397, which similarly demonstrates a strong predictive relevance for the Positioning Advantage construct.

Discussions

Based on hypothesis testing, the effect of OCS on PP was found. The effects of OCS on PA and PP on PA are positive and significant. Also, PP can have a mediating effect in the relationship between OCS and PA. Previous studies highlight that organizational creativity plays a pivotal role in enhancing collaborative initiatives, such as partnership programs. OCS, through innovative problem-solving and creative strategies, promotes dynamic partnerships with external stakeholders. The achievement of the OCS variable as a vocational high school strategy has reached a high category. Creativity itself has indeed become an integrated part of the implementation of the learning process in vocational schools (Özkan et al., 2021). OCS is widely recognized for its contribution to enhancing a firm's competitive positioning.

The high achievement in the Technology Utilization dimension indicates that technology can be a key factor in promoting creativity in schools. Schools that have optimized the use of technology, such as online learning platforms, administrative digitalization, and strategic data analysis, can create a more flexible and adaptive environment (Andrian & Fauzi, 2018). The use of technology allows school members to access information faster, share ideas and work together innovatively, which in turn increases the potential for creativity of the school organization. These findings underscore the importance of investing in technology infrastructure to support innovation in vocational education.

Theoretically, this finding supports the idea that technology utilization and innovation culture in vocational schools can enhance organizational creativity, which in turn contributes to the achievement of competitive advantage (Machmud, 2024; Rahayu et al., 2014; Tam, 2016). The practical implication is that vocational schools in West Java should focus more efforts on improving technology utilization as a means to support creativity and competitiveness in the industrial world. More innovative curriculum development and improved teacher competencies are also urgently needed to support the achievement of these goals. On the other hand, the findings highlight the importance of improvements in strengthening partnerships with industry, which to date have not reached the expected targets. Industry partnerships are a crucial aspect that can help schools to adjust to the needs of the labor market and improve the relevance of the curriculum. The research findings from the loading value show that the contribution of Monitoring/Evaluation, Teacher Competence, and Curriculum Relevance is already considerable. However, the contribution of the Program Implementation dimension is still not that large. Effective Monitoring/Evaluation allows schools to consistently evaluate program progress, identify several components that need improvement, and ensure that program goals are achieved (Watters et al., 2013).

This finding corroborates the theory that organizational creativity plays an important role in improving the competitive position and partnership of organizations (Huynh et al., 2019). Creativity in organizations can result in unique offerings and distinctive competencies that enhance positional advantage (Fernandes & Singh, 2022). Partnerships also serve as a conduit for creative strategies to be effectively implemented, thereby strengthening their impact on organizational positional advantage (Brackenbury et al., 2022; Syauqi et al., 2022). Furthermore, this finding reinforces the idea that external collaboration through partnerships is a strategic pathway that magnifies the impact of organizational creativity on positional advantage (Akkerman & Bruining, 2016; Dianto & Idawati, 2020; Heryani et al., 2024). However, the findings also provide a challenge to theories that overemphasize industrial partnerships as the main factor in achieving positional advantage, as the results show that the sector has not yet reached its optimal target. Therefore, this study provides a new perspective on how internal factors, such as technology utilization and curriculum development, also play a significant role in shaping the competitive advantage of vocational schools in West Java.

Thus, the findings make an important contribution from both theoretical and practical perspectives, and provide direction for strategic efforts in vocational schools to optimize creativity through technology, improvement of education quality, and more effective partnerships with industry. However, this study has several limitations, including the lack of representation of various types of vocational schools outside West Java and limitations in exploring other external factors that may influence the success of OCS implementation and industry partnerships. Therefore, further research is recommended to expand the geographical scope and include additional variables that can provide a more comprehensive picture of the factors that influence competitive advantage in vocational schools.

Conclusions

This study found that the Organizational Creativity (OCS) strategy has a significant positive effect on improving Positional Advantage (PA) in vocational schools. OCS is able to direct school resources to develop innovative ideas that are in line with environmental challenges and leadership direction. In addition, the Partnership Program (PP) is also proven to have a positive contribution to improving PA, and functions as an effective mediator in connecting OCS and PA. These findings underline the importance of managing organizational creativity in the context of vocational education, especially in terms of curriculum development, learning methods, and resource management. This study provides a new contribution to the literature by highlighting the role of partnerships between schools and industry in strengthening the positional advantage of vocational schools. Sustainable Partnership Programs can improve the relevance of the curriculum and open up more internship opportunities for students, which directly contribute to improving student competencies that are more in line with the needs of the labor market. In practice, the results of this study suggest that school management should emphasize the importance of OCS in designing policies that encourage innovation in school management, as well as strengthening relationships with industry to ensure relevant curriculum updates and increase employment opportunities for students.

As a recommendation, teachers are expected to adopt innovative learning approaches that are relevant to technological developments and industrial dynamics, to ensure that students acquire skills that are in line with current job market needs. Students are also expected to be more active in participating in industrial activities and supporting the creation of a culture of innovation in the school environment. For policy makers, it is recommended that the government and stakeholders in the education sector strengthen school-industry partnership programs to improve the relevance of the curriculum and open up more internship opportunities for students. Further research is recommended to explore how school culture conditions and other factors such as digital literacy can influence the effectiveness of organizational creativity strategies in vocational schools. In addition, longitudinal studies are also needed to see the development of the influence of important factors on the positional advantage of vocational schools over time, with a focus on the long-term impact of industry partnership programs. Further research can expand the scope by testing this model in schools in other regions or even outside the education sector to test the generalizability of organizational creativity strategies and positional advantages.

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