

INTERNATIONALIZATION OF HIGHER VOCATIONAL EDUCATION IN SHANXI: THE IMPACT OF THE COMPREHENSIVE INTERNATIONALIZATION MODEL AND RISK MANAGEMENT

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Abstract

The internationalization of higher vocational education (IHVE) is essential for enhancing institutional quality and competitiveness. This study examines IHVE in Shanxi Province, China, through the Comprehensive Internationalization Model (CIM), focusing on six factors Articulated Institutional Commitment (AIC), Administrative Leadership, Structure, and Staffing (ALSS), Curriculum, Co-curriculum, and Learning Outcomes (CCLO), Faculty Policies and Practices (FPP), Student Mobility (SM), and Collaboration and Partnership (CP) and introduces Risk Management (RM) as a mediator. Partial least squares structural equation modeling (PLS-SEM) results show that AIC, ALSS, CCLO, SM, and CP each have significant direct effects on IHVE ($p < 0.001$), whereas FPP does not. Among these, SM and CP exert the strongest influences. Furthermore, RM mediates all six relationships, particularly strengthening the effects of CCLO and SM on IHVE. These findings indicate that integrating RM frameworks alongside investments in mobility, partnerships, and curriculum alignment can create more resilient and effective internationalization strategies. This research provides actionable guidance for policymakers and leaders seeking to foster sustainable global engagement in higher vocational institutions.

Keywords: Internationalization, Higher Vocational Education, Comprehensive Internationalization Model, Risk Management, PLS-SEM, Shanxi, Student Mobility, Collaboration

1. Introduction

The internationalization of higher vocational education (IHVE) has emerged as a vital strategy in the global landscape of higher education. As nations strive to elevate their global competitiveness, internationalization enables educational systems to align with global benchmarks, enhance graduate employability, and promote intercultural competencies through academic exchanges and international engagement (González-Pérez & Ramírez-Montoya, 2022; De Wit & Altbach, 2021). In China, the accelerating pace of economic development and increasing global influence have driven demand for a workforce that is not only technically skilled but also internationally competent. Higher vocational education serves this purpose by providing practical, market-relevant training for emerging industries (Li & Xue, 2022; Yuan & Wang, 2021).

Shanxi Province, located in northern China, has undergone significant policy and structural reforms in vocational education. Efforts have been made to expand international partnerships, increase the mobility of students and faculty, and modernize curricula to reflect global standards (SDE, 2024b). However, despite these initiatives, research suggests that internationalization practices across institutions in Shanxi remain fragmented and inconsistent. A lack of strategic alignment and institutional coordination has hindered the effectiveness of internationalization efforts (Bruhn-Zass, 2022; Mei & Tonwimonrat, 2024). In addition,

growing concerns over geopolitical tensions, health crises like the COVID-19 pandemic, and regulatory uncertainties emphasize the urgent need for robust risk management within internationalization strategies (Deardorff et al., **2023**).

Although there has been growing interest in internationalization within Chinese vocational education, empirical studies examining its underlying factors and the role of risk management remain scarce. Existing literature rarely integrates a comprehensive analytical model to assess how various institutional elements contribute to internationalization success. There is also limited understanding of how risk management, grounded in standards such as ISO **31000**, mediates the relationship between institutional factors and sustainable international engagement.

To address this gap, the present study sets out with two key objectives: **(1)** to assess the impact of critical elements of the Comprehensive Internationalization Model (CIM) namely Articulated Institutional Commitment (AIC), Administrative Leadership, Structure, and Staffing (ALSS), Curriculum and Learning Outcomes (CCLO), Faculty Policies and Practices (FPP), Student Mobility (SM), and Collaboration and Partnerships (CP) on the development of internationalization strategies in Shanxi's higher vocational education sector; and **(2)** to examine the mediating role of Risk Management (RM) in enhancing the effectiveness of these factors. By doing so, the study aims to provide practical policy recommendations and contribute to the theoretical discourse on sustainable and resilient models of internationalization in vocational education

2. Literature Review

The internationalization of higher education is not a new concept, but its importance has grown significantly due to the forces of globalization (Bayly, 2022). Scholars have differentiated between globalization and internationalization, with the former referring to the broader global interconnectedness in politics, economics, and culture, while internationalization specifically pertains to integrating global perspectives into education (De Wit & Altbach, 2021). In the context of higher vocational education, internationalization involves adapting curricula to include international standards, fostering student and faculty mobility, and developing global partnerships (Knight, 2020).

The Comprehensive Internationalization Model (CIM), developed by the American Council on Education, serves as a framework for institutions to implement internationalization in all facets of their operations (Bruhn-Zass, 2022). The model includes factors such as institutional commitment, administrative leadership, curriculum integration, faculty policies, student mobility, and partnerships with global institutions (Eriçok & Arastaman, 2023). Previous studies have shown that effective implementation of CIM requires a coordinated approach across these factors, with each influencing the success of internationalization efforts (Kotorov et al., 2021).

In Shanxi, the provincial government has made strides in promoting internationalization in higher vocational education, primarily through policies encouraging international partnerships, student exchanges, and curriculum development (SXPPG, 2023). However, research on Shanxi's vocational institutions shows that internationalization is often fragmented, with individual institutions pursuing separate initiatives without a unified strategic vision (Mei & Tonwimonrat, 2024). This lack of cohesion limits the effectiveness of internationalization efforts and hinders the province's ability to compete on a global scale (Li & Pilz, 2023; Tight, 2021).

Risk management has become increasingly recognized as a critical component of internationalization, especially in light of global crises such as the COVID-19 pandemic

(Weiwei, 2022). Institutions must identify and manage various risks, including geopolitical tensions, financial instability, and health concerns, to ensure the continued success of international partnerships and student mobility programs (Somthawinpongsai, C., Tripaiboon, C., Sangern, T., Narunakboonsup, P., & Warawatsiri, K. (2022), Stein, 2021). Effective risk management can mitigate these challenges and strengthen the resilience of internationalization strategies, making them more adaptable to changing global conditions (Alijoyo & Norimarna, 2021).

The internationalization of higher education has become increasingly important in the context of globalization. While globalization refers to the broader interconnectedness of political, economic, and cultural systems, internationalization specifically involves integrating global perspectives into educational practices (De Wit & Altbach, 2021). In the field of higher vocational education, this includes adapting curricula to meet international standards, enhancing student and faculty mobility, and fostering global partnerships (Knight, 2020). The Comprehensive Internationalization Model (CIM), developed by the American Council on Education, provides a strategic framework for implementing internationalization across institutional levels. This model identifies six key dimensions: institutional commitment, administrative leadership, curriculum and learning outcomes, faculty policies, student mobility, and international partnerships (Bruhn-Zass, 2022; Eriçok & Arastaman, 2023). However, research in Shanxi Province shows that the implementation of internationalization remains fragmented, with institutions lacking a unified strategic vision despite supportive government policies (Mei & Tonwimonrat, 2024; Li & Pilz, 2023). Risk management has emerged as a critical aspect of successful internationalization, especially in the wake of global crises such as the COVID-19 pandemic (Weiwei, 2022). Institutions must manage risks related to geopolitical tensions, financial uncertainties, and health threats to maintain sustainable international engagement (Stein, 2021). Effective risk management frameworks, such as those based on ISO 31000, enhance institutional resilience and adaptability, making internationalization strategies more robust under changing global conditions (Alijoyo & Norimarna, 2021).

2.1 Theoretical Research Framework

This study is anchored in the Comprehensive Internationalization Model (CIM) and Risk Management (RM) theory. The CIM offers a holistic framework for analyzing the multifaceted dimensions of internationalization in higher education, emphasizing critical components such as institutional commitment, leadership, curriculum development, student mobility, and global partnerships (Deardorff et al., 2023). These components are systematically examined to assess their influence on the internationalization process within higher vocational education institutions in Shanxi.

Risk Management, grounded in the ISO 31000 standard, functions as a mediating construct within this framework (Makki & Lafta, 2022). By identifying, evaluating, and mitigating risks associated with internationalization, such as financial limitations, political volatility, and public health emergencies, risk management strategies can significantly enhance the efficacy of CIM in facilitating sustainable internationalization outcomes (Das et al., 2023), as illustrated in Figure 1.

This integrated theoretical framework enables a comprehensive investigation of the dynamic interactions between CIM and RM, elucidating their combined role in advancing the internationalization of higher vocational education in the context of Shanxi.

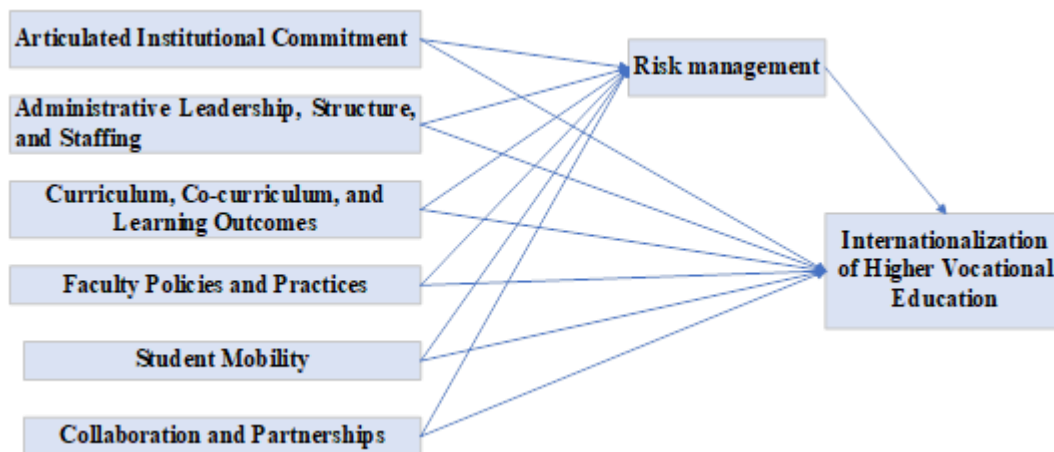


Figure1. Conceptual Framework

2.2 Hypothesis Development

Grounded in the Comprehensive Internationalization Model (CIM) and risk Management theory, this study formulates a set of hypotheses to examine the factors influencing internationalization within higher vocational education institutions in Shanxi Province, China. The CIM framework encompasses six core dimensions Articulated Institutional Commitment (AIC), Administrative Leadership, Structure, and Staffing (ALSS), Curriculum, Co-curriculum, and Learning Outcomes (CCLO), Faculty Policies and Practices (FPP), Student Mobility (SM), and Collaboration and Partnerships (CP) each of which is posited to have a significant effect on the development of internationalization strategies.

The central premise is that these six factors collectively and individually contribute to the institutional capacity for global engagement. Furthermore, the study introduces Risk Management (RM), based on ISO 31000 standards, as a mediating variable, acknowledging the critical role of risk identification and mitigation in sustaining internationalization under volatile global conditions.

Accordingly, the study proposes the following hypotheses:

- **H1:** AIC has a positive influence on the development of internationalization strategies.
- **H2:** ALSS positively affects the formulation and execution of internationalization strategies.
- **H3:** CCLO contributes significantly to internationalization strategy development.
- **H4:** FPP is positively associated with internationalization outcomes.
- **H5:** SM significantly enhances the development of internationalization strategies.
- **H6:** CP plays a positive role in advancing institutional internationalization.
- **H7:** RM mediates the relationship between the six CIM factors and the effectiveness of implementing internationalization strategies.

These hypotheses collectively provide a comprehensive framework for evaluating both the direct and mediated influences on internationalization performance in vocational education contexts.

3. Research Methodology

This study adopts a quantitative research methodology, aiming to investigate the causal relationships among key components of the Collaborative Internationalization Mechanism (CIM), risk management, and internationalization outcomes within higher vocational education institutions in Shanxi Province, China. A quantitative approach is particularly well-suited to explore complex interactions between multiple variables using systematic statistical analysis (Creswell & Creswell, 2018)

The target population comprises administrators, faculty members, and staff who are actively involved in internationalization processes at 50 higher vocational institutions across Shanxi. A purposive sampling technique was employed to ensure that respondents possessed relevant experience and insights. In total, 250 valid responses were collected (approximately five from each institution), providing a diverse and representative dataset for the analysis. Data collection was conducted through a structured questionnaire utilizing a five-point Likert scale. The questionnaire covered six core components of CIM: Academic International Collaboration (AIC), Administrative and Logistical Support Systems (ALSS), Cross-Cultural Learning Opportunities (CCLO), Faculty and Program Promotion (FPP), Strategic Management (SM), and Communication and Partnership (CP). It also included items evaluating the role of risk management in supporting internationalization efforts (SDE, 2024a). Content validity of the instrument was verified by three experts, while internal consistency was confirmed using Cronbach's alpha, with all constructs exceeding the threshold of 0.80 (Hair et al., 2019).

4. Data Analysis

Data analysis was performed using Structural Equation Modeling (SEM) via AMOS software to test the hypothesized relationships among CIM factors, risk management, and internationalization outcomes. Preliminary analyses included checks for outliers, normality, and data completeness. Confirmatory Factor Analysis (CFA) was conducted to validate the measurement model, followed by structural modeling to examine the causal paths between latent variables (Edeh et al., 2023).

Model fit was evaluated using standard indices, including Chi-square/df, GFI, AGFI, CFI, TLI, and RMSEA. Acceptable thresholds such as a Chi-square/df ratio below 3.0, fit indices above 0.90, and RMSEA below 0.08 were applied, following Hair et al. (2019). This analytic framework enabled a comprehensive understanding of how various institutional and managerial factors influence the internationalization capacity of vocational education institutions in a developing country context.

The demographic profile of respondents revealed that the majority were female (68.2%) and under 30 years old (44.2%). Most had a master's degree (38.5%), and the largest group was ordinary teachers (59.1%). The respondents were primarily from public institutions (92.5%), with comprehensive institutions having the highest representation.

5. Research Results

5.1 Normality Test

The normality of the dataset was assessed using Skewness and Kurtosis values. As presented in Table 1, all items demonstrated Skewness and Kurtosis values within the acceptable thresholds (Skewness between -2 and +2; Kurtosis between -7 and +7), indicating that the data were normally distributed. This supports the appropriateness of proceeding with structural equation modeling (SEM).

5.2 Exploratory Factor Analysis and Construct Validity

A Principal Component Analysis (PCA) was conducted to identify the underlying dimensions of the variables. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.921, exceeding the minimum acceptable value of 0.6 and indicating that the dataset was suitable for factor analysis. Bartlett's Test of Sphericity was significant ($\chi^2 = 14,461.045$, $df = 903$, $p < 0.001$), confirming the presence of patterned relationships among variables (Table 2).

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	14461.045
	df	903
	Sig.	.000

Table 2: KMO and Bartlett's Test

Factor analysis revealed eight principal components with eigenvalues greater than 1, explaining 64.85% of the total variance. This indicates a multidimensional data structure suitable for further analysis. Construct reliability was confirmed as all measures demonstrated Cronbach's Alpha and Composite Reliability values exceeding the recommended threshold of 0.70. Moreover, convergent validity was supported by Average Variance Extracted (AVE) values above 0.50 for all constructs, ensuring internal consistency and adequate explanation of variance in the observed variables. Discriminant validity was assessed using the Fornell-Larcker Criterion, cross-loadings, and the Heterotrait-Monotrait ratio (HTMT). The square root of AVE for each construct exceeded its correlations with other constructs, and all HTMT values were below the critical value of 0.90, confirming distinctiveness among constructs. Collinearity diagnostics using the Variance Inflation Factor (VIF) identified four items exceeding the acceptable threshold of 3.3; these items were removed to enhance model robustness. Consequently, the measurement model is valid, reliable, and free from multicollinearity issues, making it suitable for subsequent data analysis, as detailed in Table 3.

Analysis Aspect	Result	Interpretation
Factor Extraction	8 factors, Total Variance = 64.85%	Data structure confirmed
Construct Reliability	All CR > 0.70, α > 0.70	High internal consistency
Convergent Validity	All AVE > 0.50	Acceptable convergence
Discriminant Validity	$\sqrt{\text{AVE}} > \text{inter-construct correlations}$	Fornell-Larcker criterion met
	Highest item loadings on respective constructs	Cross-loadings confirmed
	All HTMT < 0.90	Discriminant validity supported
Collinearity (VIF)	4 items removed (VIF > 3.3): CCLO1, IHVE1, CP1, RM1	Improved model robustness
	Remaining items: VIF < 3.3	No multicollinearity

Table 3: Summary of Factor Analysis, Reliability, Validity, and Collinearity

Eight components with eigenvalues greater than 1 were extracted, accounting for 64.85% of the total variance, confirming the multidimensionality and structural suitability of the data. The reliability of all constructs was confirmed by Cronbach's Alpha and Composite Reliability (CR), both exceeding the recommended threshold of 0.70, indicating strong internal consistency. Convergent validity was achieved, as all constructs demonstrated AVE

values greater than 0.50. Discriminant validity was supported through the Fornell-Larcker criterion, cross-loadings, and HTMT values, all meeting standard benchmarks. Specifically, the square root of AVE for each construct was higher than its correlations with other constructs, item loadings were highest on their intended constructs, and HTMT values remained below 0.9. Multicollinearity was evaluated using VIF. Four items, CCLO1, IHVE1, CP1, and RM1, were removed due to VIF values exceeding 3.3. The remaining indicators showed acceptable levels, ensuring no multicollinearity concerns. These findings confirm the overall structural integrity and robustness of the measurement model, as summarized in Table 4.

Factors from the Comprehensive Internationalization Model (CIM)	Direct Impact on IHVE	Mediated Impact via Management (RM)	Risk Conclusion
Articulated Institutional Commitment (AIC)	Positive	Positive	Clear institutional commitment drives IHVE's success.
Administrative Leadership, Structure, and Staffing (ALSS)	Positive	Positive	Leadership and structural support are crucial.
Curriculum, Co-curriculum, and Learning Outcomes (CCLO)	Positive	Strong positive impact	Internationalized curriculum aligns with global standards.
Faculty Policies and Practices (FPP)	Not significant	Positive (via RM)	Faculty impact requires institutional support and risk strategies.
Student Mobility (SM)	Strongest positive impact	Positive	Student exchange is a key driver of IHVE.
Collaboration Partnerships (CP)	Strong positive impact	Positive	International partnerships ensure sustainability.
Risk Management (RM)	-	Acts as a key mediator	Enhances flexibility and safeguards against uncertainties (e.g., COVID-19).

Table 4: Summary Table of Research Findings: Factors Influencing the Internationalization of Higher Vocational Education (IHVE) in Shanxi Province

5.3 Hypothesis Testing

Hypotheses were tested using key statistical criteria, including T-statistics, P-values, and 95% confidence intervals. A T-statistic of ≥ 1.96 and a P-value ≤ 0.05 were considered indicators of statistical significance at the 95% confidence level (Agussalim et al., 2022). Confidence intervals that did not include zero further confirmed the presence of significant effects (Gani et al., 2022).

Bootstrapping procedures, implemented via SmartPLS 4, were employed to generate standard errors and enhance the robustness of the parameter estimates (Toni, 2025). This approach allowed for a comprehensive assessment of both direct and indirect effects within the PLS-SEM framework, supporting the refinement and validation of the structural model

The results in Table 5 show that five out of six direct paths to IHVE (Intention to Have Value Engagement) were statistically significant. Specifically, AIC \rightarrow IHVE ($\beta = 0.163$, $T = 4.775$, $P < 0.001$), ALSS \rightarrow IHVE ($\beta = 0.123$, $T = 3.698$, $P < 0.001$), CCLO \rightarrow IHVE ($\beta = 0.130$, $T = 3.536$, $P < 0.001$), SM \rightarrow IHVE ($\beta = 0.182$, $T = 5.363$, $P < 0.001$), and CP \rightarrow IHVE ($\beta = 0.219$, $T = 6.659$, $P < 0.001$). Among these, the strongest effect was CP \rightarrow IHVE ($\beta = 0.219$), indicating that consumer perception had the greatest influence on engagement intention. The direct path FPP \rightarrow IHVE ($\beta = 0.011$, $T = 0.331$, $P = 0.740$) was not significant and therefore not supported.

For the indirect paths through RM (Relationship Marketing), all six hypotheses (H1a–H6a) were supported. AIC \rightarrow RM \rightarrow IHVE ($\beta = 0.020$, $T = 2.366$, $P = 0.018$), ALSS \rightarrow RM \rightarrow IHVE ($\beta = 0.019$, $T = 2.422$, $P = 0.015$), CCLO \rightarrow RM \rightarrow IHVE ($\beta = 0.033$, $T = 3.673$, $P < 0.001$), FPP \rightarrow RM \rightarrow IHVE ($\beta = 0.018$, $T = 2.560$, $P = 0.010$), SM \rightarrow RM \rightarrow IHVE ($\beta = 0.041$, $T = 3.853$, $P < 0.001$), and CP \rightarrow RM \rightarrow IHVE ($\beta = 0.026$, $T = 3.185$, $P = 0.001$) all showed significant mediating effects. The strongest indirect effect was SM \rightarrow RM \rightarrow IHVE ($\beta = 0.041$), suggesting that relationship marketing most effectively amplifies the influence of social media on engagement intention. Even though FPP did not directly affect IHVE, its indirect influence via RM was significant. Overall, these findings highlight that both direct factors and their mediated effects through relationship marketing play important roles in shaping consumers' intention to engage with the offered value.

No.	Hypothesis	β (Original T-Sample)	T-Statistic	P-Value	95% Confidence Interval	Decision
H1	AIC \rightarrow IHVE	0.163	4.775	0.000	[0.095, 0.231]	Supported
H2	ALSS \rightarrow IHVE	0.123	3.698	0.000	[0.058, 0.188]	Supported
H3	CCLO \rightarrow IHVE	0.130	3.536	0.000	[0.056, 0.200]	Supported
H4	FPP \rightarrow IHVE	0.011	0.331	0.740	[-0.050, 0.076]	Not Supported
H5	SM \rightarrow IHVE	0.182	5.363	0.000	[0.114, 0.247]	Supported
H6	CP \rightarrow IHVE	0.219	6.659	0.000	[0.156, 0.284]	Supported
H1a	AIC \rightarrow RM \rightarrow IHVE	0.020	2.366	0.018	[0.005, 0.037]	Supported
H2a	ALSS \rightarrow RM \rightarrow IHVE	0.019	2.422	0.015	[0.005, 0.036]	Supported
H3a	CCLO \rightarrow RM \rightarrow IHVE	0.033	3.673	0.000	[0.017, 0.052]	Supported
H4a	FPP \rightarrow RM \rightarrow IHVE	0.018	2.560	0.010	[0.006, 0.033]	Supported
H5a	SM \rightarrow RM \rightarrow IHVE	0.041	3.853	0.000	[0.022, 0.064]	Supported
H6a	CP \rightarrow RM \rightarrow IHVE	0.026	3.185	0.001	[0.012, 0.044]	Supported

Table 5: Direct and Indirect Relations

6. Discussion

The findings indicate that several key factors exert significant direct effects on the internationalization of higher vocational education (IHVE). Specifically, Articulated Institutional Commitment (AIC), Administrative Leadership, Structure, and Staffing (ALSS), Curriculum, Co-curriculum, and Learning Outcomes (CCLO), Student Mobility (SM), and Collaboration and Partnership (CP) all positively influence IHVE at $p < 0.001$. This suggests that institutions with a clear commitment strategy (Afshari et al., 2020; Zahavi & Friedman, 2020), strong leadership and governance (Alam & Sharmin, 2023; Huang, 2024), globally aligned curricula (De Costa et al., 2022; Chen et al., 2021), robust student mobility opportunities (Eusafzai, 2024; Rasoolimanesh et al., 2023), and international partnerships (Chaban, 2024; Fredriksen, 2023) are more likely to succeed in internationalizing. In contrast, Faculty Policies and Practices (FPP) did not show a significant direct effect ($P = 0.740$), likely because faculty initiatives require broader institutional support and resources to be effective (Maiya & Aithal, 2023; Klakurka & Chow, 2024).

Risk Management (RM) emerged as a critical mediator across all paths. For example, $SM \rightarrow RM \rightarrow IHVE$ ($\beta = 0.041$, $P < 0.001$) and $CCLO \rightarrow RM \rightarrow IHVE$ ($\beta = 0.033$, $P < 0.001$) demonstrate that RM helps mitigate financial, regulatory, and operational risks. When RM is integrated with other strategies, it strengthens institutions' ability to sustain international collaborations (Beecher & Streitwieser, 2019; Stein, 2021; Teferra et al., 2022).

Academically, this research supports the notion that RM is an essential component that reinforces and provides resilience to institutional strategies under external pressures (Catanzaro & Teyssier, 2021; Syrová & Špička, 2022). Practically, higher vocational institutions should emphasize developing internationally relevant curricula, expanding student mobility programs, and forging international partnerships, all while embedding RM into strategic planning to mitigate financial and regulatory uncertainties (Brotherhood, 2021; Ogunseye et al., 2025).

The evaluation results of the hypotheses in this study provide positive responses to the research questions and objectives, confirming that the research aims have been met. The study's findings, derived from Partial Least Squares Structural Equation Modeling (PLS-SEM), categorize the relationships into two groups: direct relationships between independent variables (such as Articulated Institutional Commitment, Administrative Leadership, Curriculum, Faculty Policies, Student Mobility, and Collaboration) and the dependent variable (Internationalization of Higher Vocational Education), and indirect relationships through the mediating variable, Risk Management (RM). This section discusses these findings in detail.

The results confirm that five out of six hypotheses were statistically supported, highlighting significant direct relationships between the independent variables and internationalization, except for Faculty Policies and Practices (FPP), which did not show a direct effect on internationalization. Each relationship is examined in detail to understand the impact of these variables on vocational education's internationalization.

Starting with the relationship between Articulated Institutional Commitment (AIC) and the Internationalization of Higher Vocational Education (IHVE), the study confirms that a strong institutional commitment plays a critical role in driving internationalization (Zahavi & Friedman, 2020). This supports previous studies that highlight the importance of a well-structured institutional commitment in fostering global partnerships, enhancing curriculum quality, and boosting the institution's reputation internationally (Afshari et al., 2020). Institutions with clear AIC strategies align better with global standards, attract international students, and promote cross-border collaborations (Afshari et al., 2020). However, this study further emphasizes that AIC should be accompanied by structured policies that address

curriculum quality and labor market alignment to ensure sustainable internationalization, which adds practical insight beyond policy formulation alone (Zahavi & Friedman, 2020).

Similarly, the study confirms that Administrative Leadership, Structure, and Staffing (ALSS) significantly influence IHVE (Alam & Sharmin, 2023). Strong leadership and governance structures are vital for driving internationalization, ensuring that institutions align their strategies with international standards (Huang, 2024). Institutions with well-defined leadership frameworks are more likely to succeed in cross-border collaborations, academic exchanges, and international research initiatives (Regel et al., 2022). However, effective ALSS should also be complemented by faculty development programs and industrial collaborations to maximize internationalization outcomes (Sok & Bunry, 2021). This highlights the need for a holistic approach where leadership, faculty engagement, and industry partnerships work synergistically (Garwe & Thondhlana, 2022).

The findings also support a direct relationship between Curriculum, Co-curriculum, and Learning Outcomes (CCLO) and IHVE (De Costa et al., 2022). A globally aligned curriculum that integrates international perspectives and offers co-curricular opportunities enhances students' global competencies and cross-cultural understanding (Chen et al., 2021). Institutions that innovate their curricula and provide industry-driven internships or international project collaborations see higher success in international placements and student mobility (Ou, 2024). Well-defined learning outcomes further contribute to internationalization by aligning vocational education programs with global standards, improving student employability, and academic mobility (Huang & Zhen, 2023).

Future research should investigate why faculty policies and practices show limited direct impact on internationalization and identify strategies to foster meaningful faculty engagement in global initiatives.

Subsequent studies might also assess long-term outcomes of internationalization, such as graduate employability, global competencies, and cross-cultural adaptability, and explore how technology (e.g., online platforms and virtual exchanges) can support these efforts. Comparative analyses across different Chinese regions or countries would further reveal how comprehensive internationalization models and risk management practices are adapted in varied educational settings.

Reference

- Afshari, L., Young, S., Gibson, P., & Karimi, L. (2020). Organizational commitment: Exploring the role of identity. *Personnel Review*, 49(3), 774–790.
- Agussalim, M., Yanti, N., & Hussin, M. (2022). The role of training, discipline, and work environment on employee performance: A PLS-SEM approach. *International Journal of eBusiness and eGovernment Studies*, 14(4), 1–21.
- Alam, M. J., & Sharmin, D. (2023). Skills development for graduate employability in Bangladesh: Japanese language in TVET program. *Journal of Technical Education and Training*, 15(2), 72–91.
- Alijoyo, A., & Norimarna, S. (2021). The role of enterprise risk management (ERM) using ISO 31000 for the competitiveness of a company that adopts the value chain (VC) model and life cycle cost (LCC) approach. In *Proceedings of the 3rd International Conference on Business, Management and Finance*, Oxford, United Kingdom.
- Bayly, C. A. (2022). *Remaking the modern world, 1900–2015: Global connections and comparisons* (Ricerche di Storia Politica, 71–110).

Bedenlier, S., & Zawacki-Richter, O. (2015). Internationalization of higher education and the impacts on academic faculty members. *Research in Comparative and International Education*, 10(2), 185–201.

Beecher, B., & Streitwieser, B. (2019). A risk management approach for the internationalization of higher education. *Journal of the Knowledge Economy*, 10, 1404–1426.
 Benninghaus, M. (2024). *The purpose of higher education: A comparative study of educators and students*.

Bohlens, C. (2025). Corruption and governance in international higher education: Challenges and strategies for internationalization. In *Contemporary approaches to internationalization in higher education* (pp. 367–392). IGI Global Scientific Publishing.

Brotherhood, T. (2021). International faculty: Increasing mobility. In *Handbook of higher education in Japan* (pp. 261–274). Cambridge University Press.
<https://doi.org/10.1017/9789048559275.021>

Bruhn-Zass, E. (2022). Virtual internationalization to support comprehensive internationalization in higher education. *Journal of Studies in International Education*, 26(2), 240–258.

Catanzaro, A., & Teyssier, C. (2021). Export promotion programs, export capabilities, and risk management practices of internationalized SMEs. *Small Business Economics*, 57(3), 1479–1503.

Chaban, N. (2024). Collaborative settings of co-creation: Knowledge diplomacy and pedagogical thinking in communication. *Journal of Technical Writing and Communication*, 54(2), 143–162.

Chen, P., Goncharova, A., Pilz, M., Frommberger, D., Li, J., Romanova, O., & Lin, Y. (2021). International curriculum comparison in vocational education and training: A collaborative development of an analysis instrument. *International Journal for Research in Vocational Education and Training*, 8(4), 16–43

Civera, A., Meoli, M., & Paleari, S. (2023). International student mobility: Onset for a future career or an experiential opportunity? *International Studies in Sociology of Education*, 32(2), 559–578.

Das, S., Myla, A. Y., Barve, A., Kumar, A., Sahu, N. C., Muduli, K., & Luthra, S. (2023). A systematic assessment of multi-dimensional risk factors for sustainable development in food grain supply chains: A business strategic prospective analysis. *Business Strategy and the Environment*, 32(8), 5536–5562.

De Costa, P. I., Green-Eneix, C. A., & Li, W. (2022). Problematizing EMI language policy in a transnational world: China's entry into the global higher education market. *English Today*, 38(2), 80–87.

Wit, H. (2020). Quality assurance and internationalization, higher education. In *The International Encyclopaedia of Higher Education Systems and Institutions*.

De Wit, H., & Altbach, P. G. (2021). Internationalization in higher education: Global trends and recommendations for its future. *Policy Reviews in Higher Education*, 5(1), 28–46.

Deardorff, D. K., de Wit, H., Leask, B., & Charles, H. (2023). *The handbook of international higher education*. Taylor & Francis.

Edeh, E., Lo, W.-J., & Khojasteh, J. (2023). Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) using R: A Workbook: By Joseph F. Hair Jr., G. Tomas M. Hult, Christian M. Ringle, Marko Sarstedt, Nicholas P. Danks, Soumya Ray. Cham, Switzerland: Springer. In *Taylor & Francis*.

Eriçok, B., & Arastaman, G. (2023). Mapping the internationalization of higher education in Türkiye. *Yükseköğretim Dergisi*, 13(2), 143–156.

Eusafzai, H. A. K. (2024). Educational capital and international mobility: A Bourdieusian inquiry into choosing peripheral higher education destinations. *Social Sciences & Humanities Open*, 10, 100916.

Fan, T., & Liub, Y. (2024). Research on new financial talent development based on 'SECI + Industry-Education Integration' in the digital economy era. In *ICEMME 2023: Proceedings of the 5th International Conference on Economic Management and Model Engineering, November 17–19, 2023, Beijing, China*.

Fredriksen, B. (2023). 100 years of international cooperation in education: Some takeaways from my 55 years of involvement. *International Journal of Educational Development*, 103, 102917

Gani, S., Ginting, R. R., & Simorangkir, E. N. (2022). Does dividend policy mediate the relationship between financial performance and company value? *Accounting & Finance/Oblik i Finansii*, 98(4).

Garwe, E. C., & Thondhlana, J. (2022). Making internationalization of higher education a national strategic focus. *Journal of Applied Research in Higher Education*, 14(1), 521–538.

González-Pérez, L. I., & Ramírez-Montoya, M. S. (2022). Components of Education 4.0 in 21st century skills frameworks: Systematic review. *Sustainability*, 14(3), 1493.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.

Hazelkorn, E. (2023). *Is it time to rethink our model of postsecondary education? Progressing a tertiary education ecosystem*.

Hénard, F., Diamond, L., & Roseveare, D. (2012). Approaches to internationalisation and their implications for strategic management and institutional practice. *IMHE Institutional Management in Higher Education*, 11(12), 2013.

Huang, M., & Zhen, L. (2023). Exploring overseas education: The role and challenges of higher vocational colleges in the “Belt and Road” framework. *Journal of Innovation and Development*, 3(2), 126–131.

Huang, Y.-H. I. (2024). “The majority are left behind”: The promotion of bilingual education 2030 policy in Taiwan and its potential to widen horizontal inequalities. *Higher Education*, 88(1), 85–100.

Klakurka, J., & Chow, C. (2024). The landscape of global business higher education. In *Global Classroom* (pp. 31–40). Emerald Publishing Limited.

Knight, J. (2020). The internationalization of higher education scrutinized: International program and provider mobility. *Sociologias*, 22(54), 176–199.

Kotorov, I., Krasnyukova, Y., Zhdanov, P., Mazzara, M., Aslam, H., Akhmetgaraeva, E., Naumcheva, M., & Brown, J. A. (2021). Institutional commitment and leadership as prerequisites for successful comprehensive internationalization. In *Frontiers in Software Engineering: First International Conference, ICFSE 2021, Innopolis, Russia, June 17–18, 2021, Revised Selected Papers I*.

Li, J., & Pilz, M. (2023). International transfer of vocational education and training: A literature review. *Journal of Vocational Education & Training*, 75(2), 185–218.

Li, J., & Xue, E. (2022). Exploring high-quality institutional internationalization for higher education sustainability in China: Evidence from stakeholders. *Sustainability*, 14(13), 7572.

Maiya, A. K., & Aithal, P. (2023). A review-based research topic identification on how to improve the quality of services of higher education institutions in academic, administrative, and research areas. *International Journal of Management, Technology and Social Sciences (IJMTS)*, 8(3), 103–153.

Makki, F. N., & Lafta, B. S. (2022). Availability of the requirements for implementing the international standard specification for risk management (ISO 31000:2018) in the general tax authority: Applied research. *International Journal of Health Sciences*, 6, 9393–9413.

Marliyah, M., Dharma, B., & Syarbaini, A. (2023). The maturity of risk management in Indonesian Islamic universities. *Jurnal Riset Bisnis dan Manajemen*, 16(2), 117–125.

Mei, Z. Q., & Tonwimonrat, S. (2024). The education management of international students in universities of Shaanxi Province under the influence of the Belt and Road Initiative. *Journal of Multidisciplinary in Humanities and Social Sciences*, 7(1), 604–629.

Mohamed Hashim, M. A., Tlemsani, I., & Duncan Matthews, R. (2022). A sustainable university: Digital transformation and beyond. *Education and Information Technologies*, 27(7), 8961–8996.

Naim, A., Saklani, A., Khan, S. A., & Malik, P. K. (2024). Evaluating global accreditation standards for higher education. IGI Global.

Ogunseye, O. O., Ajayi, O. T., Fabusoro, A., Abba, A. O., & Adepoju, B. (2025). Leveraging artificial intelligence for advancing key sectors of national growth and development. *Asian Journal of Current Research*, 10(1), 45–55.

Ou, M. (2024). Innovative development of vocational education in Guangxi under the RCEP framework. *Global Academic Frontiers*, 2(1), 93–103.

Rasoolimanesh, S. M., Shafaei, A., Nejati, M., & Tan, P. L. (2023). Corporate social responsibility and international student mobility in higher education. *Social Responsibility Journal*, 19(9), 1632–1653.

Regel, J., Ramasamy, M., & Pilz, M. (2022). Ownership in international vocational education and training transfer: The example of quality development in India. *International Journal of Training and Development*, 26(4), 664–685.

SDE. (2024a). *Shanxi Vocational Education Quality Annual Report (2023)*.

SDE. (2024b). *Statistical communiqué on education development in Shanxi Province in 2023*. Retrieved March 19, 2024, from http://jyt.shanxi.gov.cn/bsfw_15686/wxzl/jyt/202403/t20240313_9519291.html

Silman, F., Altinay Aksal, F., & Altinay Gazi, Z. (2018). *Policies and initiatives for the internationalization of higher education*. IGI Global.

Sok, S., & Bunry, R. (2021). Internationalization of higher education in Cambodia: Toward an agenda for higher education development. *International Journal of Comparative Education and Development*, 23(3), 193–211.

Somthawinpongsai, C., Tripaiboon, C., Sangern, T., Narunakboonsup, P., & Warawatsiri, K. (2022). Facebook: Risks of Social Networks in the Digital Age. *Rajapark Journal*, 16(44), 461–470.

Stein, S. (2021). Critical internationalization studies at an impasse: Making space for complexity, uncertainty, and complicity in a time of global challenges. *Studies in Higher Education*, 46(9), 1771–1784.

SXPPG. (2023). The Provincial Government Information Office held a press conference to deeply interpret the relevant contents of the “Implementation Opinions on Promoting the High-quality Development of Modern Vocational Education.” Retrieved April 19, 2023, from https://www.shanxi.gov.cn/ywdt/xwfbh/szfxwbxwfbh/202304/t20230419_8391619.shtml

Syrová, L., & Špička, J. (2022). Exploring the indirect links between enterprise risk management and the financial performance of SMEs. *Risk Management*, 25(1), 1.

Teferra, D., Sirat, M., & Beneitone, P. (2022). The imperatives of academic collaboration in Africa, Asia, and Latin America. *International Journal of African Higher Education*, 9(3), 13–35.

Tight, M. (2021). Globalization and internationalization as frameworks for higher education research. *Research Papers in Education*, 36(1), 52–74.

Toni, N. (2025). Supply chain sustainability and financial performance: The role of e-commerce, digital banking, and digital marketing for SMEs. *Journal of Economic Innovation and Economic Research*, 13(1).

Waham, J. J., Asfahani, A., & Ulfa, R. A. (2023). International collaboration in higher education: Challenges and opportunities in a globalized world. *EDUJAVARE: International Journal of Educational Research*, 1(1), 49–60.

Weiwei, Z. (2022). Concepts and practices used in vocational education for international development during COVID-19 in China. *Higher Education and Oriental Studies*, 2(3).

Yuan, W., & Wang, Y. (2021). The development of vocational education and training in China. In *Proceedings of the 1st International Conference on Education: Current Issues and Digital Technologies (ICECIDT 2021)*.

Zahavi, H., & Friedman, Y. (2020). The Bologna Process: An international higher education regime. In *The Bologna Process and its Global Strategy* (pp. 22–38). Routledge.

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