

ENHANCING TOURISM HUMAN RESOURCE TRAINING EFFECTIVENESS FOR INTERNATIONAL INTEGRATION: THE MEDIATING ROLE OF LEARNING MOTIVATION

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Abstract: Amid globalization and digital transformation, tourism education in emerging economies like Vietnam faces increasing demands for quality and global integration. This study employs PLS-SEM to analyze data from 538 students and validate a model identifying key factors influencing training effectiveness, with learning motivation as a mediating variable. Results reveal that all five input factors-teaching quality, training curriculum, internship opportunities, school-enterprise linkage, and digital competence-positively affect learning motivation, with the strongest effects from school-enterprise linkage and teaching quality. Only three factors have direct impacts on training effectiveness, while the others operate indirectly through motivation. The study contributes to theory by clarifying direct and indirect influences and offers practical recommendations for enhancing curriculum design, teaching, and institutional-industry collaboration to improve graduates' global readiness.

Keywords: Tourism education, training effectiveness, learning motivation, international integration, school-enterprise linkage, digital competence.

1. Introduction

In the era of globalization and regional integration, tourism functions not only as a key economic sector but also as a cultural and social bridge between nations. According to the UNWTO (2023), international tourism has strongly rebounded after the pandemic, heightening demands on the quality of human resources. In Vietnam, tourism has been designated a spearhead sector by 2030 under Resolution No. 82/NQ-CP (Government of Vietnam, 2023), emphasizing the need for a workforce with adaptability, integration capacity, and global competitiveness.

Yet, tourism human resource training in Vietnam remains limited. Programs are overly theoretical, misaligned with international competency standards, and weakly connected to industry need [7]. Students also face challenges in foreign languages, intercultural communication, and technology application, constraining their global employability [6]. Addressing these issues requires identifying determinants that shape training effectiveness toward international integration, thereby informing curriculum reform, improving graduate quality, and enhancing competitiveness.

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Against this backdrop, the study investigates and empirically tests key factors influencing the effectiveness of tourism human resource training. Using a quantitative approach and Partial Least Squares Structural Equation Modeling (PLS-SEM), the research examines direct and indirect relationships within the proposed model, offering evidence-based recommendations for advancing tourism education and training in Vietnam [3].

2. Literature review

In recent years, enhancing tourism workforce training for international integration has drawn a growing interest from researchers and policymakers [11]. Training effectiveness is shaped by various factors, including curriculum design, teaching quality, institutional–industry cooperation, and learners' digital adaptability. PLS-SEM is often applied to analyze such complex relationships in emerging contexts [3].

Training curriculum strongly influences student satisfaction, motivation, and outcomes. An effective curriculum should embed global content, soft skills, and multicultural competence to prepare students for the global tourism industry. Teaching quality is equally vital, as instructors act as facilitators and bridges to industry practice. Research shows that innovative, committed lecturers with industry experience enhance students' development and engagement [13].

Practical experiences, including internships and school–enterprise collaboration, are essential for workforce readiness, especially in Vietnam's service sectors like tourism and hospitality [11]. Concurrently, digital competence has become a core skill, supporting self-directed learning and global adaptability [4]. It is positively linked to academic success and integration competence.

Learning motivation plays a mediating role in connecting input factors with outcomes. According to Gardner (2004), motivated students with clear goals and supportive environments achieve better results. Hwang et al. (2021) further confirm its mediating effect on the impact of teaching, learning context, and practical exposure.

Grounded in these insights, this study proposes a model including five independent variables (curriculum quality, teaching quality, internship opportunities, school–enterprise linkage, and digital competence), one mediating variable (learning motivation), and one dependent variable (training effectiveness in the context of international integration).

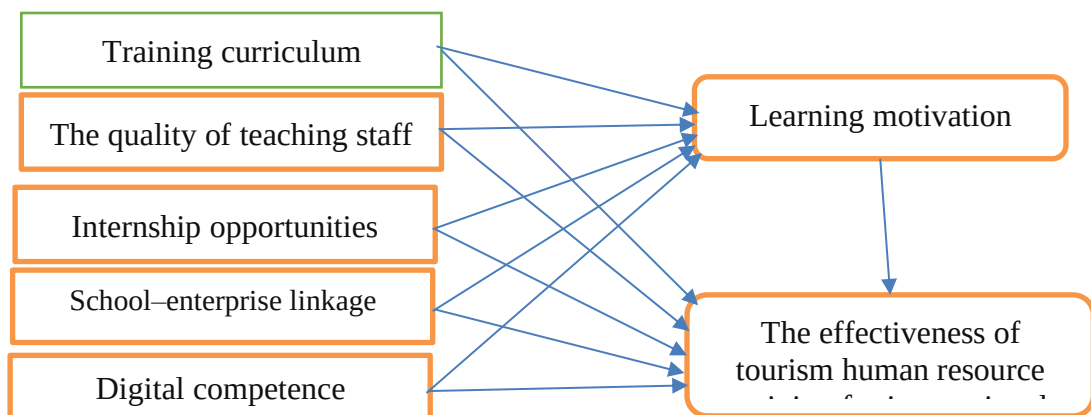


Figure 1. Conceptual Framework

3. Research Hypotheses

From the research overview, the author proposes the following hypotheses:

H1: The quality of the training curriculum has a positive impact on the effectiveness of tourism human resource training for international integration.

H2: The quality of teaching staff has a positive impact on the effectiveness of tourism human resource training for international integration.

H3: Internship opportunities have a positive impact on the effectiveness of tourism human resource training for international integration.

H4: School–enterprise linkage has a positive impact on the effectiveness of tourism human resource training for international integration.

H5: Digital competence has a positive impact on the effectiveness of tourism human resource training for international integration.

H6: The quality of the training curriculum has a positive impact on students' learning motivation.

H7: The quality of teaching staff has a positive impact on students' learning motivation.

H8: Internship opportunities have a positive impact on students' learning motivation.

H9: School–enterprise linkage has a positive impact on students' learning motivation.

H10: Digital competence has a positive impact on students' learning motivation.

H11: Learning motivation has a positive impact on the effectiveness of tourism human resource training for international integration.

H12: Learning motivation mediates the relationship between training curriculum and training effectiveness.

H13: Learning motivation mediates the relationship between teaching quality and training effectiveness.

H14: Learning motivation mediates the relationship between internship opportunities and training effectiveness.

H15: Learning motivation mediates the relationship between school–enterprise linkage and training effectiveness.

H16: Learning motivation mediates the relationship between digital competence and training effectiveness.

4. Research methodology

This study employed a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM), appropriate for exploratory research with complex models, non-normal data, and moderate sample sizes [3]. PLS-SEM enabled simultaneous assessment of measurement and structural models, providing comprehensive insights into factors influencing training effectiveness.

The research model comprised five independent variables (curriculum quality, teaching quality, internship opportunities, school–enterprise linkage, digital competence),

one mediating variable (learning motivation), and one dependent variable (training effectiveness for international integration). Constructs were measured with 28 items on a 5-point Likert scale, adapted from established sources to ensure validity and contextual relevance [1] [4] [5] [9] [10]. Items were refined through expert review and pilot testing.

Data were collected via a structured survey of third- and fourth-year tourism and hospitality students at 10 universities in Thanh Hoa, Nghe An, and Hanoi, using convenience sampling. A total of 650 questionnaires were distributed, yielding 538 valid responses (82.8%). The sample was 65.4% female and 34.6% male, aged mainly 20–23, with most having internship experience and frequent use of digital platforms. Participants were drawn from both public (60%) and private (40%) universities, ensuring representative coverage.

Data analysis proceeded in four stages: (1) assessing reliability and convergent validity (Cronbach's α , Composite Reliability, AVE); (2) validating the measurement model (Fornell-Larcker, HTMT); and (3) hypothesis testing using beta coefficients, standard errors, and p-values.

4. Results and discussion

4.1. Reliability and convergent validity analysis

The results of the reliability and convergent validity analysis indicate that all measurement items meet the required thresholds. Specifically, the Cronbach's Alpha (α) coefficients for the constructs ranged from 0.799 to 0.883, exceeding the recommended threshold of 0.7 as suggested by Hair et al. (2017), thereby demonstrating high internal consistency. Composite Reliability (CR) values ranged from 0.869 to 0.914, reflecting strong internal consistency within each construct. The Average Variance Extracted (AVE) values for all constructs were between 0.616 and 0.699, all exceeding the minimum acceptable level of 0.5, indicating adequate convergent validity. Additionally, all factor loadings exceeded the benchmark of 0.7, confirming that each observed item reliably represents its corresponding latent construct. Multicollinearity was not a concern, as all Variance Inflation Factor (VIF) values were below 5.

Table 1. Construct reliability and validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Internship opportunities	0.882	0.885	0.679
School–enterprise linkage	0.858	0.860	0.637
Learning motivation	0.855	0.858	0.616
Training curriculum	0.855	0.858	0.633
The effectiveness of tourism human resource training for international integration	0.799	0.799	0.623
The quality of teaching staff	0.883	0.887	0.681
Digital competence	0.856	0.858	0.699

4.2. Discriminant validity assessment

The results of the discriminant validity assessment using the Fornell–Larcker criterion indicate that all constructs satisfy the required conditions. Specifically, the square root of the Average Variance Extracted (AVE) for each construct is greater than its correlations with other constructs. As shown by the bolded diagonal values in Table 2, which range from 0.785 to 0.836, each of these values exceeds the corresponding off-diagonal correlation coefficients in the same row and column. This confirms that the measurement model meets the criteria for discriminant validity. These findings are consistent with the recommendations of Hair et al. (2017).

Table 2. Fornell- Larcker criterion

	INTER	LINK	MO	PRG	TAEF	TEC	TENO
INTER	0.824						
LINK	0.490	0.798					
MO	0.389	0.502	0.785				
PRG	-0.004	-0.009	0.393	0.796			
TAEF	0.300	0.359	0.536	0.304	0.790		
TEC	0.192	0.234	0.457	0.077	0.304	0.825	
TENO	0.081	0.058	0.419	0.366	0.273	0.016	0.836

4.3. Hypothesis testing

Table 3. Model and hypothesis testing

Hypothesis	Relationship	Original sample (O)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Direct effect					
H1	TEC -> MO	0.324	0.027	12.081	0.000
H2	PRG -> MO	0.268	0.031	8.711	0.000
H3	INTER -> MO	0.135	0.032	4.193	0.000
H4	LINK -> MO	0.346	0.035	9.814	0.000
H5	TENO -> MO	0.285	0.027	10.484	0.000
H6	TEC -> TAEF	0.111	0.045	2.453	0.014
H7	PRG -> TAEF	0.157	0.046	3.436	0.001
H8	INTER -> TAEF	0.093	0.046	2.026	0.043
H9	LINK -> TAEF	0.143	0.044	3.268	0.001
H10	TENO -> TAEF	0.081	0.046	1.767	0.077
H11	MO -> TAEF	0.282	0.068	4.156	0.000

Indirect effect					
H12	TEC -> MO -> TAEF	0.091	0.024	3.828	0.000
H13	PRG -> MO -> TAEF	0.075	0.021	3.655	0.000
H14	INTER -> MO -> TAEF	0.038	0.013	2.908	0.004
H15	LINK -> MO -> TAEF	0.098	0.025	3.960	0.000
H16	TENO -> MO -> TAEF	0.080	0.021	3.899	0.000

The hypothesis testing results (Table 3) confirm statistically significant relationships among key variables. Hypotheses H1–H5 are supported, indicating that teaching quality, curriculum quality, internship opportunities, school–enterprise linkage, and digital competence positively influence learning motivation, with school–enterprise linkage exerting the strongest effect.

For H6–H10, only teaching quality, curriculum quality, and internship opportunities directly enhance training effectiveness, while the effects of school–enterprise linkage and digital competence are mediated through learning motivation. Hypothesis H11 is also confirmed, showing that learning motivation significantly improves training effectiveness. Moreover, H12–H16 are supported, with all indirect effects via learning motivation significant, particularly for school–enterprise linkage and teaching quality.

Overall, the findings validate the proposed model, underscoring the importance of both direct and mediated pathways in strengthening training effectiveness.

5. Discussion

The PLS-SEM results highlight the critical role of learning motivation (MO) as a mediator in tourism training effectiveness (TAEF). Teaching quality ($\beta = 0.324$, $p < 0.001$), curriculum quality ($\beta = 0.268$, $p < 0.001$), internship opportunities ($\beta = 0.135$, $p < 0.001$), school–enterprise linkage ($\beta = 0.346$, $p < 0.001$), and digital competence ($\beta = 0.285$, $p < 0.001$) all significantly enhanced motivation, with school–enterprise linkage emerging as the strongest predictor.

Regarding direct effects on TAEF, only teaching quality ($\beta = 0.111$, $p = 0.014$), curriculum ($\beta = 0.157$, $p = 0.001$), and internships ($\beta = 0.093$, $p = 0.043$) were significant, while school–enterprise linkage and digital competence influenced TAEF indirectly through motivation. Learning motivation itself had a strong effect ($\beta = 0.282$, $p < 0.001$), confirming its mediating role.

Overall, mediation analysis (H12–H16) showed that all input factors indirectly improved TAEF via motivation, with the strongest pathways from school–enterprise linkage ($\beta = 0.098$) and teaching quality ($\beta = 0.091$). These findings underscore the need for industry partnerships, career guidance, and motivational support to enhance students' preparedness for international tourism careers.

6. Conclusion and managerial implications

This study validated a structural model of factors influencing tourism workforce training effectiveness in the context of international integration, emphasizing the mediating role of learning motivation. Based on survey data from 538 students and analyzed using PLS-SEM, results indicate that teaching quality, curriculum, internships, school–enterprise linkage, and digital competence all enhance learning motivation, with the strongest effects from school–enterprise linkage and teaching quality. While teaching, curriculum, and internships directly improve training effectiveness, the impacts of linkage and digital competence are mediated through motivation. These findings affirm motivation as a central driver of effective training and provide both theoretical and practical insights.

Managerially, institutions should prioritize faculty development in global expertise and digital pedagogy, design curricula that combine practical application with global competencies, and expand internships to foster industry exposure. Strengthening digital infrastructure will further support flexible, personalized learning. Equally important is cultivating student motivation through supportive policies, engaging environments, and continuous monitoring-ultimately enhancing graduates' readiness for the international tourism labor market.

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