

Building Superior Human Resources To Support Community Based Tourism

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ABSTRACT

This research aims to examine the key factors influencing the success of community based tourism management in Jember Regency. The study focuses on four main aspects, education and training, stakeholder collaboration, tourism environment management, and digital literacy as determinants of effective community-based tourism governance. Using a multiple linear regression approach, data were collected from 120 respondents comprising local residents, tourism business actors, and related stakeholders. The findings reveal that education and training (X1), management of the tourism environment (X3), and digital literacy (X4) significantly and positively affect the success of community-based tourism management. Conversely, collaboration among stakeholders (X2) does not show a significant impact within this model. Overall, the four independent variables collectively exert a significant influence on the dependent variable, with an R^2 value of 0.661, indicating that 66.1% of the variation in tourism management success can be explained by these factors. The results emphasize that enhancing human resource capacity through education and training, improving environmental management practices, and strengthening digital literacy are crucial strategies for achieving sustainable community-based tourism. Practically, this study underscores the importance of government and institutional support in implementing policies and programs aimed at empowering local communities to actively manage and develop tourism destinations.

Introduction

Community based tourism (CBT) represents a development approach that places local communities at the center of tourism planning, management, and benefit distribution. This model is highly relevant for Jember Regency, which possesses diverse natural, cultural, and creative economic potentials. However, the success of CBT depends heavily on the capacity of local human resources, governance quality, and the

community's ability to adapt to digital transformation and environmental sustainability principles [1, 2].

Recent scholarly works underscore the pivotal role of digitalization in strengthening destination competitiveness. A study published in JAMB [3] demonstrates that integrated digital marketing strategies significantly enhance the visibility and performance of culinary tourism centers through structured and data driven promotional activities. This finding indicates that digital literacy has become a core competency rather than an optional skill for community tourism managers. Similarly, research [4] on mangrove ecotourism frameworks affirms that environmental sustainability is an indispensable foundation for developing nature based destinations. Together, these studies highlight the need to integrate technological and ecological dimensions within CBT frameworks.

Human resource competence also remains a central issue in tourism governance. using data from tourism offices in East Java, found that organizational culture, competence, and self awareness significantly influence institutional performance in tourism management [5]. These findings align with international literature emphasizing that education, training, collaboration, and environmental stewardship are essential components of sustainable tourism development [6, 8].

Despite these advancements, several research gaps persist. First, existing studies tend to examine education, collaboration, environmental management, and digital literacy separately, leaving limited understanding of their combined effect on CBT success. Second, empirical studies focusing on Jember are scarce, although local socio cultural and institutional contexts may shape CBT implementation. Third, the empirical examination of stakeholder collaboration effectiveness and the role of digital literacy at the community level remains limited.

Addressing these gaps, this study introduces a novel integrative analytical framework that examines the simultaneous influence of education and training, stakeholder collaboration, environmental management, and digital literacy on the success of CBT in Jember Regency. By employing a quantitative approach using multiple linear regression, this study contributes both theoretically and practically by offering empirical evidence that can support regional policy development, community capacity building efforts, and the formulation of sustainable tourism strategies. Therefore, this research holds substantial academic and practical significance in strengthening community resilience and enhancing destination competitiveness in the digital era.

Research Methods

This study adopts a quantitative approach, utilizing multiple linear regression analysis to examine the influence of independent variables on a dependent variable. The main objective is to determine the extent to which education and training, stakeholder collaboration, environmental management, and digital literacy affect the success of community-based tourism management in Jember Regency.

- a) Education and training are essential components in developing human resources for CBT. [9] state that competency based education significantly strengthens both managerial and technical skills. [2] Further highlights the importance of continuous

training in improving performance and service quality. Recent studies emphasize that structured and relevant training programs improve community competence in managing tourism destinations [10, 11, 12]. Non formal training, such as experiential learning, has also been found effective. [13] show that experiential learning helps participants adapt faster to industry standards. Internships and certification programs also strengthen community readiness. Digital learning platforms further expand access to training [14, 15], making them essential elements of human resource development strategies.

- b) Stakeholder collaboration, collaboration plays a vital role in sustainable CBT. [1] argue that cross sector partnerships enhance inclusiveness. However, collaboration does not always produce significant outcomes, as noted [16]. A more structured collaborative framework is required to define clear roles, accountability mechanisms, and shared objectives. [17] Confirm the need for governance structures that strengthen long term partnerships in CBT.
- c) Environmental management, environmental management is crucial for ensuring the sustainability of tourism destinations. Government regulations [18] emphasize environmental protection as a core component of tourism development. Studies [7] show that increased environmental awareness significantly improves destination quality. Newer research underscores the importance of renewable energy, waste reduction, and ecosystem conservation [19, 20]. Effective environmental management enhances both sustainability and visitor satisfaction.
- d) Digital literacy, digital literacy enhances the visibility, efficiency, and competitive advantage of CBT destinations. Through digital platforms, destinations can reach global audiences [21, 7]. Recent literature highlights that communities with strong digital skills can better manage digital marketing, customer data, and online engagement [22]. Digital literacy also improves operational management through online booking systems and digital analytics. Thus, digital literacy development is a critical component of CBT success.
- e) Success of CBT management. The success of CBT is multidimensional, evaluated not only through local income growth but also through environmental sustainability, cultural preservation, visitor satisfaction and meaningful community empowerment. Recent studies emphasize that these indicators are critical components for assessing CBT performance [23]. Community participation is a key determinant. When local residents are involved in planning, implementation, and benefit sharing, internal conflicts are reduced and tourist satisfaction increases. Various case studies highlight the effectiveness of participatory models and community based governance in strengthening CBT initiatives [24].

Empowerment and human resource capacity are also essential. CBT success often depends on the community's ability to manage tourism products, service quality, and marketing especially managerial skills, guest services, and digital literacy. Field studies in tourism villages show that structured training and capacity building programs significantly improve destination performance and local welfare [25].

Environmental management and cultural preservation further contribute to long term success. Destinations that integrate eco friendly practices (e.g., waste management, conservation) and cultural preservation programs are more likely to maintain long-term attractiveness and community support. This reinforces the understanding that ecological and cultural sustainability are core pillars of CBT success [23].

Digitalization and online marketing increasingly influence CBT performance in the modern era. Tourism villages and community groups that utilize social media, digital maps, and online booking platforms can expand visibility and attract visitors more effectively. However, the impact of digitalization depends on community digital literacy and supporting infrastructure. Studies from Indonesian tourism villages show that integrating digital marketing with community participation strengthens destination competitiveness [26].

Overall, literature shows that CBT success is multidimensional, shaped by:

- 1) Human resource capacity,
- 2) Stakeholder collaboration,
- 3) Environmental management,
- 4) Digital literacy, and
- 5) Meaningful community participation.

Thus, the success of CBT is the integrated result of adaptive community governance while preserving local values and identity.

1. Population and Sample

The population in this study consists of local residents, business actors, and other stakeholders involved in managing CBT in Jember Regency. The sample was selected using purposive sampling, with the following criteria for respondents : (a) Community members directly involved in tourism destination management, (b) Tourism business actors such as homestay operators, tour guides, or local craft sellers, (c) Representatives from local government agencies with responsibilities in tourism development. The minimum sample size was determined using the Slovin formula, with a 5% margin of error.

2. Research Variables

a)Independent Variables (X):

- Education and Training (X1)
- Stakeholder Collaboration (X2)
- Environmental Management (X3)
- Digital Literacy (X4).

b)Dependent Variable (Y):

- Success of CBT Management

3. Data Collection Instrument

Data were collected using a Likert scale questionnaire ranging from 1 to 5, where 1 indicates strong disagreement and 5 indicates strong agreement. The questionnaire was tested for validity and reliability prior to data collection.

4. Validity and Reliability Testing

To ensure accuracy, validity was tested using the Pearson Product Moment correlation, confirming that each questionnaire item accurately reflects its intended indicator. Reliability testing was conducted using Cronbach's Alpha, with a minimum acceptable value of 0.7.

5. Data Analysis

The data analysis process followed these steps:

a) Classical Assumption Testing :

- 1) Normality Test to ensure the data are normally distributed.
- 2) Multicollinearity Test to confirm that there is no high linear correlation among the independent variables.
- 3) Heteroscedasticity Test to ensure that the variance of residuals is constant.

b) Multiple Linear Regression Analysis :

The model used is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

- | | |
|---|--------------------------------|
| ▪ Y: Success of community-based tourism management | ▪ β_0 : Constant |
| ▪ $\beta_1, \beta_2, \beta_3, \beta_4$: Regression coefficients of each independent variable | ▪ X1: Education and Training |
| ▪ X2: Stakeholder Collaboration | ▪ X3: Environmental Management |
| ▪ X4: Digital Literacy | ▪ ϵ : Error term |

c) Hypothesis Testing :

- 1) Partial Test (t-test), to assess the effect of each independent variable on the dependent variable.
- 2) Simultaneous Test (f-test), to evaluate the combined influence of all independent variables.
- 3) Coefficient of Determination (R^2) to measure how well the independent variables explain variations in the dependent variable.

6. Data Interpretation and Presentation

The results of the analysis will be presented in the form of tables, charts, and statistical interpretations. Statistical significance is determined using a 95% confidence level ($\alpha = 0.05$).

7. Conclusion and Recommendations

Based on the regression results, this study will offer strategic recommendations aimed at strengthening human resource development to support sustainable and effective CBT management.

Result and Discussion

1. Result

a) Demographic Characteristics of Respondents

The respondents in this study include local residents, business owners, and other stakeholders involved in managing CBT in Jember Regency. A total of 120 respondents were selected as the sample. The demographic statistics are presented in the table below.

Table 1. Descriptive Statistics of Respondent Demographics

	Criteria	Frequency (People)	Percentage (%)
Gender	Male	76	63,33
	Female	44	36,67
	Total	120	100,00
Age	< 25 y.ears	24	20,00
	25 – 34 y.ears	32	26,67
	35 – 44 y.ears	24	20,00
	45 – 54 y.ears	28	23,33
	55 ye.ars or older	12	10,00
	Total	120	100,00
Education	SD	3	2,50
	SMP	11	9,17
	SMA	47	39,17
	S1/D3	51	42,50
	S2	8	6,67
	S3	0	0,00
	Total	120	100,00
Occupation	Student	17	14,17
	Government Employee	21	17,50
	Private Employee	41	34,17
	Entrepreneur	36	30,00
	Other	5	4,17
	Total	120	100,00
Work Experience	Over 10 years	33	27,50
	5 – 10 years	59	49,17
	Less than 5 years	28	23,33
	Total	120	100,00

(Source: Processed Data, 2025)

Based on the data collected, the majority of respondents were male, totaling 76 individuals (63.33%), while females accounted for 44 respondents (36.67%). This indicates a higher level of male participation in the survey. In terms of age, most respondents belonged to the productive age group (25–54 years), which made up 78.33% of the total. The largest age group was 25–34 years (26.67%), followed by 45–54 years (23.33%), and 35–44 years (20.00%), while respondents under 25 years accounted for 20.00%, and only 10.00% were aged 55 and above.

In terms of educational background, most respondents had attained at least a senior high school education. The largest group were high school graduates (39.17%), followed closely by those with a diploma or bachelor's degree (42.50%). Master's degree

holders made up 6.67%, while those with only junior high or elementary education accounted for 9.17% and 2.50%, respectively. No respondents held a doctoral degree. This indicates that 88.34% of participants had completed secondary education or higher, reflecting a relatively well educated group.

In terms of occupation, most respondents were employed in the private sector or worked as entrepreneurs. Private employees made up the largest group (34.17%), followed by entrepreneurs (30.00%). Government employees accounted for 17.50%, while students made up 14.17%. The remaining 4.17% worked in other, unspecified fields. These findings suggest that self-employment and private sector work are the most common sources of income among respondents.

Regarding work experience, most respondents had more than 5 years of experience, with 49.17% having worked for 5–10 years, and 27.50% having worked for over 10 years. Meanwhile, 23.33% had less than 5 years of experience. This indicates that a majority of respondents are in a stable phase of their careers, with sufficient experience in the workforce. Overall, the survey results show that respondents were predominantly male, of productive age, with a moderate to high level of education, and most were employed in the private sector or self employed. The majority also had considerable work experience, suggesting that the respondent group is well positioned to contribute meaningfully to the workforce and local economy.

b) Descriptive Analysis of Respondents Answers

The results of the descriptive statistical analysis are summarized in the table below :

Table 2. Descriptive Analysis of Respondents' Answer Scores

No.	Variable	Indicator	Mean	Modus	Variable Category
1	Education and Training (X1)	X1.1	3,83	4	Good
		X1.2	4,02	4	
		X1.3	3,95	4	
		X1.4	3,82	4	
		X1.5	3,93	4	
		X1.6	3,93	4	
		X1.7	3,83	4	
2	Stakeholder Collaboration (X2)	X2.1	3,92	5	Good
		X2.2	3,78	4	
		X2.3	3,82	4	
		X2.4	3,83	4	
		X2.5	3,89	4	
		X2.6	3,98	5	
3	Environmental Management (X3)	X3.1	3,86	4	Good
		X3.2	3,82	4	
		X3.3	3,78	4	
		X3.4	3,76	4	
		X3.5	3,88	4	
		X3.6	3,90	4	
4	Digital Literacy (X4)	X4.1	3,76	4	Good
		X4.2	3,76	4	

No.	Variable	Indicator	Mean	Modus	Variable Category
5	Community-Based Tourism Success (Y)	X4.3	3,75	4	Good
		X4.4	3,92	4	
		X4.5	3,93	4	
		X4.6	4,01	4	
		Y1	3,90	4	
		Y2	4,03	4	
		Y3	3,98	4	
		Y4	3,84	4	
		Y5	3,87	4	
		Y6	3,91	4	
		Y7	3,91	4	
		Y8	3,91	4	
		Y9	3,83	4	
		Y10	3,88	4	
		Y11	3,89	4	
		Y12	3,96	4	

(Source: Processed data, 2025)

Based on the table above, it can be concluded that respondents generally perceived the variables education and training, stakeholder collaboration, environmental management, digital literacy, and the success of CBT positively. This is reflected in the mean and mode scores, which consistently hover around 4, indicating a "Good" category for all variables.

c) Validity and Reliability Test Results

Validity refers to how accurately an instrument (in this case, the questionnaire) measures what it is intended to measure. Meanwhile, reliability assesses the consistency of the measurement over time or across items.

Table 3. Summary of Validity and Reliability Test Results

No.	Variable	Indicator	r hitung	Sig.	Cronbach's Alpha
1	Education and Training (X1)	X1.1	0,835	0,000	0,951
		X1.2	0,883	0,000	
		X1.3	0,860	0,000	
		X1.4	0,901	0,000	
		X1.5	0,932	0,000	
		X1.6	0,901	0,000	
		X1.7	0,854	0,000	
2	Stakeholder Collaboration (X2)	X2.1	0,928	0,000	0,962
		X2.2	0,916	0,000	
		X2.3	0,897	0,000	
		X2.4	0,946	0,000	
		X2.5	0,920	0,000	
		X2.6	0,890	0,000	
3	Environmental Management (X3)	X3.1	0,896	0,000	0,957
		X3.2	0,910	0,000	
		X3.3	0,909	0,000	

No.	Variable	Indicator	r hitung	Sig.	Cronbach's Alpha
4	Digital Literacy (X4)	X3.4	0,914	0,000	0,952
		X3.5	0,926	0,000	
		X3.6	0,891	0,000	
		X4.1	0,893	0,000	
		X4.2	0,916	0,000	
		X4.3	0,906	0,000	
		X4.4	0,894	0,000	
		X4.5	0,904	0,000	
5	Community-Based Tourism Success (Y)	X4.6	0,882	0,000	0,973
		Y1	0,836	0,000	
		Y2	0,824	0,000	
		Y3	0,902	0,000	
		Y4	0,897	0,000	
		Y5	0,876	0,000	
		Y6	0,912	0,000	
		Y7	0,902	0,000	
		Y8	0,871	0,000	
		Y9	0,846	0,000	
		Y10	0,909	0,000	
		Y11	0,873	0,000	
		Y12	0,868	0,000	

(Source: Processed data, 2025)

Based on the reliability analysis, the education and training (X1) variable shows a Cronbach's Alpha of 0.951, indicating a very high level of internal consistency. All indicators for this variable recorded correlation coefficients (r-values) above 0.835 with a significance level of 0.000, confirming that each indicator is valid in measuring the intended construct. The highest r-value was found in indicator X1.5 (0.932), while the lowest was X1.1 (0.835).

For the stakeholder collaboration (X2) variable, the Cronbach's Alpha score was 0.962, which also reflects excellent reliability. All indicators recorded r-values above 0.890 and were statistically significant at $p < 0.001$, indicating strong validity. The highest correlation was observed in X2.4 (0.946), and the lowest in X2.6 (0.890). In the case of the tourism environmental management (X3) variable, the reliability coefficient stood at 0.957, which is considered very high. All indicators had r-values greater than 0.891, with significance at the 0.000 level, confirming that each indicator is valid. The strongest correlation was found in X3.5 (0.926), while X3.6 (0.891) recorded the lowest.

The digital literacy (X4) variable achieved a Cronbach's Alpha of 0.952, showing that it, too, has a high degree of internal reliability. Each indicator in this variable had r-values above 0.882, and all were statistically significant at $p = 0.000$. The indicator with the highest correlation was X4.2 (0.916), while X4.6 (0.882) had the lowest. Lastly, the CBT management success (Y) variable had the highest Cronbach's Alpha value at 0.973, indicating outstanding reliability. All 12 indicators under this variable demonstrated r-values above 0.824, and all were highly significant. The most strongly correlated indicator was Y10 (0.909), while Y2 (0.824) showed the lowest.

All variables in this study exhibit very high reliability, as evidenced by Cronbach's Alpha values exceeding 0.95. Likewise, all indicators show excellent validity, with r-values consistently above 0.7 and significance levels at 0.000. These results confirm that the instruments used in the study are both consistent and accurate for measuring aspects related to education and training, stakeholder collaboration, environmental management, digital literacy, and the success of CBT management.

d) Classical Assumption Testing Results

A good regression model must meet the criteria for Best Linear Unbiased Estimator (BLUE), which requires the data to be normally distributed (or approximately normal), free from multicollinearity, and not affected by heteroscedasticity. The following are the results of the classical assumption tests conducted on the multiple linear regression model used in this study.

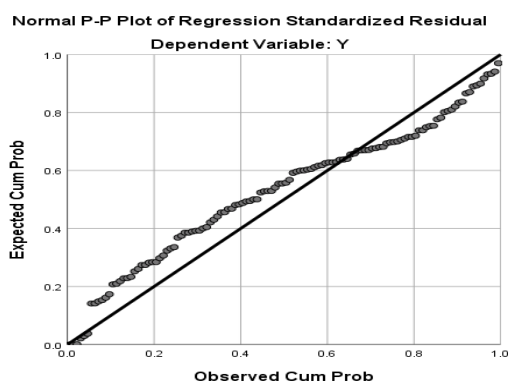


Figure 1. Normality Test Result
(Source: Processed Data, 2025)

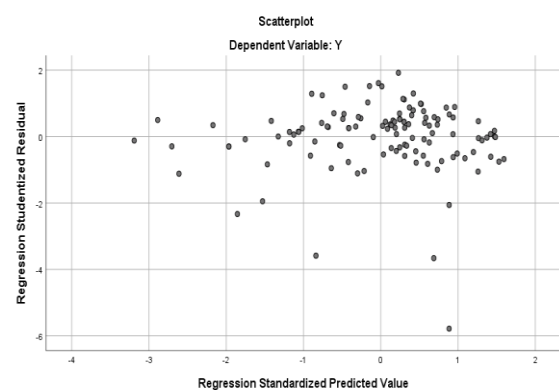


Figure 2. Heteroscedasticity Test Result
(Source: Processed Data, 2025)

As shown in Figure 1, the points in the normal probability plot are distributed along and around the diagonal line, indicating that the residuals follow a normal distribution. This confirms that the normality assumption is satisfied, making the regression model suitable for further analysis. Figure 2 presents the scatterplot used for testing heteroscedasticity. The points are randomly dispersed, with no clear or systematic pattern, and are evenly spread both above and below the Y-axis baseline (value 0). These results suggest that heteroscedasticity is not present, and thus, the variance of the residuals is constant across observations.

Table 4 *Collinearity Statistic*

Variable	VIF	Remarks
Education and Training (X1)	2,730	VIF < 10 No multicollinearity
Stakeholder Collaboration (X2)	1,084	
Tourism Environmental Management (X3)	1,953	
Digital Literacy (X4)	2,957	

(Source: Processed Data, 2025)

Based on the results of the variance inflation factor (VIF) analysis, all independent variables in this study have VIF values below 10. This indicates that multicollinearity is not an issue among the independent variables. Multicollinearity occurs when there is a

high correlation between two or more independent variables in a regression model, which can lead to unreliable or biased coefficient estimates. However, in this case, all VIF values fall within an acceptable range, suggesting that the regression model is statistically reliable.

Looking more closely, the education and training (X1) variable has a VIF of 2.730, well below the threshold of concern. This implies that X1 is not excessively correlated with the other predictors. The stakeholder collaboration (X2) variable shows the lowest VIF, at 1.084, reflecting a high degree of independence in the model. The tourism environmental management (X3) variable has a VIF of 1.953, also indicating no signs of multicollinearity. Meanwhile, the digital literacy (X4) variable records the highest VIF value, at 2.957, but this is still comfortably within the safe range and does not compromise the integrity of the regression model. In conclusion, all the independent variables included in this research can be used in the regression analysis without concern for multicollinearity. This confirms that the model is stable and reliable, capable of producing valid estimates of how each independent variable affects the dependent variable in this case, the success of CBT management.

e) Multiple Linear Regression Analysis

The purpose of the multiple linear regression analysis in this study is to determine the extent to which the independent variables influence the dependent variable. The results of this regression analysis are summarized in Table 5 below.

Table 5. Results of Multiple Linear Regression Analysis

Variable	Regression Coefficient	t Value	Sig.	Remark
Constant	1,818	0,532	0,596	-
Education and Training (X1)	0,875	5,202	0,000	Significant
Stakeholder Collaboration (X2)	0,025	0,260	0,795	Not significant
Tourism Environmental Management (X3)	0,457	3,029	0,003	Significant
Digital Literacy (X4)	0,438	2,151	0,034	Significant
N				120
R ²				0,661
F hitung				56,095
F Sig				0,000

(Source: Processed data, 2025)

Based on the results of the regression analysis, the constant (intercept) in this model is 1.818, with a t-value of 0.532 and a significance level of 0.596. Since the p-value exceeds 0.05, the constant is not statistically significant. This indicates that, in the absence of independent variables, the dependent variable does not experience any meaningful change.

For the education and training (X1) variable, the regression coefficient is 0.875, with a t-value of 5.202 and a significance level of 0.000. Because the p-value is far below

0.05, this variable has a significant positive effect on the dependent variable. In other words, improvements in education and training contribute substantially to better outcomes within this model. Meanwhile, the stakeholder collaboration (X2) variable has a regression coefficient of 0.025, a t-value of 0.260, and a p-value of 0.795, which is well above the 0.05 threshold. This means the variable does not have a significant influence on the dependent variable. Therefore, stakeholder collaboration does not show a meaningful impact in the context of this study.

The tourism environmental management (X3) variable records a regression coefficient of 0.457, a t-value of 3.029, and a significance level of 0.003. Since the p-value is below 0.05, this variable is statistically significant. This finding suggests that effective tourism environmental management positively affects the dependent variable. The digital literacy (X4) variable also demonstrates a significant effect, with a regression coefficient of 0.438, a t-value of 2.151, and a significance level of 0.034. As the p-value is under 0.05, this variable is confirmed to have a meaningful impact on the observed outcome.

In terms of overall model performance, the R-squared (R^2) value is 0.661, indicating that approximately 66.1% of the variation in the dependent variable is explained by the four independent variables in the model. The remaining 33.9% is influenced by other factors not included in this study. Additionally, the F-statistic of 56.095 with a significance level of 0.000 confirms that the overall regression model is statistically valid and effectively explains the relationships among the variables.

In summary, education and training (X1), Tourism Environmental Management (X3), and digital literacy (X4) all have significant effects on the dependent variable, while stakeholder collaboration (X2) does not. These findings imply that to achieve better outcomes, attention should be directed toward strengthening educational programs, enhancing environmental management practices in tourism, and improving digital literacy among the involved stakeholders.

2. Discussion

The findings of this study provide important insights into the factors influencing the success of CBT in Jember Regency. The partial test results indicate that education and training have a significant positive influence on CBT performance, reaffirming the central role of human capital in tourism development. This result is consistent with competency-based education theory, which posits that structured learning, technical skill building, and continuous training enhance managerial capabilities and improve the professionalism of tourism actors, as demonstrated [2, 9]. These findings correspond with global research such as [27, 28], which highlights that practical training increases service quality and employability in tourism. The result also aligns with the JAMB [5], showing that competence and self-awareness directly contribute to performance in tourism institutions. The present study therefore confirms that strengthening community competencies through education and training is a foundational requirement for successful CBT governance.

The analysis further reveals that stakeholder collaboration does not significantly influence CBT success when examined individually. This result appears contradictory to the assumption that multi-stakeholder cooperation is a crucial element of tourism

governance, as suggested [1]. However, previous studies also acknowledge that collaboration often fails to produce meaningful outcomes when coordination is weak or when partnerships are not institutionalized effectively. Note that collaboration mechanisms are frequently hindered by conflicting interests, bureaucratic fragmentation, and the absence of shared decision-making processes. In the context of Jember, this finding suggests that existing collaborative efforts may still be transactional, formalistic, or limited in scope, reducing their potential impact on CBT outcomes [16]. This implies that collaboration alone is insufficient without strong institutional capacity and commitment from all stakeholders.

Environmental management, on the other hand, shows a significant positive effect on CBT performance. This aligns with sustainable tourism theory, which emphasizes that ecological stewardship is essential for enhancing destination attractiveness and long term resilience, as illustrated in national tourism policy frameworks [29, 12]. Local empirical evidence also supports the present findings. [7] argue that environmental awareness among rural communities plays a decisive role in the quality and sustainability of tourism villages. The result is further reinforced by the JAMB [4], which demonstrates that environmental strategies are critical to the success of ecotourism areas, such as mangrove conservation sites. Overall, the findings strengthen the theoretical argument that environmental responsibility is inseparable from CBT development, particularly in destinations relying on natural resources.

Digital literacy also emerges as a significant determinant of CBT success. This finding reflects the increasing importance of digital transformation in shaping competitive tourism destinations. As noted by [21] digital platforms enhance promotional capacity, facilitate communication with tourists, and enable data driven decision making. The result is strongly supported by [3] in JAMB, who show that integrated digital marketing substantially improves the performance and visibility of culinary tourism centers. Within the CBT context, higher digital literacy enables communities to adopt technology more effectively, expand market reach, and communicate tourism offerings more professionally. These capabilities are increasingly essential as tourist information-seeking behavior becomes heavily digital.

The simultaneous test results reveal that the four variables collectively exert a significant influence on CBT performance. This demonstrates that education and training, stakeholder collaboration, environmental management, and digital literacy function as an integrated system shaping the development of CBT. Such a multidimensional perspective echoes the theoretical propositions of [12, 30], which emphasize that sustainable tourism emerges from interactions among human, institutional, environmental, and technological components. The finding confirms that holistic development strategies are necessary for empowering communities and improving destination competitiveness.

The coefficient of determination (R^2) indicates that 66.1% of the variance in CBT success can be explained by the four predictor variables. This suggests that the model has strong explanatory power, considering the complexity of tourism systems and the multitude of external factors that may influence destination outcomes, including cultural values, infrastructure quality, governmental regulations, and visitor demographics. The

result affirms that human competence, environmental stewardship, institutional collaboration, and digital adaptation constitute the core pillars supporting CBT performance in Jember. The empirical strength of the model further validates the theoretical foundations and previous empirical studies discussed in the literature review.

In summary, the study contributes meaningful evidence to the discourse on community-based tourism by confirming the critical role of human resource development, environmental management, and digital literacy, while simultaneously shedding light on the limited practical influence of stakeholder collaboration. These findings highlight both the strengths and structural challenges of CBT governance in Jember, providing a basis for future policy improvements and scholarly inquiry.

Conclusion

The results of the analysis show that education and training have a positive and significant influence on the success of CBT management. Stakeholder collaboration, while positive, does not show a significant effect on the success of CBT management. Meanwhile, tourism environmental management and digital literacy both have positive and significant impacts on the success of CBT efforts. In terms of practical implications, this study suggests that to enhance the success of CBT management in Jember Regency, all stakeholders involved including local communities, business actors, and other relevant parties should pay particular attention to education and training, environmental management, and digital literacy. These areas have proven to be critical in supporting effective tourism management.

For future research, it is recommended to include additional variables such as tourism service innovation, tourist attraction appeal, and other relevant factors. This would help generate deeper insights and provide a more comprehensive understanding of what drives the success of CBT management.

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