

## The Impact of Destination Management Organization (DMO) on Sustainable Tourism Development in Samosir Regency

Syahrul <sup>1</sup>, , Abdul Kadir Ritonga <sup>2,\*</sup>, , Muhammad Zulfan <sup>3</sup>, ,  
and Enny Hasriyani <sup>3</sup>, 

<sup>1</sup> Food & Beverage Study Program, Department of Hospitality, Politeknik Pariwisata Medan, 20371, Deli Serdang, North Sumatra Province, Indonesia

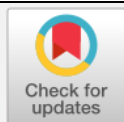
<sup>2</sup> Room Division Study Program, Department of Hospitality, Politeknik Pariwisata Medan, 20371, Deli Serdang, North Sumatra Province, Indonesia

<sup>3</sup> Culinary Arts Study Program, Department of Hospitality, Politeknik Pariwisata Medan, 20371, Deli Serdang, North Sumatra Province, Indonesia

\* Corresponding Author: [abdulkadir@poltekparmedan.ac.id](mailto:abdulkadir@poltekparmedan.ac.id)

### ARTICLE INFO

**Publication Info:**  
Research Article



#### How to cite:

Syahrul, S., Ritonga, A. K., Zulfan, M., & Hasriyani, E. (2024). The Impact of Destination Management Organization (DMO) on Sustainable Tourism Development in Samosir Regency. *Society*, 12(2), 348-364.

DOI: [10.33019/society.v12i2.604](https://doi.org/10.33019/society.v12i2.604)

Copyright © 2024. Owned by author (s), published by Society.

OPEN  ACCESS



This is an open-access article.

License: Attribution-NonCommercial-ShareAlike (CC BY-NC-SA)

### ABSTRACT

*This study aimed to evaluate the effectiveness of the Destination Management Organization (DMO) program on tourism development in Samosir Regency. The research employed a causal design, analyzing the relationship between the DMO program and tourism development as the dependent variable. The study's population included government officials involved in the tourism sector, stakeholders, participants in the DMO program, and tourists. Data analysis was conducted using descriptive methods and the impact analysis approach, complemented by regression analysis performed with SPSS. The findings revealed that the DMO program positively and significantly influenced various aspects of tourism development. Specifically, it contributed to economic growth (21.20%), socio-cultural management (34.20%), environmental sustainability (16.30%), sustainable management (28.70%), and human resource (HR) development (40.40%). While most contributions were categorized as medium, HR development demonstrated a strong positive correlation. Stakeholders actively participated and collaborated in the planning, implementation, and decision-making processes of the DMO program. The program provided significant benefits, including improved stakeholder communication, enhanced service quality, and strengthened tourism promotion in Samosir Regency. Policymakers and stakeholders are encouraged to continue supporting the DMO program to maximize its potential. These findings offer*

**Received:** September 12, 2024;  
**Accepted:** November 21, 2024;  
**Published:** December 4, 2024;

*valuable insights into the application of the DMO program, particularly in enhancing competitiveness through effective resource management. The program's contributions span economic growth, socio-cultural enrichment, environmental sustainability, and HR development, underscoring its comprehensive impact on tourism development.*

**Keywords:** *Destination Management Organization; Human Resource Development; Sustainable Management; Sustainable Tourism; Tourism Development*

## 1. Introduction

Tourism development is closely linked to sustainable development, as tourism activities inevitably generate positive and negative impacts (Birendra et al., 2021; Malchrowicz-Moško & Poczta, 2018). The positive impacts primarily arise from economic benefits for tourism actors and the surrounding communities. In contrast, the negative impacts generally affect the environment and socio-cultural aspects (Erfinia et al., 2019; Nicolaidis, 2020). Sustainable tourism is expected to balance these dynamics by meeting the needs of tourists as visitors and tourism actors as hosts (Dávid, 2011; Musavengane, 2019; Warren et al., 2016). Furthermore, empowering local communities is essential to minimize conflicts and create a positive equilibrium in sustainable tourism practices (Purnamawati, 2021).

Local community participation is a crucial aspect of destination management, as it helps prevent resistance while empowering communities and providing them with tangible benefits (Jamal & Getz, 1999; Stouten et al., 2018). As a multidimensional and cross-sectoral industry, tourism requires synergistic management involving all stakeholders to achieve sustainable outcomes (Page & Connell, 2024). The Destination Management Organization (DMO) strategically responds to the tourism industry's challenges. DMOs are tasked with establishing and developing sustainable tourism governance through structured planning and monitoring processes (Foris et al., 2020; Upadhya & Vij, 2017). As both a paradigm and a strategy, DMOs are instrumental in fostering sustainability across economic, socio-cultural, and environmental dimensions. Their implementation must align with shared interests and goals (Sheehan et al., 2016).

Despite its potential, DMO program activities that foster independence in managing tourist attractions remain insufficiently recognized in many tourist areas. Assessing the effectiveness of DMO programs necessitates a thorough evaluation based on predetermined indicators. This research aims to analyze the policies and effectiveness of the DMO program in fostering tourism development in Samosir Regency.

DMOs are vital in addressing future challenges in the tourism industry (Cerić et al., 2024). Given the diverse interests of stakeholders, DMO administrators must skillfully accommodate these perspectives to ensure effective implementation (Gowreesunkar et al., 2018). An effectively managed DMO program can significantly enhance the development of regional tourism destinations (Slocum, 2023).

## 2. Literature Review

Tourism, as a multidimensional and cross-sectoral industry, necessitates the cooperation of all stakeholders to ensure effective and sustainable tourism management (Marín-González et al., 2022; Sakarya et al., 2012). The Destination Management Organization (DMO) is a governance structure established to develop sustainable tourism destinations through a systematic process encompassing planning, operations, and monitoring (Rasoolimanesh et al., 2023). Tourism activities inherently produce positive and negative environmental impacts (Talwar et al., 2022).

Positive impacts, primarily economic, benefit tourism actors and the broader community. However, negative impacts typically affect the environment and socio-cultural aspects (Gantina et al., 2019). To minimize these conflicts, empowering local communities is essential for achieving a positive balance in sustainable tourism. Community participation plays a crucial role in destination management by preventing resistance, mitigating conflicts, and providing tangible benefits (Chirenje et al., 2013).

The DMO is a tourism governance framework that integrates planning, coordination, implementation, and control innovatively and systematically (Pechlaner et al., 2012). It emphasizes using networks, information, and technology, integrated with the participation of industry stakeholders, academia, and government institutions, to enhance tourism destinations (Errichiello & Micera, 2021).

The DMO's functions include establishing a competitive advantage, ensuring tourism sustainability, distributing tourism benefits equitably, improving tourism yield, and building a strong and vibrant brand identity (Amoako et al., 2022; Birendra et al., 2021). The DMO system comprises three key elements: hierarchy, structure and networking, and relationships encompassing physical and non-physical aspects (Goffi & Cucculelli, 2014). Effective synergy among these components is critical to achieving the overarching goals of the DMO program (Putro & Briliayanti, 2019).

The success of the DMO relies heavily on key actors who embody shared values, norms, beliefs, and objectives, ensuring collective achievement (Rodriguez-Giron & Vanneste, 2018; Streimikiene et al., 2021). An effective DMO program optimally utilizes resources and facilities to achieve its goals without depleting resources or overburdening its implementation (Fedyk et al., 2021; Font et al., 2023; Serra et al., 2017). The effectiveness of the DMO program is measured by how successfully its targets are met, reflecting the extent to which the program achieves its intended outcomes (Kuščer et al., 2022).

## 3. Research Methodology

### 3.1. Research Design

This research employed a causal design, targeting government officials related to the tourism sector, stakeholders, community members involved in the DMO program, and tourists visiting Samosir Regency. The sample comprised 110 respondents, selected through proportionate stratified random sampling, comprising government officials, tourism business managers, community members, and visitors. Causal research investigates cause-and-effect relationships by analyzing independent variables and their influence on one or more dependent variables. Statistical methods are typically used to test these causal relationships (Oppewal, 2010).

### 3.2. Data Source

The data for this study were obtained from both primary and secondary sources. Primary data were collected directly with key respondents, including government officials. Secondary data were derived from official university documents and relevant literature studies.

### 3.3. Data Collection Techniques

Data was collected using three main methods: physical observation, literature study, and questionnaires. Physical observation involves observing the research site's conditions, phenomena, and facts. Questionnaires were personally distributed, allowing researchers to directly interact with respondents, provide necessary clarifications, and collect data using a Likert scale.

### 3.4. Data Analysis Techniques

The research employed descriptive analysis, utilizing the impact analysis method (Mishra et al., 2019). In this approach, the input and processes of DMO program activities were analyzed to produce measurable outputs, which were then expected to create a multiplier effect on tourism activities.

Correlation analysis was conducted to evaluate the overall interaction between variables to test the hypotheses. Regression analysis was also employed to identify the relationships between independent and dependent variables and to determine the form and magnitude of these relationships. Data analysis was carried out using SPSS software. The primary goal of the regression analysis was to establish a pattern of relationships between variables X (independent) and Y (dependent) and to quantify the magnitude of change in the dependent variable in response to changes in the independent variable.

## 4. Results and Discussion

### 4.1. Data Normality Test for the DMO Program on Tourism Development in Samosir Regency

The normality test aimed to determine whether the model's independent and dependent variables were normally distributed. The analysis of data normality was conducted by referring to the *Tests of Normality* table using the One-Sample Kolmogorov-Smirnov Test. If the significance value ( $p$ ) of the Kolmogorov-Smirnov test was  $\geq 0.05$ , the data was considered normally distributed. Conversely, the data was not normally distributed if  $p \leq 0.05$ , the data < not normally distributed.

**Table 1. Normality Test Results**

No.	Variable	Value	Summary
1	DMO Program	0.164	Normal
2	Economic Contribution	0.096	Normal
3	Socio-Cultural Management	0.347	Normal
4	Environmental Contribution	0.069	Normal
5	Sustainable Management	0.073	Normal
6	Human Resource Development	0.232	Normal

The dependent variables in this study were economic contribution (Y1), socio-cultural management (Y2), environmental contribution (Y3), sustainable management (Y4), and human



resource development (Y5). The independent variable was the DMO program (X). The relationships between the independent and dependent variables are summarized in **Table 2**.

**Table 2. Variable Indicators**

Variable	R Square	$t_{count}$	Correlation
Economic Contribution (Y1)	0.212	5.398	0.461
Socio-Cultural Management (Y2)	0.342	7.500	0.585
Environmental Contribution (Y3)	0.163	4.582	0.403
Sustainable Management (Y4)	0.287	6.595	0.536
Human Resource Development (Y5)	0.404	8.561	0.636

The relationships between the DMO program and the dependent variables were analyzed using a correlation test as follows:

1) **Hypothesis Testing:**

- Null hypothesis ( $H_0$ ):  $\rho = 0$ , indicating no relationship between the DMO program and each variable.
- Alternative hypothesis ( $H_a$ ):  $\rho \neq 0$ , indicating a relationship between the DMO program and each variable.

2) **Decision-Making Criteria:**

- Interpret the correlation coefficient ( $r$ ) according to Sugiyono's guidelines (Sugiyono, 2013) (Table 3).
- Compare the calculated  $t_{count}$  with  $t_{table}$ :
  - If  $t_{count} > t_{table}$ , reject  $H_0$  (significant relationship).
  - If  $t_{count} < t_{table}$ , accept  $H_0$  (no significant relationship).
- Use a two-tailed test:
  - If Sig. (2-tailed)  $< \alpha$ , reject  $H_0$ .
  - If Sig. (2-tailed)  $> \alpha$ , accept  $H_0$ .

**Table 3. Correlation Coefficient Interpretation**

Interval	Category
0.00 - 0.199	Very Low
0.20 - 0.399	Low
0.40 - 0.599	Medium
0.60 - 0.799	Strong
0.80 - 1.000	Very Strong

The results indicate the strength and significance of the relationships between the DMO program and each dependent variable, as detailed in **Table 1** and **Table 2**.

#### 4.2. The Influence of the DMO Program (X) on Economic Contribution (Y1)

Based on the statistical analysis, the interpretation of the coefficient of determination revealed that the DMO program contributed 21.20% to the economic development of the

community in Samosir Regency. This indicates a relatively small economic contribution, as the remaining 78.80% may be attributed to other factors not included in this research.

The correlation value between the DMO program and economic contribution was 5.398, and  $t_{count} (5.398) > t_{table} (1.984)$ . Thus, the null hypothesis ( $H_0$ ) was rejected, indicating a positive and significant relationship between the DMO program and economic contribution. The significance level was  $0.000 < \alpha(0.05)$ , further confirming the positive and significant influence of the DMO program on economic contribution. The results are summarized in **Table 4** below:

**Table 4. DMO Program on Economic Contribution**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.461 <sup>a</sup>	.212	.205	3.39311

<sup>a</sup> Predictor: (Constant), DMO Program

The correlation value between the DMO program and economic contribution was 0.461, placing the relationship in the medium category (0.40–0.599). This indicates that the DMO program has a medium positive and significant impact on economic contribution. **Table 5** provides additional details about the coefficients:

**Table 5. Economic Contribution**

**Coefficients <sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.008	2.140		6.078	.000
	D.M.O Program	.241	.045	.461	5.398	.000

<sup>a</sup> Dependent Variable: Economic Contribution

To further illustrate the relationship between the variables, **Table 6** shows the correlation analysis:

**Table 6. DMO Program and Economic Contribution**

**Correlations**

		DMO Program	Economic Contribution
DMO Program	Pearson Correlation	1	.461**
	Sig. (2-tailed)		.000
	N	110	110
Economic Contribution	Pearson Correlation	.461**	1
	Sig. (2-tailed)	.000	
	N	110	110

\*\* Correlation is significant at the 0.01 level (2-tailed).

Based on **Table 6**, the correlation value of 0.461 confirms a medium relationship between the DMO program and economic contribution. Following the criteria for variable relationships, this falls within the medium category.

In conclusion, the DMO program has a positive and significant influence, categorized as medium, on the economic contribution of the community in Samosir Regency.

#### 4.3. The influence of the DMO program (X) on Socio-Cultural Management (Y2)

Based on the results of the interpretation of the coefficient of determination, the DMO program's influence on socio-cultural management in Samosir regency was 34.20%. It could be concluded that the DMO program had a medium of socio-cultural management compared to the remaining 65, 80% influenced by other factors not included in this study.

The correlation value between the DMO program and socio-cultural management was 7.500,  $t_{count} 7.500 > t_{table} 1.660$ , so  $H_0$  was rejected. The DMO program had a positive influence on socio-cultural management. The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected.

It meant a significant positive influence at the 0.05 significance level between the DMO program and socio-cultural management.

The correlation value between the DMO program and socio-cultural management was 0.585, so the influence between the two variables was in the medium category.

Thus, the DMO program had a positive and significant relationship with the medium category on socio-cultural management in the community in Samosir Regency. The influence of DMO on socio-cultural management could be stated from the determination values in **Table 7** below:

**Table 7. DMO Program on Socio-Cultural Management**

##### Model Summary

Model	R	R. Square	Adjusted R. Square	Std. Error of the Estimate
1	.585 <sup>a</sup>	.342	.336	3.85909

<sup>a</sup> Predictors: (Constant), DMO Program

Based on **Table 7** above, the coefficient of determination interpretation criteria showed that the DMO program influenced the economic contribution to society in Samosir Regency by 34.20% ( $0.342 \times 100\%$ ).

It could be concluded that the DMO program had a very small economic contribution compared to the remaining 65.80% ( $100\% - 34.20\%$ ), which was influenced by other factors not included in this research.

In analyzing the correlation between variables, it could be stated in **Table 8** below:

**Table 8. Socio-Cultural Management**

**Coefficients <sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.745	2.434		5.237	.000
	D.M.O program	.381	.051	.585	7.500	.000

<sup>a</sup> Dependent Variable: Socio-Cultural Management

The correlation value between the DMO program and socio-cultural management is 7,500,  $t_{count} 7,500 > t_{table} 1,660$ , so  $H_0$  was rejected. This meant that the DMO program had a positive influence on socio-cultural management. The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected, which meant there was a positive and significant influence at a real level of 0.05 between the DMO program and social-cultural management.

Meanwhile, the category of influence between variables can be determined in **Table 9** below.

**Table 9. DMO Program and Socio-Cultural Management**

**Correlation**

		DMO Program	Socio-Cultural Management
DMO program	Pearson Correlation	1	.585**
	Sig. (2-tailed)		.000
	N	110	110
Socio-Cultural Management	Pearson Correlation	.585**	1
	Sig. (2-tailed)	.000	
	N	110	110

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Table 9** shows that the correlation value between the DMO program and socio-cultural management was 0.585. Following the provisions of the influence criteria between variables, the two variables were in the medium category, namely between 0.40 – 0.599. So, it was concluded that the influence of the DMO program on socio-cultural management was in the medium category. Thus, the DMO program had a positive and significant relationship in the medium category towards socio-cultural management in the community in Samosir Regency.

#### **4.4. The influence of the DMO program (X) on Environmental Contribution (Y3)**

Based on the results of the interpretation of the coefficient of determination, the DMO program influenced the environmental contribution to the community in Samosir Regency by 16.30%. It could be concluded that the DMO program had a very small environmental contribution compared to the remaining 83.60%, which was influenced by other factors not



included in this research. The correlation value between the two variables was 4.582,  $t_{count} 4.582 > t_{table} 1.660$ , then  $H_0$  was rejected.

It meant that there was a positive and significant influence between the DMO program and environmental contributions. The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected, meaning there was a positive and significant influence at the 0.05 significance level between the DMO program and environmental contributions. The correlation value between the DMO program and the environmental contribution was 0.403, so the influence between the two variables was in the medium category. Thus, the DMO program had a moderate positive and significant impact on the environmental contributions of the community in Samosir Regency. The influence of DMO on environmental contribution could be stated from the determination values in **Table 10** below.

**Table 10. DMO Program on Environmental Contribution**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403 <sup>a</sup>	.163	.155	2.00982

<sup>a</sup> Predictors: (Constant), DMO Program

Based on **Table 10** above, the coefficient of determination interpretation criteria showed an influence of the DMO program on the environmental contribution to society in the Samosir Regency of 16.30% ( $0.163 \times 100\%$ ).

It could be concluded that the DMO program had a very small environmental contribution compared to the remaining 83.60% ( $100\% - 16.30\%$ ), which was influenced by other factors not included in this research.

The correlation between variables can be analyzed in **Table 11** below.

**Table 11. Environmental Contribution**

**Coefficients <sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.095	1.268		4.808	.000
	D.M.O program	.121	.026	.403	4.582	.000

<sup>a</sup> Dependent Variable: Environmental Contribution

The correlation value between the DMO program and environmental contribution was 4.582,  $t_{count} 4.582 > t_{table} 1.660$ , so  $H_0$  was rejected. This meant a positive and significant influence existed between the DMO program and environmental contributions. The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected.

It meant there was a positive and significant influence at the 0.05 real level between the DMO program and environmental contribution.

Meanwhile, the category of influence between variables can be determined in **Table 12** below.

**Table 12. DMO Program and Environmental Contribution**

**Correlations**

		DMO Program	Environmental Contribution
<b>DMO program</b>	Pearson Correlation	1	.403**
	Sig. (2-tailed)		.000
	N	110	110
<b>Environmental Contribution</b>	Pearson Correlation	.403**	1
	Sig. (2-tailed)	.000	
	N	110	110

\*\* Correlation is significant at the 0.01 level (2-tailed)

**Table 12** shows that the correlation value between the DMO program and environmental contribution is 0.403. Following the provisions of the influence criteria between variables, the two variables were in the medium category, namely between 0.40 - 0.599. So, it was concluded that the influence of the DMO program on environmental contribution was in the medium category. Thus, the DMO program had a positive and significant influence in the medium category on environmental contributions to the community in Samosir Regency.

#### 4.5. The influence of the DMO Program (X) on Sustainable Management (Y4)

The results of the interpretation of the coefficient of determination showed that the DMO program influenced the sustainable management of communities in the Samosir Regency by 28.70%. It could be concluded that the DMO program had very little sustainable management when compared to the remaining 71.30%, which was influenced by factors others who were not included in this study. The correlation value between the DMO program and sustainable management was 0.536,  $t_{count} 6.595 > t_{table} 1.660$ , so  $H_0$  was rejected.

This meant that the DMO program positively and significantly influenced sustainable management. The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected, which means there was a positive and significant effect at the 0.05 significance level between the DMO program and sustainable management. The correlation value between the DMO program and sustainable management was 0.536, so the effect between the two variables was in the medium category. Thus, the DMO program had a positive and significant relationship with the medium category towards sustainable management of communities in Samosir regency, as shown in **Table 13** below.

**Table 13. DMO Program on Sustainable Management**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.536 <sup>a</sup>	.287	.281	2.26411

<sup>a</sup> Predictors: (Constant), DMO Program

Based on **Table 13** above, the coefficient of determination interpretation criteria showed that the DMO program influenced sustainable management in the community of Samosir Regency by 28.70% ( $0.287 \times 100\%$ ).

It could be concluded that the DMO program had very little sustainable management compared to the remaining 71.30% ( $100\% - 28.70\%$ ), which was influenced by other factors not included in this study.

The correlation between variables can be analyzed in **Table 14** below.

**Table 14. DMO Program and Sustainable Management**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.100	1.428		4.272	.000
	DMO program	.196	.030	.536	6.595	.000

<sup>a</sup> Dependent Variable: Sustainable Management

The correlation value between the DMO program and sustainable management was 6.595,  $t_{count} 6.595 > t_{table} 1.660$ , so  $H_0$  was rejected. This means that the DMO program positively and significantly influenced sustainable management.

The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected, which meant there was a positive and significant influence at a real level of 0.05 between the DMO program and sustainable management. Meanwhile, the category of influence between variables can be determined in **Table 15** below.

**Table 15. DMO Program and Sustainable Management**

**Correlations**

		DMO Program	Sustainable Management
DMO Program	Pearson Correlation	1	.536**
	Sig. (2-tailed)		.000
	N	110	110
Sustainable Management	Pearson Correlation	.536**	1
	Sig. (2-tailed)	.000	
	N	110	110

\*\* Correlation is significant at the 0.01 level (2-tailed)

**Table 15** shows that the correlation value between the DMO program and sustainable management was 0.536. Following the provisions of the influence criteria between variables, the two variables were in the medium category, namely between 0.40 - 0.599. So, it was concluded that the influence of the DMO program on sustainable management was in the medium category.

Thus, the DMO program had a positive and significant relationship in the medium category towards sustainable management in the community in Samosir Regency.

#### 4.6. The influence of the DMO program (X) on HR Development (Y5)

Based on the results of the interpretation of the coefficient of determination, it showed that there was an influence of the DMO program on the development of human resources in the community in Samosir regency of 40.40% so that the DMO program had very small HR development when compared to the remaining 59.60% which was influenced by other factors that not included in this research. The correlation value between the DMO program and sustainable management was 8.561,  $t_{count} 8.561 > t_{table} 1.660$ , so  $H_0$  was rejected.

This meant that the DMO program had a positive influence on HR development. The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected, which means there was a positive and significant influence at the 0.05 significance level between the DMO program and HR development.

The correlation value between the DMO program and HR development was 0.636, so the influence between the two variables was in the strong category. Thus, the DMO program had a positive and significant influence, with a strong category on the development of human resources in the community of Samosir Regency.

The influence of DMO on human resource development can be seen in the determination values in **Table 16** below.

**Table 16. DMO Program on HR Development**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 <sup>a</sup>	.404	.399	2.47633

<sup>a</sup> Predictors: (Constant), HR Development

Based on **Table 16** above, the coefficient of determination interpretation criteria shows an influence of the DMO program on human resource development in the community in the Samosir Regency of 40.40% ( $0.404 \times 100\%$ ).

It could be concluded that the DMO program had very little human resource development compared to the remaining 59.60% ( $100\% - 40.40\%$ ), which was influenced by other factors not included in this study. The correlation between variables can be analyzed in **Table 17** below.

**Table 17. DMO Program on HR Development**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.638	1.562		4.250	.000
	D.M.O program	.279	.033	.636	8.561	.000

<sup>a</sup> Dependent Variable: HR Development

The correlation value between the DMO program and HR Development was 8.561,  $t_{count} 8.561 > t_{table} 1.660$ , so  $H_0$  was rejected. This meant a positive influence existed between the DMO program and HR Development. The significance level was  $0.000 < \alpha$ , so  $H_0$  was rejected, which meant there was a positive and significant influence at a real level of 0.05 between the DMO program and HR Development. Meanwhile, the category of influence among variables can be determined in **Table 18** below.

**Table 18. DMO Program and HR Development**

Correlations			
		DMO Program	HR Development
DMO program	Pearson Correlation	1	.636**
	Sig. (2-tailed)		.000
	N	110	110
HR Development	Pearson Correlation	.636**	1
	Sig. (2-tailed)	.000	
	N	110	110

\*\* Correlation is significant at the 0.01 level (2-tailed)

**Table 18** shows that the correlation value between the DMO program and HR Development was 0.636. Following the provisions of the influence criteria between variables, the two variables were in a strong category, namely between 0.60 - 0.799. So, it was concluded that the influence of the DMO program on HR development was strong and had a positive and significant relationship.

## 5. Conclusion

The DMO program influenced the economic contribution of 21.20%. The DMO program had a positive and significant relationship ( $t_{count} 5.398 > t_{table} 1.660$ ) in the medium category towards economic contributions to the community in Samosir regency. The DMO program influenced socio-cultural management of 34.20%. The DMO program had a positive and significant relationship ( $t_{count} 7.500 > t_{table} 1.660$ ) in the medium category on socio-cultural management in communities in Samosir regency. The DMO program influenced the environmental contribution of 16.30%. The DMO program had a positive and significant relationship ( $t_{count} 4.582 > t_{table} 1.660$ ) in the medium category towards environmental contributions to the community in Samosir regency.

The DMO program influenced sustainable management of 28.70%. The DMO program had a positive and significant relationship ( $t_{count} 6.595 > t_{table} 1.660$ ) in the medium category towards sustainable management of communities in Samosir regency. The DMO program influenced HR development of 40.40%. The DMO program had a positive and significant relationship ( $t_{count} 8.561 > t_{table} 1.660$ ) in the strong human resource development category in the Samosir regency community.

The DMO program had a very good relationship with HR development, which was in the strong category, while the other dependent variables were in the medium category. Maximizing the DMO program by compiling a structured, systematic, and easy-to-apply program in the field is important because the DMO program was aimed at establishing and developing a



process-based sustainable tourism destination governance organization. Exploring various concepts or programs in developing tourism in Samosir regency was necessary.

The relationship between the DMO program and economic contribution, socio-cultural management, environmental contribution, and human resource development). The best relationship between the DMO program and human resource development was a strong category, while the other dependent variables were in the medium category.

However, it was essential to acknowledge the research's limitations, such as the reliance on data like samples and variables, which may restrict generalizability. Therefore, for future research, consider more designs and extend these findings to a diverse context by exploring destination management.

Last but not least, the characteristics of tourism development were multi-sectoral and multi-dimensional; the Central Government should consider the ideal tourist destination through the Ministry of Tourism and Creative Economy, Regional Government Association of Tourism Companies, Association of Tourism Professionals, Non-Governmental Organizations, college, public, investors, and mass media in the form of organizations whose fields of work complement each other to implement DMO program.

## 6. Acknowledgment

The authors would like to thank the informants who are willing to offer data for research objectives and the Medan Tourism Polytechnic, Minister of Tourism and Creative Economy of the Republic of Indonesia, and special thanks to all who participated in the research.

## 7. Declaration of Conflicting Interests

The authors have declared no potential conflicts of interest concerning this article's research, authorship, and/or publication.

## References

- Amoako, G. K., Obuobisa-Darko, T., & Ohene Marfo, S. (2022). Stakeholder role in tourism sustainability: the case of Kwame Nkrumah Mausoleum and centre for art and culture in Ghana. *International Hospitality Review*, 36(1), 25–44. <https://doi.org/10.1108/IHR-09-2020-0057>
- Birendra, K., Dhungana, A., & Dangi, T. B. (2021). Tourism and the sustainable development goals: Stakeholders' perspectives from Nepal. *Tourism Management Perspectives*, 38, 100822. <https://doi.org/10.1016/j.tmp.2021.100822>
- Cerić, D., Więckowski, M., & Timothy, D. J. (2024). Visual representation of tourism landscapes: A comparative analysis of DMOs in a cross-border destination. *Journal of Destination Marketing & Management*, 34, 100932. <https://doi.org/https://doi.org/10.1016/j.jdmm.2024.100932>
- Chirenje, L. I., Giliba, R. A., & Musamba, E. B. (2013). Local communities' participation in decision-making processes through planning and budgeting in African countries. *Chinese Journal of Population Resources and Environment*, 11(1), 10–16. <https://doi.org/10.1080/10042857.2013.777198>
- Dávid, L. (2011). Tourism ecology: towards the responsible, sustainable tourism future. *Worldwide Hospitality and Tourism Themes*, 3(3), 210–216.

<https://doi.org/10.1108/17554211111142176>

- Erfina, I. Y., Raharjo, S. T., Santoso, M. B., & Apsari, N. C. (2019). Social Change in Ciletuh Geopark. *Review of Integrative Business and Economics Research*, 8(1), 244–259. [https://www.proquest.com/scholarly-journals/social-change-ciletuh-geopark/docview/2113234282/se-2?accountid=14570%0Ahttps://primo-49man.hosted.exlibrisgroup.com/openurl/MAN/MAN\\_UB\\_service\\_page?url\\_ver=Z39.88-2004&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:journal&g](https://www.proquest.com/scholarly-journals/social-change-ciletuh-geopark/docview/2113234282/se-2?accountid=14570%0Ahttps://primo-49man.hosted.exlibrisgroup.com/openurl/MAN/MAN_UB_service_page?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&g)
- Errichiello, L., & Micera, R. (2021). A process-based perspective of smart tourism destination governance. *European Journal of Tourism Research*, 29, 2909.
- Fedyk, W., Sołtysik, M., Oleśniewicz, P., Borzyszkowski, J., & Weinland, J. (2021). Human resources management as a factor determining the organizational effectiveness of DMOs: a case study of RTOs in Poland. *International Journal of Contemporary Hospitality Management*, 33(3), 828–850. <https://doi.org/10.1108/IJCHM-07-2020-0702>
- Font, X., Torres-Delgado, A., Crabolu, G., Palomo Martinez, J., Kantanbacher, J., & Miller, G. (2023). The impact of sustainable tourism indicators on destination competitiveness: the European Tourism Indicator System. *Journal of Sustainable Tourism*, 31(7), 1608–1630. <https://doi.org/10.1080/09669582.2021.1910281>
- Foris, D., Florescu, A., Foris, T., & Barabas, S. (2020). Improving the Management of Tourist Destinations: A New Approach to Strategic Management at the DMO Level by Integrating Lean Techniques. *Sustainability*, 12(23), 10201. <https://doi.org/10.3390/su122310201>
- Gantina, D., Rachmatullah, A., & Asmaniaty, F. (2019). Study of Stakeholders' Perception, Motivation and Preferences Towards Ecotourism Development in Siberut National Park, Indonesia. *Tourism Proceeding*, 263–277.
- Goffi, G., & Cucculelli, M. (2014). Components of destination competitiveness. The case of small tourism destinations in Italy. *International Journal of Tourism Policy*, 5(4), 296. <https://doi.org/10.1504/IJTP.2014.068035>
- Gowreesunkar, V. G. B., Séraphin, H., & Morrison, A. (2018). Destination marketing organizations: Roles and challenges. In *The Routledge handbook of destination marketing* (pp. 16–34). Routledge.
- Jamal, T., & Getz, D. (1999). Community Roundtables for Tourism-related Conflicts: The Dialectics of Consensus and Process Structures. *Journal of Sustainable Tourism*, 7(3–4), 290–313. <https://doi.org/10.1080/09669589908667341>
- Kuščer, K., Eichelberger, S., & Peters, M. (2022). Tourism organizations' responses to the COVID-19 pandemic: an investigation of the lockdown period. *Current Issues in Tourism*, 25(2), 247–260. <https://doi.org/10.1080/13683500.2021.1928010>
- Malchrowicz-Moško, E., & Poczta, J. (2018). A Small-Scale Event and a Big Impact—Is This Relationship Possible in the World of Sport? The Meaning of Heritage Sporting Events for Sustainable Development of Tourism—Experiences from Poland. *Sustainability*, 10(11), 4289. <https://doi.org/10.3390/su10114289>
- Marín-González, F., Moganadas, S. R., Paredes-Chacín, A. J., Yeo, S. F., & Subramaniam, S. (2022). Sustainable Local Development: Consolidated Framework for Cross-Sectoral Cooperation via a Systematic Approach. *Sustainability*, 14(11), 6601. <https://doi.org/10.3390/su14116601>
- Mishra, P., Pandey, C., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 22(1), 67. [https://doi.org/10.4103/aca.ACA\\_157\\_18](https://doi.org/10.4103/aca.ACA_157_18)

- Musavengane, R. (2019). Small hotels and responsible tourism practice: Hoteliers' perspectives. *Journal of Cleaner Production*, 220, 786–799. <https://doi.org/10.1016/j.jclepro.2019.02.143>
- Nicolaides, A. (2020). Sustainable ethical tourism (SET) and rural community involvement. *African Journal of Hospitality, Tourism and Leisure*, 9(1), 1–16.
- Oppewal, H. (2010). Causal Research. In *Wiley International Encyclopedia of Marketing*. Wiley. <https://doi.org/10.1002/9781444316568.wiem02001>
- Page, S. J., & Connell, J. (2024). Dementia as a global challenge: Progress and prospects for creating more dementia-inclusive tourism industries. *Tourism Management*, 104, 104916. <https://doi.org/10.1016/j.tourman.2024.104916>
- Pechlaner, H., Volgger, M., & Herntrei, M. (2012). Destination management organizations as interface between destination governance and corporate governance. *Anatolia*, 23(2), 151–168. <https://doi.org/10.1080/13032917.2011.652137>
- Purnamawati, I. G. A. (2021). Sustainable Tourism Development Through Improving the Role of Customary Village. *International Journal of Social Science and Business*, 5(1), 26–33. <https://doi.org/10.23887/ijssb.v5i1.30778>
- Putro, H. P. H., & Briliayanti, A. (2019). The Effectivity of Stakeholders' Collaboration on Tourism Destination Governance in Pangandaran, West Java, Indonesia. *ASEAN Journal on Hospitality and Tourism*, 17(1), 25. <https://doi.org/10.5614/ajht.2019.17.1.3>
- Rasoolimanesh, S. M., Ramakrishna, S., Hall, C. M., Esfandiar, K., & Seyfi, S. (2023). A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals. *Journal of Sustainable Tourism*, 31(7), 1497–1517. <https://doi.org/10.1080/09669582.2020.1775621>
- Rodriguez-Giron, S., & Vanneste, D. (2018). Social capital at the tourist destination level: Determining the dimensions to assess and improve collective action in tourism. *Tourist Studies*, 19(1), 23–42. <https://doi.org/10.1177/1468797618790109>
- Sakarya, S., Bodur, M., Yildirim-Öktem, Ö., & Selekler-Göksen, N. (2012). Social alliances: Business and social enterprise collaboration for social transformation. *Journal of Business Research*, 65(12), 1710–1720. <https://doi.org/10.1016/j.jbusres.2012.02.012>
- Serra, J., Font, X., & Ivanova, M. (2017). Creating shared value in destination management organisations: The case of Turisme de Barcelona. *Journal of Destination Marketing & Management*, 6(4), 385–395. <https://doi.org/10.1016/j.jdmm.2016.06.005>
- Sheehan, L., Vargas- Sánchez, A., Presenza, A., & Abbate, T. (2016). The Use of Intelligence in Tourism Destination Management: An Emerging Role for DMOs. *International Journal of Tourism Research*, 18(6), 549–557. <https://doi.org/10.1002/jtr.2072>
- Slocum, S. L. (2023). The Influence of Government Controlled DMOs on Destination Competitiveness: the Case of Belarus. *Tourism Planning & Development*, 20(5), 870–884. <https://doi.org/10.1080/21568316.2021.1958915>
- Stouten, J., Rousseau, D. M., & De Cremer, D. (2018). Successful Organizational Change: Integrating the Management Practice and Scholarly Literatures. *Academy of Management Annals*, 12(2), 752–788. <https://doi.org/10.5465/annals.2016.0095>
- Streimikiene, D., Svagzdiene, B., Jasinskas, E., & Simanavicius, A. (2021). Sustainable tourism development and competitiveness: The systematic literature review. *Sustainable Development*, 29(1), 259–271. <https://doi.org/10.1002/sd.2133>
- Sugiyono, D. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*. Alfabeta.
- Talwar, S., Kaur, P., Escobar, O., & Lan, S. (2022). Virtual reality tourism to satisfy wanderlust

without wandering: An unconventional innovation to promote sustainability. *Journal of Business Research*, 152, 128–143.

<https://doi.org/https://doi.org/10.1016/j.jbusres.2022.07.032>

Upadhya, A., & Vij, M. (2017). *Creative Tourist Experience: Role of Destination Management Organizations* (p. 375). <https://doi.org/10.4018/978-1-5225-2016-0.ch014>

Warren, C., Becken, S., & Coghlan, A. (2016). Using persuasive communication to co-create behavioural change – engaging with guests to save resources at tourist accommodation facilities. *Journal of Sustainable Tourism*, 25, 1–20. <https://doi.org/10.1080/09669582.2016.1247849>

---

### About the Authors

- 1) **Syahrul** obtained his Master's in Management Science from the University of North Sumatra, Indonesia, in 1999. The author is an Associate Professor at the Food and Beverages Study Program, Department of Hospitality, Politeknik Pariwisata Medan, Indonesia.  
E-Mail: [syahrul@poltekparmedan.ac.id](mailto:syahrul@poltekparmedan.ac.id)
- 2) **Abdul Kadir Ritonga** obtained his Doctorate in Vocational Education from the State University of Malang, Indonesia, in 2017. The author is an Associate Professor at the Room Division Study Program, Department of Hospitality, Politeknik Pariwisata Medan, Indonesia.  
E-Mail: [abdulkadir@poltekparmedan.ac.id](mailto:abdulkadir@poltekparmedan.ac.id)
- 3) **Muhammad Zulfan** obtained his Master of Education in Technology Education from the State University of Medan, Indonesia, in 2008. The author is an Associate Professor at the Culinary Arts Study Program, Department of Hospitality, Politeknik Pariwisata Medan, Indonesia.  
E-Mail: [muhammadzulfan@poltekparmedan.ac.id](mailto:muhammadzulfan@poltekparmedan.ac.id)
- 4) **Enny Hasriyani** obtained her Master of Public Health in Occupational Health and Safety Science from the University of North Sumatra, Indonesia, in 2005. The author is an Associate Professor at the Culinary Arts Study Program, Department of Hospitality, Politeknik Pariwisata Medan, Indonesia.  
E-Mail: [ennyhas@gmail.com](mailto:ennyhas@gmail.com)