

The Complexity Relationship Among Participation, Human Resources, Value Co-Creation (VCC), and Value Co-Destruction (VCD) into Sustainable Ecotourism in Indonesia

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Abstract

The paper aims to explain the understanding of tourist behavior that participates in realizing sustainable environmental tourism. Specifically, to analyze the relationship between variables of participation, human resource, value co-creation, value co-destruction and sustainable ecotourism. The study used survey approach. Population were local tourist and foreign tourist visited in 5 ecotourism villages in Indonesia such as: East Java, West Java, Central Java, DI Yogyakarta, and Bali during last 3 months. Questionnaires fulfilled by 425 respondents through hybrid: direct questionnaires and google forms in social media. Ecotourism villages selected by cluster random sampling. Data analysis used Partial Least Square (PLS) with Structural Equation Modelling (SEM) to test hypotheses. The results proved when participation increased, thus the value co-creation higher or increasing, but participation is not determining factor of value destruction. Human resources is determining factor in value co-creation as well as into value co destruction. Further the finding emphasize to decreasing value co-destruction into sustainable ecotourism, otherwise to increasing value co-creation. This study would be valuable asset for tourism to maintain ecotourism through involving tourists to participate at tourist destination, to drive the competence of human resources, to create the beneficial values and vice versa to mitigate value of destruction.

Keywords: Participation, Human Resources, Value Co-Creation, Value Co-Destruction, Sustainable Ecotourism.

Introduction

Ecotourism is a type of long-distance travel that promotes conservation, benefits residents, and provides tourism participants with unique knowledge about the local environment (Juliana et al., 2024)

The issues surrounding sustainable ecotourism need to be addressed by a variety of stakeholders, each playing a unique role in ensuring the practice is both effective and beneficial to the environment, local communities, and the economy (Wondirad et al., 2020). The government, tourism industry and business, local communities, tourist, academicians and researchers, NGOs and conservation group and international organizations shared responsibilities through collaborative for roles, create benefits and contribute to the global sustainable agenda (Roxas et al., 2020).

The current relationship between people, resources and tourism in Indonesia has not yet provided the co-benefits needed for ecotourism success (Hamidi et al., 2023). Many destinations have tried to move towards sustainability, unfortunately, their efforts have been hindered by a lack of necessary collaboration among stakeholders to support their sustainability agenda (Sparado et al., 2023). Participation play a crucial role in the success of sustainable ecotourism. The idea is that ecotourism is not just a passive experience; rather, tourists must be actively involved in ensuring that their actions support conservation and community well-being (Tarino & Purnomo, 2024). Active participation in sustainable practices, such as reducing waste, protecting natural habitats on s environmental conservation and supporting efforts to preserve local traditions by involving residents in making handicrafts and traditional ritual equipment (Shavik, 2024)

Competencies of local human resources play an important role in the success and sustainability of ecotourism, as they are directly involved in the management, operations, and long-term viability of tourism ventures in their communities.. In Indonesia, local human resources are the custodians of cultural heritage,

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traditions, and knowledge of the environment. Involving local communities in the planning and implementation of ecotourism initiatives ensures that their culture is preserved and shared with tourists in a respectful way (Tarino & Purnomo, 2024). Local human resources directly involved in managing and operating ecotourism projects are more likely to engage in conservation efforts. They recognize the environment better than outsiders and more responsible in preserving it for future generations (Kia, 2021).

Tourists are involved actively in various cultural preservation activities as well as local ecosystem conservation will become as means of communication, sharing the best experiences during tourism in sustainable ecotourism (Veleshija, 2024). The creation of shared value leading to personal involvement will increase tourist visits to sustainable ecotourism (Zhang et al., 2023). Foreign and domestic tourists are expected to contribute to attracting investment, but due to miscommunication, there will be value destruction by tourists due to unmet expectations and dissatisfaction with services.

When foreign and domestic tourists contribute significantly only to receiving bad services, it is very likely that tourism service providers will realize that tourists interact effectively to pursue value co-creation, while avoiding value co-destruction (Guan et al., 2022). Value destruction causes negative consequences and damage to the reputation of tourism service providers in sustainable ecotourism (Sthapit et al., 2023). Sustainable ecotourism ensures economic benefits while conserving natural resources and protecting sociocultural heritage, on the other hand some studies criticize that sustainable ecotourism fails to achieve the stated goals because interactions with the native environment are still fragile and only serve as a precursor to mass tourism

The urgency of this research is the importance of the right sustainable ecotourism design to increase the role of participation of tourists and local human resources in order increasing visits to the tourism village, maximizing the understanding of beneficial values and minimizing values that are destructive or have a negative impact on the environment, culture and the economy of the community by involving foreign and domestic tourists.

Literature Review and Hypothesis Development

Tourism is positioned as one of the mainstay sectors in Indonesia's national development. At present and in the future, tourism is expected to provide the biggest contribution to increasing the country's foreign exchange in the government's efforts to realize people's welfare and prosperity (Hamidi et al., 2023). Ecotourism has become an increasingly important market-based practice in nature conservation (Choi et al., 2020). Ecotourism has a positive impact on preserving the environment and local indigenous culture which in the end is expected to be able to foster identity and a sense of pride among local residents that has grown as a result of increased ecotourism activities.

Ecotourism development that is environmentally friendly and adapted to local uniqueness and conditions, its success can be measured through sustainable sociocultural processes that involved the identity of the local community; sustainable cycle of natural resources and environment; and economic processes that can provide sustainable benefits (Ginantra et al., 2021). The trend of research on ecotourism has increased over the last ten years, but unfortunately most of the research has only been carried out on the same research topic such as conservation, mangroves, diversity, local wisdom, national parks, and Covid-19 (Hamidi et al., 2023). Therefore, this research is useful for filling the scarcity of research that reviews the value of creation and value of destruction, especially from the human resources aspect in sustainable ecotourism by involving foreign tourists, domestic tourists and tourism stakeholders.

Participation

Participation refers tourist participation to be active involved in various aspects of their travel experience, particularly in planning, decision-making, and engagement with local communities and environments (Ritonga et al., 2024) This participation can enhance the authenticity of the experience, promote sustainable practices, and foster deeper connections between tourists and host communities. Effective tourist

participation not only enriches the travel experience but also supports local development and conservation efforts (Juliana et al., 2024).

Tourists help create a more authentic and responsible ecotourism experience, fostering a deeper connection to the environment and local cultures while supporting sustainable development goals (Sobhani et al., 2022), frequently their experience in the tourism village increases knowledge about the diversity of ecosystems and the natural beauty, in other side the tourist participation can lead to negative outcomes, diminishing value for one or more parties involved and perceived as the process where the actions or behaviors of service providers, customers, or other stakeholders result in losses, dissatisfaction, or harm rather than creating values (Ogunbodede et al., 2022). Negative tourist behaviors such as lack of respect for local customs, and inappropriate actions can damage the relationship between the tourist and the service provider, leading to a diminished experience for all involved. Tourists who engage in aggressive or disruptive behavior can negatively affect the positive morale business owner and staff, reducing their ability to deliver quality service. This interaction can cause both the customer's and the business's value to decrease (Gupta et al., 2023). Accordingly, the researcher proposes the following hypothesis:

H1: Participation influences value *Human Resources* co-creation

H2: Participation influences value co-destruction

Human Resources

Human resources in ecotourism need skilled and knowledgeable professionals who can effectively manage the unique challenges and opportunities of this sector (Huang et al., 2022). They have to maintain and enhance their skills especially fostering relationships with local communities to learn from their experiences and insights, ensuring that tourism practices are relevant and respectful (Ali et al., 2022). Local human resources in hospitality and tourism sectors who are highly engaged contribute significantly to customer satisfaction. Their engagement are more likely to go above and beyond in creating positive, personalized experiences for tourist lead to co- create value in terms of satisfaction, loyalty, and recommendations (Rongda et al., 2023), however poor service, overcrowding, or unmet expectations can result in negative experiences for tourists, which can lead to bad reviews and a decline in the overall reputation of a destination (Alexander&Vallström, 2023). A lack of internal coordination in tourist industries often leads to error that frustrate customers, such as double bookings, delayed services, or inadequate responses to complaints. Poor human resources such as lack of empowerment and poor communication, can lead to the situation where intentionally harm customer experiences. These result in negative reviews, customer dissatisfaction, and ultimately a loss of value for both customers and the tourist business (Nangpiire, et al., 2022). Accordingly, the researcher proposes the following hypothesis:

H3: Human resources influences value co-creation

H4: Human resources influences value co-destruction

Value Co-creation

Value co-creation can be defined as an extended in time process that can occur in any phase of customer decision-making process, during and after consumption, in which actors voluntarily engage in direct and indirect interactions based on use and exchange of resources leading to mutual benefits (Ajmal et al., 2024). Another theorist defined that value co-creation as a collaborative process where multiple stakeholders, including customers, companies, and partners, engage in jointly creating value through their interactions and contributions (Engen et al., 2024).

In ecotourism, value co-creation refers to the collaborative process where tourists, local communities, businesses, and conservation organizations work together to enhance the overall experience while promoting environmental sustainability and cultural preservation. This involves active participation from all stakeholders in planning, delivering, and improving ecotourism experiences, ensuring that economic,

social, and ecological benefits are shared (Paul & Roy, 2023). Tourists may engage in conservation activities, such as wildlife monitoring or community-driven clean-up programs, which directly contribute to protecting local ecosystems. Co-creation impacts tourists' willingness to pay for tourism offerings, providing crucial insights for enhancing the tourist experience and promoting sustainable tourism practices essential for the industry's long-term viability (Rita et al., 2024). Value co-creation fosters a partnership between tourists and locals, allowing communities to share their cultural heritage, maintaining the continuity of norms, customs and culture and ecological knowledge, furthermore the local economy becomes more empowered since there are many new job opportunities for local residents (Elliot et al., 2023). Accordingly, the researcher proposes the following hypothesis:

H5: Value co-creation influences sustainable ecotourism

Value Co-destruction

Value co-destruction in tourism refers to process and situations where interactions among stakeholders, such as tourists, service providers, and local communities, lead to negative outcomes that diminish value for one or more parties involved (Lumivalo et al., 2024). The study of value co-destruction is particularly important in the field of tourism and hospitality since as a close contact service industry, there are many interactions between stakeholders which means that value co-destruction is more likely to occur. Understanding the sources of value co-creation is therefore an important issue for tourism and hospitality enterprises (Guan et al., 2020). Value co-destruction lead to environmental degradation, including damage to natural habitats, pollution, and resource depletion, which diminishes the quality of the tourism experience for future visitor. This may potentially contribute to reduction in potential well-being through increased costs and loss of time, money, and other resources. It may also lead to dissatisfaction and negative word-of-mouth among visitors, which may have serious adverse implications for the competitiveness of the service organisation concerned (Zhang et al., 2023).

Ecotourism relies on the sustainable use of natural resources, but value co-destruction can occur when these resources are over exploited due to poor management or excessive demand, sometimes deforestation to make way for tourism infrastructure causes negatively impacts biodiversity and the environment (Rodrigues, et al., 2023). Often proven by tourist that value co-destruction is caused by such as conflicting goals, lack of competency or motivation and intentional or the unintentional misuse of resources. Indeed, in contrast to the phenomenon of service failure, the misuse of resources in ecotourism may be intentional in the context of value co-destruction (Laud et al., 2019). Accordingly, the researcher proposes the following hypothesis:

H6: Value co-destruction influences sustainable ecotourism

Sustainable Ecotourism

Sustainable ecotourism refers to tourism that emphasizes responsible travel to natural areas, aiming to conserve the environment and improve the well-being of local communities. It integrates principles of sustainability into tourism practices, ensuring that the natural and cultural resources are protected for future generations while providing meaningful experiences for visitors (El Moslem Badr, 2022). Sustainable ecotourism is increasingly vital in today's era due to several pressing global challenges, including climate change and biodiversity. There's a rising awareness among travelers about the environmental and social impacts of tourism. Tourists seek more responsible travel options that align with their values (Mathew et al., 2024).

At this times, the government create regulations and policies to promote sustainable tourism for ensuring that ecotourism practices align with national and international sustainable goals as well as invest infrastructures that support sustainable ecotourism such as public transportation, waste management system and initiatives to use technology to monitor punctuality, tourist safety and environmental concerns (Yessimova et al., 2024). Sustainable ecotourism provide funding and support for conservation initiatives through the connection of tourists with nature, it fosters appreciation and a sense of responsibility toward

protecting biodiversity, culture and local wisdom of host countries (Kim et al., 2024).

Hypothetical Model

An appropriate sustainable ecotourism design is needed to increase tourist participation and local human resources competences, since it can increase visitors to the Tourism Village (Wondirad & King, 2020), therefore the involvement of tourists in various cultural activities, local ecosystem preservation and sharing experiences will be the best means of communication to maintain sustainable ecotourism (Velesnja, 2024). The creation of shared value which lead to personal involvement will increase the level of visits towards sustainable ecotourism (Zhang et al., 2023).

Both of foreign and domestic tourists are expected to contribute in investment, but due to miscommunication, there will be destruction of value by them since the unfulfilled expectations and dissatisfaction services. When tourists contribute significantly only to receiving bad service, it is very likely that tourism service providers will realize that tourists interact effectively to pursue value co-creation and avoiding value co-destruction immediately (Guan et al., 2024).

Value of-destruction causes negative consequences and damage to the reputation of tourism service providers towards sustainable ecotourism (Sthapit et al., 2023). Previous research has shown that tourists can interact through the process of value co-creation to design more personalized experiences and participate in creation and local culture. (Keeling et al, 2021), in the other side it is necessary to determine a strategy of reduction destructive value, immediately. The model development steps are carried out based on previous research, presented in Figure 1 as hypothetical model:

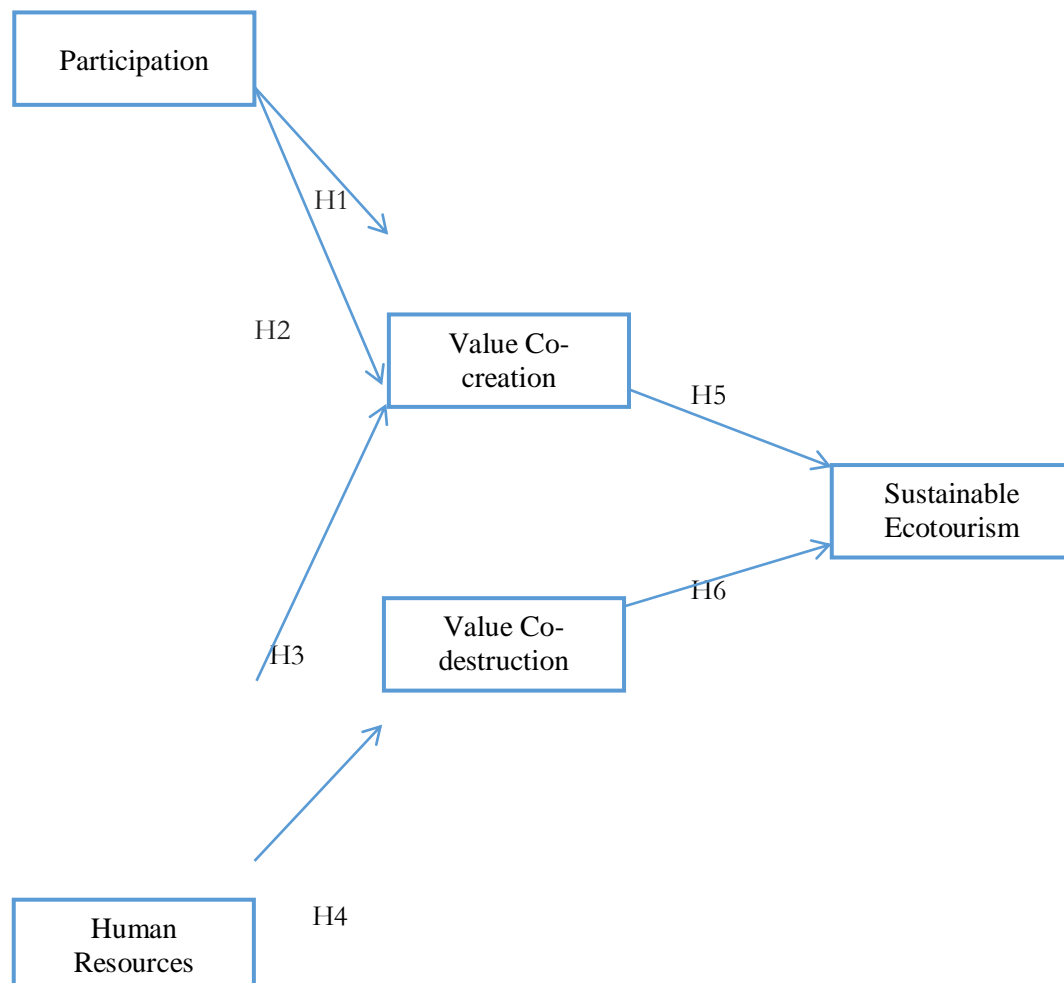


Figure 1. Hypothetical Model

Research Methodology

This research is an explanatory quantitative research focused on the research methodology that entailed initiating communication with village head, business, Tourism Awareness Groups and Customary Advancement Office of Tourism to solicit their voluntary participation as subjects of the study to realize sustainable environmental tourism. The research design used a survey approach. The population of this study is foreign tourists and domestic tourists who have visited the Tourism Village in the last 3 months.

This research was conducted in Tourism Villages of 5 Provinces, namely East Java, Bali, West Java, Jogjakarta and Central Java. The selection of the 5 Provinces as research locations was based on the number of tourist villages of each Provinces. The determination of selected tourist villages used area sampling (cluster random sampling). Hybrid data collection used questionnaires directly through travel agencies and online using google forms which were distributed to various social media.

Cover letters from Research Institution of Dr. Soetomo University were sent to Village Heads, Tourism Awareness Groups and Customary Advancement Office in each of tourism village areas as research subjects. Subsequently, researchers invited them to joint in first Focus Group Discussion. Researchers explained that all activities funded by Ministry of Research Technology and Higher Education of Republic Indonesia. The objective of the research are to support knowledge development, the advantages for each research area and implementation that can be done later for the further research as well as guaranteed their anonymity by promising to utilize participants' answers exclusively for research.

Similarly, Tourism Awareness Groups and Customary Advancement Office were informed. The first step of the survey, researchers asked about demographics such as: age, education level, gender and occupation of visitors which provided at the demographics village data of each Provinces.

Furthermore, researchers were allowed to distribute the prepared questionnaires, either directly to tourist at destination or by distributing Google form questionnaires through various social media such as: what-apps, telegram and face book. About 2-3 weeks later, researchers received the google form, while the questionnaires which were distributed directly and filled out by respondents at the tourist location were received on the same day about 20-25 minutes later. The total number of filled and eligible questionnaires was 425 sheets of 450 which were distributed, indicating a response rate of. 94.4% Consequently, 425 questionnaires were proceeded and analyzed. Respondents were informed that their responses would be kept anonymous. To reduce the potential influence of social desirability bias, the researchers refrained from requesting or documenting any identifiable details from respondents. Researchers used the statistical application SmartPLS, structural equation modeling was used to assess hypothesis.

Measures

In this study, 5 research variables were used, namely participation, human resources, value co-creation, value co-destruction and sustainable ecotourism. Participation is the level of tourist involvement in interacting in various activities throughout their trip including maintaining the surrounding environment so that it becomes a cultural promotion, increasing the local economy and the number of visits. This variable is measured by 4 indicators, namely motivation, opportunity, awareness and knowledge (Anis et al., 2021 & Zhang et al., 2020). Human resources variable is measured by 8 indicators, namely job recruitment, profit sharing, conservation efforts, maintenance of village infrastructure, increasing community knowledge, ecotourism skills, preserving local culture, and information transfer between tourists and residents (Shobani et al., 2022). Value co-creation variable is measured by 5 indicators, namely: relationship, cognitive, enjoyment, lucrateness, and practicality (Moreira et al., 2022). Value co-destruction variable is measured by 7 indicators, namely disappointment, anxiety, irritation, feeling cheated, let down, frustration, and anger (Alexander & Vallström, 2023). Sustainable ecotourism variable consists of 7 indicators, namely job creation, business viability, quality of life, water quality, waste management, energy conservation, and maintenance of community integrity (Miller & Torres-Delgado, 2024)

*Data Analysis and Results**Demographic Profile*

The responses were divided into various categories based on the considered demographic information. According to the reported data, around 48% respondents were male, while 52% were female. Foreign tourist more by 2% than domestic tourist.

A further age range between 18 and less than 25 years is followed by that between 25 and less than 40 years by (13.88%) and (39.5%). Meanwhile, age range between 40-50 years old represented (28.5%) and over 56 years old made up 18.12%.

Regarding to educational level, the majority of respondents had a high school level (37%) as well as reflected in the largest percentage of occupation as entrepreneurs (19.53%) presented in Table 1.

Table 1. Demographic Data (N= 425)

Category	Distribution	N	Frequency (%)
Gender	Male	204	48
	Female	221	52
Tourist	Foreign	216	51
	Domestic	209	49
Age	18- less than 25	59	13.88
	25- less than 40	168	39.50
	40 - 55	121	28.50
	Over 56	77	18.12
Educational level	High School	157	37
	Bachelor	139	33
	Magister	129	30
Occupation	Entrepreneur	83	19.53
	Owned-state staffs	68	16

Students	71	16.70
Housewife	60	14.12
Private employees	44	10.35
Civil servant	45	10.59
Others	54	12.71

Results

Evaluation of Measurement Model

- *Convergent Validity*

The loading value has a high level of validity if it has a loading factor value higher than 0.30. The following presents the results of the outer loading of each indicator owned by each exogenous and endogenous latent construct obtained from data processing using WarpPLS

Table 2. Outer Loading Indicator of Research Variables

Indicator	Result	p-value	Description
P1	0.762	<0.001	Valid
P2	0.851	<0.001	Valid
P3	0.864	<0.001	Valid
P4	0.868	<0.001	Valid
HR1	0.83	<0.001	Valid
HR2	0.927	<0.001	Valid
HR3	0.776	<0.001	Valid
HR4	0.914	<0.001	Valid
HR5	0.903	<0.001	Valid
HR6	0.85	<0.001	Valid
HR7	0.925	<0.001	Valid
HR8	0.772	<0.001	Valid
VCC1	0.772	<0.001	Valid
VCC2	0.925	<0.001	Valid
VCC3	0.875	<0.001	Valid
VCC4	0.943	<0.001	Valid
VCC5	0.758	<0.001	Valid
VCD1	Valid	<0.001	Valid
VCD2	Valid	<0.001	Valid
VCD3	0.954	<0.001	Valid
VCD4	0.954	<0.001	Valid
VCD5	0.488	<0.001	Valid

VCD6	0.842	<0.001	Valid
VCD7	0.917	<0.001	Valid
SE1	0.891	<0.001	Valid
SE2	0.948	<0.001	Valid
SE3	0.876	<0.001	Valid
SE4	0.853	<0.001	Valid
SE5	0.871	<0.001	Valid
SE6	0.913	<0.001	Valid
SE7	0.838	<0.001	Valid

Based on the results of data analysis, it is known that all indicators have a loading factor value higher than 0.30. (Hair et al., 2022), with a significant value of P-value <0.001 so that overall indicators are able to represent the constructs of tourist participation, local human resource, value co-creation, value co-destruction and sustainable ecotourism. These criteria are able to assess the validity that the indicators are proven to be valid constructs Convergent

Discriminant Validity

To evaluate the discriminant validity can be seen by the AVE (Average Variance Extracted) method for each construct or latent variable. AVE (Average Variance Extracted) for each construct in the model as follows.

Table 3. AVE (Average Variance Extracted)

Variable	AVE
Participation	0.701
Human Resources	0.747
Value Co-creation	0.737
Value Co-destruction	0.774
Sustainable Ecotourism	0.783

Table 3 shows that the AVE (Average Variance Extracted) value for all constructs has a value >0.50. Therefore, there is no discriminant validity problem in the tested model. Testing to evaluate the outer model is to test the reliability of the latent constructs measured by Cronbach's alpha and the composite reliability of the indicator blocks that measure the construct. The construct is declared reliable if the value is above 0.60. Output of WarpPLS as follows:

Table 4. Result Test Cronbach's Alpha and Composite Reliability

Variable	Cronbachs Alpha	Composite Reliability
Participation	0.857	0.904
Human Resources	0.951	0.959
Value Co-creation	0.908	0.933
Value Co-destruction	0.945	0.959
Sustainable Ecotourism	0.953	0.962

Based on table 4, the composite reliability of all variables has a value higher than 0.6 so that it meets the composite reliability.

b. Results of structural equation modeling (SEM) - Partial Least Square (PLS).

Results Data analysis using WarpPLS 6.0 as a statistical model test, The researchers used structural equation modeling (SEM) to analyze the empirical research model (see Figure 2)

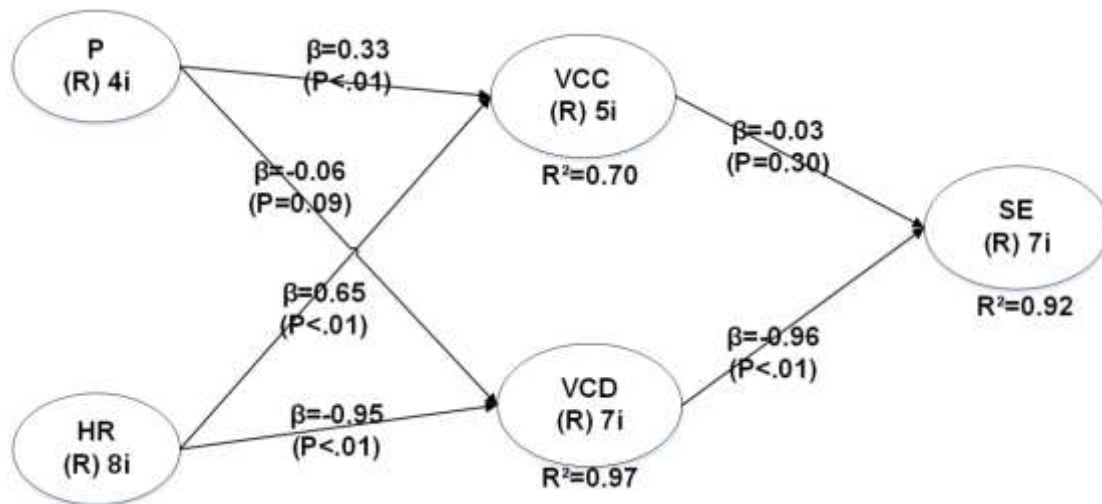


Figure 2. Structural Model Results

Evaluation of Structural Model (Inner Model)

The suitability test between the theoretical model and the empirical system can be seen at the Goodness-of-fit statistic level. A model is said to be fit if the covariance matrix of a model is the same as the covariance matrix of the data (observed). Model fit indices and P values showed the results of ten fit indicators.

Table 5. Fit-model and Quality Indices

Fit-model and Quality Indices	Fit Criteria	Result	Explanation
Average path coefficient (APC)	P<0.05	0.498, P<0.001	good
Average R-Squared (ARS)	P<0.05	0.861, P<0.001	good
Average Adjusted R-Squared (AARS)	P<0.05	0.861, P<0.001	good
Average block VIF (AVIF)	acceptable if ≤ 5, ideally ≤ 3.3	1.620	ideal
Average full collinearity VIF (AFVIF)	acceptable if ≤ 5, ideally ≤ 3.3	14.698	marginal
Tenenhaus GoF (GoF)	small ≥ 0.1, medium ≥ 0.25, large ≥ 0.36	0.803	good
Sympson's paradox ratio (SPR)	acceptable if ≥ 0.7, ideally = 1	0.833	acceptable
R-squared contribution ratio (RSCR)	acceptable if ≥ 0.9, ideally = 1	0.993	acceptable
Statistical suppression ratio (SSR)	acceptable if ≥ 0.7	1.000	good
Nonlinear bivariate causality direction ratio (NLBCDR)	acceptable if ≥ 0.7	1.000	good

Tabel 6. R-Square

	R-Square
Value Co-creation,	0.698
Value Co-destruction	0.967
Sustainable Ecotourism	0.920

The R-square value of value co-creation is 0.698 means that the contribution of participation and human resources to value co-creation is 69.8%. The R-square value of the co-destruction value is 0.967 means that the contribution participation and human resources to value co-destruction is 96.7%. The R-square value of sustainable ecotourism is 0.920 means that the contribution of participation, human resources and value co-creation to sustainable ecotourism is 92%.

Table 7. Hypotheses Test Results

Relationship between Variables		Path Coefficient	p-value	Explanation
Participation	Value Co-creation	0.332	<0.001	Significant
Participation	Value Co-destruction	-0.063	0.094	Non significant
Human Recources	Value Co-creation	0.654	<0.001	Significant
Human Recources	Value Co-destruction	-0.953	<0.001	Significant
Value Co-creation	Sustainable Ecotourism	-0.025	0.302	Non Significant
Value Co-destruction	Sustainable Ecotourism	-0.959	<0.001	Significant

Hypothesis 1: Participation Influenced Value Co-Creation.

The influence of participation on value co-creation produced a path coefficient of 0.332 with a p-value <0.001, thus H1 is accepted. This effect is statistically significant. This result indicated that participation is a determining factor in value co-creation, when participation increased, thus the value co-creation higher or increasing.

Hypothesis 2: Participation Influenced Value Co-Destruction

The influence of participation on value co-destruction produced a path coefficient of -0.063 with p-value of 0.094, thus H2 is rejected. This effect is not statistically significant. This result indicated that participation is not a determining factor of value co-destruction.

Hypothesis3: Human Resources Influenced Value Co-Creation

The influence of human resources on value co-creation produced a path coefficient of -0.654 with p-value <0.001 0.094, thus H3 is accepted. This effect is statistically significant. This result indicated that human resources is a determining factor in value co-creation, when human resources increased, thus the value co-creation higher or increasing.

Hypothesis 4: Human Resources Influenced Value Co-Destruction

The influence of human resources on value co-destruction produced a path coefficient of -0.953 with p-value <0.001, thus H4 is accepted. This influence is statistically significant with a negative symbol means

that increasing human resources will decreasing value co-destruction. These result indicated that human resources is a determining factor in value co-destruction, oppositely. When human resources increased, thus value of destruction decreased or declining.

Hypothesis 5: Value Co-Creation Influenced Sustainable Ecotourism.

The influence of co-creation on sustainable ecotourism produced a path coefficient of -0.025 with a p-value of 0.302, thus H5 is rejected. This effect is not statistically significant. This result indicated that value co-creation is not a determining factor of sustainable ecotourism.

Hypothesis 6: Value Co-Destruction Influenced Sustainable Ecotourism

The influence of value co-destruction on sustainable ecotourism. produced a path coefficient of -0.959 with a p-value <0.001, thus H6 is accepted. This effect is statistically significant. This influence is statistically significant with a negative symbol means that increasing value co-destruction will decreasing sustainable ecotourism.. This result indicated that value co-destruction is a determining factor in sustainable ecotourism., oppositely. When value co-destruction increased, thus sustainable ecotourism decreased or declining.

Discussion

Research result that participation has a significant effect on value co-creation supported the prior research (Nadeem et al.,2021) explained that consumer participation on online platforms can influence brands regarding the creation of shared value of loyalty, equality, and trust. Companies obtain benefit from consumer participation because they know more about consumers' needs, wants, and preferences regarding products or services. Bharti et al., (2023) proved customer participation has a significant impact on value co-Creation, in addition it was founded that customer participation is understood as a high level of involvement with BOP (Bottom Of The Pyramid) to share information, receive or offer suggestions and involvement with other community members and marketers for innovative product development, service innovation, experience development, experience sharing and value realization.

Research findings are in line with the opinion of Ramaswamy & Ozcan (2020) how customers actively influence co-creation experience process actively by combining several resources. For example, it is emphasized that co-creation experience is influenced by the active involvement of tourists before, during, and after tourism activities. The challenge of professional tourism is to be able to involve tourists actively by providing them with a space in which they can participate by combining their resources and thereby generating a variety of potential value co-creation experience (Vivek et al.,2022). He considered active customer participation as an antecedent to influence customer involvement in shaping the creation of a service innovation. (Nam et al.,2021) stated that in tourist industries, active participation of tourists has a direct effect on co creation outcomes. Tourism service providers must be able to involve tourists in the co-creation process if they want to produce experiences that meet tourists' needs and expectations. Tourists should be involved in activities that are oriented to combining not only the basic resources of the tourist trip but also resources that are personal and unique, hence the active role of tourists can be considered as an important antecedent of the co-creation process in shaping tourism experiences (Assiouras et al.,2019).

Research findings showed that participation has no significant effect on value co-destruction with a negative direction of coefficient (Guan et al.,2024) that customer interactions measured by gender, age, communication style and professional experience have no significant effect on shared value destruction behavior in tourism interactions, as well as Wu et al., (2022) found that collaboration and interaction between companies and customers may not always lead to positive outcomes, the result may be failed interactions or what can be called value destruction. These studies determined that value co-destruction occurs when customers behave negatively so that the company experiences unnecessary worries for the company and results in decreased company performance (Echeverri & Skålen, 2021), unworthy customer behavior causes value co-destruction to appear, so that with the emergence of this value co-destruction, the related parties will be disturbed by each other.

Tourist participation with their level of involvement interacts in various activities throughout their trip including the maintenance of the surrounding nature becomes a cultural promotion, improves the local economy and the number of visits does not affect value co-destruction. In tourism, value co-creation can be defined as the interactions, practices and integration of resources between actors that can have a negative impact on value establishment. The result study showed that human resources influence to value co-creation significantly, stated by Lorenzo-Afable et al. (2023) that there are several important factors in forming social value creation in the tourism sector, including natural factors, financial factors, political conditions, government factors and human resource factors. Humans as a society continue to live as the center of civilization. Based on this issue, it can be said that the human element will not be replaced by technology as well as in the service industry including the tourism industry. Human resource is one of the factors that play an important role in advancing the tourism sector which is part of the service industry. The two main challenges that will be faced are human resources and technology challenges (Almasoodi et al., 2023).

The result proved that local human resources influence into value co-destruction negative significantly, this study supported that the success of tourism development depends on the quantity and quality of human resources that support it (Rhama & Kusumasari, 2022). The demand for professionalism of the workforce is increasing not only among individuals but also among regions, conducting human resource activities is very important and strategic. The existence of trustworthy qualities human resources become a driver and motivator of tourism activities in the region therefore it is appropriate that the quality and capabilities of human resources in tourist villages need to be improved. This study revealed that some of the problems faced included the limited understanding and awareness of local communities about the importance of sustainable management of natural and cultural resources (Ivancsóné Horváth et al, 2023. Some of the problems faced include the limited understanding and awareness of local communities about the importance of sustainable management of local natural and cultural resources, the low qualifications and competencies of human resources involved in tourism development (Modi, 2023).

Value co-creation has no significant effect on sustainable ecotourism, this result is not supported Elliot et al. (2023) that companies do not improve their customer engagement and environmental sustainability will lose customer support. The attitude of most tourists who continue to visit unclean tourist destinations such as littered beaches and polluted water will make tourism destinations do not improve their environmental products then causing poor performances in a sustainable environmental performance, but they will come back to visit.

This non-significant finding is more due to empirical conditions and observations that there is disappointment among tourists when they doing tourist visits, therefore generating to negative behavior which does not create value co-creation. Some tourists complained about the condition of the tourist facilities and infrastructure, road facilities to the location, accommodation facilities and others. Tourists are disappointed with the rubbish founded in several tourist spots. Lack of awareness of other visitors in maintaining cleanliness also affects the tourist experience. The high density of visitors makes tourists feel uncomfortable. In fact, they interested in enjoying the scenery and ancient rocks at certain tourist destination makes them need to come back to the nature.

Value co-destruction has a significant effect on sustainable ecotourism in a negative direction, the research finding was in line with the opinion that value destruction is described as service failure. Collaboration and interaction between companies and customers may not always lead to positive results, the result may be failed interactions or to be referred as value destruction (Echeverri & Skålén, (2021). Value co-destruction occurs when tourists identify their needs but cannot express them clearly to tourism providers so that tourism service providers also do not know what tourists wanted. Accordingly, both parties encountered value co destruction; tourists do not receive what they want, and tourist providers cannot meet tourists' expectations because they were not articulated clearly. Empirical and observation study proved that tourists feel disappointed when visited certain destination.

Factors lead to value co-destruction as follows:

- The availability of facilities such as toilets and rest areas in several tourist locations were not clean and not well maintained.
- Some foreign tourists feel disappointed with the rubbish seen in some tourist attractions, poor hygiene management
- Lack of awareness of other visitors in maintaining cleanliness
- Ticket prices and tour fees for foreign tourist more expensive than local tourists.
- During weekends or long holidays, tourist destinations are very crowded, these circumstances rendered some tourists uncomfortable, it is difficult to enjoy the view properly
- Foreign tourist accustomed to modern facilities feel uncomfortable with the lack of facilities, such as limited beds and less worthy sanitation.

Conclusion

Empirical findings showed that participation has a significant effect on value co-creation, but it was not significant on value co-destruction. The active role of tourists can be considered as an important antecedent of the co-creation process in shaping tourism experiences. Participation with their level of involvement throughout the tour did not affect value co-destruction. Research findings showed that human resources have a significant influence on value co-creation and value co-destruction. One of the important factors in forming value creation in the tourism sector is human resource. Low competence of local human resources in providing services will cause

value co-destruction. The result showed that value co-creation has no significant effect on sustainable ecotourism, the attitude of most tourists who continue to visit unclean tourist destinations such as littered beaches and polluted water will make tourism destinations do not improve their environmental products then caused poor performances in a sustainable environmental performance, however the foreign tourist missed to come back to the same destination.

Value co-destruction has a significant effect on sustainable ecotourism in a negative direction, when their expectations about attraction at the tourist village were not achieve thus the various attractions presented aimed in continuing of norms, customs and culture will not well maintained. Feelings of annoyance arise because of the many disturbances from sellers who are continuously offering their merchandise at the tourist village this is because of the continuity of training on marketing service, environmental improvement and tourist satisfaction which carried out in collaboration with Universities rare increasingly. Some tourists experienced flight delays in transportation schedules, causing travel plans to be chaotic therefore need initiatives to use technology to monitor punctuality, tourist safety and environmental concerns.

Theoretical Contribution

This study has significant contributions to the fields of participation, human resources, value co-creation, value co-destruction in sustainable ecotourism context. This study contributes to the research on value co-creation and value co-destruction by examining role of participation and human resources to maintain sustainable ecotourism. The current study clarified the value co-creation and value co-destruction as the process connected to sustainable ecotourism, as well as value co-creation and value co-destruction can be framed within key concepts in Service Dominant Logic (SDL) theory. According to SDL theory, value is co-created through interaction between providers and visitors, if tourist engage in tourism experience actively, it means that they contribute the creation of value. The engagement increases their experiences, satisfaction and values.

Participation as a central to value co-creation of tourists, through their offering preferences, inputs and suggestions, they influence the content and delivery of services, leading to experiences which matched to their desires and expectations closer. In the other side, participation also lead to negative outcomes. If tourists' expectations are not properly communicated, the experiences may not meet their need then caused dissatisfaction and tends to be value co-destruction. The competence and authenticity of local human resources enhance of tourists' experience. The ability of human resources in sharing knowledge, cultural, historical and geographical can create rich and relevant experiences' tourist thus increasing their perceived value, meanwhile the lack of cultural competence of human resources might inadvertently tourists feel unappreciated or uncomfortable and lead to value co-destruction. Furthermore, this research result supported previous study of Doyle & Kelliher (2023), that sustainable growth of the tourism industry is linked to the involvement of tourists in the process of co-creating value. In the tourism context, tourists contribute to the development of memorable tourism experiences significantly through their diverse interactions with tourism service providers before and during their stay even after their trip.

Practical Contribution

According to the study's theoretical findings, the following practical implications might be drawn: tourist involved actively in ecotourism experience, thus they can be educated about cultural host countries, preserving natural resources through minimizing waste, conserving water and appreciating wildlife. Providing their pleasure time to be a part of some ecotourism activities such as: tree planting, re-forestry, and sustainable farming.

Specifically, this study revealed practical implications as contribution such as: creating tourists' experience to take a part of dancer group in tourists' village, batik courses, *gamelan* musicians, cooking class and chocolate crafting and other cultural activities. These activities will increase value co-creation, meanwhile to avoid value co-destruction stakeholders must be willing to decrease negative impacts through reducing on littering, wildlife disturbances and habitat destruction. For long term sustainability, it is needed to focus on active participation, competence human resources, creating value co creation, mitigating value co-destruction to maintain sustainable ecotourism as well as to build an environment mindset to stakeholders.

Limitations and Future Research

This study provides the latest insight into the development of tourist participation and the competence of local human resources on increasing value co-creation and mitigating or decreasing value co-destruction. This study not only involves stakeholders to be active in Focus Group Discussion event, but also provide opportunities for them to be a speaker, and giving inputs to support the researchers' report. Although this study evaluated several important variables related to sustainable ecotourism development, other factors may significantly influence value co-creation and value co-destruction into sustainable ecotourism.

A broader set of variables should be considered to develop a more comprehensive model of the forces which can change local human resources to be more competence, thus creating values and mitigating destruction values. By nature sustainable ecotourism, is highly context-dependent which influenced by a range of factors such as biodiversity, economic conditions, and environmental policies which are not included in this study. Means that these variables can be developed in the future research. In addition, there are limitations to generalizing the findings of a particular study to a broader context. For example, the processes of value co-creation (e.g., shared benefits between tourists and local business community) and value co-destruction (e.g., losses caused by tourism activities) can vary greatly depending on the specific tourism region, type of tourism, and stakeholders involved.

Acknowledgments

This research funded by Ministry of Research, Technology and Higher Education (RISTEKDIKTI) of Republic Indonesia. The Master Contract No: 062/E5/PG.02.00/PL.BATCH.2/2024, and The Derivative Contract No.002/SP2H/PT-BATCH.2/LL7/2024, Lemlit.162E/B.1.03/VIII/2024.

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