
Enhancing Community Income Through Women's Roles in Bukit Batu Tourism Village Development, Bengkalis Regency

Maryantina^{1*}, Ika Fitria Hasibuan², Sefrona Syaiful³, Eni Sumiarsih⁴, Yuliati⁵

^{1*,2,3} Sekolah Tinggi Pariwisata Riau, Pekanbaru, Indonesia

^{4,5} Universitas Riau, Pekanbaru, Indonesia

*Correspondence to: maryantina67@gmail.com

Abstract: This study aims to determine how community income increases through the role of women in the development of the Bukit Batu Tourism Village. New sources of income, income stability, increased assets, and participation in economic activities were examined. These activities included cultural attractions, managing tourism facilities, and participating in tourism organizations. The study used a descriptive, qualitative approach. Data were collected via observation, in-depth interviews, questionnaires, and documentation. There were 78 respondents, including Village Heads, members of Tourism Awareness Groups, tourism facility managers, and MSME actors. All participants were selected through a census. Data were analyzed descriptively using a Likert scale. The findings show that community income increased. Before their involvement in tourism, 44.74% earned IDR 2.5–3 million, and 5.26% earned ≤ IDR 2.5 million. After joining the tourism sector, 39.47% earned IDR 4–5 million, and no one remained in the ≤ IDR 2.5 million category. Women's participation in Cultural Attractions scored 3.16 (Fair). Involvement in Tourism Facilities scored 4.14 (Good), Handwoven Textile SMEs scored 4.10 (Good), Sago Cracker SMEs scored 4.22 (Very Good), and Traditional Cake Businesses scored 3.97 (Good). Community perception showed the greatest income growth in handwoven textile SMEs.

Keywords: Bukit Batu Tourism Village, Tourism Village Management, Increased Opinions, Role of Women, MSMEs.

Article info:

Submitted: May 27, 2025 | **Revised:** February 12, 2026 | **Accepted:** February 15, 2026

How to cite:

Maryantina, Hasibuan, I. F., Syaiful, S., Sumiarsih, E., & Yuliati. (2026). Enhancing Community Income Through Women's Roles in Bukit Batu Tourism Village Development, Bengkalis Regency. *Jurnal Sains Terapan Pariwisata*, 11(1), 1–17. <https://doi.org/10.56743/jstp.v11i1>

INTRODUCTION

Rural economic development in Indonesia faces complex challenges, such as improving community welfare, alleviating poverty, and promoting local economic empowerment. The tourism sector is seen as a strategic tool for grassroots economic growth. The tourism village concept combines local potential with productive economic activities (Alifia & Wulandari, 2024). In this context, women's roles in tourism village development are crucial. Their contributions to household income and the broader community economy need special attention.

Bukit Batu Village, located in Bukit Batu District, Bengkalis Regency, Riau Province, has strong potential as a culture-based tourism destination. This village preserves important history, having played a key role during the peak of the Siak Sri Indrapura Kingdom, a leading Islamic Malay kingdom in the Riau region (Syukron, 2025). Bukit Batu is renowned as the historic center of Datuk Laksamana Raja Dilaut, a Malay figure responsible for security in the Malacca Strait. This cultural and historical heritage provides a solid foundation for developing culture-based tourism as an alternative source of community income.

Tourism is growing worldwide. Indonesia welcomed 15,810,000 international tourists in 2020 (World Tourism Organization, 2020). Despite this, gender equality remains a challenge. Indonesia's Global Gender Gap Index score rose from 0.68 to 0.69, but it still ranks 68th of 153 countries in economic participation and opportunities, trailing many Southeast Asian nations (Global Gender Gap Index, 2020). This shows untapped potential for women's economic empowerment in the tourism sector.

Research by Zhang and Zhang (2021) finds that economic factors, education, and job types greatly affect gender equality in tourism, especially in developing countries. Other studies show women benefit economically from tourism work, and their success supports local economic growth. UNWTO data (2019) show women hold more tourism jobs than men. This highlights tourism's potential to empower women economically. In tourism village development, women take on strategic tasks, often complementing tasks that men do not perform. These roles allow women to improve their skills and explore new potentials (Marizka et al., 2024).

A study by Suardana (2006) in Kuta, Bali, identified two main dimensions of women's involvement in tourism: decision-makers (business owners) and direct actors who make souvenirs or sell tourism products. These findings provide a framework for understanding women's roles in tourism village development in Indonesia. Research in Thailand by Trupp and Sunanta (2017) found that, although women actively produce handicrafts to support the economy, these products do not enter the tourism market optimally. This may widen the gender gap. Hence, suitable strategies are needed to integrate women's roles into the tourism value chain and maximize economic impact.

In Bukit Batu Village, women dominate creative economic activities, such as traditional weaving. These activities provide significant potential to boost community income. The Tourism Awareness Group (Pokdarwis), known as the Bukit Batu Tourism Village Volunteers, takes the initiative to develop local tourism. Observation and interviews with traditional village leaders reveal an interesting trend: women mainly lead creative tourism, especially through Bukit Batu Weaving MSMEs. This aligns with Bakti et al. (2018), who noted that tourists with cultural and religious interests seek tranquility, historical experiences, family togetherness, and entertainment. Often, women's economic activities make these experiences possible.

However, there has been no in-depth study analyzing how this woman's role can be optimized to increase overall community income, nor examining the various factors affecting the effectiveness of that role in the context of tourism village development. This research gap becomes important to address, given the potential of the tourism sector as an instrument for poverty alleviation and economic empowerment of rural communities. Karwati (2020) and Sheikhi (2015) emphasize that the role of women in national development policies is to break the cycle of poverty and enable communities to become economically productive through the knowledge and skills they possess.

Based on the above description, research on increasing community income through women's roles in the Bukit Batu Tourism Village, Bengkalis, becomes important to conduct. This study aims to

determine the increase in community income through women's roles in the development of Bukit Batu Tourism Village, as seen from the existence of new sources of income, income stability, increased assets, and participation in economic activities through roles in cultural attractions, management of tourism facilities, and tourism organizations.

The research question examined in this study is: how do women's roles in tourism village development affect community income? This research is expected to contribute to understanding the dynamics of women's roles in the rural tourism economy and to formulating effective strategies to optimize women's contributions to improving community economic welfare through sustainable and inclusive tourism village development.

This article is structured as follows: the methodology section explains the research design, data collection techniques, and analysis methods used. The results and discussion section presents findings on income increases resulting from women's roles across various aspects of tourism activities, including cultural attractions, homestay management, and MSMEs (weaving crafts, sago crackers, and traditional cakes). Finally, the conclusion summarizes the main findings and provides policy recommendations to optimize women's roles in tourism village development.

METHODS

Setting

This research was conducted in Bukit Batu Village, Bengkalis Regency, Riau Province, Indonesia, from July to October 2024. The study adopted a descriptive qualitative method, a series of activities to obtain data under specific conditions, with results emphasizing the meaning of increasing community income through women's roles in the development of Bukit Batu Tourism Village.

The target population of this study consisted of all community members involved in tourism activities in Bukit Batu Tourism Village, particularly women who play active roles in cultural attractions, tourism facility management, and MSMEs. Given the relatively small population size (≤ 100 people), a census sampling technique was employed, following Sugiyono's (2016) recommendation that, for descriptive research with a small population, all members should be included in the sample.

The total sample consisted of 78 key informants who possessed clear, accurate, and reliable information in the form of statements, explanations, or data that could assist in understanding the issues being studied. These respondents were selected based on their direct involvement and roles in tourism activities within the village. The sample composition is detailed in Table 1.

Table 1. Distribution of Respondents

No	Category	Number
1	Village Head of Bukit Batu	1
2	Tourism Awareness Group (Pokdarwis) member, whose duties and responsibilities include being an important part of the local community and involvement in every tourism activity	1
3	Women involved in Tourism Facility Management (Homestay Owners and Managers)	10
4	Women involved in Tourism Facility Management (Weaving Craft MSME Actors)	21
5	Women involved in Tourism Facility Management (Sago Cracker MSME Actors)	25
6	Women involved in Tourism Facility Management (Traditional Cake MSME Actors)	5
7	Women involved in Cultural Attractions	15
Total		78

Source: Processed Research Data, 2025

Instruments/Measures

This study used two main types of data: primary and secondary. Primary data were collected directly from respondents through in-depth interviews with the village head and Pokdarwis members, as well as through questionnaire distribution to women involved in the management of tourism facilities, such as homestays, MSMEs, and cultural attractions. Additionally, primary data were obtained through direct observation of research objects. Secondary data consisted of documents from the village office and literature and books relevant to the research topic.

The research instrument consisted of a structured questionnaire designed to measure respondents' perceptions regarding community income increase through women's roles in cultural attractions, tourism facility management (homestays), and MSMEs (sago crackers and traditional cakes). The questionnaire comprised 35 questions developed based on four main aspects: (1) New Sources of Income, (2) Income Stability, (3) Asset Increase, and (4) Participation in Economic Activities. The questions were presented on a Likert scale to assess respondents' agreement with the statements. The Likert scale measurement used five response categories as shown in Table 2.

Table 2. Value Scale Scoring

Score Value	Response
1	Strongly Disagree (SD)
2	Disagree (D)
3	Moderately Agree (MA)
4	Agree (A)
5	Strongly Agree (SA)

Source: Sugiono, 2014

Data Collection Procedures

Data collection in this study was conducted through several techniques. First, direct observation was conducted of women business actors around tourism sites to understand their activities and roles in tourism development. Second, structured questionnaires were distributed to 78 respondents to capture their perceptions and experiences of income increases resulting from their involvement in tourism activities.

Third, in-depth interviews were conducted with the Village Head of Bukit Batu and a member of the Tourism Awareness Group (Pokdarwis) to obtain comprehensive information on women's involvement in tourism village development, including constraints, opportunities, and implemented development strategies. Fourth, documentation was collected from village archives and MSME data to strengthen the research findings.

Data Analysis Techniques

Data analysis in this study employed two approaches: interval-scale measurement of income levels and Likert-scale analysis of perceptions. To measure respondent income levels, an interval scale was used by categorizing income into several ranges. Meanwhile, to measure respondents' perceptions of income increases, a Likert scale was employed, with a single variable and four indicators: New Sources of Income, Income Stability, Asset Increase, and Participation in Economic Activities.

The Likert scale analysis followed standard procedures, in which respondents rated each statement on a scale from 1 (strongly disagree) to 5 (strongly agree), reflecting their level of agreement or disagreement. After obtaining responses from respondents, the data were calculated and presented in tabular form. The average value from all responses was then calculated to determine the category of income increase perception. The average scores from all respondents were classified into interval classes. With five classes, the interval was calculated using the following formula:

$$\text{Interval} = \frac{\text{Highest value} - \text{Lowest value}}{\text{Number of classes}}$$

$$\text{Interval} = \frac{5 - 1}{5} = 0,8$$

Based on this calculation, the scale categories for interpreting research results were established as presented in Table 3.

Tabel 3. Interpretation Scale Categories

Score Value	Response
1.00 – 1.80	Very Poor
1.81 – 2.60	Poor
2.61 – 3.40	Fair
3.41 – 4.20	Good
4.21 – 5.00	Very Good

All data analysis was conducted descriptively, using a Likert scale to interpret respondents' responses. The descriptive analysis aimed to provide a comprehensive picture of income increase through women's roles in various aspects of tourism village development, including cultural attractions, homestay management, and MSME activities (weaving crafts, sago crackers, and traditional cakes).

RESULT AND DISCUSSION

Characteristics of Respondents

This study involved 78 respondents from Bukit Batu Village, Bukit Batu District, Bengkalis Regency, including the Village Head, members of the Tourism Awareness Group (Pokdarwis), and women involved in tourism development, such as cultural attractions, homestay owners, and MSME business owners. The demographic characteristics of respondents are described by age group and gender.

Age Distribution of Respondents

Table 4 presents the age distribution of respondents involved in this study. The majority of respondents were in the 56-65 age range, comprising 27 people (34.6% of the total sample). This age group predominantly consisted of weaving craft MSME actors in the Bukit Batu Tourism Village. The second-largest group was respondents aged 36-45 years, with 25 people (32.1%), followed by the 46-55 age group, with 15 people (19.2%). Younger respondents aged 26-35 years numbered 8 people (10.26%), while the smallest proportion was respondents aged 66 years and above, with only 3 people (3.84%).

Table 4. Age Distribution of Respondents

No	Age Range	Number of Respondents (Person)	Percentage (%)
1	26-35	8	10.26
2	36-45	25	32.1
3	46-55	15	19.2
4	56-65	27	34.6
5	≥ 66	3	3.84
Total		78	100

Source: Processed Research Data, 2025

Gender Distribution of Respondents

Table 5 shows that the majority of respondents in this study were women, totaling 76 (97.44% of the total sample). This reflects the research's focus on women's roles in tourism development activities, including cultural attractions, homestay ownership, and MSME businesses in Bukit Batu Tourism Village. Only 2 male respondents (2.56%) were identified, comprising the Village Head and the Pokdarwis Chair, who provided information relevant to this research.

Table 5. Gender Distribution of Respondents

No	Age Range	Number of Respondents (Person)	Percentage (%)
1	Male	2	2.56
2	Female	76	97.44
Total		78	100

Source: Processed Research Data, 2025

Income Increase Through Women's Roles in Bukit Batu Tourism Village Development Overall Income Levels Before and After Tourism Involvement

Based on research findings, income increases through women's roles can be observed in their participation in cultural attractions, in managing tourism support facilities, including homestay management, and in sago cracker, weaving, and traditional cake MSMEs. Table 6 presents a detailed comparison of the income levels of 76 business actors before and after their involvement in tourism activities.

Table 6. Income Levels Before and After Tourism Activity Participation

		Income Range (IDR)					Total Respondents
No	Activity	≤ 2,500,000	2,500,000- 3,000,000	3,000,000- 4,000,000	4,000,000- 5,000,000	≥ 5,000,000	
Before Tourism Participation							
1	Cultural Attractions	0	7	8	0	0	15
2	Homestay	0	6	2	2	0	10
3	Sago Crackers	2	9	7	4	3	25
4	Weaving	0	9	5	5	2	21
5	Traditional Cake	2	3	0	0	0	5
Total		4	34	22	11	5	76
Percentage (%)		5.26	44.74	28.95	14.47	6.58	100
After Tourism Participation							
1	Cultural Attractions	0	3	7	5	0	15
2	Homestay	0	1	4	3	2	10
3	Sago Crackers	0	2	6	12	5	25
4	Weaving	0	2	9	7	3	21
5	Traditional Cake	0	1	1	3	0	5
Total		0	9	27	30	10	76
Percentage (%)		0	11.84	35.53	39.47	13.16	100

Source: Processed Research Data, 2025

The data in Table 6 show that before involvement in tourism activities, the majority of women respondents had income in the range of IDR 2,500,000 to IDR 3,000,000, accounting for 44.74% of respondents. Additionally, 5.26% of respondents had an income of IDR 2,500,000 or less. After participating in tourism activities, a significant increase in income was observed. No respondents remained in the income range below IDR 2,500,000. The highest income shift occurred in the IDR 4,000,000 to IDR 5,000,000 range, with 39.47% of respondents. Furthermore, the proportion of respondents with an income of IDR 5,000,000 or more increased from 6.58% to 13.16%.

Income Increase Through Women's Roles in Cultural Attractions

Women's roles in cultural attractions in Bukit Batu Village are generally reflected through their active participation in various organized activities, such as the Bukit Batu River Festival, Zapin Dance and Music Workshop, Bukit Batu Creative Economy Exhibition, Malam Cahaya Lagu (Night of Light Songs), Perang Mercon Tradition (Firecracker War) held on Eid al-Fitr night, and Arts and Culture Performances showcasing arts from managers and village volunteers.

In these activities, women serve as committee members across various sections, including guest reception teams, catering, and arts and culture (dancers and musicians). Through this involvement, they receive wages that become an additional source of income for their families. This not only helps stabilize financial conditions but also enables women to save and increase their income. Table 7 presents the assessment of income growth driven by women's roles in cultural attractions, based on four main indicators.

Table 7. Income Increase Through Women's Roles in Cultural Attractions

Indicator	No	Statement	Likert Scale Scoring					Total
			SD	D	MA	A	SA	
New Sources of Income	1	I obtained new sources of income after being involved in tourism village activities.	0	0	6	6	3	15
	2	My income has become more stable since the existence of the tourism village.	0	4	7	4	0	15
Income Stability	3	I have routine income from tourism village activities (Cultural Attractions).	0	1 2	3	0	0	15
	4	I am able to save more frequently after participating in tourism village activities.	0	2	12	1	0	15
Asset Increase	5	I can purchase household needs more easily compared to before.	0	0	12	3	0	15
	6	I am active in tourism village economic activities such as dance, event committees, etc.	0	0	10	5	0	15
Participation in Economic Activities	7	I feel these activities help increase my income.	0	0	5	10	0	15
	Total		0	1 8	55	29	3	105
Score			0	3 6	165	116	15	332
Mean Score								3.16

Source: Processed Research Data, 2025

Table 7 shows that the mean respondent rating was 3.16, placing it in the Fair category. This indicates that women's roles in cultural attraction activities provide a moderate contribution to income increase. The relatively lower score is attributed to the fact that respondents receive payment only during events, which are not held daily or routinely; thus, income from cultural attraction activities is not substantial.

Income Increase Through Women's Roles in Tourism Facility Management

Homestay Management

Research findings indicate that women play roles in homestay management in the Bukit Batu Tourism Village. Homestays in this village are generally managed by women, who play a key role in creating a comfortable, memorable atmosphere for guests. Women involved in homestay management not only provide accommodation but also promote the culture and traditions of Bukit Batu Tourism Village and its local culinary specialties.

Homestays in Bukit Batu Tourism Village are supported and facilitated by PT Pertamina Hulu Rokan (PHR) through homestay signage and equipment, including bed sheets, wall decorations,

cleaning equipment, and more. PT PHR collaborates with Riau Tourism College to provide training for homestay managers to deliver service and ensure guest satisfaction. Currently, 10 homestays in Bukit Batu Tourism Village are available for rent to tourists at affordable prices: IDR 100,000 per person per night (room facilities without AC, bathroom outside, and breakfast included), while the full AC room type with an inside bathroom costs IDR 300,000 per night. All 10 existing homestays in Bukit Batu Village (100%) are managed by women, who run them as a side job in addition to their duties as housewives.

Table 8. Income Increase Through Women's Roles in Homestay Management

Indicator	No	Statement	Likert Scale Scoring					Total
			SD	D	MA	A	SA	
New Sources of Income	1	I obtained new sources of income after being involved in tourism village activities.	0	0	0	8	2	10
	2	My income has become more stable since the existence of the tourism village.	0	0	0	7	3	10
Income Stability	3	I have routine income from tourism village activities (Cultural Attractions).	0	0	0	8	2	10
	4	I am able to save more frequently after participating in tourism village activities.	0	0	2	7	1	10
Asset Increase	5	I can purchase household needs more easily compared to before.	0	0	0	8	2	10
	6	I am active in tourism village economic activities such as dance, event committees, etc.	0	0	0	8	2	10
Participation in Economic Activities	7	I feel these activities help increase my income.	0	0	0	8	2	10
		Total	0	0	2	54	14	70
		Score	0	0	6	216	70	292
		Mean Score						4.17

Source: Processed Research Data, 2025

Based on Table 8, the mean respondent rating was 4.17, placing it in the Good category. This indicates that, through homestays, women create additional sources of income in the Bukit Batu Tourism Village. This income can improve living standards, provide children with education, and meet daily needs.

Weaving Craft MSME

Women in the Bukit Batu Tourism Village play important roles in MSME production and marketing of local products, particularly community MSMEs. Many women in the Bukit Batu Tourism Village are involved in MSME activities, specifically in the production of woven fabrics. In the tourism sector of the Bukit Batu Tourism Village, women use this opportunity to market woven fabric products they make to tourists. The woven fabric produced by the women of Bukit Batu Village reflects the village's unique character.

Table 9. Income Increase Through Women's Roles in Weaving Craft MSME

Indicator	No	Statement	Likert Scale Scoring					Total
			SD	D	MA	A	SA	
New Sources of Income	1	I obtained new sources of income after being involved in tourism village activities.	0	0	2	13	6	21
	2	My income has become more stable since the existence of the tourism village.	0	0	3	14	4	21
Income Stability	3	I have routine income from tourism village activities (Cultural Attractions).	0	0	4	13	4	21

Asset Increase	4	I am able to save more frequently after participating in tourism village activities.	0	0	8	9	4	21
	5	I can purchase household needs more easily compared to before.	0	0	0	16	5	21
Participation in Economic Activities	6	I am active in tourism village economic activities such as dance, event committees, etc.	0	0	3	10	8	21
	7	I feel these activities help increase my income.	0	0	2	13	6	21
Total			0	0	22	88	37	21
Score			0	0	66	352	185	603
Mean Score			4.10					

Source: Processed Research Data, 2025

Table 9 shows that the mean respondent rating was 4.10, placing it in the Good category. This indicates that women's roles in fabric weaving for MSMEs in the Bukit Batu Tourism Village can increase weavers' incomes. Although woven fabric production in Bukit Batu Tourism Village is currently limited, women in this village not only sustain it but also create products of high artistic and cultural value. Based on interviews with one of the weaving craftswomen in Bukit Batu, Mrs. Hasana, the production process for woven fabrics varies: fabrics without edge motifs require approximately 3-5 days to complete one piece, while fabrics with edge motifs take approximately 7 days.

Due to the relatively long production process, the community does not maintain large inventories, typically only 2 to 5 pieces of fabric, ensuring availability when tourists want to purchase woven fabrics. However, for large-scale purchases, advance orders (pre-orders) are required. Sales of Bukit Batu woven fabrics have reached neighboring countries. These woven fabrics attract tourists when visiting Bukit Batu Village.

Sago Cracker MSME

Sago cracker MSME in Bukit Batu has been produced by women community members for generations. The main ingredients for sago crackers are sago flour and fish or shrimp, which are, on average, caught by the fishermen's husbands themselves, with the processing carried out by women housewives. The cracker processing procedure includes dough processing, drying, and packaging, and the crackers are ready for sale. Sago crackers are priced at IDR 40,000 per kilogram and are usually purchased as souvenirs by visitors to the Bukit Batu tourism objects.

Table 10. Income Increase Through Women's Roles in Sago Cracker MSME

Indicator	No	Statement	Likert Scale Scoring					Total
			SD	D	MA	A	SA	
New Sources of Income	1	I obtained new sources of income after being involved in tourism village activities.	0	0	6	15	4	25
	2	My income has become more stable since the existence of the tourism village.	0	0	6	15	4	25
Income Stability	3	I have routine income from tourism village activities (Cultural Attractions).	0	0	0	19	6	25
	4	I am able to save more frequently after participating in tourism village activities.	0	0	7	15	3	25
Asset Increase	5	I can purchase household needs more easily compared to before.	0	0	0	18	7	25
	6	I am active in tourism village economic activities such as dance, event committees, etc.	0	0	3	14	8	25
Participation in Economic Activities	7	I feel these activities help increase my income.	0	0	2	15	8	25

Total	0	0	24	111	40	175
Score	0	0	72	444	200	716
Mean Score						4.22

Source: Processed Research Data, 2025

The sago cracker business has proven to provide additional income for MSME actors, with a mean response rating of 4.22, which falls into the Very Good category. This represents the highest income increase perception among all tourism activities examined in this study.

Traditional Cake MSME

Bukit Batu Tourism Village also possesses traditional culinary wealth, represented by MSMEs specializing in wet cakes such as Bolu Kemojo, Kue Asidah, and Roti Badak. These three products not only serve as typical menus in traditional events and village festivals but are also made into favorite souvenirs for tourists. Wet cake MSMEs are generally managed by women, with cooking skills inherited from generation to generation, making them an inseparable part of the local Malay culinary cultural identity.

Table 11. Income Increase Through Women's Roles in Traditional Cake MSME

Indicator	No	Statement	Likert Scale Scoring					Total
			SD	D	MA	A	SA	
New Sources of Income	1	I obtained new sources of income after being involved in tourism village activities.	0	0	1	4	0	5
	2	My income has become more stable since the existence of the tourism village.	0	0	1	4	0	5
Income Stability	3	I have routine income from tourism village activities (Cultural Attractions).	0	0	1	4	0	5
	4	I am able to save more frequently after participating in tourism village activities.	0	0	0	5	0	5
Asset Increase	5	I can purchase household needs more easily compared to before.	0	0	0	5	0	5
	6	I am active in tourism village economic activities such as dance, event committees, etc.	0	0	0	3	2	5
Participation in Economic Activities	7	I feel these activities help increase my income.	0	0	0	5	0	5
		Total	0	0	3	30	2	35
		Score	0	0	9	120	10	139
		Mean Score						3.97

source: Processed Research Data, 2025

Based on Table 11, the mean respondent rating for traditional cake MSME was 3.97, which falls into the Good category. This indicates that women's involvement in traditional cake production contributes positively to household income growth.

Key Results

This study demonstrates a significant increase in community income resulting from women's roles in the development of Bukit Batu Tourism Village in Bengkalis Regency. The findings reveal that before participating in tourism activities, the majority of women respondents (44.74%) had an income between IDR 2,500,000 and IDR 3,000,000, with 5.26% earning IDR 2,500,000 or less. Following involvement in tourism-related activities, a substantial income shift occurred, with 39.47% of respondents falling into the IDR 4,000,000 to IDR 5,000,000 range, and no respondents remaining in

the lowest income category ($\leq$ IDR 2,500,000). Furthermore, the proportion of respondents earning above IDR 5,000,000 increased from 6.58% to 13.16%.

Based on Likert-scale assessments across four main indicators (new sources of income, income stability, asset increase, and participation in economic activities), women's roles vary in effectiveness across different tourism sectors. Women's participation in cultural attractions scored 3.16 (Fair); homestay management scored 4.17 (Good); weaving craft MSME scored 4.10 (Good); sago cracker MSME scored 4.22 (Very Good); and traditional cake businesses scored 3.97 (Good). Notably, the sago cracker MSME sector achieved the highest perception score, while community perceptions indicate that weaving craft MSMEs generate the greatest actual income increase.

Interpretation

Women's Roles in Cultural Attractions

The relatively modest income increase through cultural attractions (mean score 3.16, Fair category) can be attributed to the sporadic nature of cultural events and activities. Women's involvement in events such as the Bukit Batu River Festival, Zapin Dance and Music Workshop, Creative Economy Exhibition, and traditional performances provides income only during specific occasions rather than as a continuous revenue stream. Although this contribution is not substantial in monetary terms, participation in cultural attractions serves important functions beyond direct income generation.

These findings contrast with those of Yuanita and Gustama (2020) on women's roles in tourism development in the coastal areas of Rembang Regency. In their study, women's roles were predominantly manifested through involvement in Sapta Pesona activities such as beach cleaning, waste recycling training, seafood processing training, handicraft training, and other community service activities. In contrast, in Bukit Batu Tourism Village, women's roles are more focused on cultural attractions, where their involvement in various cultural activities makes significant contributions to the tourism village's development, particularly by supporting activities essential to tourism operations.

Despite lower income contributions, women's participation in cultural attractions aligns with the perspective of Marizka et al. (2024), who state that women's contributions to tourism villages are substantial because their roles tend to be more dominant across various tourism activities. Through active participation, women play important roles in improving the economic welfare of communities in tourism areas. In the context of Bukit Batu, cultural attractions serve as a platform for women to maintain cultural heritage while simultaneously generating supplementary income.

Women's Roles in Homestay Management

The homestay sector demonstrates a strong positive impact on women's income, with a mean score of 4.17 (Good category). All ten homestays in Bukit Batu Tourism Village (100%) are managed by women, who operate them as side businesses alongside their primary responsibilities as housewives. This dual role reflects women's capacity to balance traditional domestic duties with entrepreneurial activities, creating additional household income streams.

The facilitation provided by PT Pertamina Hulu Rokan (PHR) through homestay signage, equipment provision (bed sheets, wall decorations, cleaning equipment), and training collaboration with Riau Tourism College has significantly enhanced the quality of homestay services. This institutional support has enabled women managers to deliver satisfactory guest services, thereby increasing occupancy rates and stabilizing income. The education and training component is particularly crucial, as demonstrated by Damayanti et al. (2024), who found that developing educational media, such as digital marketing guidebooks, effectively improves homestay owners' understanding and digital skills in other tourism villages.

These findings corroborate the research by Afdhal (2023) in Negeri Hukurila, Maluku, which indicated that through homestays, women create income sources for families, themselves, and local communities. Women's roles in homestay management not only create individual economic impacts

but also contribute to the local economy as a whole. The homestay model enables women to leverage existing household assets (residential spaces) and transform them into productive economic units without requiring substantial capital investment.

According to the Theory of Women's Economic Empowerment (Empowerment of Women in Economy, 2011), women's access to resources, education, and economic opportunities is essential for improving their welfare and contributing to broader economic development. In the context of homestays, women serve as both managers and owners, thereby earning additional income that improves their quality of life. This empowerment process demonstrates how tourism village development can serve as an effective mechanism for women's economic participation and poverty alleviation.

Women's Roles in MSME Development

Weaving Craft MSME

Women's roles in weaving craft MSMEs achieved a mean score of 4.10 (Good category), and community perceptions indicate this sector generates the highest actual income increase among all tourism activities. Despite limited production capacity due to the time-intensive nature of weaving (3-5 days for fabrics without edge motifs, 7 days for fabrics with edge motifs), women weavers have successfully maintained this traditional craft while adapting it to the demands of the tourism market. The dominance of older women (aged 56-65, comprising 34.6% of respondents) in the weaving sector underscores the challenge of intergenerational skill transfer. The weaving tradition is primarily preserved by elderly women due to several factors: the discontinuation of skill transmission, a lack of interest among younger generations, and the strong influence of modernization. This phenomenon can be explained through social theories such as the diffusion of innovation, modernization theory, and generational gap theory, which elucidate social and cultural change.

The market reach of Bukit Batu woven fabrics, which extends to neighboring countries, demonstrates the product's cultural value and market appeal. These woven fabrics serve not only as commercial products but also as cultural artifacts that attract tourists seeking authentic cultural experiences. The pre-order system for large purchases indicates market demand that exceeds current production capacity, suggesting potential for expansion if younger generations can be engaged in the craft.

These findings align with Afdhal's (2023) research in Maluku, where women play important roles in producing local products, including handicrafts such as ikat weaving, basketry, and crafts made from local natural materials. Women sell these products directly to tourists, creating not only micro-economic impacts through increased sales but also positive effects on tourist recognition and understanding of local culture. However, the challenge identified by Trupp and Sunanta (2017) in Thailand remains relevant: although women actively produce handicrafts to strengthen their economy, absorption of these products in the tourism market may remain suboptimal, potentially widening gender gaps. This underscores the need to strategically integrate women's roles throughout the tourism value chain to maximize economic impact.

Sago Cracker MSME

The sago cracker MSME sector achieved the highest Likert scale score (4.22, Very Good category), indicating strong perceptions of income increase and stability. The full involvement of women in sago cracker processing—from raw material preparation through production, drying, packaging, and marketing—demonstrates women's comprehensive economic participation in household-based enterprises. The use of locally sourced ingredients (sago flour and fish/shrimp caught by husbands) creates an integrated household economic system that maximizes resource utilization and minimizes external dependencies.

The success of sago cracker MSMEs in generating income is reflected in the significant proportion of actors (48% after tourism involvement) earning in the IDR 4,000,000 to IDR 5,000,000 range, with 20% earning above IDR 5,000,000. This income level represents a substantial

improvement from pre-tourism involvement, when 8% earned below IDR 2,500,000 and 36% earned in the IDR 2,500,000 to IDR 3,000,000 range.

However, a critical limitation remains: the majority of sago cracker MSME actors continue to use conventional marketing methods and have not optimized their use of digital media. According to Harwindito et al. (2025), low digital literacy among women entrepreneurs negatively affects the use of digital platforms such as e-commerce and social media, even though these platforms could expand access to broader markets and increase sales volumes. The development of digital marketing competencies represents a significant opportunity for enhancing the economic impact of sago cracker MSMEs. Strategic interventions in digital literacy training could exponentially expand market reach beyond current tourist-dependent sales channels.

Traditional Cake MSME

Traditional cake MSMEs (Bolu Kemojo, Kue Asidah, and Roti Badak) achieved a mean score of 3.97 (Good), indicating they are in the Good category. These products serve dual functions: as traditional menu items in cultural events and village festivals, and as tourist souvenirs. The management of traditional cake businesses by women, utilizing cooking skills inherited across generations, positions these MSMEs as integral components of local Malay culinary cultural identity.

The relatively smaller scale of traditional cake operations (5 respondents) compared to other MSMEs reflects both the perishable nature of the products and the demand patterns linked to specific events and tourist visits. Nevertheless, traditional cake MSMEs contribute to income diversification and cultural preservation, ensuring that traditional culinary knowledge is maintained and transmitted to future generations.

Comparison with Previous Studies

The findings of this study contribute to the broader literature on women's roles in tourism development while revealing context-specific patterns. Unlike Suardana's (2006) study in Kuta, Bali, which identified women's involvement in two dimensions (decision-makers/business owners and direct tourism actors), women in Bukit Batu demonstrate a more integrated pattern where they simultaneously function as owners, managers, and direct service providers, particularly in homestay and MSME operations.

The study's findings support Zhang and Zhang's (2021) assertion that economic factors, educational levels, and employment types significantly influence gender equality in the tourism sector, particularly in developing countries. The varying income levels across different tourism activities in Bukit Batu reflect these differential impacts, with MSME activities (particularly sago crackers and weaving) providing more substantial and stable income than sporadic participation in cultural attractions.

The research also validates UNWTO data (2019), indicating that women hold a higher share of tourism employment than men, with this study showing 97.44% female participation in tourism-related activities. This high participation rate demonstrates tourism's potential as a vehicle for women's economic empowerment, particularly in rural contexts where alternative income-generating opportunities may be limited.

However, the challenge identified by Trupp and Sunanta (2017) – that craft product absorption in tourism markets remains suboptimal – is partially mitigated in Bukit Batu through the integration of MSMEs into tourism village infrastructure and the active promotion of local products to tourists. The success of weaving craft sales reaching international markets suggests that with appropriate support and market access, women-produced crafts can achieve commercial viability.

Limitations

Several limitations of this study warrant acknowledgment. First, the cross-sectional research design provides a snapshot of perceptions of income increases at a specific point in time but does not capture long-term income trends or seasonal variations in tourism-related income. Longitudinal

studies would provide more robust evidence of sustained income improvement and economic stability. Second, the study's focus on the Bukit Batu Tourism Village limits generalizability to other tourism villages with different cultural, economic, and geographical contexts. The specific historical significance of Bukit Batu (related to the Siak Sri Indrapura Kingdom and Datuk Laksamana Raja Dilaut) creates a unique tourism appeal that may not be replicable in other settings.

Third, while the study employed a census approach that included all 78 key informants involved in tourism activities, the relatively small sample size limits the statistical power to detect subtle differences in income effects across subgroups. Future research with larger samples across multiple tourism villages could employ more sophisticated analytical techniques to identify factors moderating the relationship between women's tourism participation and income outcomes. Fourth, the study relied primarily on self-reported income data and perception measures rather than objective financial records. While Likert-scale assessments provide valuable insights into perceived income changes, objective income verification would strengthen the validity of findings about actual economic impacts.

Fifth, the study did not systematically examine the barriers and enabling factors that affect women's capacity to maximize tourism-related income opportunities. Understanding constraints such as access to capital, training, technology, and markets would provide valuable insights for policy interventions.

Generalizability and Implications

Despite these limitations, the study's findings offer important implications for tourism policy and women's economic empowerment strategies in rural Indonesia. The demonstrated income increases across multiple tourism-related activities validate the tourism village model as an effective mechanism for poverty alleviation and local economic development, consistent with Karwati (2020) and Sheikhi's (2015) emphasis on women's roles in breaking poverty cycles through economic productivity based on knowledge and skills.

Policy Recommendations

Local governments should provide comprehensive support through skills training programs, particularly in weaving to preserve traditional crafts and attract younger generations, provision of low-interest capital access through microfinance schemes tailored to women entrepreneurs, and development of adequate information technology infrastructure in tourism villages to enable digital marketing and e-commerce participation. This support should be integrated with women's empowerment programs in regional strategic plans for tourism development, recognizing women's significant roles in community-based creative economy management.

Institutional partnerships, exemplified by the collaboration between PT Pertamina Hulu Rokan and Riau Tourism College in homestay development, represent effective models for scaling up support to women tourism entrepreneurs. Similar partnerships could be expanded to MSME development, digital literacy training, and market access facilitation.

Community Participation

Active participation by communities, especially women, in training activities is essential for improving product quality and strengthening digital marketing capabilities. The formation of cooperatives or collective business groups could enhance bargaining power in raw material procurement and product distribution while facilitating knowledge sharing and collective problem-solving among women entrepreneurs.

Intergenerational knowledge-transfer mechanisms should be established to ensure that traditional skills, particularly weaving, are transmitted to younger generations. This could include

formal apprenticeship programs, documentation of traditional techniques, and initiatives to make traditional crafts appealing to youth through contemporary design applications.

Future Research Directions

Future research should identify factors inhibiting optimization of women's roles in the tourism sector through qualitative investigations of structural barriers, social norms, and resource constraints. Comparative studies with similar tourism villages would identify best practices and context-specific success factors that can inform policy design. Longitudinal research is needed to assess the long-term impacts of women's empowerment on community welfare and the sustainability of tourism village development, including intergenerational effects on education, health, and social mobility.

Additionally, research examining the effectiveness of digital literacy interventions in enhancing MSME performance would provide evidence for scaling up technology adoption programs. Studies investigating models for youth engagement in traditional crafts while maintaining cultural authenticity would address the critical challenge of intergenerational skill transfer.

Broader Implications

This study contributes to understanding the dynamics of women's roles in rural tourism economies and demonstrates that tourism village development can serve as an inclusive economic development strategy that leverages existing cultural and social capital. The success of women-led tourism enterprises in Bukit Batu suggests that with appropriate institutional support, infrastructure development, and market access, rural women can become significant economic actors while simultaneously preserving cultural heritage and strengthening community identity.

The research underscores the importance of gender-sensitive tourism policies that recognize and support women's multiple roles as cultural custodians, service providers, entrepreneurs, and community leaders. Effective women's empowerment in tourism requires integrated interventions addressing financial access, skills development, technology adoption, market linkages, and social norms that may constrain women's economic participation.

CONCLUSION

This study demonstrates that women's roles in Bukit Batu Tourism Village development significantly contribute to community income increase. Prior to tourism involvement, 44.74% of respondents earned IDR 2,500,000-3,000,000 monthly, with 5.26% earning below IDR 2,500,000. After participation in tourism activities, income distribution shifted substantially, with 39.47% earning IDR 4,000,000-5,000,000 and no respondents remaining in the lowest income category. Based on Likert scale assessments, sago cracker MSMEs achieved the highest perception score (4.22, Very Good), while community perceptions indicate weaving craft MSMEs generate the greatest actual income increase. Women's participation spans cultural attractions (mean score 3.16, Fair), homestay management (4.17, Good), weaving crafts (4.10, Good), and traditional cakes (3.97, Good).

Local governments should prioritize skills training programs, particularly in traditional weaving to engage younger generations, provide low-interest microfinance access for women entrepreneurs, and develop digital infrastructure enabling e-commerce participation. Institutional partnerships similar to the PT Pertamina Hulu Rokan and Riau Tourism College collaboration should be expanded. Communities must actively participate in capacity-building programs and establish cooperatives to strengthen market bargaining power. Future research should employ longitudinal designs to assess sustained income impacts, conduct comparative studies across multiple tourism villages to identify best practices, and investigate barriers constraining optimization of women's economic participation in tourism sectors.

REFERENCES

- Alifia, S. W., & Wulandari, D. P. (2024). Strategi Pengembangan Sosial Ekonomi Masyarakat Melalui Pariwisata di Nagari Terindah Pariangan Kabupaten Tanah Datar. *Nawasena: Jurnal Ilmiah Pariwisata*, 3(1), 166-172.
- Bakti, I., Sumartias, S., & Damayanti, T. (2018). Model komunikasi pariwisata budaya dan religi berbasis kearifan lokal di Jawa Barat. *Jurnal Kajian Komunikasi*, 6(1), 1-17.
- Damayanti, E., Faesal, M., & Mulyati, M. (2024). *Pengembangan Buku Saku Digital Marketing Sebagai Media Edukasi Untuk Pemilik Homestay Desa Cisaat, Subang, Jawa Barat*. *Jurnal Sains Terapan Pariwisata*, 9(1), 11-20.
- Duffy, L. N., Kline, C., Mowatt, R. A., & Chancellor, H. C. (2015). Women in tourism: Shifting gender ideology in the DR. *Annals of Tourism Research*, 52, 72-86.
- Fadilah, N., Sari, D. P., & Wulandari, R. (2023). Peran perempuan dalam pengembangan pariwisata berkelanjutan: Studi kasus desa wisata. *Jurnal Pembangunan Berkelanjutan*, 15(2), 45-62.
- Global Gender Gap Index. (2020). *World Economic Forum Global Gender Gap Report 2020*. World Economic Forum.
- Harwindito, B., Widodo, B., Suheryadi, H., & Saptadinata, A. (2025). Transformasi digital UMKM: Strategi memperluas pasar online produk telur asin (Studi kasus usaha mikro Jalu Gading). *Jurnal Sains Terapan Pariwisata*, 10(1), 57-66. <https://doi.org/10.56743/jstp.v10i1.285>
- Hendratno, G., Wijaya, L. C., Dolang, J. C. M., Karangan, A. Y., & Setiawan, B. (2025). Pokdarwis Capung Alas Desa Wisata Pujon Kidul sebagai jembatan menuju tatanan tertinggi sadar wisata. *Jurnal Sains Terapan Pariwisata*, 10(1), 67-77. <https://doi.org/10.56743/jstp.v10i1.488>
- Karwati, L. (2020). Pemberdayaan perempuan dalam pembangunan ekonomi nasional. *Jurnal Kebijakan Publik*, 11(3), 23-34.
- Marizka, R., Nurrisalia, M., Wati, E. R. K., Fadsyah, N. A., Sari, L. P., & Lusiyan, L. (2024). Peran Perempuan dalam Pengembangan Desa Wisata Guna Mengatasi Kesenjangan Gender di Sektor Wisata. *Jurnal Pendidikan Non formal*, 1(3), 9-9.
- Sharika, S., & Hurdawaty, R. (2025). Strategi peningkatan daya saing UMKM kuliner di Kelurahan Pamulang Barat. *Jurnal Sains Terapan Pariwisata*, 10(1), 22-34. <https://doi.org/10.56743/jstp.v10i1.448>
- Sheikhi, R. (2015). Women's role in economic development and poverty reduction. *International Journal of Development Studies*, 7(2), 112-128.
- Suardana, I. W. (2006). Peran wanita dalam kegiatan pariwisata di Kuta, Bali: Sebuah kajian gender. *Jurnal Ilmiah Pariwisata*, 11(2), 234-251.
- Suheryadi, H., Saputra, N. G., & Dilla, S. S. F. (2021). Strategi pengembangan usaha mikro kecil dan menengah (Studi kasus jamu tradisional Ibu Hadi). *Jurnal Sains Terapan Pariwisata*, 6(3), 185-196. <https://doi.org/10.56743/jstp.v6i3.421>
- Sutawa, G. K. (2012). Issues on Bali tourism development and community empowerment to support sustainable tourism development. *Procedia Economics and Finance*, 4, 413-422.
- Syukron, M. J. (2025, February 2). Kerajaan Siak Sri Indrapura: Sejarah, peranan, dan warisan budaya Melayu-Islam. Kompasiana. Retrieved from <https://www.kompasiana.com/syukronjazilah8860/679f97ebed64150b996c0152/kerajaan-siak-sri-indrapura-sejarah-peran-dan-warisan-budaya-melayu-islam>
- Trupp, A., & Sunanta, S. (2017). Gendered practices in urban ethnic tourism in Thailand. *Annals of Tourism Research*, 64, 76-86.
- United Nations World Tourism Organization (UNWTO). (2019). *Global Report on Women in Tourism - Second Edition*. UNWTO Publications.
- UNWTO (United Nations World Tourism Organization). (2011). *Global Report on Women in Tourism 2010*. Madrid, Spain: UNWTO Publications.
- World Tourism Organization. (2020). *UNWTO World Tourism Barometer and Statistical Annex, Volume 18, Issue 1*. UNWTO Publications.

- Yuanita, R. A., & Gutama, T. A. (2020). Dinamika peran perempuan dalam pengembangan pariwisata di daerah pesisir Kabupaten Rembang (Studi deskriptif obyek wisata Pantai Karang Jahe Desa Punjulharjo Kecamatan Rembang, Kabupaten Rembang). *Journal of Development and Social Change*, 3(2), 52-61.
- Zhang, J., & Zhang, Y. (2021). Tourism and gender equality: A global analysis of developing countries. *Tourism Management*, 85, 104321.