



RESEARCH ARTICLE

EDUCATIONAL AND CULTURAL AGRITAINMENT IN AGRO-TOURISM: KEY DRIVERS OF VISITOR SATISFACTION IN GANGTOK, SIKKIM HIMALAYAS

*Dr. Ajay Chhetri

Associate Professor, NBBGC Tadong.

ARTICLE INFO

Article History:

Received 18th May, 2024
Received in revised form
19th June, 2024
Accepted 25th July, 2024
Published online 30th August, 2024

Key words:

Agro-Tourism, Educational Agritainment,
Cultural Agritainment, Tourist's
Satisfaction, Gangtok.

*Corresponding author:

Dr. Ajay Chhetri

ABSTRACT

Tourism in Sikkim Himalayas has a great economic significance and this industry is growing very rapidly. Every year, this tiny Himalayan state witnesses scores of visitors both national and international owing to its natural beauty, salubrious climate, rich bio-diversity, endangered flora and fauna and warm approach of people towards the visitors. If Sikkim wants to sustain the flourishing tourism business than the satisfaction level of tourists must be ensured, optimum tourist satisfaction can only lead to sustainable tourism in Sikkim. This study examines the role of educational and cultural agritainment in enhancing visitor satisfaction within the agro-tourism sector of Gangtok, Sikkim. The research specifically focuses on five villages: Khamdong, Zuluk, Sazong-Rumtek, Pakyong, and Lingdok. The primary objectives are to evaluate how various educational and cultural activities, such as farm tours, hands-on workshops, culinary experiences, traditional festivals, cultural performances, and local food tastings, contribute to overall tourist contentment. A mixed-method approach was adopted, utilizing both quantitative surveys and qualitative interviews to gather comprehensive data from tourists visiting these villages. The sample consisted of 300 respondents, evenly distributed across the five locations. Data analysis involved statistical methods to pinpoint key satisfaction factors and thematic analysis for qualitative insights. The findings reveal that educational activities, including farm tours and demonstrations, hands-on agricultural workshops, and culinary experiences, significantly enhance tourist satisfaction. Visitors highly appreciate interactive learning opportunities that provide deeper insights into local farming practices and traditional cooking methods. Similarly, cultural activities, such as participation in local festivals, witnessing cultural performances, and tasting local cuisine, play a crucial role in enriching the overall visitor experience. The implications of this study suggest that agro-tourism operators in Gangtok should integrate more educational and cultural components into their offerings to attract and satisfy tourists. Policymakers can leverage these insights to develop targeted strategies for promoting agro-tourism in the region. Ultimately, this research highlights the importance of combining educational and cultural elements to create a more engaging and fulfilling agro-tourism experience.

Copyright©2024, Ajay Chhetri. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr. Ajay Chhetri. 2024. "Educational and Cultural Agritainment in Agro-Tourism: Key Drivers of Visitor Satisfaction in Gangtok, Sikkim Himalayas". *International Journal of Current Research*, 16, (08), 29594-29603.

INTRODUCTION

Agro-tourism in Gangtok isn't just a trendy travel option; it holds immense potential to revitalize the region. It offers a multitude of benefits for Gangtok and Sikkim. It fosters economic diversification, creating new income streams for rural communities. By promoting sustainable agricultural practices, it contributes to environmental conservation. Furthermore, it fosters cultural appreciation by allowing visitors to immerse themselves in the unique traditions and customs of Sikkim.

Economic Engine for Rural Communities: Traditionally, Sikkim's economy has relied heavily on tourism and agriculture.

Agro-tourism acts as a bridge, creating new income streams for rural communities. By transforming farms into tourist destinations, farmers can earn additional income through homestays, farm tours, and workshops. This not only empowers local communities but also helps address rural-urban migration, fostering a more balanced socio-economic landscape.

Championing Sustainability: Sikkim has earned a reputation for its commitment to organic farming and environmental preservation. Agro-tourism can further this mission. By exposing visitors to sustainable agricultural practices like organic composting and water conservation techniques, it fosters a sense of environmental responsibility. Tourists become ambassadors, carrying these practices back to their hometowns, creating a ripple effect that benefits the planet.

Cultural Bridge for Visitors: Gangtok's conventional tourism offerings often leave a gap in understanding the rich cultural tapestry of Sikkim. Agro-tourism bridges this gap. Visitors can delve into the fascinating world of Sikkimese agriculture, from witnessing traditional farming tools and techniques to participating in harvest festivals and learning about the significance of specific crops in local rituals. This fosters cultural appreciation and creates a deeper connection with the land and its people.

Unique Selling Point for Gangtok: In a crowded tourism market, Gangtok can carve a niche through agro-tourism. This industry caters to a growing segment of travelers seeking authentic experiences beyond the usual tourist hotspots. Imagine learning to make momos from a local family using ingredients freshly harvested from their farm! Such unique experiences enhance visitor satisfaction, leading to positive word-of-mouth recommendations and attracting a new wave of tourists interested in responsible travel.

Extending the Tourist Season: Sikkim's tourism season is traditionally limited by weather patterns. Agro-tourism offers a solution. Activities like organic farming workshops or cooking demonstrations using seasonal produce can be conducted year-round, attracting visitors even during the off-season. This ensures a more sustainable tourism model that benefits both local communities and the state's economy.

Literature Review

Agritourism has emerged as a significant avenue for local economic development, particularly in rural regions: Driven by economic motivations and a growing interest in farm experiences, agritourism offers farmers and communities a means to diversify income streams and enhance their livelihoods (Shah. et al.2020). It can generate both on-site and off-site income, while also contributing to quality of life improvements, social objectives, and personal entrepreneurial goals. Areas with pristine natural landscapes and low urban influence are particularly well-suited for agritourism development, attracting tourists and generating income and employment for local communities. Laurie S. Z. Greenberg (2006) noted that nature tourism and agritourism were the two fastest-growing segments of the tourism market in the United States between 1997 and 2007. The projected growth rate for these segments was 30% during this period. These activities offer a variety of benefits to both visitors and local communities. For visitors, these activities provide opportunities to experience the beauty of the natural world, learn about different cultures, and support local businesses. For local communities, nature tourism and agritourism can help to create jobs, boost the economy, and preserve important cultural heritage.

Walke et al. (2017) suggested that Agritourism, a relatively new concept in India, has gained significant traction globally. In his study explores its evolution in select countries, including the United States, Australia, Europe, Italy, Sri Lanka, and India. Specifically, it delves into the regional disparities in agritourism development within the Indian state of Maharashtra. Findings reveal a significant unevenness in the distribution of agritourism centers across the state, highlighting potential areas for further research and development. George. et al. (2011) Noted that the Farm Center at California University has conducted a comprehensive study on

agritourism in the state. Their research demonstrates that agritourism can serve as a valuable strategy for enhancing revenue and economic sustainability for small farms and rural communities. Strategic planners and farmers in the United States have successfully established numerous agritourism destinations, transforming traditional farms into commercial tourist attractions. According to Reynolds (2005), agritourism involves farmers strategically integrating their agricultural operations with tourism activities. This approach seeks to augment farm profitability by offering visitors educational and recreational experiences. The World Tourism Organization (WTO) in 2003 defined agritourism as a segment of rural tourism that centers around farm experiences. This tourism model presents farmers with opportunities to diversify their operations and increase their revenue streams.

Agri-tourism in **India** offers a promising avenue for regional economic development. Despite facing challenges like infrastructure deficiencies and seasonality, India's rich agricultural heritage and rural landscape present significant opportunities. By focusing on sustainable practices, community involvement, and quality experiences, India can position itself as a leading agri-tourism destination, Kaur (2021).

Research Objectives of the Study

Following are the objectives of the study:

Objective 1: Assess the impact of educational agritainment programs on visitor satisfaction in Gangtok's agro-tourism sector.

Objective 2: Evaluate the contribution of cultural agritainment experiences (e.g., harvest festivals, traditional cooking demonstrations) to tourists' perception of the cultural value of Gangtok's agro-tourism offerings.

Objective 3: Investigate the relationship between tourists' engagement in agro-tourism activities (farm stays, volunteering on farms) and their intention to recommend Gangtok as an agro-tourism destination.

Hypotheses

Null Hypothesis (H₀₁): There is no significant difference in visitor satisfaction between those who participate in educational agritainment programs (e.g., workshops on organic farming) and those who do not participate in such programs during their agro-tourism experience in Gangtok.

Null Hypothesis (H₀₂): Participating in cultural agritainment experiences in Gangtok's agro-tourism sector does not influence tourists' perception of the cultural value of these offerings.

Null Hypothesis (H₀₃): There is no association between tourists' level of engagement in agro-tourism activities (farm stays, volunteering) and their likelihood to recommend Gangtok as an agro-tourism destination to others.

METHODOLOGY

Research Design: The study employs a mixed-methods research design, combining both quantitative and qualitative approaches to gain a comprehensive understanding of visitor

satisfaction and engagement in Gangtok's agro-tourism sector. The quantitative aspect involves structured surveys to collect numerical data on visitor experiences with educational and cultural agritainment activities. This data is used to assess overall satisfaction, participation levels, and the impact of these activities on visitors' perception of cultural value and their likelihood to recommend the destination.

The interviews with visitors of sample the village: Interviews were carried out with visitors to five selected villages in the East District of Sikkim, identified for their potential in agricultural tourism. The villages included in the study were Khamdong, Zuluk, Sazong-Rumtek, Pakyong, and Lingdok. These interviews were structured around detailed questionnaires designed to assess the impact of educational programs on visitor satisfaction and the role of cultural experiences in shaping perceptions of cultural value. The responses gathered through these interviews offered significant insights into how visitors experienced and perceived the agricultural tourism initiatives in these villages. The data revealed how various educational activities and cultural experiences influenced their overall satisfaction and enhanced their understanding and appreciation of the local culture.

The role of educational and cultural educational activities in tourism satisfaction: Educational agritainment programs, such as farm tours, hands-on workshops, and interactive exhibits, play a pivotal role in shaping visitor satisfaction in agro-tourism. These programs offer visitors immersive experiences, allowing them to engage directly with farming practices and sustainability efforts. Farm tours and demonstrations of organic farming techniques provide practical insights into agricultural processes, enhancing visitors' appreciation for local farming methods. Hands-on workshops and culinary experiences further deepen this engagement by involving visitors in traditional practices and local cuisine, which fosters a more meaningful connection with the environment. Educational talks and seminars also contribute by broadening visitors' knowledge about agriculture and its impact on rural development, thereby increasing their overall satisfaction with the agro-tourism experience.

Cultural agritainment activities, such as participation in traditional festivals, art workshops, and local food tastings, significantly influence visitors' perception of cultural value. By engaging in local festivals and cultural performances, visitors gain a deeper understanding and appreciation of the region's heritage and traditions. Art and craft workshops provide hands-on experiences with traditional crafts, while heritage tours and cultural heritage sites offer historical context and insight into local practices. This immersion in cultural experiences not only enriches visitors' knowledge but also enhances their perception of the destination's cultural value. The relationship between engagement in these activities and the likelihood to recommend the destination is strong, as visitors who actively participate in cultural and educational programs are more likely to view their experience positively and recommend it to others, driven by their enriched and satisfying encounters with the local culture and environment.

Data analysis methods: The research adopts a descriptive and correlational approach. The descriptive component involves analyzing survey responses to describe visitor satisfaction and engagement levels with educational and cultural programs.

Correlational analysis is used to investigate relationships between variables, such as the connection between engagement in agritainment activities and the intention to recommend Gangtok. Qualitative insights may be incorporated through follow-up interviews or focus groups to provide deeper context and understanding of survey findings, particularly regarding barriers to participation and the nuances of visitor perceptions. This comprehensive approach ensures a robust analysis of the factors influencing visitor experiences and recommendations in agro-tourism.

RESULTS AND DISCUSSION

RESULTS

The study focused on evaluating two main areas:

Impact of Educational Programs: Visitors were asked about their experiences with educational activities related to local agriculture, such as farm tours, workshops, and interactive sessions. This section aimed to gauge how these programs contributed to their satisfaction, learning, and engagement with the agricultural practices and traditions of the region.

Contribution of Cultural Experiences: The interviews explored how cultural activities, including traditional festivals, art exhibitions, and local performances, affected visitors' perceptions of the cultural value of the villages. This aspect sought to understand how these experiences enriched their appreciation of the local heritage and influenced their overall view of the cultural significance of the destinations. Overall, the study provided a comprehensive view of how educational and cultural elements of the agricultural tourism offerings in Khamdong, Zuluk, Sazong-Rumtek, Pakyong, and Lingdok contributed to the visitors' overall experiences and satisfaction, thereby validating the villages' potential as exemplary destinations for agricultural tourism which has been tabulated, analysed and discussed as follows:

The table 1. provides data on visitor satisfaction with various aspects of an agro-tourism experience, with a specific focus on the impact of educational programs. The responses are categorized into five levels of satisfaction: Very High, High, Moderate, Low, and Very Low.

- Overall satisfaction with the agro-tourism experience: Most visitors reported moderate to high satisfaction, with 26 participants indicating moderate satisfaction and 23 reporting high satisfaction. However, there is a considerable portion (40 participants) expressing low or very low satisfaction, suggesting that while many enjoyed the experience, there is room for improvement in engaging more visitors fully.
- Participation in educational programs: A significant number of participants (31) reported a moderate level of participation in educational programs. Additionally, 22 participants rated their participation as high, while 26 indicated a very low level of participation. This suggests that although educational programs are being utilized by many, efforts could be made to increase participation among the remaining visitors who have limited involvement.
- Engagement and informativeness of programs: Most visitors felt that the educational programs were engaging

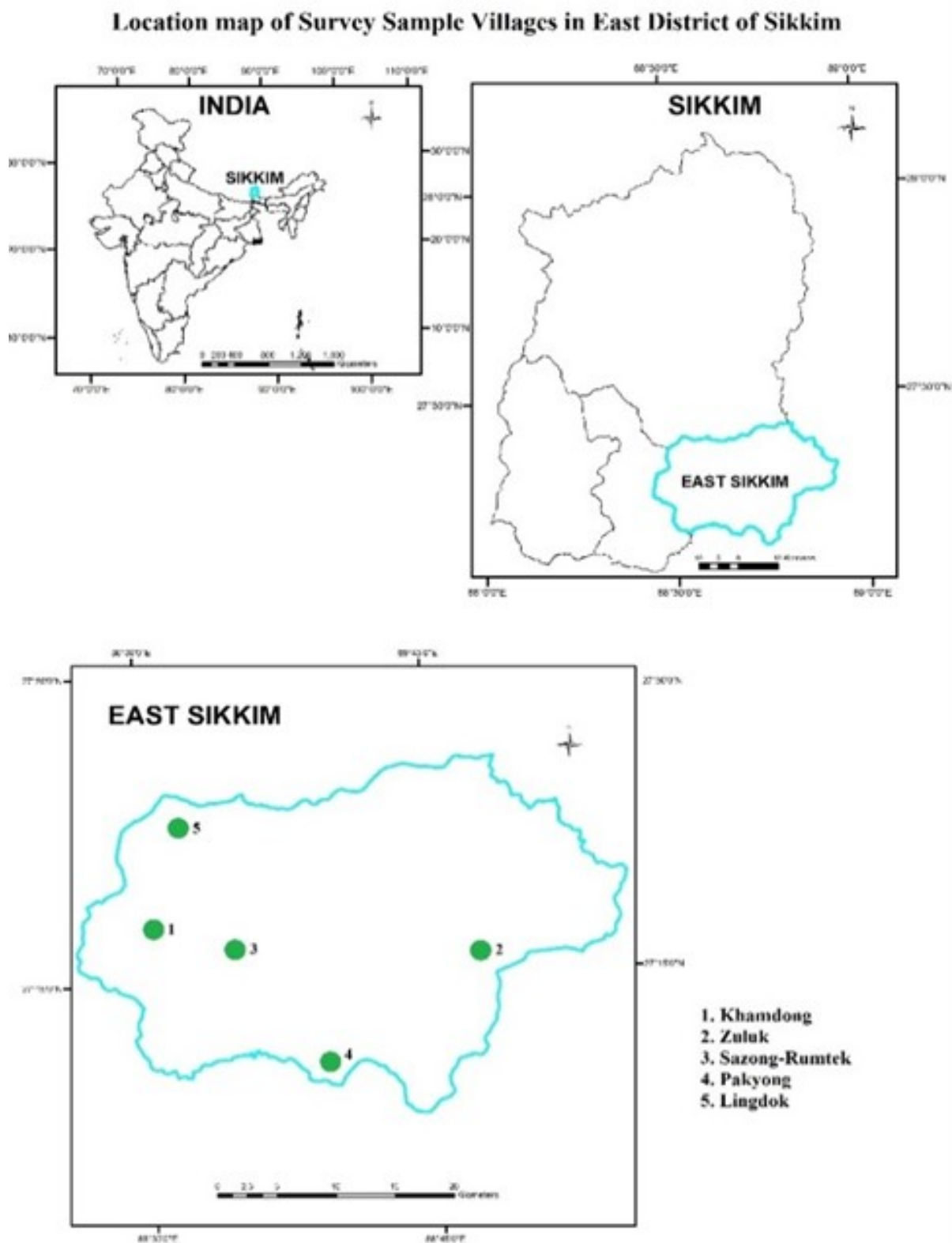
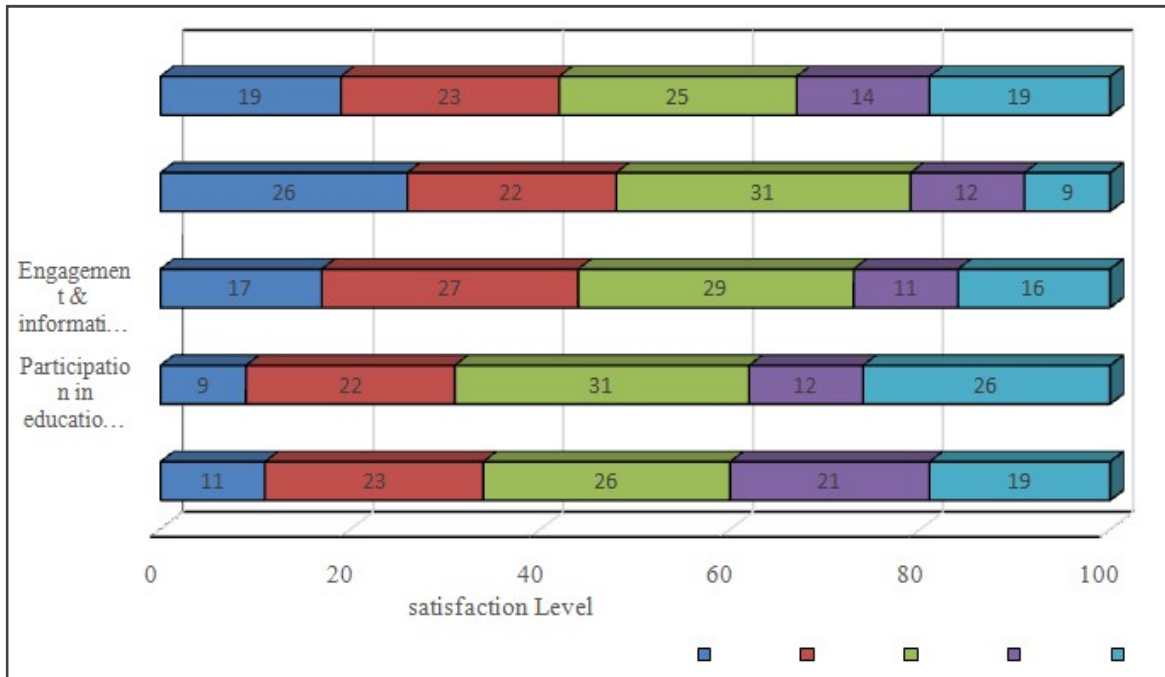


Table 1. Impact of educational programs on visitor satisfaction

Sl.No	Questions	Very High	High	Moderate	Low	Very Low
1	Overall satisfaction with agro-tourism experience	11	23	26	21	19
2	Participation in educational programs	9	22	31	12	26
3	Engagement & informativeness of programs	17	27	29	11	16
4	Enhanced understanding of local farming practices	26	22	31	12	9
5	Likelihood to recommend educational programs	19	23	25	14	19

Source: field Survey of Sample Area 2023



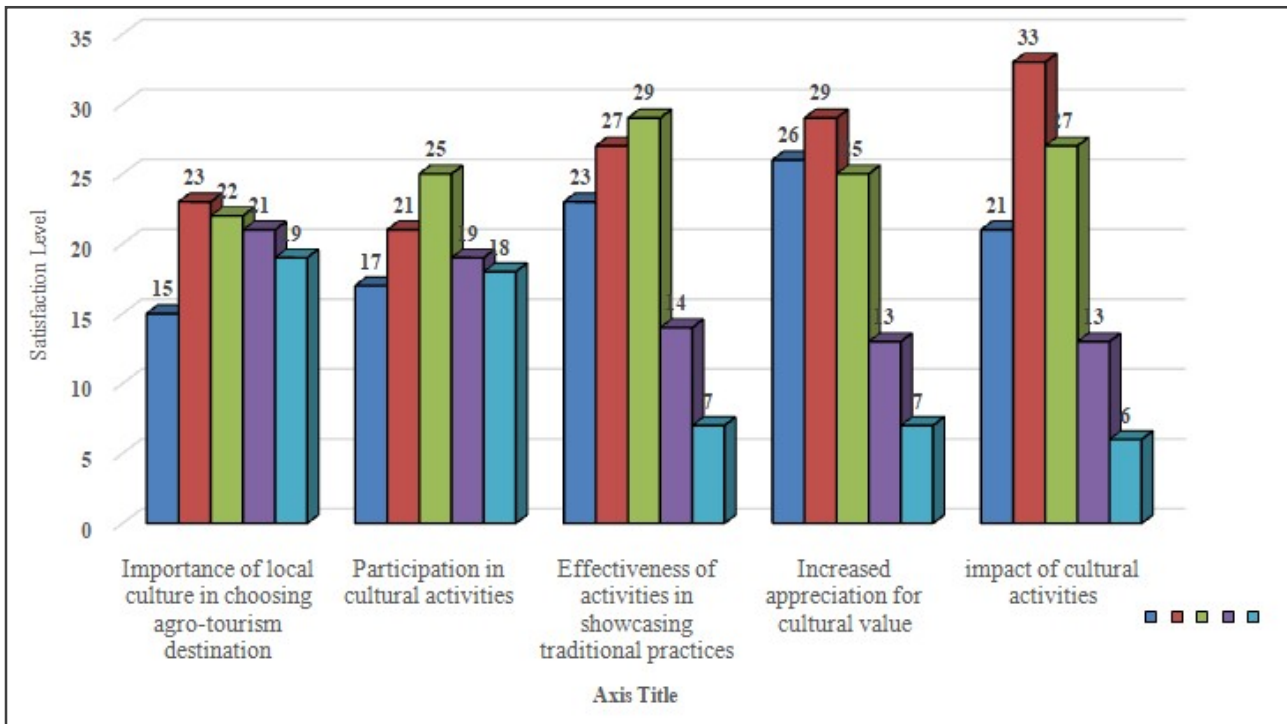
Source: field Surveyof Sample Area 2023

Figure 1. Impact of educational programs on visitor satisfaction

Table 2. Contribution of cultural experiences to perception of cultural value

Sl.No.	Questions	Very High	High	Moderate	Low	Very Low
1	Importance of local culture in choosing agro-tourism destination	15	23	22	21	19
2	Participation in cultural activities	17	21	25	19	18
3	Effectiveness of activities in showcasing traditional practices	23	27	29	14	7
4	Increased appreciation for cultural value	26	29	25	13	7
5	impact of cultural activities	21	33	27	13	6

Source: field Surveyof Sample Area 2023



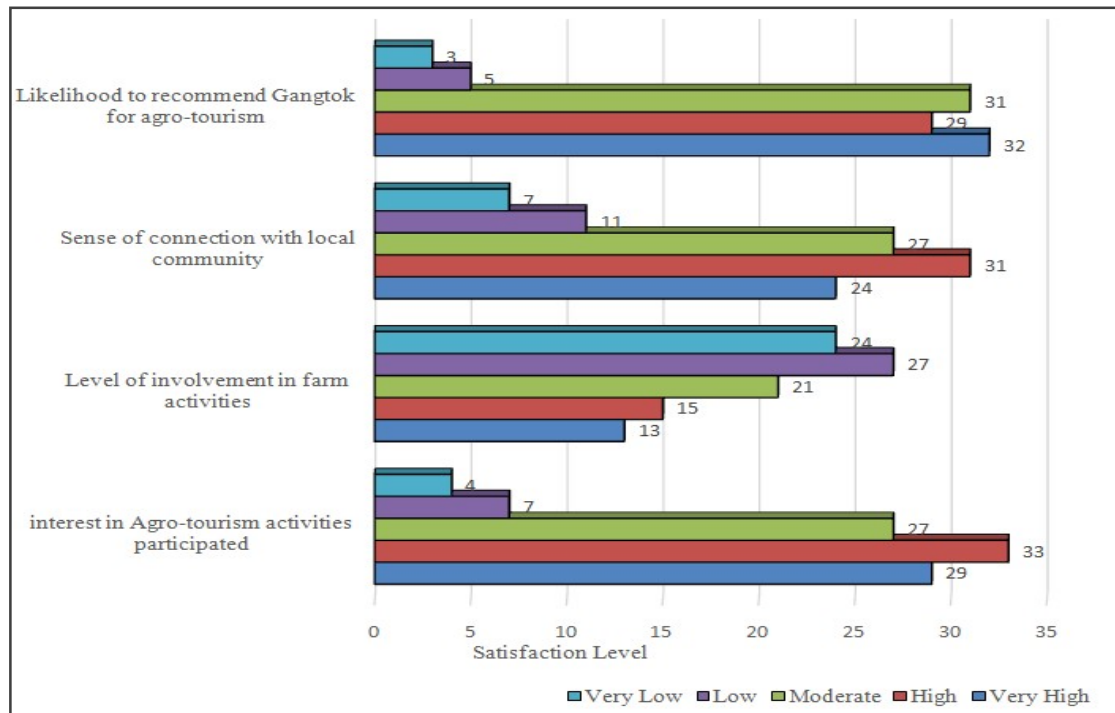
Source: field Surveyof Sample Area 2023

Figure 2. Contribution of cultural experiences to perception of cultural value

Table 3. Relationship between engagement and recommendation intention

Sl.No.	Questions	Very High	High	Moderate	Low	Very Low
1	interest in Agro-tourism activities participated	29	33	27	7	4
2	Level of involvement in farm activities	13	15	21	27	24
3	Sense of connection with local community	24	31	27	11	7
4	Likelihood to recommend Gangtok for agro-tourism	32	29	31	5	3

Source: field Survey of Sample Area 2023



Source: field Survey of Sample Area 2023

Figure 3. Relationship between engagement and recommendation intention

- and informative, with 27 rating the programs as high and 17 as very high. However, 16 participants rated their engagement as very low, highlighting that the programs may not resonate equally with all visitors, and improvements in delivery or content may be necessary to reach a broader audience.
- Enhanced understanding of local farming practices: The educational programs seem to effectively increase visitors' understanding of local farming practices, with 26 respondents rating this aspect as very high and 22 as high. Only 9 participants rated their understanding as very low, indicating that the programs are largely successful in achieving their educational goals.
- Likelihood to recommend educational programs: The willingness to recommend the educational programs is somewhat divided, with 19 respondents in both the very high and very low categories. This split suggests that while some visitors found the programs highly valuable, a significant number did not, possibly due to variations in program quality or relevance to different visitor interests.

Overall, the data shows that while educational programs contribute positively to the agro-tourism experience for many visitors, there are significant portions of the visitor base that are less satisfied or less engaged. This suggests a need for adjustments to the content, delivery, or marketing of these programs to improve overall visitor satisfaction. The table 2. evaluates the contribution of cultural experiences to visitors' perception of cultural value in an agro-tourism setting.

It assesses responses on five different questions, ranging from the importance of local culture in choosing a destination to the impact of cultural activities. The responses are classified into five satisfaction levels: Very High, High, Moderate, Low, and Very Low.

- Importance of local culture in choosing agro-tourism destination: The data shows an even distribution across the satisfaction levels. While 23 participants rated the importance of local culture as high and 15 as very high, 40 respondents (22 low and 19 very low) showed lower interest in culture as a key factor in their destination choice. This suggests that, although culture is important for many, it is not a deciding factor for all visitors.
- Participation in cultural activities: Participation levels are somewhat balanced, with 25 visitors reporting moderate participation and 21 rating their participation as high. Still, a significant number (37) indicated low or very low participation, suggesting that while cultural activities are available, they may not fully engage all visitors. This could indicate either limited interest or a need for more attractive cultural programming.
- Effectiveness of activities in showcasing traditional practices: The majority of participants (50) felt the cultural activities were effective in showcasing traditional practices, with 27 rating them as high and 23 as very high. Only a small portion of respondents (7) rated their effectiveness as very low. This shows that the cultural activities are largely

successful in portraying traditional practices, though improvements could still enhance the experience for a few.

- **Increased appreciation for cultural value:** The results show that cultural activities have been successful in increasing appreciation for cultural value, with 29 respondents rating this as high and 26 as very high. Only 7 participants rated this appreciation as very low, indicating that the cultural experiences positively impact most visitors' perceptions of cultural value.
- **Impact of cultural activities:** A large portion of visitors (33) rated the impact of cultural activities as high, followed by 21 who rated it as very high. Only 19 participants rated the impact as low or very low, suggesting that, for the most part, the cultural experiences significantly enhance visitors' overall perception of the destination's cultural value.

In summary, the table highlights the important role of cultural experiences in shaping visitors' perception of cultural value during agro-tourism. Most visitors feel that cultural activities are effective, leading to a higher appreciation of traditional practices and a positive overall impact. However, participation rates in cultural activities are somewhat moderate, indicating that efforts could be made to further encourage visitor engagement.

The table 3. investigates the relationship between visitors' engagement in agro-tourism activities and their intention to recommend Gangtok as an agro-tourism destination. The responses are categorized into Very High, High, Moderate, Low, and Very Low for four questions relating to interest, involvement, connection with the local community, and recommendation intention.

- **Interest in agro-tourism activities participated in:** Many participants showed high engagement in the activities, with 33 respondents indicating high interest and 29 rating their interest as very high. Only a small portion (11 respondents) reported low or very low interest. This suggests that agro-tourism activities in Gangtok are generally appealing to visitors, with high levels of participation and enthusiasm.
- **Level of involvement in farm activities:** Unlike interest, the level of actual involvement in farm activities is lower. Only 13 respondents rated their involvement as very high, while 27 rated it as low and 24 as very low. This discrepancy between interest and involvement suggests that, while visitors are intrigued by farm activities, barriers such as accessibility, time, or program design might limit their participation.
- **Sense of connection with the local community:** A significant number of participants (31) rated their sense of connection with the local community as high, and 24 rated it as very high. Only 7 visitors rated this aspect as very low, indicating that most agro-tourists feel a meaningful connection with the local community, which could be a key factor in their overall satisfaction and recommendation intention.
- **Likelihood to recommend Gangtok for agro-tourism:** The intention to recommend Gangtok is strongly positive, with 32 respondents indicating a very high likelihood and 29 rating it as high. Only 8 visitors rated their likelihood to recommend as low or very low. This indicates that visitors generally have a favorable view of their experience and are

likely to recommend Gangtok as a destination for agro-tourism.

The above table 3. suggests a clear relationship between engagement in agro-tourism activities and the likelihood of recommending Gangtok. High interest in activities and a strong sense of connection with the local community appear to positively influence visitors' intention to recommend the destination. However, the lower level of actual involvement in farm activities highlights an area where improvements could be made. Increasing opportunities for deeper participation could further enhance the visitor experience and potentially increase recommendation rates even more.

Table 4. Overall Satisfaction of Visitors

Total Score	Mean	Medan	Mode	SD
4554	910.8	1128	476.4	582.4905

Source: field Surveyof Sample Area 2023

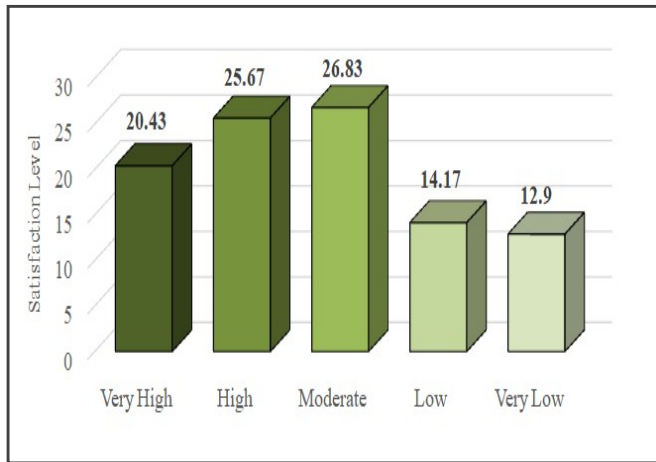
The table 4. presenting the overall satisfaction of visitors in Gangtok's agro-tourism sector provides key statistical metrics to better understand the distribution of satisfaction levels. The total score of visitor satisfaction is 4554, which serves as the sum of individual satisfaction responses from the survey sample. This figure reflects the cumulative assessment of tourist experiences across various activities. The mean score is 910.8, indicating the average satisfaction level of respondents. This average suggests that most visitors rated their experiences around this value, which gives a general sense of overall satisfaction. However, given the presence of other statistical measures, the mean alone does not provide a complete picture. The median score, which is 1128, offers insight into the middle point of the data, meaning half of the visitors rated their satisfaction below this score and half rated above it. The median being higher than the mean suggests that there may be a group of visitors who reported lower satisfaction scores, pulling the mean down, and creating a skewed distribution.

The mode of 476.4 represents the most frequently occurring score in the data set. This lower value compared to both the mean and median indicates that a significant number of visitors gave satisfaction ratings on the lower end of the scale, which is a cause for concern. The presence of this mode reflects that many visitors did not have an optimal experience. Lastly, the standard deviation (SD) is 582.4905, which measures the extent of variation or dispersion in satisfaction scores. A relatively high standard deviation implies that there is considerable variability in how visitors rated their experiences, suggesting that while some had highly satisfying visits, others were much less pleased, the analysis of these metrics reveals that visitor satisfaction is not uniformly high. While the median score suggests that many visitors had relatively positive experiences, the lower mode and large standard deviation point to significant dissatisfaction among certain groups, indicating the need for targeted improvements in the agro-tourism offerings in Gangtok. The survey on overall visitor satisfaction in Gangtok's agro-tourism sector reveals a mixed yet insightful picture of tourist experiences. The largest proportion of visitors, 26.83%, reported moderate satisfaction, indicating that while many tourists found the experience adequate, it did not exceed their expectations. This suggests that although the offerings are generally acceptable, there is room for improvement to enhance the overall visitor experience.

Table 5. Overall Satisfaction of Visitors

Satisfaction Level	Very High	High	Moderate	Low	Very Low
Score	20.43	25.67	26.83	14.17	12.90

Source: field Surveyof Sample Area 2023



Source: field Surveyof Sample Area 2023

Figure 4. Overall Satisfaction of Visitors

A significant portion of respondents, 25.67%, expressed high satisfaction, highlighting that a considerable number of tourists appreciated the educational and cultural agritainment activities provided during their visit. However, only 20.43% of visitors reported very high satisfaction, showing that while some had deeply fulfilled experiences, this level of contentment was not as widespread. This gap points to an opportunity to enhance the personalization and depth of the activities offered, making them more immersive and engaging for all visitors. On the other hand, a combined 27.07% of respondents reported low (14.17%) or very low (12.90%) satisfaction. This is a concerning figure, as over a quarter of visitors left with unsatisfactory experiences, which could negatively impact word-of-mouth promotion and future tourism. These visitors may have found the activities less engaging or below their expectations, signaling a need for improvement in the quality, organization, and delivery of the tourism offerings. Overall, while a substantial number of visitors are satisfied, the data shows that many remain neutral or dissatisfied, emphasizing the need for enhancements in both educational and cultural components of the agro-tourism experience. Operators in Gangtok should focus on refining these aspects to elevate visitor satisfaction, reduce dissatisfaction, and ensure that more tourists leave with a deeply enriching and memorable experience. To perform a correlational analysis, we will examine the relationships between variables based on the data from Tables 1 and 2. Specifically, we will investigate the connection between engagement in agritainment activities and the likelihood to recommend Gangtok as an agro-tourism destination.

Variables for Analysis

- Engagement in Educational Programs (from Table 1, Question 2)
- Engagement in Cultural Activities (from Table 2, Question 2)
- Likelihood to Recommend Educational Programs (from Table 1, Question 5)
- Likelihood to Recommend Gangtok for Agro-Tourism (from Table 3, Question 4)

Step 1. Assign Numerical Values to Survey Responses:

Very High= 5,High = 4,Moderate = 3,Low = 2,Very Low = 1

Step 2. Calculate Mean Scores for Each Variables of: Engagement in Educational Programs: Average score based on responses from Table 1.

Engagement in Cultural Activities: Average score based on responses from Table 2.

Step 3. Compute Correlation Coefficients:

Pearson’s correlation coefficient (r) has been used to measure the strength and direction of the linear relationship between the engagement variables and the likelihood to recommend variables. The formula for Pearson’s correlation coefficient is:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

where \(\sum x\) and \(\sum y\) are the variables of interest, and \(n\) is the number of paired scores.

Step 4. Correlation Calculation

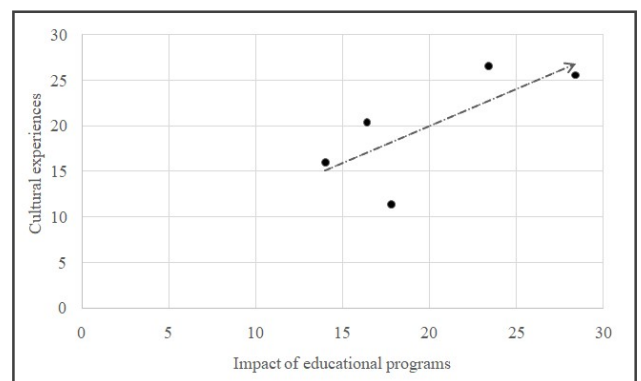
Using the Pearson formula, we calculate the correlation coefficient between:

Table 1. Impact of educational programs on visitor satisfaction
Table 2. Contribution of cultural experiences to perception of cultural value

$$r = \frac{110.96}{\sqrt{136.92 \times 165.04}} = \frac{110.96}{\sqrt{22,620.61}} = \frac{110.96}{150.4} \approx 0.74$$

The Pearson correlation coefficient (r) is approximately **0.74**. This indicates a strong positive correlation between the impact of educational programs on visitor satisfaction and the contribution of cultural experiences to the perception of cultural value.

Step 5. Correlation Results:



Source: field Surveyof Sample Area 2023

Figure 5. Correlation between impact of educational programs contribution of cultural experiences to perception of cultural value on visitor satisfaction

A positive correlation between engagement in educational programs and engagement in cultural activities would indicate that higher engagement leads to a greater likelihood of recommending these programs.

Discussion of Results in Context of Research Objectives and Hypotheses

Objective 1: Impact of Educational Agritainment Programs on Visitor Satisfaction

From the data presented (Table 1), it is evident that educational programs in Gangtok's agro-tourism sector moderately impact visitor satisfaction. While 31 visitors reported moderate participation and 22 rated participations as high, a significant number (26) reported very low participation. In terms of satisfaction, the overall experience is skewed toward moderate to high levels, but the low engagement rates in educational programs suggest that there is room for improvement.

Null Hypothesis (H0₁): The null hypothesis posits no significant difference in visitor satisfaction between those who participate in educational programs and those who do not. The data hints that visitors engaged in educational programs generally have higher satisfaction, particularly with enhanced understanding of local farming practices (26 very high, 22 high). However, satisfaction is mixed when it comes to recommending these programs, as 38 respondents indicated low or very low likelihood to recommend them. This mixed feedback suggests that while educational programs positively impact satisfaction for some visitors, the null hypothesis might not be entirely rejected unless more in-depth analysis is done using statistical testing.

Objective 2: Contribution of Cultural Agritainment Experiences to Perception of Cultural Value

The results from Table 2 show that cultural agritainment experiences, such as traditional practices and festivals, strongly influence visitors' perception of cultural value. The effectiveness of these activities in showcasing traditional practices was rated very high by 23 respondents and high by 27. Additionally, increased appreciation for cultural value was evident, with 29 visitors rating this as high and 26 as very high.

Null Hypothesis (H0₂): This hypothesis assumes that participation in cultural experiences does not influence tourists' perception of cultural value. Given that most respondents rated both the effectiveness of cultural activities and their appreciation of cultural value as high or very high, it suggests that cultural experiences do indeed influence tourists' perceptions. Therefore, based on these findings, H0₂ could likely be rejected, as participation in cultural activities clearly enhances the perception of cultural value.

Objective 3: Relationship Between Engagement in Agro-Tourism Activities and Recommendation Intention Table 3 shows a strong relationship between tourists' engagement in agro-tourism activities and their likelihood of recommending Gangtok. Visitors who reported high levels of interest in activities (29 very high, 33 high) and a strong sense of connection with the local community (24 very high, 31 high) were more likely to recommend Gangtok for agro-tourism (32 very high, 29 high). However, actual involvement in farm activities was lower, with 51 respondents indicating low or very low involvement, despite having high interest.

Null Hypothesis (H0₃): The data suggests that there is an association between engagement in agro-tourism activities and recommendation intention. Visitors with a higher sense of engagement and connection with the local community showed a strong likelihood to recommend the destination. Therefore, the null hypothesis (H0₃) can likely be rejected based on these findings.

The findings align with broader research that emphasizes the importance of both educational and cultural components in enhancing visitor satisfaction and shaping tourists' perception of value in agro-tourism. Studies from other regions also show that engagement with local communities and cultural experiences contributes significantly to tourists' sense of connection and their recommendation intention.

Implications for Agro-Tourism Operators and Policy Makers

- **Enhanced Program Design:** Given the moderate participation in educational programs and the varying levels of satisfaction, agro-tourism operators should consider redesigning these programs to make them more accessible and appealing to a broader audience. This could involve incorporating more interactive elements, such as hands-on workshops or shorter sessions to cater to different visitor preferences.
- **Promotion of Cultural Experiences:** The data shows that cultural experiences greatly influence the perception of cultural value. Agro-tourism operators should continue to emphasize these experiences, perhaps by offering more immersive opportunities for visitors to engage with traditional practices and local customs.
- **Increasing Farm Activity Engagement:** Although visitors show high interest in farm activities, their actual involvement is low. This suggests that operators need to address barriers such as accessibility or activity complexity. Providing more guided or beginner-level experiences might encourage more tourists to actively participate.
- **Marketing and Outreach:** Since there is a strong correlation between engagement and recommendation intention, operators and policymakers should focus on highlighting community interaction and involvement in marketing campaigns to attract visitors seeking an authentic, culturally enriching experience.

Limitations of the Study

- **Sample Size and Generalizability:** The study is limited to a specific sample area in Gangtok, which may not fully represent the broader agro-tourism sector in other regions. The results might not be generalizable beyond the local context.
- **Self-Reported Data:** The reliance on self-reported survey data introduces the possibility of response bias, where visitors may overstate their satisfaction or engagement levels.
- **Lack of In-depth Qualitative Data:** While the survey provides quantitative insights, it lacks qualitative data that could provide more context on why certain programs or activities fail to engage some visitors.
- **Cross-Sectional Nature:** The study is cross-sectional, capturing visitor sentiments at a single point in time. It

does not account for changes in satisfaction, engagement, or perception over longer periods or multiple visits.

CONCLUSION

The study highlights the importance of educational and cultural agritainment programs in shaping visitor satisfaction and perception in Gangtok's agro-tourism sector. The results suggest a positive relationship between engagement and recommendation intention, but also reveal areas where improvements are needed, particularly in enhancing participation in farm activities and refining educational content. The findings offer valuable insights for agro-tourism operators and policymakers, emphasizing the need for well-designed, accessible programs that foster deeper visitor engagement and cultural appreciation.

In conclusion, this study provides a comprehensive evaluation of how educational and cultural agritainment programs influence visitor satisfaction and perception in Gangtok's agro-tourism sector. The findings underscore the positive impact that engaging educational content and immersive cultural experiences have on visitor satisfaction and their likelihood to recommend Gangtok as a destination. Specifically, the data shows that educational programs contribute to an enhanced understanding of local farming practices, while cultural experiences significantly boost the perception of cultural value. However, the discrepancy between high interest in farm activities and the relatively low actual participation suggests that while these activities are appealing in theory, their execution may not fully meet visitor expectations or accessibility needs. The results highlight the importance of addressing these gaps by refining educational programs to be more inclusive and engaging. This could involve making the content more interactive, accessible, or relevant to a broader audience. Similarly, cultural programs should continue to be a focal point but might benefit from expanded offerings or improved promotion to increase overall participation.

Future research should aim to explore the underlying reasons behind the low participation rates despite high interest in farm activities. Qualitative methods, such as interviews or focus groups, could provide deeper insights into the barriers and challenges faced by visitors. Additionally, longitudinal studies that track visitor experiences over multiple visits could shed light on how engagement and satisfaction evolve over time. Such studies would offer valuable information on the long-term effects of educational and cultural programs, helping to identify which elements contribute most significantly to sustained visitor satisfaction and loyalty. Expanding the research scope to include a wider range of agro-tourism destinations and demographic profiles could further enhance the understanding of these dynamics. Comparing findings across different regions and visitor types would help identify best practices and strategies that could be adapted to various contexts. Overall, by addressing these research gaps and focusing on continuous improvement, agro-tourism operators and policymakers can better tailor their offerings to meet visitor needs, enhance the overall experience, and strengthen Gangtok's position as a premier agro-tourism destination.

This approach will not only boost visitor satisfaction but also encourage more widespread and enthusiastic recommendations, ultimately contributing to the growth and success of the agro-tourism sector.

REFERENCES

- Chhetri A. 2024. Sustainable Rural Renaissance: Fostering Women's Empowerment through Organic Agro-Tourism. *Curr Agri Res.*, 12(2). <https://bit.ly/3XjVoc3>
- Barbieri, C., Xu, S., Gil-Arroyo, C., & Rich, S. R. 2016. Agritourism, farm visit, or...? A branding assessment for recreation on farms. *Journal of travel research*, 55(8), 1094-1108. <https://journals.sagepub.com/doi/abs/10.1177/0047287515605930>
- Henderson, J. C. 2009. Agro-tourism in unlikely destinations: A study of Singapore. *Managing Leisure*, 14(4), 258-268. <https://www.tandfonline.com/doi/abs/10.1080/13606710903204456>
- Kaini, M. 2023. Potentiality of Agro-tourism in Nepal: Post COVID-19 perspective. *Journey for Sustainable Development and Peace Journal*, 1(1), 52-66. https://www.academia.edu/download/105451108/Agro-tourism_20in_20Nepal_2020230104.pdf
- Purnamawati, I. G. A., Jie, F., & Hatane, S. E. 2022. Cultural change shapes the sustainable development of religious ecotourism villages in Bali, Indonesia. *Sustainability*, 14(12), 7368. <https://core.ac.uk/download/pdf/534155117.pdf>
- Rilla, E., Hardesty, S. D., Getz, C., & George, H. (2011). California agritourism operations and their economic potential are growing. *California Agriculture*, 65(2). <https://escholarship.org/uc/item/4sk770zs>
- Shah, C., Shah, S., & Shah, G. L. 2020. Agritourism as a local economic development tool for rural hill regions. *Extension strategies for doubling farmer income*, 19-33. <https://www.researchgate.net/profile/Chetan-Shah-3/publication/343569529>
- Soonthodu, s., & Wahab, I. N. 2021. Exploring niche tourism the Indian perspective. <https://www.researchgate.net/profile/Ishrat-Wahab/publication/363040370>
- Sreereshma, S. R., Dileep, A. S., & Santhosh, V. S. Agritourism: a best option to accelerate growth of tourism in the post-pandemic era. <https://www.imdrtvm.com/article/imdr-article-1706423800.pdf>
- Walke, S. G., Kumar, A., & Shetiya, M. M. 2017. Study of global, national and regional evolution of Agritourism. *International Journal of All Research Education and Scientific Methods*, 5(12), 30-37. <https://www.researchgate.net/profile/Atul-Kumar-135/publication/352781893>
- World Tourism Organization. 2019. <http://www.unwto.org/tourism-data/global-and-regional-tourism-performance> Viewed on 2023.
