

## Original Research Article

# **ANALYZING AGROTOURISM CHALLENGES IN COIMBATORE: A RANK-BASED QUOTIENT (RBQ) APPROACH**

### **ABSTRACT:**

Agrotourism, which integrates agriculture with tourism, holds substantial promise for fostering rural development in regions such as Coimbatore, Tamil Nadu, India. This study seeks to pinpoint and examine the main challenges faced by agrotourism entrepreneurs using Rank Based Quotient (RBQ) analysis. Data were gathered from 10 agrotourism entrepreneurs through structured questionnaires, emphasizing financial, marketing, infrastructural, and regulatory difficulties. The RBQ analysis indicates that securing funding for infrastructure and operations, acquiring permits and licenses, and managing heightened competition are among the most significant challenges. By highlighting these issues, this research offers valuable insights for policymakers and stakeholders to craft targeted interventions, thereby enhancing the sustainability and growth of agrotourism in the area. The results can guide policy decisions and support strategies aimed at overcoming obstacles in agrotourism development.

**Keywords:** Agrotourism, RBQ Analysis, Rural Development, Entrepreneurship Challenges, Coimbatore

### **1. INTRODUCTION**

Agrotourism, the fusion of agriculture and tourism, represents a burgeoning sector within rural development, offering significant potential for economic diversification, cultural exchange, and sustainable tourism. In regions such as Coimbatore in Tamil Nadu, India, agrotourism provides a platform for farmers to augment their income while offering urban dwellers a chance to experience rural life firsthand. Despite its potential, agrotourism entrepreneurs face a myriad of challenges that impede the sector's growth and sustainability. These challenges span financial constraints, marketing difficulties, infrastructural inadequacies, and regulatory hurdles.

Addressing these obstacles is essential for fostering a supportive environment for agrotourism ventures. This study aims to identify and analyze the principal challenges faced by agrotourism venturers in Coimbatore district using a structured questionnaire and the Rank Based Quotient (RBQ) analysis.

## **2. REVIEW OF LITERATURE**

### **2.1 AGROTOURISM IN INDIA**

The emergence of tourism as an industry in India was significantly delayed compared to Western countries, where it became a recognized revenue-generating sector early on. Initially neglected by Indian policymakers, tourism was seen as a luxury benefiting only a few, with a strong focus instead on agriculture and allied sectors post-independence. However, with the establishment of the Agri-Tourism Development Corporation in Maharashtra in 2004 and subsequent policy support, including infrastructure status in the Union Budget and initiatives in the Tenth Five Year Plan, agri-tourism has been promoted as a viable means to enhance rural development and provide sustainable livelihoods for rural youth. (Swain et al., 2018)

### **2.2 AGROTOURISM OPPORTUNITIES IN INDIA**

The Indian tourism industry, growing at a robust rate of 10.1%, significantly outpaces the global average and positions India among the top tourist destinations worldwide. The introduction of agri-tourism is poised to enhance this growth by leveraging India's diverse culture, geography, and agro-climatic conditions, providing unique all-season, multi-location tourism opportunities. With a rising preference for non-urban tourist spots, the establishment of agri-tourism centers in rural areas, supported by substantial government financial allocations and policies, holds substantial promise for further bolstering India's tourism sector. (Swain et al., 2018)

### **2.3 AGROTOURISM AND ITS BENEFITS:**

Agrotourism has been recognized for its potential to enhance rural livelihoods, promote environmental conservation, and foster cultural exchange (Barbieri & Mshenga, 2008). Researchers such as Phillip, Hunter, and Blackstock (2010) have categorized agrotourism activities into five typologies, highlighting the diverse nature of agrotourism offerings. These include farm stays, educational tours, recreational activities, direct sales, and events. Studies by

Tew and Barbieri (2012) have shown that agrotourism can contribute significantly to farm profitability and sustainability. Moreover, Lane (1994) and Nilsson (2002) have discussed the role of agrotourism in preserving rural heritage and promoting sustainable tourism practices.

## **2.4 CHALLENGES IN AGROTOURISM:**

The exploration of challenges faced by agrotourism ventures reveals a complex landscape where financial, marketing, infrastructural, regulatory, social, cultural, and environmental issues intersect. Financial challenges are frequently cited as a major obstacle for agrotourism entrepreneurs. Nickerson, Black, and McCool (2001) noted that initial capital investment and ongoing financial sustainability are significant hurdles for many farm-based tourism ventures. A study by Kumbhar (2012) revealed that lack of access to credit and financial resources prevents farmers from upgrading their facilities and services, which is crucial for attracting tourists. Moreover, Rilla (2011) highlighted the importance of government subsidies and grants in supporting the financial viability of agrotourism enterprises.

Effective marketing is critical for the success of agrotourism ventures. Flanigan, Blackstock, and Hunter (2015) emphasized the challenges related to marketing, such as limited knowledge and resources for effective promotion, difficulty in reaching the target audience, and competition from other forms of tourism. Studies by Alonso (2010) and McGehee (2007) also pointed out that many agrotourism operators lack the skills and experience necessary for strategic marketing and branding, which hampers their ability to attract and retain customers.

Infrastructural inadequacies are another significant barrier for agrotourism development. Schilling, Marxen, Heinrich, and Brooks (2006) identified poor transportation links, inadequate accommodation facilities, and lack of basic amenities as major infrastructural challenges. These challenges not only affect the accessibility and attractiveness of agrotourism destinations but also influence the overall visitor experience. A study by Rogerson (2014) highlighted that improving infrastructure is essential for the sustainable growth of rural tourism sectors.

Regulatory challenges, including complex zoning laws, labor regulations, and environmental policies, pose significant barriers for agrotourism entrepreneurs. McGehee and Kim (2004) discussed the difficulties faced by farmers in navigating the regulatory landscape, which often includes stringent land-use restrictions and bureaucratic red tape. Carpio,

Wohlgenant, and Boonsaeng (2008) noted that resistance from local communities and lack of support from local stakeholders can create challenges for agrotourism operators.

Barbieri and Mahoney (2009) found that cultural differences between tourists and local residents can lead to misunderstandings and conflicts, affecting the overall success of agrotourism initiatives. Environmental challenges are becoming increasingly relevant for agrotourism ventures. Lane (2009) discussed the environmental impact of increased tourist activities on rural landscapes, including challenges related to waste management, water usage, and conservation of natural resources. Sustainable practices are essential to mitigate these impacts and ensure the long-term viability of agrotourism. A study by Garrod, Wornell, and Youell (2006) highlighted the need for integrating environmental sustainability into agrotourism planning and operations.

The absence of specific policies and regulations for agritourism hinders the sector's growth. Clear guidelines and government support are crucial (Krishna et al., 2020).

The major obstacles are high labor costs, high maintenance costs, and insufficient literature on agrotourism practices. Farmers also face situational issues such as fewer tourists during peak agricultural activities and a lack of government support. (Vishwanath et al., 2022)

## **2.5 RANK BASED QUOTIENT (RBQ):**

The rank based quotient is a robust alternative to parametric measures. By ranking data points and using these ranks to compute a quotient, this method effectively normalizes data, reducing the impact of outliers and skewed distributions, which is useful for comparing entities in various fields (Corder et al., 2014).

Rank-Based Quotient (RBQ) is a scientific method used to determine the relative significance of various constraints through an arbitrary scoring system. (Nisha et al., 2019)

## **3. METHODOLOGY**

### **3.1 STUDY AREA AND SAMPLE SELECTION:**

The research was conducted in Coimbatore district, located in Tamil Nadu, India. Coimbatore is known for its rich agricultural heritage and emerging agrotourism

potential. As snowball sampling method was employed to select 10 agrotourism units within the district. The scale for the challenges faced was adopted from Denys Maksymov (2017)

### 3.2 DATA COLLECTION:

Data were collected using a structured questionnaire, which was administered to the 10 agrotourism unit venturers. The questionnaire comprised sections on demographic information, types of agrotourism activities offered, and challenges faced in their operations. The challenges were categorized into four main themes: Financial, Marketing, Infrastructural, and Regulatory.

### 3.3 DATA ANALYSIS:

The Rank Based Quotient (RBQ) analysis was utilized to analyze the data. Respondents were asked to rank the challenges within each theme based on their severity and impact on their operations. The RBQ for each challenge was calculated to determine the most significant challenges faced by agrotourism venturers. The formula for RBQ is

$$RBQ = \frac{\sum f_i (n + 1 - i) \times 100}{N \times n}$$

Where in,

$f_i$  = Number of respondents reporting a particular problem under  $i^{\text{th}}$  rank (Values vary with the respondents as they have different preferences when selecting a specific statement for a given rank. They range from 0 to 10)

$N$  = Number of Respondents (10)

$i$  = Number of rank (Vary with the number of sub challenges identified under a particular challenge)

$n$  = Number of constraints identified (Number of statements under a particular challenge)

The RBQ (Rank-Based Quotient) values typically range from 0 to 100.

**Minimum RBQ Value:** The minimum possible RBQ value is 0. This would indicate that the particular challenge or factor being evaluated is ranked lowest by all respondents.

**Maximum RBQ Value:** The maximum possible RBQ value is 100. This would indicate that the particular challenge or factor is consistently ranked highest by all respondents.

These values are used to quantify and compare the significance of different challenges or factors, with higher values indicating greater importance or impact. In the context of the tables below, the RBQ values provide a numerical representation of how significant each challenge is considered by the respondents.

#### 4. RESULTS AND DISCUSSIONS

##### 4.1 Challenges faced by the Agrotourism Venturers

**Table 1: Financial challenges faced by the agrotourism venturers**

SL.NO	CHALLENGES FACED	RBQ VALUE	RANK
1	Having enough capital for infrastructure, operation, and marketing	76.6	<b>1</b>
2	Obtaining finance	66.6	<b>2</b>
3	Obtaining liability insurance	56.6	<b>3</b>

Table .1 reveals that the most significant financial challenge for agrotourism venturers in Coimbatore is having enough capital for infrastructure, operation, and marketing (RBQ Value: 76.6, Rank I). This is followed by difficulties in obtaining financing (RBQ Value: 66.6, Rank II), and securing liability insurance (RBQ Value: 56.6, Rank III). The high RBQ values for capital and financing highlight the critical importance of financial resources in ensuring the successful operation and growth of agrotourism ventures, with liability insurance also being a notable concern, though to a lesser extent.

**Table .2 Legal challenges faced by the agrotourism venturers**

SL.NO	CHALLENGES FACED	RBQ VALUE	RANK
-------	------------------	-----------	------

1	Facing challenges with local zoning	33.2	6
2	Meeting health department requirements	54.9	4
3	Obtaining permission for roadside signage	56.5	3
4	Obtaining required permits or licenses	96.6	1
5	Understanding labor regulations	39.9	5
6	Understanding legal tax challenges	68.2	2

Table .2 provides insights into the most pressing challenges faced under the legal challenges. The challenge with the highest RBQ value is obtaining required permits or licenses (RBQ Value: 96.6, Rank I), indicating it is the most significant legal hurdle. This is followed by understanding legal tax challenges (RBQ Value: 68.2, Rank II), which involves navigating intricate compliance requirements. Obtaining permission for roadside signage (RBQ Value: 56.5, Rank III) and meeting health department requirements (RBQ Value: 54.9, Rank IV) are also notable challenges, reflecting concerns about compliance with local regulations and standards. Understanding labor regulations (RBQ Value: 39.9, Rank V) and facing challenges with local zoning (RBQ Value: 33.2, Rank VI) are ranked lower, but still represent significant legal challenges. These rankings underscore the complexity and importance of legal compliance in the agrotourism sector, with permits and tax challenges being particularly challenging for business venturers.

**Table 3 Management challenges faced by the agrotourism venturers**

SL.NO	CHALLENGES FACED	RBQ VALUE	RANK
1	Finding/hiring employees	100	1
2	Keeping and evaluating records	28.8	8
3	Maintaining good relationships with neighbors	48.7	6
4	Maintaining visitor safety	49.9	5
5	Providing excellent customer service	74.4	3
6	Scheduling employees	67.7	4
7	Scheduling groups for tours or parties	21	9
8	Training and managing employees	88.8	2

9	Working with family members	33.2	7
---	-----------------------------	------	---

Table 3 depicts that the top challenge is finding and hiring employees (RBQ Value: 100, Rank I), indicating a significant difficulty in staffing the business adequately. Training and managing employees (RBQ Value: 88.8, Rank II) follows closely, emphasizing the importance of equipping staff with the necessary skills and effectively overseeing their performance. Providing excellent customer service (RBQ Value: 74.4, Rank III) is also a key challenge, highlighting the need for high-quality interactions with guests. Scheduling employees (RBQ Value: 67.7, Rank IV) and maintaining visitor safety (RBQ Value: 49.9, Rank V) are important operational concerns, focusing on the efficient management of staff shifts and ensuring a safe environment for visitors. Maintaining good relationships with neighbors (RBQ Value: 48.7, Rank VI) and working with family members (RBQ Value: 33.2, Rank VII) are additional interpersonal challenges, reflecting the social dynamics involved in running an agrotourism business. Keeping and evaluating records (RBQ Value: 28.8, Rank VIII) and scheduling groups for tours or parties (RBQ Value: 21, Rank IX) are ranked lower, but still represent important administrative and organizational tasks. These rankings underscore the complexity of management in agrotourism, with employee-related challenges and customer service being particularly critical for business success.

**Table .4Marketing challenges faced by the agrotourism venturers**

SL.NO	CHALLENGES FACED	RBQ VALUE	RANK
1	Attracting customers	34.9	5
2	Dealing with increased competition	91.6	1
3	Deciding how to promote the business to target customers	88.2	2
4	Developing advertising and promotion materials	31.6	6
5	Identifying target customers	36.6	4
6	Staying current with new promotional methods	66.6	3

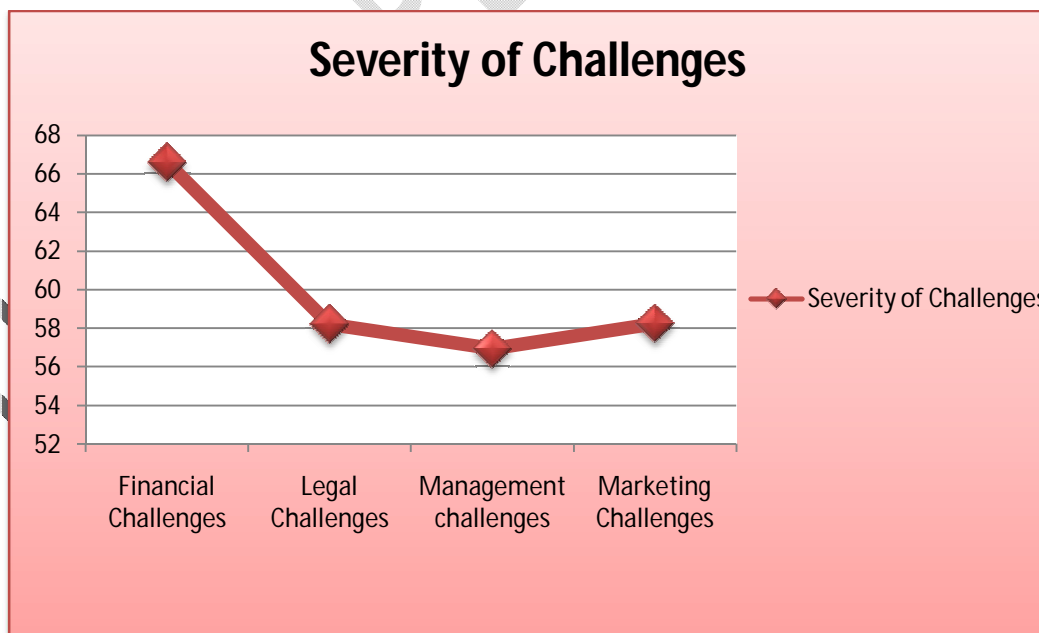
Table .4 reveals that the foremost challenge is dealing with increased competition (RBQ Value: 91.6, Rank I), indicating that agrotourism ventures face significant pressure from other businesses in the market. Deciding how to promote the business to target customers (RBQ Value: 88.2, Rank II) is another major concern, emphasizing the need for effective marketing strategies to reach the right audience. Staying current with new promotional methods (RBQ Value: 66.6, Rank III) ranks third, highlighting the importance of adapting to evolving marketing trends and technologies. Identifying target customers (RBQ Value: 36.6, Rank IV) and attracting customers (RBQ Value: 34.9, Rank V) are also crucial, focusing on understanding and appealing to the desired market segments. Developing advertising and promotion materials (RBQ Value: 31.6, Rank VI) is ranked lower but still represents a key aspect of marketing, involving the creation of compelling content to engage potential customers. These rankings underline the challenges in both strategic and tactical aspects of marketing, with competition and effective promotion being particularly critical for the success of agrotourism businesses.

The financial, legal, management, and marketing challenges faced by agrotourism ventures in Coimbatore, as revealed by the tables, are deeply interconnected, impacting the overall success and sustainability of these businesses. The most significant financial challenge securing enough capital for infrastructure, operation, and marketing (RBQ Value: 76.6) is intrinsically linked to legal and management hurdles. For instance, without adequate capital, it becomes more challenging to navigate the legal complexities of obtaining required permits (RBQ Value: 96.6) and securing liability insurance (RBQ Value: 56.6). The financial strain is further compounded by the difficulty in obtaining financing (RBQ Value: 66.6), which directly affects the ability of ventures to meet legal requirements, such as understanding and adhering to complex tax regulations (RBQ Value: 68.2). This interrelation suggests that financial limitations not only restrict operational capabilities but also hinder legal compliance, which is critical for the legal standing and smooth operation of the business.

Management challenges, particularly finding and hiring employees (RBQ Value: 100) and training them (RBQ Value: 88.8), are also closely tied to financial and marketing issues. The availability of capital influences the ability to attract and retain skilled employees, which is essential for providing excellent customer service (RBQ Value: 74.4) and maintaining a competitive edge in the market. Moreover, the challenge of promoting the business effectively

(RBQ Value: 88.2) is intertwined with both management and financial issues. Effective marketing requires a well-trained team and sufficient financial resources to implement and sustain promotional activities. The complexity of managing these interrelated challenges underscores the need for a holistic approach to address them. For example, a robust financial plan could alleviate capital constraints, enabling better legal compliance, improved employee management, and more effective marketing strategies, thus creating a positive feedback loop that enhances the overall success of the agrotourism venture.

In addition, the challenge of dealing with increased competition (RBQ Value: 91.6) exacerbates the pressure on financial, management, and marketing aspects. As competition intensifies, the need for capital to invest in advanced marketing strategies becomes more critical. Staying current with new promotional methods (RBQ Value: 66.6) and effectively targeting customers (RBQ Value: 36.6) are crucial to standing out in a crowded market. This, in turn, demands a well-trained workforce capable of executing these strategies and a legal framework that supports innovative marketing tactics without infringing on regulatory standards. Therefore, the interplay between these challenges highlights the importance of addressing them in a coordinated manner to ensure the sustainability and growth of agrotourism businesses in Coimbatore.



**FIGURE 1. SEVERITY OF CHALLENGES**

The above graph reflects the perceived severity of various challenges faced by agrotourism venturers. The categories include Financial, Legal, Management, and Marketing issues, with Financial issues such as securing capital for infrastructure, operations, and marketing being ranked as the most critical challenge. This is consistent with the challenges listed, highlighting the difficulties in obtaining financing and insurance. Marketing challenges, including attracting customers and staying competitive, follow in priority, emphasizing the importance of effective promotion and customer identification. Legal and management issues, although still significant, are viewed as relatively less pressing, covering aspects like obtaining permits, adhering to regulations, and managing staff and operations. Overall, the graph underscores the pressing need for financial resources and strategic marketing in the agrotourism sector.

## **5. CONCLUSION**

The study on agrotourism ventures in Coimbatore district provides a comprehensive overview of the multifaceted challenges faced by venturers in this burgeoning sector. The findings highlight the financial challenges, particularly the need for sufficient capital for infrastructure development, operations, and marketing, as the most pressing challenges. This financial strain is exacerbated by difficulties in securing financing and liability insurance, which are critical for mitigating risks and sustaining business operations. Legal challenges also pose significant hurdles, with obtaining necessary permits and licenses being the most substantial barrier. This challenge is compounded by the complexity of navigating tax regulations and other legal requirements, which can be daunting for many agrotourism entrepreneurs. Management challenges are equally significant, with the recruitment, training, and retention of employees being a major concern. The ability to provide excellent customer service and maintain visitor safety are crucial for enhancing customer satisfaction and loyalty, which are vital for the long-term success of these ventures. Marketing challenges further complicate the business landscape for agrotourism operators. The intense competition in the sector necessitates innovative and effective promotional strategies to attract and retain customers. This includes identifying and reaching target customer segments, staying current with new promotional methods, and developing compelling advertising materials.

Overall, the study underscores the need for a holistic approach to support agrotourism ventures. Policymakers and stakeholders should focus on providing financial assistance, simplifying regulatory processes, and offering training in marketing and management. By addressing these challenges, it is possible to create a more supportive environment for agrotourism, which in turn can contribute to rural development, job creation, and sustainable tourism in Coimbatore district and beyond. The insights gained from this study can serve as a foundation for future research and policy development aimed at strengthening the agrotourism sector, ensuring that it becomes a vibrant and sustainable component of the regional economy.

## **6. LIMITATIONS AND FUTURE PROSPECTS**

The current study's focus on Coimbatore presents several constraints and limitations, notably its regional specificity, which may limit the generalizability of the findings to other areas. The unique socio-economic and cultural context of Coimbatore might not reflect the conditions in other regions, and the specific challenges and solutions identified may not be universally applicable. Additionally, the sample size and temporal constraints of the study could further restrict its relevance to different geographical areas. Despite these limitations, the findings have important implications for policymakers, entrepreneurs, and researchers, highlighting the need for localized policies and serving as a benchmark for similar regions. Future research should consider expanding to diverse geographical areas, conducting comparative and longitudinal studies, and fostering cross-regional collaboration to provide a broader and more nuanced understanding of agritourism challenges across different contexts.

## **7. Consent**

All participants were provided with a thorough briefing on the study's objectives, and their consent was secured prior to their involvement. The privacy and confidentiality of the participants were rigorously upheld, with all data anonymized to safeguard their identities. Additionally, participants were explicitly informed that they could withdraw from the study at any time without facing any repercussions.

**Disclaimer (Artificial intelligence)**

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

## REFERENCE

1. Barbieri, C., & Mahoney, E. (2009). Why is diversification an attractive farm adjustment strategy? Insights from Texas farmers and ranchers. *Journal of rural studies*, 25(1), 58-66.
2. Barbieri, C., & Mshenga, P. M. (2008). The role of the firm and owner characteristics on the performance of agritourism farms. *Sociologia ruralis*, 48(2), 166-183.
3. Carpio, C. E., Wohlgenant, M. K., & Boonsaeng, T. (2008). The demand for agritourism in the United States. *Journal of Agricultural and Resource Economics*, 254-269.
4. Corder, G. W., & Foreman, D. I. (2014). *Nonparametric statistics: A step-by-step approach*. John Wiley & Sons.
5. Duarte Alonso, A., & Liu, Y. (2010). Wine tourism development in emerging Western Australian regions. *International Journal of Contemporary Hospitality Management*, 22(2), 245-262.
6. Flanigan, S., Blackstock, K., & Hunter, C. (2015). Generating public and private benefits through understanding what drives different types of agritourism. *Journal of rural studies*, 41, 129-141.
7. Garrod, B., Wornell, R., & Youell, R. (2006). Re-conceptualising rural resources as countryside capital: The case of rural tourism. *Journal of rural studies*, 22(1), 117-128.
8. Krishna, D. K., & Sahoo, A. K. (2020). Overview of agritourism in India and world. *Food and Scientific Reports*, 1(7), 56-59.
9. Kumbhar, V. M. (2012). Tourists expectations regarding agritourism: Empirical evidences from Ratnagiri and Sindhudurg District of Konkan (Maharashtra). *Online International Interdisciplinary Research Journal*, 2(3), 82-91.
10. Lane, B. (1994). What is rural tourism?. *Journal of sustainable tourism*, 2(1-2), 7-21.
11. Lane, B. (2009). Rural tourism: An overview. *The SAGE handbook of tourism studies*, 354-370.

12. Maksymov, D. (2017). *Descriptive Aanalysis of Agritourism in Louisiana: Motivation. Marketing. Limitations*. Louisiana State University and Agricultural & Mechanical College.
13. McGehee, N. G. (2007). An agritourism systems model: A Weberian perspective. *Journal of Sustainable tourism*, 15(2), 111-124.
14. McGehee, N. G., & Kim, K. (2004). Motivation for agri-tourism entrepreneurship. *Journal of travel research*, 43(2), 161-170.
15. Nickerson, N. P., Black, R. J., & McCool, S. F. (2001). Agritourism: Motivations behind farm/ranch business diversification. *Journal of Travel research*, 40(1), 19-26.
16. Nilsson, P. Å. (2002). Staying on farms: An ideological background. *Annals of tourism research*, 29(1), 7-24.
17. Phillip, S., Hunter, C., & Blackstock, K. (2010). A typology for defining agritourism. *Tourism management*, 31(6), 754-758.
18. Rilla, E. L. (2011). Tourism and agricultural viability: Case studies from the United States and England. In *Tourism and Agriculture* (pp. 173-191). Routledge.
19. Rogerson, C. M. (2014). Informal sector business tourism and pro-poor tourism: Africa's migrant entrepreneurs. *Mediterranean Journal of Social Sciences*, 5(16), 153-161.
20. Savitha, C. M., Suresha, S. V., & Vishwanath, H. (2022). A Study on Challenges and Suggestions of Farmers to Promote Agro Tourism Centres in Karnataka State in India. *International Journal of Environment and Climate Change*, 12(11), 3693-3698.
21. Schilling, B. J., Marxen, L. J., Heinrich, H. H., & Brooks, F. J. (2006). The opportunity for agritourism development in New Jersey.
22. Swain, N. R., Pati, M. R., & Nayak, Y. D. (2018). A study on agritourism in India: An inception. *International Journal of Engineering Science Invention (IJESI)*, 7(5), 85-89.
23. Tew, C., & Barbieri, C. (2012). The perceived benefits of agritourism: The provider's perspective. *Tourism management*, 33(1), 215-224.
24. Nisha, A., & Vimalraj Kumar, N. (2019). Constraints of Attappadi Tribal Livestock Farmers: A Rank Based Quotient Analysis. *Indian Journal of Social Research*, 60(5), 721-731.