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## Economic Performance of Farmer owned Agro -Tourism Enterprises in Karnataka, India

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### ABSTRACT

Indian agriculture is increasingly challenged by declining profitability due to rising input costs, climate variability and market fluctuations, necessitating diversification of farm-based income sources. Agro-tourism has emerged as an enterprise integrating agriculture with tourism to enhance livelihood security and economic sustainability of rural households. The present study analysed the impact of agro-tourism on the economic performance of farmer owners of Agro-Tourism Centers (ATCs) in Karnataka state. An ex-post facto research design was adopted in four districts Bangalore, Chikkamagaluru, Tumkur and Kodagu selected based on the concentration of agro-tourism centers. Primary data were collected from 40 ATC farmer owners through personal interviews using a pre-tested structured interview schedule. Economic performance was assessed using indicators such as annual gross sales, product-related sales, farm economic condition and perceived changes in profit after adoption of agro-tourism. Data were analysed using descriptive statistics and Spearman's rank correlation. The results showed that 82.50 per cent of respondents recorded annual gross sales above ₹2,50,000 and 75 per cent fell under medium to high economic performance category. A majority reported increased profits after adopting agro-tourism due to direct marketing of farm produce, value-added services and experiential activities. Correlation analysis indicated that economic motivation, decision-making ability, customer preference orientation, information-seeking behaviour, innovativeness, hospitality and risk orientation had significant positive association with economic performance. The study concludes that agro-tourism is a viable farm diversification strategy capable of stabilizing farm income and generating local employment opportunities, and that improved institutional support, training and market linkages can further enhance its adoption and contribution to rural development.


**Keywords:** Agro-tourism, Economic performance, Farm diversification, Rural entrepreneurship, Farm income, Karnataka.

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**Introduction:**

India, traditionally known as a land of villages, continues to rely on agriculture, which contributes about 15-18% of the national Gross Value Added and supports nearly 45-50% of the workforce (Government of India, 2024). However, increasing input costs, climate variability and market uncertainties have reduced farm profitability, necessitating diversification of income sources (FAO, 2022). At the same time, tourism has emerged as one of the fastest-growing sectors of the Indian economy, with a rising demand for rural and experiential travel (Ministry of Tourism, 2023). In this context, agro-tourism is gaining importance as a complementary farm enterprise that integrates agricultural activities with recreational experiences, providing additional income opportunities to farmers while offering authentic rural exposure to visitors (Barbieri & Tew, 2010; Phillip et al., 2010). Thus, agro-tourism is increasingly recognized as a sustainable strategy for enhancing farm income and promoting rural development.

**Concept of Agro Tourism:**

Agro-tourism is a junction where agriculture meets tourism. In India it refers to tourism activities that take place on agricultural farms or rural areas. It offers visitors an opportunity to experience and engage in various agricultural activities, such as farming, milking cows, planting seeds, harvesting crops, and learning traditional farming techniques.

The authentic definition of agro-tourism is provided by the World Tourism Organization (1998) in its Global Report on Agro-tourism, it defines agro-tourism as: “involves accommodation being offered in the farmhouse or in a separate guesthouse, providing meals and organizing guests’ activities in the observation and participation in the farming operations”.

Gannon (1994)., defined Agro tourism as “A range of activities, services and amenities provided by farmers and rural people to attract tourists to their area in order to generate extra income for their business.”

**Background of the study :**

Today agriculture sector in India is facing acute problems like of infrastructure, warehousing, climate change, excessive rains, drought, no irrigation facilities, availability of inputs, finance and effective marketing etc., Agriculture in India is most uncertain depending on monsoon with less avenues from irrigation. Hence it is needed to supplement the income of rural folk and the Indian farmers should find an alternate means of income. Since agriculture is the main occupation of the people in India there is a need to think of allied income generation strategies with agriculture, one of which is agro tourism Chadda and Bhakare (2012).

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Karnataka being a popular tourism hub and is one of the prominent agricultural producing states in India and it is one of the top ten domestic tourism destinations in India, Ranking IV among the states (Hamsa et al., 2015) and there is a large scope and great potential to develop agro-tourism. Many ATCs already established in different parts of Karnataka. These Agro tourism approach has lot of potential to transform and develop a rural economy into a modern economy by utilizing the local resources to its fullest potential. However, it is unfortunate that the development of agro tourism in Karnataka lags behind neighboring states like Maharashtra, which is tragic considering the immense potential it holds. This situation highlights the need for extensive research and focused efforts to know the challenges and interventions required to promote agro tourism in Karnataka, considering its potential to enhance livelihood security and boost economic performance.

As there are no much studies conducted on ATCs, keeping in view the importance of ATCs as a means of supplementary source of income to farmers and Agro-tourism presents a promising alternative by diversifying income sources and creating employment opportunities within the local community. a study on ATCs is of paramount importance. Hence the present study was planned with the objective of analyzing the impact of Agro Tourism on Economic performance of Farmers.

Hence, the present research study entitled “**Economic Performance of Farmer owned Agro -Tourism Enterprises in Karnataka, India**” was conducted.

With this background, the present study is designed with the following objectives:

1. To Assess the economic performance of farmer owners of Agro-Tourism Centers.
2. To know the relationship of profile characteristics with economic performance of farmer owners of Agro-Tourism Centers.

### **Methodology**

The current study was conducted in four selected districts viz., Bangalore, Chikkamagaluru, Tumkur, and Kodagu districts of Karnataka state, as these districts having more number of ATCs. Ex-post facto research design was followed. The primary data was collected from 40 Agro Tourism Centers (ATCs) of four selected districts, comprises of 10 ATCs from each district.

Primary data were collected from 40 farmer owners of ATCs, with ten centers selected from each district. The agro-tourism centers were identified through information obtained from the tourism department and further selected using

the snowball technique, and respondents were selected through simple random sampling.

Economic performance was used as the dependent variable and measured using modified economic performance indicators based on the procedure suggested by Barbieri and Tew (2010). Twenty independent variables related to personal, socio-economic, psychological and situational characteristics of the respondents were taken according to need of the study.

Data were collected through personal interviews using a pre-tested structured interview schedule, which was also administered through Google Forms for convenience. The collected data were analysed using appropriate statistical tools. Both parametric and non-parametric statistical tools were used for analysis. Statistical tools included were mean, frequency, percentage, standard deviation, range, Spearman's rank correlation.

## Results And Discussions

### 1. Economic performance of farmer owners of agro-tourism

The Heading 1 provides an overview of the economic performance of owner farmers of agro-tourism centers, the results explain on various aspects such as 1.1 gross sales, 1.2 product-related sales, 1.3 farm economic situation, and 1.4 perceived changes in farm profits after offering agro- tourism activities in consecutive tables. The key findings in each category are discussed below.

Economic performance of farmer owners of agro-tourism centers.

**Table 1.1 : ATC Gross Sales (Annual)**

( n=40)

Sl.No.	Particulars	Frequency	Percent
	<b>ATC Gross Sales (Annual)</b>		
1	Less than 50,000 Rs	00	0.00
2	Rs 50,000-1,00,000	01	2.50
3	Rs 1,00,000 -2,49,999	06	15.00
4	Rs 2,50,000 or more	33	82.50

From the results of table 1.1 it was evident that the majority (82.50%) of the respondents reported gross sales of Rs 2,50,000 or more annually. About 15 per cent respondents reported gross sales between Rs.1,00,000 to 2,49,999 Only one respondent (2.50%) had gross sales between Rs 50,000 and Rs 1,00,000. None of the respondents reported gross sales below Rs 50,000. These findings are in line with results of Karijgi (2019).

**Table 1.2 : Products-Related Sales Percentage:****(n=40)**

Sl. No.	Particulars	Frequency	Percent
	<b>Products-Related Sales Percentage</b>		
1	Less than 25%	02	5.00
2	25% to 50%	03	7.50
3	51% to 75%	14	35.00
4	76% to 99%	19	47.50
5	100%	02	5.00

Nearly half of the respondents (47.50%) stated that 76 per cent to 99 per cent of their sales were related to products. Only two respondents (5.00%) reported that 100 per cent or more of their sales were related to products. None of the respondents reported having no product- related sales as depicted in table 1.2.

**Table 1.3 : Stated Farm Economic Situation:****(n=40)**

Sl. No.	Particulars	Frequency	Percent
	<b>Stated Farm Economic Situation</b>		
1	Very profitable	08	20.00
2	Generating some profit	15	37.50
3	Breaking even	16	40.00
4	Operating at a loss	01	2.50
5	Very loss	00	0.00

A significant proportion of respondents (40.00%) stated that they were breaking even in terms of farm economic situation as mentioned in table 1.3. More than one third of respondents (37.50%) reported generating some profit. One fifth of the respondents (20.00%) stated that farm economic situation is very profitable. Only one respondent (2.50%) reported operating at a loss. These results are supported by the results of Pitrova et al. 2020.

**Table 1.4 : Perceived Changes in Farm Profits after Offering Agro-tourism Activities:**

(n=40)

Sl. No.	Particulars	Frequency	Percent
4.	<b>Perceived Changes in Farm Profits after Offering Agro-tourism Activities</b>		
	<b>A) Nature of Change in Profits after Agro-tourism Development</b>		
1	Significantly increased	11	27.50
2	Slightly increased	18	45.00
3	Did not change	08	20.00
4	Slightly decreased	03	7.50
5	Significantly decreased	00	0.00
	<b>B) Percent of Profit Change after Agro-tourism Development</b>		
6	1% to 25%	00	0.00
7	26% to 50%	05	12.50
8	51% to 75%	17	42.50
9	76% to 99 %	18	45.00
10	100% or more	00	0.00

#### **1.4.A. Nature of Change in Profits after Agro-tourism Development:**

From the table 1.4.A. More than two-fifth of the respondents (45.00%) reported a slight increase in profits after offering agro-tourism activities. 27.50 per cent of respondents reported a significant increase in profits. A small percentage of respondents (7.50%) reported a slight decrease in profits. No respondents reported a significant decrease in profits.

1.4. B. Percent of Profit Change after Agro-tourism Development: Table 1.4.B. revealed that nearly half of the respondents (45.00%) reported a profit change ranging from 76 per cent to 99 per cent. 42.50 per cent of respondents reported a profit change ranging from 51 per cent to 75 per cent. A smaller proportion of respondents (12.50%) reported a profit change ranging from 26 percent to 50 per cent.

The above results from the tables indicated that agro-tourism had a positive impact on the economic performance of the farmers who own and operate these centers. The majority of respondents reported a significant increase in profits after introducing agro-tourism activities. This finding suggests that

agro-tourism can be a lucrative venture for farmers. The reasons behind these positive outcomes could be attributed to various factors. Agro-tourism offers farmers an opportunity to diversify their income streams, tapping into the growing demand for unique and authentic agricultural experiences. By offering activities such as farm tours, farm stays, and farm-to-table dining experiences, farmers can attract tourists and generate additional revenue. . Moreover, agro-tourism helps to create a direct connection between consumers and producers, allowing farmers to market their products and generate sales on-site. This direct marketing approach eliminates intermediaries and maximizes profits for the farmers. These results are supported by the results of Akis et al. 1996.

Table 1.5 : Overall economic performance of farmer owners of agro-tourism

Table 1.5 represents the overall economic performance of owners practicing agro- tourism, based on a sample size of 40 farmers. The economic performance is categorized into three groups viz., low, medium, and high. The frequencies and percentages of each category are provided in the table 1.5.

The results revealed that, the medium economic performance category, constituted majority (40.00%) of the sample. High economic performance category accounted for 35.00 per cent of and remaining 25.00 per cent of the owners had a low economic performance.

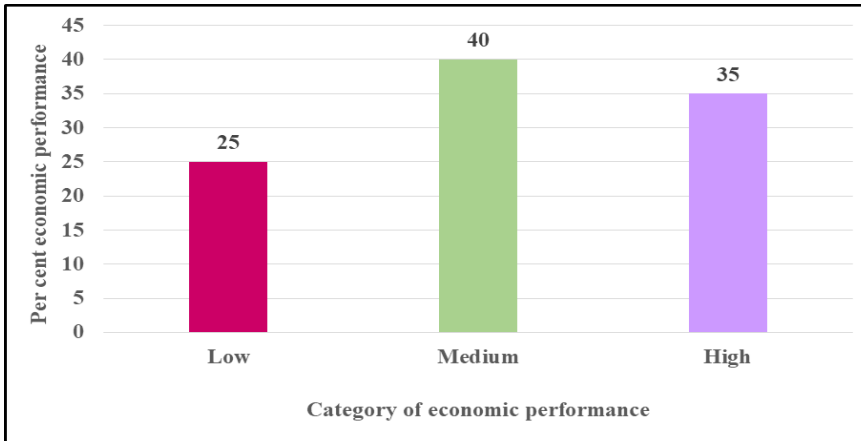
**Table 1.5 : Overall economic performance of farmer owners of agro-tourism centers**

(n=40)

Category	Criteria	Frequency	Per cent
Low	<17.73	10	25.00
Medium	17.73-20.66	16	40.00
High	>20.66	14	35.00

Mean: 19.20      S D: 2.92

The results of the study indicated that a significant portion of the owners of agro-tourism (75.00%) falls within the medium to high economic performance range. This finding suggests that the majority of farmers who have diversified their activities into agro-tourism are experiencing satisfactory economic outcomes. Several factors could contribute to these results, the level of investment and infrastructure development in the agro-tourism centers, market demand, owners' management skills, marketing strategies, and the quality of services etc. might leading to higher economic returns. These results of the study were supported by results of Barbeiri and Tew (2010) which says agro tourism is having a positive impact on farm profits.



**Figure 1: Overall economic performance of farmer owners of agro-tourism centers**

## 2. Relationship of profile characteristics with economic performance farmer owners of agro-tourism centers

The Table 2 represents the correlation of various independent variables with the Economic Performance of farmer owners of agro-tourism centers. The correlation coefficient was reported to assess the strength and significance of the associations. From the table 2 it is identified that the variables such as annual income, economic motivation, information seeking behavior, innovativeness, risk orientation, decision making ability, customer preference and hospitality were highly significant at 1 per cent level. Further results indicated that education, family size, land holding, cosmopolitaness, mass media exposure, achievement motivation, management orientation and self-confidence were significant at 5 per cent level with Economic Performance. On the other hand, the variables age, farming experience, social participation and extension agency contact did not exhibit significant association with Economic Performance.

**Table 2: Rank correlation between profile characteristics and economic performance of farmer owners of agro-tourism centers**

(n=40)

Sl. No.	Independent Variables	Correlation co-efficient(r)
1.	Age	-0.086 <sup>NS</sup>
2.	Education	0.389*
3.	Farming experience	0.032 <sup>NS</sup>
4.	Family size	0.313*

5.	Land Holding	0.320*
6.	Annual income	0.450**
7.	Social Participation	0.036 <sup>NS</sup>
8.	Cosmopolitaness	0.397*
9.	Mass media exposure	0.317*
10.	Extension agency contact	0.230 <sup>NS</sup>
11.	Economic Motivation	0.639**
12.	Information seeking behavior	0.587**
13.	Innovativeness	0.467**
14.	Risk orientation	0.498**
15.	Achievement motivation	0.375*
16.	Decision making ability	0.631**
17.	Management orientation	0.406*
18.	Self confidence	0.412*
19.	Customer preference	0.618**
20.	Hospitality	0.483**

\*\*=Significant at 1 %, \*=Significant at 5 %, NS=Non-significant

### 1. Education and Economic Performance

The correlation coefficient ( $r = 0.389^*$ ) suggests positive association between education and economic performance, which is statistically significant at the 0.05 level. This significant correlation between education and economic performance indicates that farmers with higher levels of education tend to have better economic performance. This may be because educated farmers possess enhanced knowledge and skills in managing their agro-tourism centers, making them more efficient and effective.

### 2.2. Family size and Economic Performance

The correlation coefficient ( $r = 0.313^*$ ) shows a moderate positive relationship between family size and economic performance, which is statistically significant

at the 0.05 level. This implies that farmers with larger family sizes tend to have better economic performance. This may be because a larger family can contribute to increased labor availability and support, allowing for better management of agro-tourism activities and increased economic stability.

### 2.3. Land Holding and Economic Performance

The correlation coefficient ( $r = 0.320^*$ ) suggests a moderate positive relationship between land holding and economic performance, which is statistically significant at the 0.05 level. The significant association suggests that farmers with larger land holdings tend to have better economic performance. Having more land allows farmers to diversify their agro-tourism activities and generate higher revenues.

### 2.4. Annual Income and Economic Performance

The correlation coefficient ( $r = 0.450^{**}$ ) explains highly significant association between annual income and economic performance. This implies that farmers with higher annual incomes tend to have better economic performance in their agro-tourism ventures. Higher income levels provide financial stability, allowing for investments in agro-tourism infrastructure, marketing, and diversification, that ultimately improving the quality of their agro-tourism services, leading to increased profitability.

### 2.5. Cosmopolitanness and Economic Performance

The correlation coefficient ( $r=0.397^*$ ) suggests a moderate positive relationship between cosmopolitanness and economic performance, which is statistically significant at the 0.05 level. Farmers with a cosmopolitan outlook, open to diverse ideas and practices, are more likely to have better economic performance in their agro-tourism ventures.

### 2.6. Mass Media Exposure and Economic Performance

Mass media exposure showed significant association with economic performance ( $r= 0.317$ ) indicates that farmers with higher exposure to mass media tend to have better economic performance. This exposure can provide them with valuable information on market trends, customer preferences, and innovative practices, that they can incorporate into their agro- tourism activities which might increase their profit.

### 2.7. Economic Motivation and Economic Performance

The correlation coefficient ( $r = 0.639^{**}$ ) indicates a strong positive relationship between economic motivation and economic performance. Their motivation likely leads to planned decision-making, strategic planning, and effective resource utilization, which contribute to their overall success.

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## 2.8. Information seeking behavior and Economic Performance

The correlation coefficient ( $r = 0.587^{**}$ ) shows a significant positive association between information seeking behavior and economic performance. The highly significant positive correlation between information seeking behavior and economic performance suggests that farmers who actively seek information about agro-tourism trends, market dynamics, and customer preferences tend to have better economic performance. Their proactive approach to acquiring knowledge allows them to make informed decisions and adapt their offerings to meet customer demands. Similar observations were reported by Deshmukh and Patil (2021), who emphasized that information and communication technologies enhance enterprise efficiency and market linkage in agricultural ventures.

## 2.9. Innovativeness and Economic Performance

The correlation coefficient ( $r = 0.467^{**}$ ) displays a significant positive association between innovativeness and economic performance. The significant positive correlation between innovativeness and economic performance indicates that farmers who embrace new ideas, technologies, and practices tend to have better economic performance. Their willingness to experiment and adapt to changing circumstances gives them a competitive edge, attracts more customers, and enhances overall profitability.

## 2.10. Risk Orientation and Economic Performance

The correlation coefficient ( $r = 0.498^{**}$ ) indicates a significant positive association between risk orientation and economic performance. The significant positive correlation between risk orientation and economic performance suggests that farmers with a higher willingness to take calculated risks tend to have better economic performance. Taking risks can lead to new opportunities, diversification of services, and higher returns, although it also carries a certain level of uncertainty.

## 2.11. Achievement Motivation and Economic Performance

The correlation coefficient ( $r = 0.375^*$ ) suggests a moderate positive relationship between achievement motivation and economic performance, that is statistically significant at the 0.05 level. The significant positive correlation between achievement motivation and economic performance indicates that farmers with a strong drive for excellence tend to have better economic performance. Their motivation to succeed drives them to continuously improve their agro-tourism centers, attract more customers, and achieve higher levels of success.

## 2.12. Decision Making Ability and Economic Performance

The correlation coefficient ( $r=0.631^{**}$ ) demonstrates a significant positive

relationship between decision-making ability and economic performance. The highly significant positive correlation between decision-making ability and economic performance suggests that farmers with strong decision-making abilities tend to have better economic performance. Their ability to analyze information, evaluate options, and make sound decisions contributes to effective resource allocation, risk management, and overall business performance.

#### 2.13. Management Orientation and Economic Performance

The correlation coefficient ( $r = 0.406^*$ ) indicates a significant positive correlation between management orientation and economic performance. The significant positive correlation between management orientation and economic performance indicates that farmers with management skills in planning, organizing, and controlling their agro-tourism operations tend to have better economic performance. Effective management practices enable them to optimize resource utilization, streamline processes, and deliver quality services to customers.

#### 2.14. Self-Confidence and Economic Performance

The correlation coefficient ( $r = 0.412^*$ ) indicates a significant positive correlation between self-confidence and economic performance. The significant positive correlation between self-confidence and economic performance indicates that farmers with higher self-confidence tend to have better economic performance. Their self-assurance enables them to overcome challenges, take calculated risks, and make confident decisions, leading to improved business outcomes.

#### 2.15. Customer Preference and Economic Performance

The correlation coefficient ( $r = 0.618^{**}$ ) indicates high association between customer preference and economic performance. The highly significant positive correlation between customer preference and economic performance suggests that farmers who understand and cater to customer preferences tend to have better economic performance. By aligning their offerings with customer expectations, they can attract more customers, generate repeat business, and establish a strong reputation in the market.

#### 2.16. Hospitality and Economic Performance

The correlation coefficient ( $r = 0.483^{**}$ ) highlights the significant association between hospitality and economic performance. The significant positive correlation between hospitality and economic performance indicates that farmers who prioritize hospitality and provide exceptional customer experiences tend to have better economic performance. Positive word-of-mouth, customer satisfaction, and repeat visits can contribute to increased revenues and business growth.

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## Conclusion

A large share of India's rural population continues to depend primarily on agriculture for income, yet farming alone often fails to ensure stable earnings. In this situation, agro-tourism has emerged as a promising approach that combines agriculture with service-based activities, creating additional employment opportunities and strengthening rural economies.

The study revealed that agro-tourism significantly improves the economic performance of farmer owners in Karnataka by providing an additional and relatively stable source of income. Most agro-tourism farmers recorded higher annual gross sales, improved profitability and medium to high levels of overall economic performance after adopting agro-tourism activities. Direct marketing of farm produce and experiential services such as farm stay and local cuisine contributed substantially to income enhancement. The results also showed that entrepreneurial and behavioural traits such as economic motivation, decision-making ability, innovativeness, hospitality and customer orientation were strongly associated with better economic outcomes, indicating that agro-tourism functions more as a rural enterprise than a traditional farming activity. Therefore, agro-tourism can be considered a viable farm diversification strategy that enhances income stability and supports sustainable rural development.

To strengthen its impact, supportive institutional measures such as simplified registration procedures, skill-oriented training programmes, improved market linkages and basic infrastructure development are necessary. Extension agencies and tourism departments may collaborate to provide enterprise guidance and promote agro-tourism centres through organised tourism circuits.

Overall, promotion of agro-tourism can help transform farms into economically resilient enterprises while generating employment opportunities in rural areas.

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