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## Facilitating Factors for a Successful Agri-tourism Venture: A Principal Component Analysis

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#### ABSTRACT

Agritourism is an alternative farming enterprise that is defined as "a business conducted by a farm operator for the enjoyment and education of the public, to promote the products for the farm, and thereby generate additional farm income". Agri-tourism is a subset of farm-based tourism which includes recreation, camping, participating in farm activities as well as retail, lodging, and entertainment. The present study was conducted with a sample size of forty-five agritourism hosts/operators from two states, Maharashtra and Goa, respectively, aiming at tracing out the significant factors facilitating the success of an agritourism venture. Data were collected by personal interview using summated Likert rating scale and analysed using median analysis and principal component analysis. Five different factors could finally be extracted out of 16 relatively important variables facilitating the success of an agritourism. These five factors were-Location advantage, Customer satisfaction, Resource management, Promotion and publicity and Government Support. These factors can be used as benchmarks for developing scales or indices for measuring the success of any agritourism. Moreover, the findings imply that these psycho-social and physical factors contribute to a larger extent towards the success of an agritourism venture, hence should invariably be addressed while planning any agritourism related policy at individual and mass level.

Keywords: Agri-tourism, customer satisfaction, facilitating factors, principal component analysis, resource management.

#### **INTRODUCTION**

Agriculture and its allied activities are on the brink of a change for both the farmers as well as consumers. A plethora of diversified activities amalgamated with scientific methods of cropping is paving the way for a mechanised and secure future. Agri-tourism is one such activity where people from outside visit a farm on vacation. Agri-tourism has been defined and labelled in various ways in the literature. Philips *et al.* (2010) provide a typology of definitions of Agri-tourism. The term agritourism has often been used interchangeably with agrotourism, farm tourism, farm-based tourism, and rural tourism (McGehee and Kim, 2004; Barbieri, 2010). Agritourism may be defined as "rural enterprises which incorporate both a working farm environment and a commercial tourism component" (Weaver and Fennel, 1997). Barbieri and Mshenga (2008) referred to agritourism as "any practice developed on a working farm to attract visitors." Agri-tourism is the nascent growing sector in the tourism industry in recent years. The concept has been successfully implemented in states like Maharashtra, Kerala, Rajasthan,Goa Jharkhand, Gujarat, Punjab and Himachal Pradesh. It has become a new avenue for earning income for rural farmers. Farm visits, farm stays and trail visits are gradually picking up amongst tourists to experience something different from clichéd sightseeing packages of a destination. Agritourism provides a platform for a mutual learning experience, farmers share their abilities with guests and

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affirm; in this way, their role as loyal partners in the food chain. At the same time, customers recall their memory of the past (a past of more genuine food and of forgotten tastes) and rediscover their traditions. There have been several studies which reported successful cases of agritourism all over the world. Many of them provided an insight into the perceived critical factors that determined the success of an agritourism farm. Comenand Foster (2002) reported that location (proximity to other attractions) financial/enterprise analysis, marketing/understanding customer needs and expectations, ability to match core assets with customer requirements, passion for learning, strong social skills, acting and stage skills, creativity and ability to manage the visitor experience were a set of critical success factors that must be in place for a farm-based tourism enterprise to be more than marginally successful.

The success of any enterprise is generally facilitated by several individual forces operating on it, known as factors. The factors themselves are latent dimensions of more than one contributing variables. Hence, to have such a perspective of the farmers as well as other stakeholders, quantitative research was emphasized under the present study to identify and prioritize the facilitating factors that determine the success of agri-tourism farms.

## METHODOLOGY

The study was purposively conducted in Maharashtra and Goa states during 2016-17 to 2018-19 by following an ex-post facto research design. The sample respondents in the present study comprised of forty-five agri-tourism centres drawn from both states (30 from Maharashtra and 15 from Goa). For identification and prioritization of variables influencing the success of agri-tourism venture, more than a forty variables related to ATC's success were collected from literature and twenty-five variables were finally retained for the present study in consultation with agritourism operators, agencies working in the area of agri-tourism, social scientists, and field level experts. These were prioritized following median analysis. To extract the factors facilitating the success of an agritourism the most influential variables of ATC's success as directed by the results of a median analysis were subjected to principal component analysis with varimax rotation. Factor analysis technique was used to discern and quantify the factors facilitating success of an agritourism. The technique was used for its uniqueness in facilitating identification of key traits from the mosaic of an overlapping relationship (Kumar and Chand, 2004). The technique was highly capable in achieving scientific parsimony by reducing a set of large number of variables to a convenient size of factors.

#### **RESULTS AND DISCUSSION**

Success is a complex attribute consisting of a number of dimensions, mainly physical, psychological, operational, socio-personal and institutional. In the present study an attempt was made to identify the specific factors which largely facilitate the success of an agritourism venture.

#### Variables facilitating

The variables which may influence the success of an agritourism venture, as suggested by experts at different levels and as found in different kinds of literature were thoroughly assessed through median analysis. The median analysis of the sample of respondents' perception helped in identifying sixteen 'relatively important' variables influencing the success of an agritourism venture (Table 1).

# Table 1: Relatively important variables to facilitate the success of an agritourism venture

n=45

		11-43	
Degree of Importance	Score range (Median value)	Variables	
Most important	5.0-6.0	The attraction of the place, Diverse activities and	
		events, Advertising / Marketing, Quality of the hospitality,	
		Availability of basic amenities,	
Highly important	4.0-5.0	Availability of timely credit, Quality of the hospitality, Good	
		relationship with the tourists, Personal Commitment/ Customer	
		service, Location near to city or town, Planned investments for	
		future, Safety and security of the tourists	
Very important	3.0-4.0	Inclusion of agritourism in mainstream tourism policy and	
		research, Self judgment of success, positioning, Trained staff or	
		family members for hospitality, Complete utilization of resources	

#### Factors facilitating success of an agri-tourism

The underlying dimensions of the sixteen relatively important variables (Table 1) were extracted through principal component analysis. As the total number (16) of variables considered for the factor analysis were less than thirty, and the mean communality value of the sixteen variables after extraction was > 0.699 (Table 2), Kaiser's (1958) criterion was followed to retain only those factors with Eigenvalues >1.00, hence a total of six factors all having Eigenvalues >1.00 have been reported (Table 3). Only factor loadings of 0.3 or more were considered significant as earlier reported by Harman (1967), Comrey (1973) and Gorsuch (1974).

## Location advantage

The first factor could be explained by three physical parameters, *viz*. Attraction of place, availability of basic amenities and location near to city or town as indicated in Table 2 by the communality values (h2) of 0.717, 0.629

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and 0.675 with very high factor loadings of 0.865,0.846 and 0.633 respectively. Attractive locations with natural scenery are added advantage for a rural setting. It creates an ambience of pristine environment for the tourists (Barbieriet.al 2016). Availability of basic amenities in rural area like proper sanitation, clean food and water along with hygiene stay enhance the satisfaction of visitors.

contributing variables under each factor	

		n=45
Description	Factor loadings	Communality
Location Advantage		
Attraction of the place	0.865	0.717
Availability of basic amenities	0.846	0.629
Location near to city or town	0.633	0.675
Customer Satisfaction		
Quality of the hospitality	0.778	0.742
Personal Commitment/ Customer service	0.764	0.698
Safety and security of the tourists	0.577	0.702
Resource Management		
Complete utilization of resources	0.768	0.632
Planned investments for future	0.745	0.621
Diverse activities and events	0.593	0.841
Trained staff or family members for hospitality and maintenance	0.547	0.662
Promotion And Publicity		
Advertising / Marketing	0.767	0.624
Self judgment of success	0.664	0.770
Positioning	0.646	0.690
Good relationship with the tourists	0.606	0.852
Government Support		
Availability of timely and subsidised credit	0.725	0.621
Inclusion of agritourism in mainstream tourism policy and research	0.711	0.715

 
 Table 3: Eigen value and percent contribution of factors in total variance

		n=45
Factor name	Eigen value (λ)	%Variance contribution
Location advantage	2.472	15.8%
Customer satisfaction	2.236	13.9%
Resource management	2.091	13.3%
Promotion and publicity	1.765	12.5%
Government support	1.437	10.8%

Source: Author's calculation

Thus, location advantage factor is essential to make any agritourism venture successful in financial terms. This factor contributed the highest variance (15.8%) in total variability of data.

## **Customer satisfaction**

The second factor comprised three parameters namely quality of hospitality (0.778), personnel commitment (0.764), and safety and security of tourists. (0.577). The variables as mentioned clubbed together, clearly depicting that they have high degree of intercorrelation to determine customer satisfaction. Hospitality is the major variable that determines customer satisfaction when it is augmented by their safety and security. The personal commitment /service of the hosts or operator of the farm also contribute to customer satisfaction. Success of any agritourism venture is indicated by the satisfaction of its customer to a great extent. The three variables had communality values of 0.742, 0.698 and 0.702 respectively. The factor termed as 'customer satisfaction' and it contributed the second highest (13.9%) variance in total data variability. These findings comply with Kim *et al.* (2019).

#### **Resource Management**

Higher profitability of farm tourism run by the host farmers is not only due to their high-profit orientation, but a combination of some other qualities like complete resource management of the farm. Successful agritourism centres give priority of complete utilisation of resources so that the cost of other off-farm resources is reduced. The recycling units such as compost pits, biogas plant etc. add to the savings. This helps in planned investment to materialise the by-products of the farm. Diverse activities and events are also part of resource management where engaging and participatory units enthuse the tourists. All this is possible in a successful agritourism venture only when its staff/labour is trained enough for good hospitality and maintenance of the farm as an agribusiness unit. In the present study, four variables namely, Complete utilization of resources(0.768), Planned investments for future extension contact (0.745), Diverse activities and events (0.593) and Trained staff or family members for hospitality and maintenance (0.547)clubbed together and contributed high on factor III which has been named as 'resource management'. The communality values of these three variables were 0.632, 0.621, 0.841 and 0.662 respectively. This factor contributed 13.3 per cent in total variability of data. These findings are to in line with Flanigan et al. (2015).

#### **Promotion and Publicity**

The fourth contributing factor to agritourism success was termed as 'promotion and publicity' as depicted by its constituent variables namely, Advertising / Marketing (0.767), Self judgment of success (0.664), Positioning (0.646) and Good relationship with the tourists (0.606) The communality values of the four variables as mentioned were 0.624, 0.770, 0.690 and 0.852 respectively. This factor was able to explain about 12.5 per cent of the total variability in the data. The promotional activities to tie up with new markets are one of the key factors in outreaching potential customers (Petrović *et.al.* 2018). Thus, the factor is more important in current times to encash the opportunities and reduce the risk of the seasonality of the enterprises so that income is generated throughout the year.

#### **Government Support**

Government support emerged as the fifth important factor governing success of any agri-tourism site. The factor consisted of two variables -availability of timely and subsidised credit and inclusion of agritourism in mainstream tourism policy and research with communality values 0.621, 0.715 and factor loadings 0.725 and 0.711 respectively. Successful agritourism is a multi-pronged effort characterised by government push factors and policies (Mace, 2005; Abdullah and Sanusi, 2015). the structure and several dimensions of market largely influence agritourism activities (Morrison, 2013). The present study bore testimony of the fact that successful agritourism which consists of some important variables related to the availability of credit and inclusion of agritourism in the mainstream policy can also determine the success of the agritourism farm.

## CONCLUSION

The findings of the study, it can be concluded that five factors, *viz* Location advantage, Customer satisfaction, Resource management, Promotion and publicity and Government Support were found to have exerted significantly high influence and contributed in determining the extent of success of surveyed agritourism farms. Although the farm-tourism enterprise is still in a nascent phase with only a few sites in India the study influence the upcoming venture, multiple stakeholders in the business and policymakers for road mapping it's upscaling in the near future.

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