

Agro-Tourist satisfaction in Sri Lanka: With Special Reference to Tourist Socio-Demographic and Destination Characteristics

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Abstract

Purpose: The purpose of the study was to examine what factors are determining the level of satisfaction in agro-tourists and define the possible ways and means to enhance their satisfaction levels in promoting agro-tourism in Sri Lanka. There are four specific objectives in the study; to examine the current situation of the agro-tourism industry in Sri Lanka, to study the agro-tourism destination characteristics and socio-demographic characteristics of tourists, to analyze the relationship between the level of satisfaction, agro-tourism destination characteristics and socio-demographic characteristics of agro-tourist, and to discuss possible policy measures and management strategies to enhance tourist satisfaction and positive experience for agro-tourists in Sri Lanka.

Research Methodology: This research utilized both qualitative and quantitative data collection methods. The gathered data were analyzed using five instruments; reliability test, inferential analysis, Pearson correlation analysis, regression analysis, and Kruskal Wallis test.

Results: Ten possible policy measures and management strategies to enhance tourist satisfaction and positive experience for agro-tourists in Sri Lanka.

Limitation: This research is limited to investigating the factors that affect the tourist satisfaction of agro-tourists. The scope focused on three areas, destination, tourist, and travel characteristics. The study focused on foreign tourists who have already visited Sri Lanka and been to agro-tourism sites.

Contribution: This study is based on one such tourism concept which promotes in agricultural societies. The agro-tourism in Sri Lanka is identified as an important aspect of gaining the benefits of tourism. The satisfaction of the tourist must be ensured in the tourism industry for the long-term benefit of the business. The study contributes by suggesting actions and projects for agro-tourism satisfaction.

Keywords: *Agro-tourism, Tourist Satisfaction, Demographic Characteristics, Destination characteristics*

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1. Introduction

Guest Satisfaction is significant in determining the happy customers who experience a product or a service. Understanding guest satisfaction is important for any industry in order to establish loyalty, brand credibility, profitability, and the long run of business. Guest satisfaction in the tourism industry

is significant for the sustainability of the industry, destination attractiveness, and stability of the tourism businesses. Tourists select destinations that are accessible to them. The destinations provide accommodations, attractions, activities, and amenities for tourists. Those components are backed by different themes or concepts in order to provide tourists with a unique experience. These niche concepts are offered to different segments of tourists based on their special interests such as; Nature Tourism, Heritage Tourism, Agro-tourism, and Community Based Tourism.

From the country's perspective of tourism in Sri Lanka, some strategies and actions support the industry which is backed by the both government and private sector. According to the Sri Lanka Tourism Strategic Plan 2017-2020, niche markets are identified as prominent markets to be targeted by Sri Lanka (SLTDA 2017). Further to the strategic plan, the strengths are understood by the authorities to provide year-round opportunities for a diverse range of visitor experiences to attract tourists. It is understood that agro-tourism is one of the major tourism concepts development of tourism. This concept pays attention to the development of farming focused on sustainable communities and encourages tourist satisfaction through engaging in farming activities. All three pillars of sustainable development are adopted by Agro-tourism (Mahaliyanaarachchi 2014). It has been developed to benefit rural agriculture-based communities, local economic development through enhancing demand for local products and services, and finally, it encourages the development of the natural environment and ensures protection and conservation of the natural environment which is used for tourism development. Since tourism is identified as a tool to preserve native cultures, community involvement in tourism is crucial tourism (Prakoso, Pradipto, Roychansyah, & Nugraha, 2020). Agro-tourism as a fairly new tourism concept practice in Sri Lanka is in a significant stage in developing and elaborating tourism activities that lead towards the local economic development and tourism industry at large. Since there are many local-based services in agro-tourism, there is a necessity of creating quality services offered for the customers. In a way understanding means establishing service quality that enriches the capacity of tourist satisfaction, there is a need of determining the factors that caused tourist satisfaction. Agro-tourism concept is being developed to establish the potential tourist activities which are related to agriculture. Mostly, countries that engage in agro-tourism are having unique agricultural techniques and methods attached to their culture.

Sri Lankan agro-tourism industry is based on the country's traditional agricultural techniques and methods, traditions, rituals, and beliefs. Further, it has been practicing in all around the island in a way of promoting regional development in a very primitive manner and extremely functioning in the product development stage. Sri Lankan agro-tourism occurs in different areas in agriculture likewise, paddy cultivation, Chena cultivation, spice gardens, saltwater fishing, clear water fishing, commercial crops, and home gardening. Many hotels in Sri Lanka are now engaging in agro-tourism in order to diversify their products and differentiate from aggressive competitors. Since tourists' demand for food security, organic production, and traditional cooking is slightly enhancing, the agro-tourism concept is now been recognized as a blooming market in Sri Lanka tourism.

Therefore, the identification of the market status of agro-tourism in Sri Lanka has been focused on by the author. By which way the market is being addressed and what sort of market expectations are met in the Sri Lankan context are examined in the study. Although, the current position of agro-tourism services and their usability for tourist satisfaction is examined in the first place. Also, the author focuses on the identification of factors that determine the socio-demographic characteristics of agro-tourists. At this stage, the socio-demographic factors of the tourists received by Sri Lankan agro-tourism destinations will be discussed. The destination characteristics are also identified. Further to that, the author focused on examining the relationship between the level of satisfaction and socio-demographic and destination characteristics. The differentiation of satisfaction levels will be determined with the use of numerous characteristics of tourists that are categorized under socio-demographic characteristics. At the final stage, the study focused on the identification of ways and means to enhance the level of satisfaction of agro tourists. Strategies and actions have been recommended at the end of the research, based on enhancing tourist satisfaction towards tourist activities, tourist services, tourist accommodation, interpretation and guiding, and local experience.

In a nutshell, the study has focused on analyzing guest satisfaction with agro-tourism in Sri Lanka concerning tourists' socio-demographics and destination characteristics. The study examined the current situation of the agro-tourism industry in Sri Lanka while analyzing the relationship between the level of satisfaction, agro-tourism destination characteristics, and socio-demographic characteristics of agro-tourist. Further, the study suggested possible policy measures and management strategies to enhance tourist satisfaction and positive experiences for agro-tourists in Sri Lanka.

2. Literature Review

Agro-tourism is the holiday concept of visiting working farms, any agricultural, horticultural, or agribusiness operations for enjoyment, education, or active involvement in the activities of the farm operation. It applies to attracting travelers or visitors to an area used primarily for agricultural purposes (Jagtap, Nichit, & Benke, 2010). Agro-tourism refers to leisure activities organized by farmers targeting numerous visitors (Zoto, Qirici, & Polena, 2013). Agro-tourism is identified as a solution for poverty reduction through SME development among agriculture communities (Munyawarara, 2019). In the European context, agro-tourism occurred in the countryside as a supplement to farm businesses. It occurs as an agriculture-based tourism operation that brings visitors to a farm or ranch. According to Lamb it is tourism that promotes the process of attracting visitors and travelers to agricultural areas, generally for educational and recreational purposes (Malkanathi & Routry, 2011).

Agro-tourism concept is a somewhat new concept to Sri Lanka. There are various types of agro-tourism operators in Sri Lanka both in the formal and informal sectors. According to Senanayake and Wimalarathana, there are four primary categories of tourist services accommodation, tours associated with production or processing facilities, retailing services and, leisure and recreation activities. There are seven basic categories of agro-tourism in Sri Lanka. Namely; food production (vegetable/pumpkin farm), Animal farms [sheep farm, fish farm], Markets and retail [annual festivals], plants and gardens [greenhouse], overnight stays [camping and farm vacation], features [Agri museums] and activities [farm wedding] (Malkanathi & Routray, 2012; Malkanathi & Routry, 2011). The most of agro-tourism activities conducted in Sri Lanka are excursions to villages and fields. Hiriwaduna village trek, Panama village trek, and Sigiriya village trek are some such excursions. The concept could be seen as a mixture of agrotourism and ecotourism. Most of the hotels now offer village excursions for their guests. Jetwing Kaduruketha, Habarana Lodge by Cinnamon, Aliya Resort, and Spas are some such hotels that offer village excursions. Besides glamping and camping services are also offered as agro village experiences for their guests.

The tourism literature on tourist satisfaction defines the influence of socio-demographic factors on the satisfaction of tourists. A study carried out in Malaysia it stated that there is a significant difference in gender, marital status and education level of tourist satisfaction (Salleh, Omar, Yaakop, & Mahmmod, 2013). Another literature source based on Kuala Lumpur signified the influence of Age, Gender, Income, Job, Marital status, and Education on tourist satisfaction. The influence of each socio-demographic factor in determining tourist satisfaction has been described using descriptive statistics (Shahrivar, 2012). Weiler and Ham (2005) have studied the relationship between socio-demographic characteristics and trip characteristics with visitor satisfaction in their study titled "Relationships between tourist and trip characteristics and visitor satisfaction". Gender, age, education level, income, country of origin, and native language are the socio-demographic variables identified in the study. Where else the number of previous visits, group size, and group type were considered as the trip characteristics.

The influence of destination characteristics on tourist satisfaction is addressed in tourism literature. The accommodation, activities, and attractions of destinations are identified as the factors that satisfy the tourists who visit agro-tourism sites in Sri Lanka (Malkanathi & Routray, 2012). Accessibility and amenities were the other two destination characteristics that influence tourist satisfaction which was not at a satisfactory level for tourists who visited agro-tourist sites in Sri Lanka (Malkanathi &

Routray, 2012). Further, the tourist destination characteristics were analyzed using the multiple regression model in order to identify its influence on tourist satisfaction in cultural tourism study (Kodithuwakku, 2018). The destinations' characteristics are identified as significant factors when it comes to global identification and branding of tourism (Chigora, Ndlovu, & Zvavahera, 2021). Another study based on Sri Lanka regarding the satisfaction of tourists, has highlighted the significance of the destination attributes in establishing the satisfaction of tourists towards the visited destination (Ranasinghe, Kumudulali, & Ranaweera, 2019).

A Poland-based study titled "Measuring tourist satisfaction with destination attributes", discuss the influence of destination characteristics on the satisfaction of tourists. A study was carried out through a questionnaire survey of the tourists who visit Poland during a summer holiday. The sample consisted of 463 units. Five variables have been utilized in the study based on the services, activities, and facilities offered at the destination (Ghose & Johann, 2018).

3. Research Methodology

The study utilized both qualitative and quantitative data collection methods. A questionnaire survey was carried out to collect primary data. A field survey was carried out using a structured questionnaire to gather the primary data required for the second and third objectives. The survey was carried out among the tourists who visited agro-tourism sites in Sri Lanka. The population of this study is unknown since there is no proper manner to calculate the agro-tourism service providers in Sri Lanka. The majority of the services are unauthorized service providers. 260 numbers of tourists were selected as the sample for the questionnaire survey. Purposive sampling has been used as the sampling method which is a type of nonprobability sample. This method produces a sample that can be logically assumed to be representative of the population.

The dependent variables of the study are revisited intention, willingness to recommend the product, and loyalty to the destination which implicates the satisfaction of agro-tourists. The variables were identified through the literature on customer satisfaction. The independent variables include both quantitative and qualitative characteristics that determine the satisfaction of agro-tourist in Sri Lanka. Destination characteristics and Socio-demographic characteristics were considered the independent variables. The measures included both qualitative and quantitative measures. The destination characteristics were identified as an independent variable that caused tourist satisfaction (Della Corte, Sciarrelli, Cascella, & Del Gaudio, 2015; Marinao, 2018). The 5 A concept is been applied to the framework (Camilleri, 2018). Accessibility, Attractions, Accommodation, Activities and Amenities were identified as the variables that describe the destination characteristics (Ramesh & Muralidhar, 2019). The next independent variable used for the research frame is Socio-demographic characteristics, which are proven to impact guest satisfaction with tourist products (Bwana, Olima, Andika, Agong, & Hayombe, 2015; Ma, Chow, Cheung, Lee, & Liu, 2018). There are six major components identified as socio-demographic characteristics which impact satisfaction. Those are age, gender, education, profession, income, and country of residence (Kniatt, 1995; Lankton & McKnight, 2012; Ma et al., 2018).

Cronbach's Alpha test was used as the reliability test of the study. The inferential analysis was utilized to make inferences using the collected data. The purpose of the Pearson Correlation Analysis is to measure the strength of the relationship between the independent and dependent variables. The linear relationship between the variables was determined by the regression analysis. The Kruskal-Wallis H test (Sometimes also called the "one-way ANOVA on ranks") is a rank-based nonparametric test that has been used to determine the statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable.

4. Results and Discussions

Reliability Test

Reliability describes the degree to which instrument measures are consistent in repeated conduct. If Cronbach's alpha (CBA) records .7 and above the research is generally accepted. The three

instruments used in the research have met the threshold requirement of CBA. Though the CBA shows over .7, it may specify an issue on the unidimensionality of the instrument. Yet, it has been ignored and the analysis continued.

Descriptive Analysis

Attractions - It can be seen those mean responses were clubbed around 3 indicating that the responders are in agreement with the statements they answered. The standard deviation indicates around 1 which means that there is no significant spread of the responses from the mean. The skewness of questions was between -.05 to +.05. Therefore it is estimated that the responses are symmetric. The skewness of the majority of the responses indicated absolute terms are not greater than twice the standard error of skewness. It establishes the symmetry of the data. The normality recorder in Standard error of kurtosis. Tails of the distribution are longer in larger positive kurtosis in the normal distribution. A negative value for kurtosis indicates shorter tails. According to this data analysis, the dispersion is shorter based on kurtosis values.

Accessibility –Most of the responses were directed to agree on direction as it has clustered around 3. The standard deviation is 1.1 which indicates the responses are closer to the mean. The skewness of questions falls between -.05 to +.05 which is been estimated that the responses are symmetric. In most of the responses, the skewness statistic in absolute terms is not greater than twice the standard error of skewness. It further establishes the symmetry of the data. The standard error of kurtosis indicates normality. The larger positive kurtosis displays stretched tails than in normal distribution; a shorter tail is indicated in negative kurtosis. Finally, the data in this analysis the dispersion is shorter based on kurtosis values.

Accommodation – The responses have clustered around 3 which indicates that most of the responses are in agreement with direction. The standard deviation records around 1.1 which means the responses are closer to the mean. The skewness records between -.05 to +.05 for all questions. It has been estimated that the responses are symmetric. The skewness statistic in absolute terms is not greater than twice of the standard error of skewness in most of the responses. It further establishes the symmetry of the data. The standard error of kurtosis explains normality. Larger positive kurtosis display that the tails become stretched than the tail in a normal distribution whereas a shorter tail is indicated in negative kurtosis. When measuring the result of this analysis the dispersion is shorter based on kurtosis values.

Amenities - The responses have clustered around 3 signifying that the majority t of the responses are in the direction of agree. The standard deviation records around 1.1, implying that the responses are closer to the mean value. The skewness value in all questions remains between -.05 to +.05 which is directed at estimating that the responses are symmetric. The skewness statistic in absolute terms is not greater than twice the standard error of skewness. It denotes the symmetry of the data. The standard error of kurtosis defines normality. Accordingly to the analysis, the dispersion is shorter based on kurtosis values.

Activities - The responses have clustered around 3 indicating most of the responses agree with the direction. The standard deviation records around 1.1 representing responses that are closer to the mean value. The skewness for all questions records between -.05 to +.05. It is estimated that the responses are symmetric. The skewness statistic of most of the responses in absolute terms is not greater than twice the standard error of skewness. It further establishes the symmetry of the data. The standard error of kurtosis describes the normality. According to data, it is accepted that the dispersion is shorter based on kurtosis values.

Satisfaction - The responses have clustered around 3 indicating most of the responses agree with the direction. The standard deviation records 1.1 indicating responses are staying closer to the mean. The skewness for all questions was between -.05 to +.05. It is estimated that the responses are symmetric. In most of the responses, the skewness statistic in absolute terms is not greater than twice the standard

error of skewness. It establishes the symmetry of the data. The standard error of kurtosis explicates the normality. In accordance, it can be recognized that the dispersion is shorter based on kurtosis values.

Correlation Analysis

The correlation coefficient values are ranging from -1 to +1. Where Zero to +1 stands for a positive correlation while Zero to -1 stands for a negative correlation.

From the correlation test hypothesis one.

H1: There is a relationship between destination characteristics and tourist satisfaction with available agro-tourism products

Accommodation and activities have a high positive correlation with of satisfaction of agro-tourists as well as the attraction have a moderately high positive correlation with the satisfaction of agro-tourists. Accessibility and amenities have a low high positive correlation with the satisfaction of agro-tourists. Hypothesis one which, there is a relationship between destination characteristics and tourist satisfaction on available agro-tourism products which is implied that hypothesis one is accepted.

Regression Analysis

Accordingly, the regression diagnostic test the tourist satisfaction on available agro-tourism products (Dependent) is linear as the observed data are closely scattered around the predicted line. Further, the direction is also the same. Hence there is a linear relationship between agro-tourist destination characteristics and guest satisfaction. Multicollinearity refers to the condition that the independent variables are not closely correlated with each other. In this case, Tourist satisfaction with available agro-tourism products and Agro-tourist destination characteristics should be highly correlated. This condition is examined using the collinearity indicators in the multiple regression output. The tolerance level and VIF (variance inflation factor) for both independent variables. The tolerance is more than .1 and VIF is less than 10. Therefore, it can be confirmed that multicollinearity does not exist among the independent variables.

Residuals are the difference between observed figures and fitted figures. This can be tested through the Durbin-Watson statistic of the regression model. If the DW statistic =2 of any model, the autocorrelation will be Zero. Since the DW value of this model =1.929, it can be assumed that there is no autocorrelation in this data set.

To test the homoscedasticity, the scatter plot of standardized residuals against the standardized predicted value is to be observed.

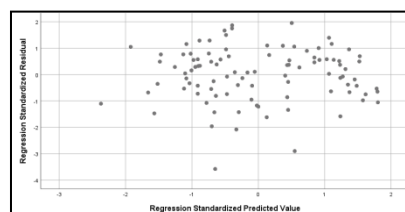


Figure 1. Scatter Plot for Homoscedasticity
Source: Author's calculations

This graph plots the standardized values that the regression model predicts, against the standardized residuals calculated. It can be observed that when the predicted values increase (along the X-axis), the variation in the residuals are approximately similar. It appears that the data points are looks like a random array of dots rather than clustered or funnel shapes. Therefore, it can be confirmed that the assumption of homoscedasticity is not violated.

Multiple Regression Analysis

Subsequently, the main assumptions are tested and the multiple regression analysis was performed to examine the factors determining the level of satisfaction of agro-tourists and to analyze the ways and means to enhance the satisfaction of agro-tourists in Sri Lanka.

The applied model for the research is,

$$SAT = \beta_0 + \beta_1 (ACTI) + \beta_2 (ACCE) + \beta_3 (ATTR) + \beta_4 (ACCOM) + \beta_5 (AME) \dots\dots (2)$$

SAT = Satisfaction of agro-tourists

ACTI = Activities

ACCE = Accessibility

ATTR = Attraction

ACCOM = Accommodation

AME = Amenities

The results are explained in Table 4.13, Table 4.14 and Table 4.15.

Table 1. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.751 ^a	.694	.109	.80096	1.521

a. Predictors: (Constant), ACTI, ACCE, ATTR, ACCOM, AME

b. Dependent Variable: SATI

The coefficient of determination (R^2) describes in which degree that the model explains the variation in the dependent variable in relative to the mean value. The R^2 value keeps between 0 and 1, and when the value of R^2 increases it signifies the model is fit. The higher the value of R^2 it describes that more of variation in the dependent variable is explained by variation in independent variables. The model indicates $R^2 = 69.4\%$ which means that 69.4% variations in the dependent variable can be vouched by independent variables.

Table 2. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.886	5	1.377	2.147	.028 ^b
	Residual	26.945	42	.642		
	Total	33.831	47			

a. Dependent Variable: SATI

b. Predictors: (Constant), ACTI, ACCE, ATTR, ACCOM, AME

Table 2 explains the F value of the model. When the p-value is than .05 p-value the reliability of the independent variables predicts the reliability of the dependent variable. Therefore it can be recognized that $F(2.147) = p < .05$, the Independent variables reliably predict the dependent variable.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.507	.745		4.705	.000
	ATTR	.319	.251	.112	.474	.038
	ACCE	.442	.202	-.159	-.703	.046

ACCOM	.582	.304	.152	.598	.033
AME	.378	.267	-.390	-1.416	.044
ACTI	.647	.239	-.172	-.617	.041

a. Dependent Variable: SATI

The unstandardized B values are the coefficients in the equation (2). Unstandardized B of attraction is .319, Accessibility is .442, accommodation is .482, amenities is .378 and activities is .447 and .272 ($p < .05$). Therefore, every coefficient is statistically significant.

$$\text{SATI} = \beta_0 + \beta_1 (\text{ATTR}) + \beta_2 (\text{ACCE}) + \beta_3 (\text{ACCOM}) + \beta_4 (\text{AME}) + \beta_5 (\text{AME}) \dots\dots\dots (2)$$

$$\text{SATI} = 3.507 + .319 (\text{ATTR}) + .442 (\text{ACCE}) + .582 (\text{ACCOM}) + .378 (\text{AME}) + .647 (\text{ACTI}) \dots\dots\dots(3)$$

The interpretation of coefficients can be explained as follows:

A one-unit change in attraction would change guest satisfaction by .319 units, and a one-unit change in accessibility would change guest satisfaction by .442 units. A one-unit change in accommodation would change guest satisfaction by .582 units. A one-unit change in amenities would change guest satisfaction by .378 units. A one-unit change in activities would change guest satisfaction by .647 units. All effects are significant and positive.

Kruskal-Wallis Test

This section tested whether Tourist satisfaction with available agro-tourism products is independent from each demographic variable. The result of the each variable is mentioned below.

Asymptotic significances are displayed. the significance level is .05

H0: the distribution of tourist satisfaction (TS) is the same across categories of age

Ha: the distribution of tourist satisfaction (TS) differs across categories of age

The significance of the test is less than 0.05 therefore the null hypothesis is rejected. Hence at the $\alpha = 0.05$ level of significant, there exists enough evidence to conclude that there is a different in the mean tourist satisfaction scores among the 5 age categories.

This section tested whether the Tourist satisfaction on available agro-tourism products is independent from the Gender of the respondents.

Asymptotic significances are displayed. the significance level is .05

H0: the distribution of tourist satisfaction (TS) is same across categories of gender

Ha: the distribution of tourist satisfaction (TS) differs across categories of gender

The significance of the test is less than 0.05 therefore the null hypothesis is rejected. Hence at the $\alpha = 0.05$ level of significant, there exists enough evidence to conclude that there is a different in the mean tourist satisfaction scores among the 5 gender categories.

Considering experience as independent and categories of Education are independent groups, the independents of Tourist satisfaction was tested using Kruskal Wallis test (k Independent sample, ordinal).

Asymptotic significances are displayed. the significance level is .05

H0: the distribution of tourist satisfaction (TS) is the same across categories of Education

Ha: the distribution of tourist satisfaction (TS) differs across categories of Education

The significance of the test is less than 0.05 therefore the null hypothesis is rejected. Hence at the $\alpha = 0.05$ level of significant, there exists enough evidence to conclude that there is a different in the mean tourist satisfaction scores among the 3 education categories.

Considering experience as independent and categories of Profession are independent groups, the independents of tourist satisfaction was tested using Kruskal Wallis test (k Independent sample, ordinal).

Asymptotic significances are displayed. the significance level is .05

H0: the distribution of tourist satisfaction (TS) is the same across categories of Profession

Ha: the distribution of tourist satisfaction (TS) differs across categories of Profession

The significance of the test is less than 0.05 therefore the null hypothesis is rejected. Hence at the $\alpha = 0.05$ level of significant, there exists enough evidence to conclude that there is a different in the mean tourist satisfaction scores among the 5 Profession categories.

Considering experience as independent and categories of Income are independent groups, the independents of tourist satisfaction was tested using Kruskal Wallis test (k Independent sample, ordinal).

Asymptotic significances are displayed .the significance level is .05

H0: the distribution of tourist satisfaction (TS) is same across categories of Income

Ha: the distribution of tourist satisfaction (TS) differs same across categories of Income

The significance of the test is less than 0.05 therefore the null hypothesis is rejected. Hence at the $\alpha = 0.05$ level of significant, there exists enough evidence to conclude that there is a different in the mean tourist satisfaction scores among the 4 Income categories.

Hypothesis testing

H1: There is relationship between destination characteristics and tourist satisfaction on available agro-tourism products

There is relationship between destination characteristics and tourist satisfaction on available agro-tourism products which is implied that hypothesis one is accepted.

5. Conclusion

Conclusions should include the principles and generalizations inferred from the results, or any exceptions, problems, or limitations of the work, theoretical and/or practical implications of the work, and conclusions drawn and recommendations.

Proposed to form a mechanism to coordinate and cooperate between government bodies in the Agro-tourism industry

Coordination is a key to success in any form of joint venture. Coordination leads parties to understand each other's similarities and differences while appreciating the strengths and support to overcome weaknesses. Agro-tourism as a tourism concept which is having roots from two different industries is in need of a formal amalgamation between the two parties. When developing agro-tourism in Sri Lankan context, it is needed to understand how those two parties work in a positive formal context to develop agro-tourism. Formal coordination between Sri Lanka Tourism Development Authority and the Department of Agriculture, Ministry of Agriculture, Department of Irrigation, Hotel Corporation and other agriculture services of the government suggested to be integrated in Agro-tourism development. Proper directives are to be communicated and the funds to be allocated for the joint projects with a revenue-sharing mechanism. Apart from those, knowledge advancement, technological infrastructure development, the amalgamation of two industries, service delivery and quality management, customer feedback management and stakeholder management to be effectively done to ensure the development of the agro-tourism industry in Sri Lanka.

Establish Agro-Ecological Zones in different regions

Sri Lanka is a country with high diversity in climate resulting an attractive range of agricultural crop production. This included vegetables, grains, herbs, fruits, and commercial crops as well. This viable condition in the country is suggested to be considered in an agro-tourism zoning system which supposed to develop agro-tourism in different climate zones allowing tourists to experience the difference. In this manner, it is highly potential to develop the local communities and their economy providing financial capital for the farming communities to invest in developing tourism services in their farmlands and ranches. The government should definitely support in providing seed funds in such tourism establishments. Furthermore, agro-tourism zoning must be developed and declared as a part of other tourism zones in the country. In this way, it is easy for tour agents to include agro-tourism attractions in the packages. Further, the tourism services development may be comparatively

easy when the agro-tourism zones are aligned with the other tourism zones inside the country. This must be promoted at least in short period of time until capturing an attractive proportion of the market for agro-tourism.

Product diversification in Agro-tourism Attractions

In a way of attracting tourists and providing them with different experiences, there are several product diversification attempts suggested for Sri Lankan Agro-tourism. Introduction of permanent crops in addition to vegetable farming is one such attempt to provide tourists with a different experience. Their crops could be coconut, fruits (Rambutan/ Mangoes) or any other commercially viable crop. Further, animal husbandry will add a colour to the field with petting zoos. This could be promoted with the natural beauty of the farmlands. Picking crops, feeding animals, farm weddings, and harvest festivals would add value to the product. Apart from product diversification through introducing new agriculture-based attractions, the lesser-known tourist sites in the vicinity will be attractive for tourists. As identified by the literature in agro-tourism, there is no clear demarcation for agro-tourists due to the mix of tourist expectations. Therefore, it is needed to promote agro-tourism products along with other tourist attractions such as cultural, natural, and community-based attractions within and vicinity areas.

Workforce development through Agro-tourism

The workforce is the leading factor of the country's development. It provides the opportunity for the country to establish economic and social upgrades inside the country and provide the globe with quality supply of work. Agro-tourism provides agro societies and identity and enhances the capacity with knowledge and information. The leadership, entrepreneurship, community empowerment, and marketing knowledge provided by the tourism industry, leads those individuals to contribute the country in more effective manner. Juice bars, Restaurants, stalls, flower festivals, food festivals, and many more new entrepreneurial idea and business are blooming as a result of tourism incorporation with agro societies. This should be encouraged by the government, agriculture, and tourism authorities for better development in society. Price controls, quality guidelines, proper educations and information, the monitoring system would add value to those new ventures by locals. Small and Macro industries will be promoted in this manner to uplift the lives of rural communities and encourage local economic development.

Diversification of Agro-tourism Activities

Apart from limiting agro-tourism site visits to sightseeing, there are more activity-based attractions potential to be established at the agro-tourism sites. The diversification of activities could be integrated with the product diversification and zoning of agro-tourism. Petting animals, feedings farm animals, managing ranches, harvesting, vegetable seeding and plucking, organic fertilizer production, rainwater harvesting, home stays, farm meal preparation (*ambula*), tea plucking, farm-to-table dining, village tours, a day as a villager, tasting traditional food are some of the activities to be included when diversifying the activities in agro-tourism sites. These activities must provide in a way to enhance education, inspiration on agro communities and disseminate knowledge on agricultural societies and their lives.

Induce organic farming methods as agro-tourism product

Tourists nowadays are very much concerned about the way that their food has been grown and harvested. Human society, due to various diseases and obesity faced are now concerned on their food production and preparation. As a result of this trend, organic farming identified as an important fact in human society. Even urban communities are now demonstrating their willingness to manage their own urban gardens with technological usage in order to produce organic food. When it comes to Sri Lanka with its history as an agriculture-based economy, has traditional agricultural methods in organic farming. Compost production through waste, organic fertilizers production via the waste collected through animal husbandry are some of the traditional organic farming techniques used by the Sri Lankan farmers since the history. These activities reduce the water pollution, soil erosion,

carbon emission while producing eco-friendly, healthy food for humans. This could be promoted at the agro-tourism sites in Sri Lanka aiming education and entertainment of the tourists.

Launching agro-tourism stakeholder awareness programmes

Agro-tourism concept is relatively a new concept which promotes in Sri Lanka which there is more awareness and attention is needed to promote in more economically viable manner. In the process of delivering an attractive and quality service that satisfies the tourists; it is needed to gain the full attention of the stakeholders in promoting this tourism concept. Stakeholders are the individuals or groups who have the ability to influence the business and also who gain the benefit by the business. In managing the business operation to sustain in the industry, the stakeholder influence and their contribution are much important. Attitudes, behavior, and support of the stakeholders are much influence in development of the business. When examining the stakeholders of agro-tourism, there are various type of groups and individuals. Farmers, Tourists, Travel agents, NTOs, Transport agents, Tour guides, Activity Centres, Local Community, Villagers are some of the main stakeholders that could be identified. Each stakeholder has a unique role in agro-tourism business operation. Usually, the government educates the quality standards to the host service providers from the sketch. Further government promotes loan schemes and infrastructure establishment to facilitate tourism development. NTOs promote the concept and attractions on their destination management platforms. Also, NTOs provide take care of the registration and regulation of tourist facilities. Further, facility development and operation guidelines, renewals, and industry interaction are planned and facilitated by the NTO. Establishment and management of Travel Agents roles are crucial in tourism development, since they prepare the tours and packages while selecting the attractive sites and activities. Therefore, it is very much needed to have travel agents included in agro-tourism development. Transport agents are the groups or individuals who manage transportation requirement of the guests. The local-based transportation system would ease the work of the other service providers while providing income for the local tuk tuk driver, bullock carts, rickshaws, etc. Local Community is the key factor in agro-tourism development. They significant as the service providers, hosts and the supporters of tourism development. If the local community does not welcome the tourists inside their area, the development of tourism would be a dream. Likewise, the establishment of a corporation and interaction of the stakeholders is significant in agro-tourism development.

Introduction of the technology for farming communities

Technology plays a vital role in current society since it eases the lives of people. The modern tourism industry depends on technology in different means. The tourists are keen on using hi-tech equipment and platform during their travels. Technology utilization is important both in the agriculture and tourism industries. The amalgamations between two industries are beneficial for both where the technology usage will multiply the positive impact on both sides. Technology utilization in agro production, sustainable methods of productions and enhancement of efficiency, green products, climate data collection and dissemination, soil quality check, irrigation monitoring techniques, visitor management, and self-guiding systems are some of the proposed areas for technology utilization.

Dissemination of knowledge and development education among the stakeholders

Education and knowledge are significant in managing and developing the agro-tourism industry. The stakeholders in agro-tourism must be provided with proper education on the tourism industry. The majority of the service providers are farming communities with a lack of proper education about tourism and service industry. In order to establish quality service sector in developing agro-tourism, training programmes, short courses and workshops must be conducted for the service providers. Furthermore, it is essential to educate the tourists and other outside stakeholders on local ways and lives in order to prevent potential problematic situations. Sri Lanka Tourism Development Authority, Sri Lanka Tourism Promotion Bureau and Sri Lanka Institute of Tourism and Hotel Management are the key government bodies that must take responsibility of educating tourists and service providers. Apart from that, the agriculture and irrigation departments, the ministry of agriculture, and the department of indigenous medicines should take lead in disseminating knowledge in agriculture technologies, green production, agro-production systems, and other preliminaries. The knowledge

improvement among the service providers, tourists, and other stakeholders results in a sustainable development in the agro-tourism industry and leads the satisfaction of the tourists.

Service Certification and Monitoring in Agro-tourism

There are “Five Principles of Sustainable Agriculture” based on certification of agro-tourism in Sri Lanka. The activities undertaken in rural farming communities should be monitored by the authorities in monthly basis to ensure the quality of the services and to monitor the continuation of sustainability practices in supplying products for visitors. In a way of encouraging services in agro-tourism, there are awarding schemes and rewards practices to be introduced. Quality assurance, customer orientation in service delivery, customer satisfaction and feedback should be monitored in deciding the rewards and recognition. This programme should be conducted incorporated with Sri Lanka Tourism Development Authority, Hotel Corporation, Department of Agriculture, Provincial Tourism Ministry, and Community tourism organizations. The lapses and gaps in services recognized when deciding the rewards, are to be filled with short courses and training for the identified service providers.

The ten recommendations made, are based on the research findings are proposed based on service quality, sustainability, local economic development, community-based agro-tourism development, service standardization and tourist satisfaction in the Agro-tourism industry in Sri Lanka.

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