

# Role of Awareness, Motivation, and Barriers on the Financial Benefits of Homestead Farming in Kerala

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## Abstract

The homestead farming is an important element in Kerala, which support the food security, nutritional improvement, environmental sustainability, and supplementary income generation. In recent years, increasing attention has been given to homestead farming practices and its health benefits. Along with the health benefits, it generates financial benefits for the homesteaders. These financial benefits may depend on different elements, it may be influenced by the awareness, motivational factors, and barriers. This study is an attempt to examine the influence of awareness, motivation, and barriers on the financial benefits of homestead farming in Kerala. The primary data for the for this research is collected by questionnaire form the homesteaders who are actively engaged in farming in their homestead. The study evaluated how the awareness about financial benefits of homestead farming influence the financial benefits of homestead farming, and likewise how the motivation and barriers affect the financial benefits of homestead farming. Since the data not followed normality, non-parametric tests were applied for the analysis. Findings are expected to help the policy maker to take relevant decision to support the homestead farming as a an financially beneficial system.

**Keywords:** Homestead farming, financial benefits, Awareness, Motivation, Barriers, Home gardens, Kerala.

## 1. Introduction

Homestead farming is a time-tested, affordable farming practice in the world, it is also prevalent in Kerala. Unlike commercial farming, the homestead farming can be practiced in a very small land area, even without land area (Jacob, 2014). In Kerala terrace gardening and vertical gardening are very popular among the people in urban area where land availability is too low. Traditionally, households in Kerala maintained home gardens consisting of vegetables, fruits, spices, medicinal plants, and along with that it incorporates livestock activities, poultry, and aquafarming. This ensures the food security by self-consumption of own product and generate income by selling surplus products. It is recognized as tool for food security in different parts of the world (Msengana et al., 2025). In recent years, due to the rise of

health concerns, fluctuating vegetable prices, and sustainable living have increased the interest in homestead farming among households in Kerala (Devi, 2010).

Homestead farming in Kerala is unique in its character; it follows a diversified and integrated cropping patterns with maximum utilization of land with eco-friendly approach (Bhattacharya & Sundaray, 2015). In addition to it the Integrated Farming System is another important aspect of the homestead farming. It considers the farming practice as a cyclical model where all the elements in farming are directly or indirectly related to each other (Bhagat et al., 2024). Home gardens are always considered as a sustainable agroforestry system, it contributes to the house hold food security, environmental balancing, and financial benefits to the homesteaders. This study discusses about the financial benefits of the homestead farming and how the awareness, motivation factors and barriers effect it.

Financial benefits of the homestead farming can be in different forms, it cannot be limited with the income earned by the households through the sales of produce but it has another important dimension, that is self-consumption. In most of the situations, homesteader may not be able to sell the product of their cultivation rather than that they use (self-consumption) the produce in their daily life (Patra et al., 2025). And in some cases, the excess product may be share with the friends, neighbour, and relatives in this situation their exists not financial transactions. However, these are having financial benefit even though it does not deal with money. The value of their self-consumption leads to savings of the households, and the sharing of produce with others can be considered as an investment in social capital, both have value (Kamiyama et al., 2016). This study considers the value of self-consumption, and Seles with the recall capacity of the homesteaders, which make this study unique.

## 2. Review of Literature

Farming in homestead is considered as a highly affordable and traditional practice in Kerala, its contribution to the food security and biodiversity is widely recognised across the world. According to Dagar (2016), homestead farming is an old and practical farming system in the world and it is most sustainable by integrating multiple corps with livestock. It supports ecological balance and sustainable use of available land.

Bhattacharya and Sundaray (2015) advocate that the home garden has a significant role in maintaining the food security of the house hold by providing vegetables, fruits, fuel, medicinal plants, and supplementary income by sales. The study highlighted the crucial role of homestead farming in economic uncertainties and food shortages. Similarly, Galhena et al. (2013) argued that home gardens significantly contribute to the household food and nutrition and it improve household economic conditions through savings by self-consumption and sale of surplus produce. Peyre et al. (2006) analysed the functional and structural elements of homestead farming and explained its significant role in financial balance of households.

Similar to the above, studies based on India have also advocated the relevance of homestead farming. According to Fernandes and Nair (1986), Indian home garden supports the household by using available land to make a sustainable eco system. It supports through ensuring food security as well as financial freedom by self-consumption and sales. In addition to that, Ferdous et al. (2016) states that households have experience a measurable reduction in monthly food expenditure by vegetable cultivation.

Kerala based studies also highlighted the relevance of homestead farming. Nair and Sreedharan (1986) explained the homestead farming in Keala follow an intercropping system; it works like an integrated system. Kumar and Nair (2004) focused the benefits of homestead farming and described that homestead gardens protect the ecosystem diversity, along with that they highlighted the barriers of home stead farming due to the urbanization and commercialization.

### 3. Research Gap

The review of literature indicated the nature of homestead farming and its importance in entire world. Studies from the different parts of world shows the wider acceptance of homestead farming globally. It also highlighted how this practice helps households in managing the food security and household finance. However, limited studies have focused on the influence of awareness, motivation, and barriers on the financial benefits of homestead farming with the context of Kerala. Present study is expected to provide valuable insights for policymakers, agricultural agencies, and state and local level governments.

#### Methodology

The study focusses on the four aspects they are awareness, motivation, barriers, and financial benefits. The behaviours aspects such as awareness, motivation, and barriers were accessed using the structured Likert scale question and financial benefits identified by using calculation-based questions.

Data collected from a district randomly selected form the list of districts which have corporation, municipality and panchayath. The selected district is Thrissur, which has one Municipal Corporation, seven municipality, and eighty six Grama Panchayats. 200 samples were selected form for the study. Purposive sampling method was used to collected the data form the respondent. The research ethics is followed in data collection, no details about the names or phone number were published in this research.

### 4. Data analysis

#### Awareness level on financial benefits among the homesteaders in different types of areas

Awareness level on the financial benefits of homestead farming may vary among the different residential areas. Residential area in this study is divided in to three they are Corporation, Municipality, and Panchayat. Following table shows awareness level on financial benefits among the homesteaders in different types of areas

- $H_0$ : There is no significant difference in the awareness level on financial benefits among the homesteaders in different types of areas.

Table 1 Awareness level on financial benefits among the homesteaders in different types of areas

Levels	Mean ± SD	KS test	Kruskal-Wallis
Corporation	3.123±1.141	0.000	0.110
Municipality	2.526±1.417	0.000	

Levels	Mean ± SD	KS test	Kruskal-Wallis
Panchayat	3.021±1.177	0.000	

Source: primary data

The collected data did not follow the normality, so non-parametric test (Kruskal Wallis H test) was applied in this study to test the significance in difference. The result of Kruskal Wallis H revealed that their no significant differences in the level of awareness on financial benefits of homestead farming among Corporation, Municipality, and Panchayat (  $p = .110$  ). The mean value is different among various types of areas, but the difference is not significant. It demonstrate that the awareness on financial benefits of homestead farming are almost similar across the homesteaders in different types of areas.

**The awareness on financial benefits of homestead farming with different levels of self-consumption and sales.**

The awareness level may have influence in self-consumption and sales. Following table shows the awareness on financial benefits of homestead farming with different levels of self-consumption and sales

- $H_0$ : There is no significant difference in the awareness level on financial benefits among the homesteaders in different levels of sales and self-consumption.

Table 2 The awareness on financial benefits of homestead farming with different levels of self-consumption and sales.

Sales or Self consumption	Level	Mean ± SD	P-value
Annual sales	High Sales	3.05 ± 1.15	0.42
	Moderate Sales	2.98 ± 1.26	
	Low Sales	2.78 ± 1.20	
Self-Consumption	High Use	3.13 ± 1.19	0.18
	Moderate Use	2.84 ± 1.19	
	Low Use	2.61 ± 1.24	

Source : primary data

Above table show that there is a difference in awareness level of homesteaders on the financial benefits (sales and self-consumption) of homestead farming. However the level of awareness on the financial benefits of homestead farming across different levels of Sales and self-consumption are not significant (  $p > .05$  ). It indicate that the awareness cannot make a significant change in the financial benefits of homestead farming.

### 5. Mean score of Motivating and barriers Across Different Types of Area

The motivation and the barriers are very important factors in homestead farming. Unlike commercial farming, the behavioural factors have strong influence on homestead farming. The following table shows how the motivational and barrier scores differ across the different types of areas.

- $H_0$ : There is no significant difference in the Mean score of Motivating and barrier across the different type of area.

Table 3 Mean score of Motivating and barrier across different types of area

Type of Area	Motivational Score	Barrier Score	P value
<b>Corporation</b>	11.26	10.16	0.037
<b>Municipality</b>	11.83	9.24	0.001
<b>Panchayat</b>	12.58	9.45	0.000
<b>P value</b>	0.01	0.16	

Source: Primary Data

Since the data not followed the normality, the non-parametric test (Kruskal Wallis H test) was used for the statistical analysis. As per the Kruskal Wallis H test, it was found that motivational score is significant among the types of area ( $p = .01$ ), whereas the barrier score are not significantly varying across the types of area ( $p = .16$ )

However, the motivation and barrier score within each type of area were significantly different. As per the Mann–Whitney U it was found that the  $p$  – value is greater than the threshold limit ( $p = .05$ ). It indicate that the motivation score is significantly high in all types of area in Kerala.

As summery, the motivation score is significantly different among the types of area, whereas the barrier score is not significantly different. However the motivational scores are significantly higher in all types of areas in Kerala.

### 6. Barriers score with sales and self-consumption

Following table show how the barrier scores in different level of sales and self-consumption.

- $H_0$ : There is no significant difference in the barrier scores in different levels of sales and self-consumption.

Table 4 Barrier’s score with sales and self-consumption

Sales or Self consumption	Level	Mean ± SD	p - value
<b>Annual sales</b>	High Sales	9.00 ± 3.23	0.07

	Moderate Sales	9.78 ± 2.46	
	No Sales	9.61 ± 2.67	
<b>Self-Consumption</b>	High Use	8.90 ± 3.26	0.01
	Moderate Use	9.77 ± 2.40	
	Low Use	9.73 ± 2.68	

Source: primary data

There is a difference in barrier score across different level of sales and self-consumption. However the difference is not significant in various level of sales ( $p = .07$ ), whereas the barriers scores in different level of self-consumption is significant ( $p = .01$ ).

### Motivation score with sales and self-consumption

Following table show how the motivation scores in different level of sales and self-consumption.

- $H_0$ : There is no significant difference in the motivation scores in different levels of sales and self-consumption.

Table 5 motivation score with sales and self-consumption

Sales or Self consumption	Level	Mean ± SD	p - value
<b>Annual sales</b>	High Sales	13.64 ± 4.24	0.000
	Moderate Sales	12.73 ± 3.19	
	No Sales	11.53 ± 2.74	
<b>Self-Consumption</b>	High Use	13.31 ± 4.00	0.000
	Moderate Use	12.57 ± 2.96	
	Low Use	11.12 ± 2.86	

Source: Primary Data

There is a difference in motivational score across different level of sales and self-consumption. And the difference is significant in various level of sales ( $p = .000$ ), as well as in different levels of self-consumption ( $p = .000$ ). It indicate that the motivation have strong impact on the financial benefits of homestead farming.

## 7. Findings

The levels of awareness of the financial benefits of homestead farming among the corporation, municipality, and panchayat are not significantly different. In addition to that, awareness on the financial benefits of homestead farming across different levels of sales and self-consumption are also not significantly different. It shows that the awareness on financial benefits of homestead farming doesn't have a significant role to play in financial benefits of homestead farming.

Whereas in the case of motivation and barrier scores, the motivation score is significantly different among the types of area, but the barrier score is not significantly different. However, the motivational scores are significantly higher in all types of areas in Kerala.

In addition, the barrier scores across different levels of sales are not significantly different ( $p = .07$ ), whereas the barrier scores in different levels of self-consumption are significant ( $p = .01$ ). On the contrary, in motivational scores, the difference is significant in various levels of sales ( $p = .000$ ), as well as in different levels of self-consumption ( $p = .000$ ).

## 8. Suggestions and recommendations

The need for motivation is visible in this study to make homestead farming financially more viable. Unlike organising awareness programs, it need to focus on motivational programs and stimulate the homesteader to do farming in their homestead. And also create a motivational environment and reduce the barriers to make homestead farming more attractive. The government and local bodies should take the initiative to motivate the homesteader to do homestead farming.

## 9. Conclusion

Homestead farming is a household-level production system that creates products that are useful for the household's purpose, and excess product can be sold in the market to earn money. However, the financial benefits of homestead farming are not properly recorded and not studied properly. This study analysed the behavioural factors that influence the financial benefits of homestead farming and found that the motivational factors have a significant impact on the financial benefits of homestead farming. So in the future, policymakers should consider policies for motivating the homesteaders rather than mere awareness programs.

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