



Exploring Adoption Behaviour and Economic Inspiration Level of Chrysanthemum Growers in Dharmapuri District of Tamil Nadu, India

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Chrysanthemum cultivation has gained prominence as a profitable floriculture enterprise, particularly in Dharmapuri district, Tamil Nadu, which ranks among the leading chrysanthemum-producing regions in India. This study examines the adoption behaviour of chrysanthemum growers and their level of economic inspiration, highlighting key factors influencing their decisions. A total of 60 farmers were selected using an equal proportionate random sampling method, and data were

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collected through a well-structured, pre-tested interview schedule. The study employed mean scores to assess the extent of technology adoption and categorized economic inspiration levels based on a five-point continuum scale. The findings revealed that growers had medium level of technology adoption (mean score 2.06), with key practices such as land preparation, propagation, fertilizer application, and pest control showing varying degrees of adherence. Economic inspiration among farmers was found to be a significant driver of adoption, with 40% of growers exhibiting a partial level of economic inspiration, followed by 31.67% at a perfect level and 28.33% at a least level. By addressing these practices, chrysanthemum farming can emerge as a sustainable and profitable enterprise, contributing to the economic upliftment of farmers in the region.

Keywords: *Economic inspiration; adoption; livelihood; income.*

1. INTRODUCTION

Floriculture plays a vital role in India's agricultural economy, contributing significantly to farmers' income and rural livelihoods (Anumala & Kumar 2021). Floriculture is the branch of agriculture pursued as a hobby and growing decorative floral species. It deals with the cultivation of both the flora and ornamental flora from the time of planting to the time of harvesting (Kumar & Esaimalar, 2021). Cultivation of flower crops increases income of the farmer through diversification of farm and improve their livelihood (Murugan et al., 2024 & Malathi et al., 2024). Among various floricultural crops, chrysanthemum (*Chrysanthemum indicum*) stands out as one of the most commercially important flowers due to its high demand in domestic and export markets (Shashank et al., 2016 & Janakiram et al., 2018). Chrysanthemum is one of the most beautiful and oldest flowering plant, commercially grown across the world. In India, chrysanthemum has area of 32,480 ha and production of 4,89,630 MT. The major chrysanthemum growing states in India are Karnataka, Tamil Nadu, West Bengal and Punjab (Shravani et al., 2023 & Sharma et al., 2023). Tamil Nadu ranks the second with area of 8,960 ha and production of 1,61,240 MT (Ministry of Agriculture & Farmers Welfare 2022-23), particularly Dharmapuri district has emerged as a key chrysanthemum-producing region, with many farmers adopting its cultivation for economic gains. The adoption behaviour of farmers is influenced by a range of socio-economic, technological and institutional factors (Retna et al., 2020 & Yanuaristy et al., 2021).

Economic inspiration is to improve one's financial status through agriculture, plays a significant role in shaping farmers' decisions (Bowman & Zilberman 2013). The level of economic inspiration among chrysanthemum growers determines their willingness to invest in

better farming techniques, adopt innovative practices, and explore market opportunities (Havardi et al., 2020). Studying the link between adoption behaviour and economic inspiration provides valuable insights into how floriculture can serve as a sustainable livelihood option. This study aims to assess the adoption behaviour of chrysanthemum growers in Dharmapuri district and examine their level of economic inspiration. By identifying key factors influencing adoption and economic motivation, the research seeks to provide recommendations for policymakers, extension agencies and agribusiness stakeholders to enhance the profitability and sustainability of chrysanthemum cultivation in the region. With this background, the following objectives were framed,

- To study the extent of adoption behavior of chrysanthemum growers.
- To study the economic inspiration level of chrysanthemum growers.

2. METHODOLOGY

Dharmapuri district was purposively selected for this study as it holds the second-largest area under chrysanthemum cultivation in Tamil Nadu. Within the district, Nallampalli block was chosen based on its highest area under chrysanthemum cultivation. Four villages from this block were selected for the study area. A total of 60 chrysanthemum growers were selected randomly using the equal proportionate sampling method. A well-structured and pre-tested interview schedule was employed to collect data through personal interviews. The collected data were systematically tabulated, analysed and categorized. Mean score is used to calculate the extent of adoption of chrysanthemum growers. The findings of the study are presented in the results and discussion section.

Economic inspiration: The primary goal of flower growers is to maximise profits while

minimising input costs. Production should rise while making the best use of technology in order to meet the objective. A self-made, pre-tested structure schedule was created as the basis for the introduction of improved technology with regard to economic aspects in floriculture. There are ten statements on this scale. Five-point continuums strongly agree, agree, neutral, disagree, and strongly disagree were used to collect the flower growers' responses. Scores were assigned in the following order: 5, 4, 3, 2 and 1, respectively. It was divided into three groups based on the mean \pm SD.

3. RESULTS AND DISCUSSION

3.1 Adoption Behaviour of Chrysanthemum Growers

Adoption is a decision to keep using an innovation to its full potential. It can be characterised as the long-term integration of an

innovation into a farmer's routine farming operations. Adoption can therefore be referred to as a behaviour response. When it comes to floriculture, it refers to a flower grower's overt actions as measured by the total adoption scores he received for the suggested technologies of particular flower cultivation. The following Table 1 shows the adoption level of a chrysanthemum production technology.

Thus Table 1 revealed that flower growers adopted technology and package of practices in cultivation of chrysanthemum cultivation with (mean score 2.06). It is also concluded that the higher number of flower growers 45.00 per cent adopted overall technology in chrysanthemum cultivation by medium level followed by 29.17 per cent adopted overall technology in chrysanthemum cultivation by high level and 25.83 per cent adopted overall technology in chrysanthemum cultivation by low level respectively (Fig. 1).

Table 1. Distribution extent of adoption of flowers production technology (n=60)

S. No.	Chrysanthemum cultivation practices	Mean score
1.	Land preparation at proper time	1.77
2.	Propagation at proper time by vegetative methods	2.15
3.	Planting after treatment	1.93
4.	Proper time of planting	2.06
5.	Proper dose and time of fertilizer application	1.94
6.	Use of bio-fertilizer for proper growth of plant	2.13
7.	Proper time of interculture to control weeds	1.88
8.	Proper stage of irrigation	1.79
9.	Proper time and method of pruning and cutting	2.04
10.	Use of hormones for proper growth of plants	1.98
11.	Use of disease control method	2.00
12.	Use of insect control method	1.96
13.	Realization of optimum yield	2.33
14.	Use of proper packaging and packing material for transportation of flowers	2.02
Overall average		2.06

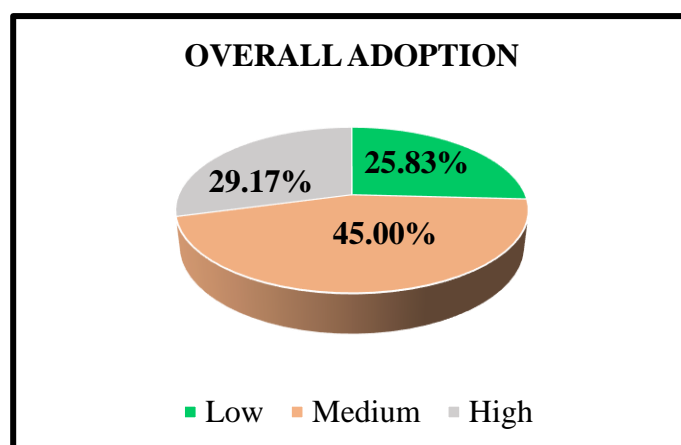


Fig. 1. Overall adoption level of chrysanthemum growers

Table 2. Distribution of the chrysanthemum growers according to their level of economic inspiration (n=60)

Variable	Categories	Frequency	Per cent
Economic inspiration	Least	17	28.33
	Partial	24	40.00
	Perfect	19	31.67

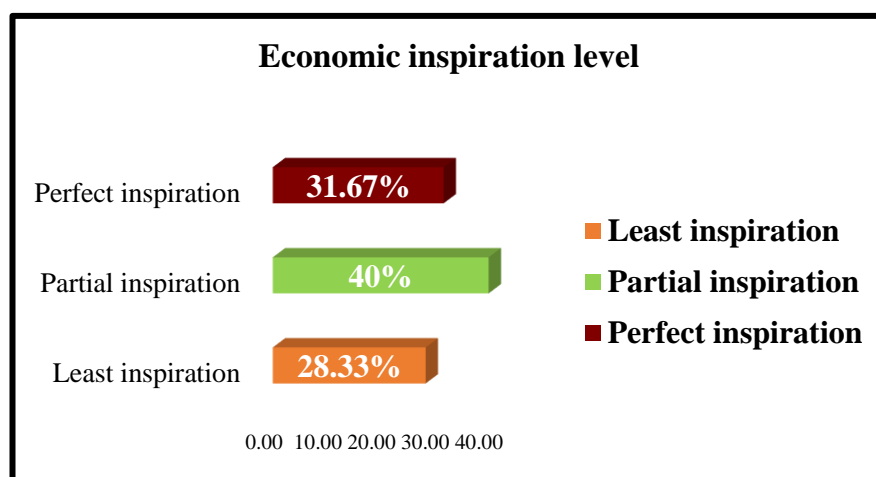


Fig. 2. Economic inspiration level of chrysanthemum growers

3.2 Economic Inspiration Level of Chrysanthemum Growers

It is a fact that flower growers must maximise their floriculture profits. A detailed examination of the choices made by flower growers that motivate them in relation to floriculture's financial objectives and direct their thinking may be at various levels, as shown in Table 2.

The result presented in Table 2 showed that the highest proportion of the flower growers 40.00 per cent was found to perceive partial level of economic inspiration followed by perfect level of economic inspiration 31.67 per cent and least level of economic inspiration 28.33 per cent respectively (Fig. 2). This led to understanding that the phenomena with regards to chrysanthemum cultivation was related more to partial level of economic inspiration followed by perfect and least level of economic inspiration.

4. CONCLUSION

While many growers have adopted improved cultivation practices, certain constraints such as financial limitations, lack of technical knowledge, and market fluctuations hinder full-scale adoption. Economic inspiration among chrysanthemum growers was found to be a

crucial determinant of their willingness to invest in advanced technologies and expand their cultivation. Farmers with higher economic inspiration were more likely to adopt innovative practices and seek better market opportunities. This highlights the need for targeted interventions, including training programs, financial support, and improved market linkages, to enhance adoption levels and economic outcomes. To promote sustainable chrysanthemum cultivation, policymakers and extension agencies should focus on strengthening institutional support, facilitating access to credit, and providing comprehensive advisory services. Encouraging farmer cooperatives, ensuring stable market prices, and promoting value-added products can further enhance profitability. By addressing the key challenges and fostering a conducive environment for innovation, chrysanthemum farming can become a viable and profitable enterprise, contributing to the overall economic well-being of farmers in the region.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

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

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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