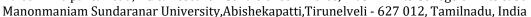
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### A STUDY ON EXPORT TRADE OF FLOWERS IN INDIA CONCERNING TAMILNADU

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## **ABSTRACT**

Our country considers Floriculture a hi-tech industry due to its diverse eco-geographical regions and varied agroclimatic conditions. India is well-suited for growing all kinds of flowers throughout the year. A researcher conducted a study to analyse the factors behind the export of flower businesses in the Thovalai region, a prominent centre for flower production and trade. The researcher designed a comprehensive interview schedule based on previous studies and research objectives and selected 150 exporters from the Thoyalai flower market to collect the required data. The study revealed that several factors influence the export of flower business in the study area.

**Keywords:** Export Trade of Flowers, Favourable Climate, Knowledge, Demand

## 1) INTRODUCTION

Flowers are the loveliest objects on earth. They instantaneously suggest beauty because they are associated with things that offer pleasure and delight. Our age-old culture, paintings, art and craft, ideas, emotions, religion, philosophy and social customs exhibit their memory haunting association with flowers. In short, they have played an important role in human civilisation and social development. Hence, floriculture has assumed great significance over the years. The Indian government has recognised the flower industry as a rapidly growing sector and granted it a 100% export-oriented status. This has led to commercial flower cultivation in controlled climatic conditions within greenhouses, making it a hi-tech activity. The Agricultural and Processed Food Products Export Development Authority (APEDA) is responsible for promoting and developing the flower business in India. The flower business consists of three major components: growers, wholesalers, and retailers, whose businesses are closely intertwined. Recently, there has been a trend towards eliminating intermediaries, particularly wholesalers, so flowers can be made available at lower prices. Flowers play an important role in social and religious activities in India. The various types of flowers are grown in different parts of the country based on soil and climate conditions and people's preferences. Some popular flowers include roses, marigolds, chrysanthemums, jasmines, lilies, tuberoses, lotuses, hibiscuses, sunflowers, petunias, dahlias, Nerium oleanders, asters, zinnias, carnations, gladioli, gaillardia, and more. However, since flowers are highly perishable and have a short shelf life, marketing them can be challenging, especially for long-distance transportation. Hence, flower cultivation is mainly concentrated in the hinterland of big cities such as Mumbai, Pune, Bangalore, Mysore, Chennai, Calcutta, and Delhi. But, with the advancement of quick vehicles and refrigerated or insulated vans, flowers can now be transported to distant markets, including foreign ones. Flowers are also used to extract essential oils, which are used in perfumes. Many flowers have medicinal properties and are used in Ayurveda. They are also used for various purposes, such as for new births and christenings, as a corsage or boutonniere for social functions or holidays, as wedding flowers for the bridal party, as decorations for the hall or brightening up homes, as a gift of remembrance for bon voyage parties, welcome-home parties, and "thinking of you" gifts, for funeral flowers and expressing sympathy for the grieving, and for worship. In Hindu culture, adherents often bring flowers as a gift to temples.

### 2) FLORICULTURE SCENARIO IN INDIA AND TAMIL NADU

Floriculture has emerged as an important agricultural sub-sector source of income for small and marginal farmers. Floriculture in India is estimated to cover an area of 2.55 lakh ha, producing 17,54,000 MT of loose flowers and 5.43 lakh MT. The trade of Indian flowers is worth Rs. 37,000 crores/ annum. Nearly 77% of the area under floricultural crops is concentrated in seven states comprising Tamil Nadu, Karnataka, Andhra Pradesh, West Bengal, Maharashtra, Haryana, Uttar Pradesh, and Delhi. Among different states, Tamil Nadu ranks first in area, followed by Karnataka, West Bengal, and Andhra Pradesh.

Global trade in cut flowers is estimated at 40 billion US dollars. Indian floriculture industry has been growing at a compounded annual growth rate (CAGR) of 24 per cent over the past decade. Indian flower export markets are estimated at 11 billion US dollars and are expected to grow to 20 billion US dollars by 2020. The culture of exchanging flower bouquets and flower arrangements, the growing affluence of the middle class to changing lifestyles, the Western culture mix, mall culture and the concept of "saying it with flowers" have revolutionised the domestic cut flower market by increasing per capita consumption of flowers in India. The awareness of the usage of cut flowers for various occasions has raised the demand for flowers in the market. The production of cut flowers has gone up to 7673.2 million stems during 2012-13 from 3717.5 million stems in 2006-07, and this is due to the improvement in the standard of living and quality of life, which ultimately increases the growth of domestic and export markets.

In Tamil Nadu, loose flowers are produced in an area of about 32,400 hectares with the production of 3,13,535 MT (jasmine, chrysanthemum, marigold, rose, Cassandra, and Nerium), and cut flowers are produced in an area of 700 ha with a production of 12,900 MT of cut stems per annum. Cut roses are grown in a 600-hectare area, producing 795 lakh jasmine stems, which cover an area of 15,584 ha with a production of 1,42,397 tonnes, contributing a major share to the floriculture trade. Tamil Nadu ranks first among the flower-producing states of India. It occupies 25 % of the country's flower production. Cut flowers are cultivated in Hosur, Nilgiris, Kodaikanal (upper and lower Palani hills), and Yercaud of Shevroyan hills.

Table 1
Area Under Flower Production in India

Sl. No	State	Area (ha.)	Percentage
1	Karnataka	19,161	29.58
2	Tamil Nadu	14,194	21.92
3	West Bengal	12,285	18.97
4	Andhra Pradesh	5,933	9.16
5	Maharashtra	3,356	5.18
6	Rajasthan	1,985	3.06
7	Delhi	1,878	2.90

8	Haryana	1,540	2.38
9	Madhya Pradesh	1,270	1.96
10	Uttar Pradesh	1,000	1.54
11	Others	2,166	3.34
Total		64,768	100.00

Source: APEDA Annual Report for the year 2020 – 21.

Table 1 presents the areas in India where the flowers were cultivated. It shows that the highest cultivation area was in Karnataka, which was 19.161 hectares, accounting for 29.58% of the total area. Tamil Nadu followed with 14,194 hectares, and West Bengal had 12.285 hectares. Andhra Pradesh had 5,933 hectares, Maharashtra had 3,356 hectares, and Rajasthan had 1,985 hectares.

Table 2
Export of Flowers

Sl. No.		2022-23		
	Country	Qty (MT)	Value (Rs. Lakhs)	
1	USA 2,631.82		18,078.94	
2	Netherland	1,552.80	12,844.60	
3	U Arab Emts 3,973.82	3,973.82	4,733.00 3,519.69	
4	U K	635.34		
5	Germany	710.17	3,089.33	
6	Malaysia	1,223.63	3,049.30	
7	Canada	696.50	2,859.30	
8	Italy	207.57	1,930.31	
9	Singapore	2,009.12	1,894.29	
10	France	246.82	1,727.53	
Total		13,887.59	53,726.29	

Source: DGCIS Annual Export'2023

## 3) PROFILE OF STUDY AREA

Thovalai is a well-known centre for flower production and trade. It is renowned for its fragrant flowers cultivated and distributed throughout the region. The location is ideal for flower cultivation as it enjoys favourable weather conditions, soil, and water. It is believed that flower cultivation began in Thovalai in the early 18th century when the Travancore king recognised the potential of the area. Different types of flowers were grown and supplied to various parts of the erstwhile Travancore state, particularly to Padmanabha Temple in Thiruvananthapuram and Iyyappan Temple in Sabarimala, for offerings to the local deities. More than 80 per cent of the villagers are involved in flower cultivation as their primary occupation, engaging in activities such as cultivation, harvesting, distribution, garland making, and marketing. Jasmine, chrysanthemum, marigold, rose, Cassandra, Nerium, and cut flowers are cultivated in this area.

## 4) REVIEW OF LITERATURE

**Amita Abrol and Hs Baweja (2019)** explored floriculture-worldwide production, Trade, Consumption patterns, market opportunities and challenges. The study deals with the commercial production of cut flowers, loose flowers, cut

greens, seeds, bulbs, landscapes, and plants, producing value-added products and marketing products. In the Netherlands, Aalsmeer is the largest international flower market. In the last 20 years, the production of floriculture products has grown by an average yearly growth of 6 to 9 per cent. Components of the floriculture industry are cut flowers, loose flower cultivation, high-value flower crops, essential oils and flower perfumes, flower seeds and bulb productions, landscape gardening, allied industries associated with floriculture, nursery, floristry, and value addition.

**Cristian E. Loyola et al. (2019),** the study shows an increase in demand for local cut flowers and the corresponding production also increased. The study used an electronically surveyed method from 1098 cut flower producers and handlers in the study area regarding their current cut flower production and postharvest problems and found customer issues. The researcher has received a total of 210 responses; the resulting rating is 19%. The study's results mainly consist of production problems, insect management, crop timing, the second most important problem, and disease management, the third. The main postharvest problems were temperature management, hydration and flower food management, and customer complaints about the vase life of flowers shattering.

#### 5) STATEMENT OF PROBLEM

Floriculture has become a lucrative source of income for small and marginal farmers. In the last decade, commercial floriculture has witnessed a surge in production globally. The world has become more interconnected, and people's lifestyles have changed, leading to a rising demand for flowers. The exports of flowers have also increased due to trade liberalisation in most countries. This increase in global trade has opened up new markets in different parts of the world, leading to new production centres to meet the growing demand. The researcher has taken the initiative to analyse the opportunities and factors influencing the flower export business.

## 6) OBJECTIVES OF THE STUDY

To explore opportunities in the export trade of flowers.

To determine the factors influencing the flower business.

#### 7) NULL AND ALTERNATIVE HYPOTHESES

H<sub>0</sub>: Respondents' opinions about the identified factors are not influencing the export trade of flowers

H<sub>1</sub>: Respondents' opinions about the identified factors influencing the export trade of flowers

## 8) SCOPE OF THE STUDY

The researcher has selected the Thovalai flower market, which is situated in the Kanyakumari district, as the study's location. The study's main objective is to analyse the prospects available in the flower export industry and identify the factors that promote flower exports in the region.

#### 9) METHODOLOGY

The researcher designed a comprehensive interview schedule by considering previous studies on the subject and the current research objectives. The researcher consulted with field experts and statistics professors to ensure the effectiveness of the survey instrument. The researcher then selected 150 exporters based on the register maintained in the Thovalai flower market and collected the required data.

## 10) LIMITATIONS

The study has focused solely on the Thovalai flower market with a limited sample size of 150. The reliability and accuracy of data are dependent on the honesty of respondents.

### 11) DATA ANALYSIS AND INTERPRETATION

Table 3
Socio-Economic Profile of Respondents

Characteristics	Frequency	Percentage	
Gender	Male	59	39.42
	Female	91	60.58
Age	< 30 Years	42	27.74
	30 – 50 Years	74	48.91
	> 50 Years	35	23.36
Marital Status	Married	113	75.18
	Unmarried	37	24.82
Educational Qualification	Higher Secondary	20	13.14
	Graduates	103	68.61
	Post Graduates	23	15.33
	Others	4	2.92
Annual Income	< Rs.2,00,000	29	19.71
	Rs.2,00,000 – 5,00,000	75	49.64
	>Rs.5,00,000	46	30.66

(Source: Primary Data)

Table 3 displays the characteristics of the participants selected for the study. A total of 175 individuals participated, with 39.42% male and 60.58% female. The majority of the participants (48.91%) fell between the ages of 30 and 50, followed by those under 30 (27.74%) and those over 50 (23.36%). Most respondents (49.64%) reported an annual income between Rs.2,00,000 and 5,00,000, while 30.66% reported earning over Rs.5,00,000 and 19.71% earned less than Rs.2,000,000 per month.

Table 4
The Factors Prompting the Flower Business

Sl. No	Variables	WAS	RANK
VAR1	Indian flowers have more demand in foreign countries.	3.814	II
VAR2	Floriculture is a high profit-yielding business.	3.873	I
VAR3	Floriculture has high export prospects.	3.548	V
VAR4	The flower market will have high growth shortly.	3.745	III
VAR5	Availability of land and other factors at subsidised rate	3.356	VII
VAR6	The desire for self-employment and personal interest in the floricultural industry	3.612	IV
VAR7	Had knowledge and experience in floricultural production and export	3.417	VI
VAR8	My family background favoured getting into the floriculture business.	3.289	IX
VAR9	The flower market will be attractive due to import substitution.	3.317	VIII

Table 4 discloses the factors promoting the flower business. It is observed that the first rank was allotted to the variable "Floriculture is a high profit-yielding business", with a weighted average score of 3.873, followed by the second rank given to the variable "Indian flowers have more demand in foreign countries", and the third rank assigned to the

variable "The flower market will have high growth shortly. Besides the variables "The desire for self-employment and personal interest in the floricultural industry" and "Floriculture has high export prospects." Got fourth and fifth rank, respectively.

Table 5
Inferential Statistics

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	1.355	.209		6.496	< 0.05
	VAR1	154	.042	105	-3.620	< 0.05
-	VAR2	.217	.044	.153	4.937	< 0.05
	VAR3	.570	.025	.514	23.048	< 0.05
	VAR4	.751	.042	.435	17.852	< 0.05
	VAR5	.126	.025	.089	4.966	< 0.05
	VAR6	.510	.074	.340	6.859	< 0.05
	VAR7	.170	.053	.072	3.213	< 0.05
	VAR8	833	.086	300	-9.665	< 0.05
	VAR9	523	.044	279	-11.847	< 0.05
R		R Square	Adjusted R Square	Std. Error of the Estimate	"F"	Sig. value
.838a		.703	.700	1.68224	24.391	< 0.05

a. Dependent Variable: Export trade of flowers

Table 5 presents the regression coefficients that show the relationship between the respondents' opinions regarding factors influencing the export trade of flowers in the study area. The values of "R" and R Square are 0.838 and 0.703, respectively, indicating that the model is a good fit as they exceed the threshold level of 0.60. The "F" value is 24.391, and the corresponding significance value is less than 0.05, which means that the independent factors are responsible for improving the export trade in the flower business. All nine selected variables have a "t" value greater than 1.96 and a corresponding significance value of less than 0.05. Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted, establishing that the identified factors significantly influence the export trade of flowers.

#### 12) FINDINGS

A total of 175 individuals participated, with 39.42% male and 60.58% female.

The majority of the participants (48.91%) fell between the ages of 30 and 50, followed by those under 30 (27.74%) and those over 50 (23.36%).

Most respondents (49.64%) reported an annual income between Rs.2,00,000 and 5,00,000, while 30.66% reported earning over Rs.5,00,000 and 19.71% earned less than Rs.2,000,000 per month.

The results show that the variable "Floriculture is a high profit-yielding business" received the highest weighted average score of 3.873, earning it the first rank. The variable "Indian flowers have more demand in foreign countries" came in second, while "The flower market will experience high growth soon" was assigned third place. The variables

"The desire for self-employment and personal interest in the floricultural industry" and "Floriculture has high export prospects" received fourth and fifth rank, respectively.

The identified factors influence the export of flower business in the study area.

#### 13) CONCLUSION

The floral industry offers numerous opportunities for suppliers of different types of flowers. This research paper examines the potential for flower businesses in various regions, such as Coimbatore, Madurai, and Hosur. However, this market faces challenges such as high transportation costs, inadequate production, and changes in consumer behaviour. The market can thrive based on the region's culture, seasons, functions, and festivals. If marketers and growers identify the exact demand, they could avoid challenges like wastage. In conclusion, this study highlights the positive trends and opportunities for the flower market, which encourages continuous growth of the flower industry and its suppliers.

#### CONFLICT OF INTERESTS

None.

#### ACKNOWLEDGMENTS

None.

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