Market Analysis for Floral Rejuvenated Products in Hyderabad City of Telangana State, India

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Original Research Article

ABSTRACT

Flowers are an important part of Indian culture, and because of various religious practises, tonnes of flowers frequently collect in places of worship such temples, mosques, churches, and gurudwaras. They are also generated at weddings, flower markets, residential neighbourhoods, and other events. Unfortunately, the majority of these flowers are frequently dumped in garbage and water after being used, endangering the ecosystem. In order to reduce the effects caused by floral waste this can be converted into the production of value added products like incense sticks, compost, soaps, essential oils. Hence, to understand the market for these floral rejuvenated products, the present study was taken to analyse the source of awareness of users and factors influencing the users to purchase the floral rejuvenated products. Data was collected from 120 users in the Hyderabad city and analyzed using descriptive statistics, ANOVA Test and Factor analysis.

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1. INTRODUCTION

India is a country with different religions where, worshiping is the way of living and people give various offerings to the deities, of which floral offerings are very important. Flowers are considered as holy entities hence are offered by people to the gods and flowers have utmost importance in every occasion. Indian culture has a close connection with flowers right from sunrise to sunset, as people start their day by offering flowers to their gods and goddesses, flowers are the inevitable part of life for the Indians.

In our society no social function is complete without the use of flowers. Floral garlands, gajras and venis are needed for marriage ceremonies. Floral ornaments, bouquets, or flower arrangements also find a pride of place in social gatherings, birthday parties, welcoming a home-coming friend or relative and honouring dignitaries. Arrangements of expensive cut-flowers are an inherent part of decoration in luxury hotels and affluent homes. The arrival of new-borns is rejoiced with flowers, the sick are wished speedy recovery by offering flowers, while the dead are bidden farewell with flowers [1, 2].

After fulfilment of their purpose they are treated as waste and discarded, being an offering, the discarded flowers and other waste do not find their way to the conventional disposal system. Instead, these are discarded as garbage or in rivers or left off on the open places or around the trees in temple areas creating environmental problems [3].

Degradation of floral waste is a very slow process as compared to kitchen waste degradation [4,5]. In order to reduce the environmental problems caused by floral waste there is a need for proper and eco-friendly process for floral waste treatment. The floral waste generated can be used for making value added products like compost, incense sticks, natural holi colors, rose water essence, natural dyes, soaps, handmade paper and for various ornamental purposes. The products which are prepared from the floral waste are called floral-rejuvenated products. Thus the present study was taken to understand the consumer awareness, perception and factors influencing the consumers to purchase the floral rejuvenated products.

1.1 Objectives of the Study

- To determine awareness about Floral rejuvenated products among different demographic profiles in Hyderabad.
- To identify most prominent source of creating awareness.
- To identify factors that influence the users in purchasing floral rejuvenated products.

2. METHODOLOGY

The present study was conducted in the metropolitan city of Hyderabad of Telangana state which has 6 Greater Hyderabad Municipal Corporation (GHMC) zones and the study was carried out in all the GHMC zones, namely L.B. Nagar (East- Zone), Charminar (South-Zone), Khairatabad (Central-Zone), Secunderabad (Northeast-Zone), Serilingampally (West-Zone), Kukatpally (North- Zone) during the year of 2021.

2.1 Sample Size

Sample of 120 users and 120 non-users from all the GHMC zones consisting of 20 non-users from each zone and 120 users of the floral rejuvenated products from the Hyderabad city were selected for the study.

2.2 Sampling Procedure

2.2.1 Method of data collection

Data was collected through survey method. 2 types of separate schedules were prepared to collect data from users and non-users.

2.2.2 Method of sampling

For selecting the users purposive sampling method was employed and for selecting the non-users random sampling method has been employed.

2.3 Analytical Technique Employed

The data collected is compiled and analysed using various mathematical and statistical tools in order to derive the results of the study. It includes descriptive statistics, tables and ANOVA.

2.3.1 Descriptive statistics

This has been used to find frequency and cross-tabulation. Cross tabulations have been used to compare the difference in responses concerning Gender, Income.

2.3.2 ANOVA test

This test has been used to find out the significant differences among different income brackets concerning their awareness of floral rejuvenated products.

3. RESULTS AND DISCUSSION

3.1 Socio-economic Status of Users of Floral Rejuvenated Products

Five socio economic characteristics were taken for study such as gender of respondents, their age group, education levels, Occupation and their annual income.

The Table 1 clearly shows that socio-economic level of respondents of users of floral rejuvenated products. Majority of the users of floral rejuvenated products are Females (80%) and half of them (50%) belongs to the age group of 36-45 years and 75 per cent of the users are all graduates and post-graduates and most of the users family income level ranges from 5-10 Lakhs.

3.2 Source of Awareness

It can noticed from the data collected and analysed that, for 40 per cent of users social media is the source of information about floral rejuvenated products. Whereas, for 22 per cent print media is the source of information followed by 15%, 12% and 10% of users for whom electronic media, friends and family respectively were the source of information. Hence, social media is the major source of information for the users about floral rejuvenated products.

3.3 ANOVA Test

3.3.1 Income levels affecting level of awareness of floral rejuvenated products

ANOVA was conducted to know whether there is a significant difference between the income levels of non-users and awareness of non-users regarding floral rejuvenated products. The hypothesis for the same is taken as follows:

Table 1. Socio-economic status of users of floral rejuvenated products

| Parameter	Range	Users	
		Frequency	**Percentage**
Age	18-25	0	0.00
(In Years)	26-35	38	31.67
	36-45	60	50.00
	46-55	20	16.67
	>55	2	1.66
Gender	Male	24	20.00
	Female	96	80.00
Educational status	Illiterate	0	0.00
	Primary	0	0.00
	Secondary	0	0.00
	Intermediate	15	12.50
	Diploma	3	2.50
	Graduation	55	45.83
	Post-Graduation	47	39.17
Occupation	Government employee	18	15
	Private employee	29	24.16
	Business	26	21.66
	Professionals	38	31.66
	Others	9	7.5
Family Income per Annum	<2.5 lakhs	4	3.33
	2.5 – 5.0 lakhs	12	10.00
	5.0 -10.0 lakhs	70	58.33
	>10 lakhs	34	28.33

Source of Awareness
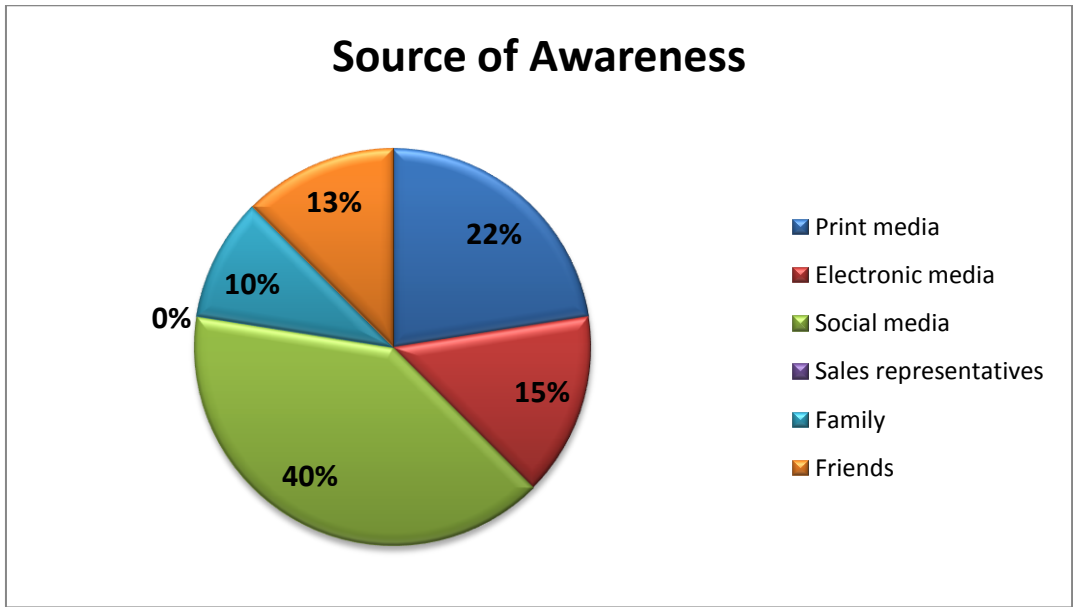
Fig. 1. Source of awareness

Table 2. ANOVA for Income levels affecting awareness of non-users in floral rejuvenated products

ANOVA: Single Factor

Summary						
Groups	**Count**	**Sum**	**Average**	**Variance**		
Less than 2.5 lakhs	33	49	1.484848	0.257576		
2.5-5.0 lakhs	40	62	1.55	0.253846		
5.0-10.0 lakhs	31	45	1.451613	0.255914		
More than 10 lakhs	16	24	1.5	0.266667		
ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Between Groups	0.180156	3	0.060052	0.233604	0.872803	2.68280941
Within Groups	29.81984	116	0.257068			
Total	30	119				

H0: There is no significant difference between income levels of non-users and awareness of floral rejuvenated products.

H1: There is a significant difference between income levels of non-users and awareness of floral rejuvenated products.

3.3.2 Result

As p value was 0.872803, which was >0.05 proves that there is no significant difference between income levels and awareness of floral rejuvenated products in non-users. Hence, H0 is accepted and H1 is rejected.

3.4 Factors Influencing the Consumers in Purchasing of Floral-rejuvenated Products

In order to analyze the factors influencing the users in purchasing the floral rejuvenated products in the study area, data was collected from 120 users of floral rejuvenated products and their opinions were recorded. Factor analysis tool was used to analyze the factors influencing the consumers in purchasing the floral rejuvenated products. The variables with eigen values more than 1 were considered for determining the number of factors. With Cattell's Scree plot factors were determined.
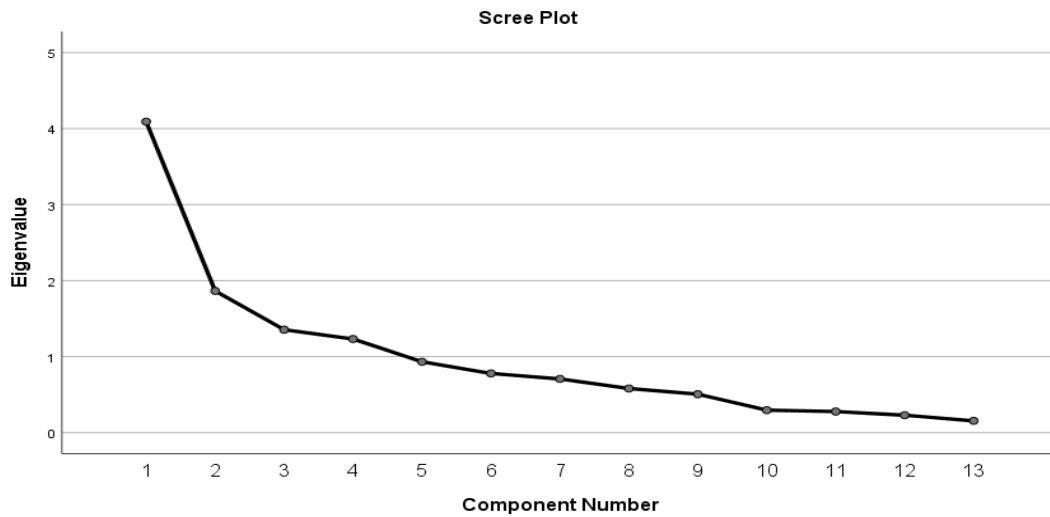
Scree Plot

Fig. 2. Cattell's scree plot showing the factors influencing the consumers in purchasing the floral rejuvenated products

Table 3. Rotated component matrix of factors influencing users in purchasing floral rejuvenated products

S. no.	Factors influencing users in purchasing floral rejuvenated products	1	2	3	4
1	Social Responsiveness	0.815			
2	Promotional Activities	0.802			
3	Environmental Concern	0.669			
4	Pleasant & Natural smell		0.778		
5	Good Satisfaction		0.727		
6	Health Benefits		0.698		
7	Natural & Superior Quality		0.542		
8	Good offers on the product			0.774	
9	Easy Availability			0.742	
10	Premium Price			0.735	
11	Increased demand & Popularity				0.791
12	Innovative Packaging material				0.664
13	Sense of Pride				0.595

The correlation matrix of rotated factor loadings is presented in Table 3 in which 13 variables were loaded into 4 factors. The factors social responsiveness, promotional activities, environmental concern were loaded as factor 1, pleasant and natural smell, high satisfaction, health benefits, natural and superior quality were loaded as factor 2, good offers on the product, easy availability, reasonable price were loaded as factor 3 and increased demand and popularity, innovative packaging material and sense of pride were loaded as factor 4.

The major factors that influence the users in buying floral rejuvenated products are social responsiveness and environmental concern as buying these products makes consumers feel that they are doing their bit to protect the nature. The product characteristics like smell, quality and its benefits were also found to influence the purchase of the floral rejuvenated products. Product availability, prices and offers are the third major influencing factors and finally the innovativeness of the product, sense of pride and popularity is the fourth factor which influence the purchase of floral rejuvenated products.

4. CONCLUSION

The findings of the study show that the awareness of floral rejuvenated products is majorly through social media followed by print

media. The ANOVA Test shows that the income levels does not show difference in the significance of awareness and purchase behaviour. The factor analysis shows that the four major factors influence the consumers in purchasing floral rejuvenated products. The factors that are identified through factor analysis are categorised into consumer's concern related to environment, product characteristics like quality, smell etc., availability of the product and popularity of the products.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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