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Analysis of buying behaviour and constraints faced by hybrid castor growers and dealers in Banaskantha district

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Abstract

Castor plant is a tropical plant that belongs to the Euphorbiaceae family and is grown for its non-edible oilseed. This plant has purple color stalks and large blue-green colors leaves of palmate shape. The oil obtained from the seeds of this plant is very usefull raw material in many industries like soap, surface coatings, cosmetics, pharmaceuticals, perfumes, greases and lubricants etc. The present study has been undertaken in Banaskantha district as having large areas and production under hybrid castor seed in North Gujarat. With the help of multistage random sampling four talukas viz., Deesa, Dhanera, Tharad and Palanpur were selected purposively having highest area under hybrid castor cultivation in the district. Five villages from each selected talukas were selected randomly. Further from each selected village, six hybrid castor seed growers were randomly selected comprising of 120 respondents. The study was mainly based on primary data, which were collected through personal interview with the help of structured schedule. Tabular, percentage analysis and Garrett ranking technique were used for data analysis purposes. The results showed that majority of hybrid castor seed growers purchased seed from dealers at the time of sowing according to dealers and fellow farmer's suggestion. Scarcity of particular company seed observed as a major constraint for hybrid castor growers. Majority of hybrid castor growers were expected more field demonstrations from seed companies. It was suggested that the seed companies should give more emphasis on farmer meeting, field demonstration and experts visit as a promotional activity and the companies should also ensure to provide quality seed of particular brand on time and in sufficient quantity at a reasonable price. Seed companies should also provide some promotional schemes against the case payment sales to reduce the problem of credit sales.

Keywords: Buying behavior, castor, hybrid, constraints and seed companies

Introduction

India is one of the leading oil seed producing countries in the world occupying 19 percent of the world's area and 10 percent of world's production. However, the productivity in India is only 1067 Kg/ha as compared to the world level of 1773 Kg/ha. India is one of the significant oilseed's growers and importer of edible oils. India's vegetable oil economy is the world's fourth-largest after USA, China and Brazil. The oilseed accounts for 14.00 percent of the Gross Cropped Area (GCA), 03.00 percent of the Gross National Product (GNP) and 10 percent value of all agricultural commodities. On global basis, India ranks first in the production of castor, safflower, sesame and niger, second in groundnut, rapeseed and mustard, third in linseed, fifth in soybean and sunflower.

The castor bean (*Ricinus communis*) is considered native to tropical Africa and is grown particularly in arid and semi arid regions. It is grown in 43 countries of the world including Pakistan and it is cultivated on commercial scale in more than 30 countries. The major share of the world castor production comes from a few countries like India, China and Brazil. The supply of castor and its derivatives is highly fluctuating. Any change in the production trend in any of these countries leads to a change in the level of world production. India is the biggest producer of castor seed (62.40%) followed distantly by China (19.20%) and Brazil (12.70%).

Gujarat is the leading state in castor seeds production in India followed by Rajasthan and Andhra Pradesh. Gujarat contributed 75 percent of the total production of castor seed in India in 2019-2020, followed by Rajasthan (15.00%), Andhra Pradesh (06.00%) and others (04.00%). In Gujarat castor cultivation comes from 6 districts of North Gujarat, viz., Mehsana, Banaskantha, Sabarkantha, Surendranagar, Patan and Kutch.

Materials and Methods

The present study aimed to analyse the buying behaviour and constraints faced by hybrid castor growers. As per the objective of the study, a purposive and multistage random sampling technique was adopted. At the first stage, four talukas, four talukas Tharad, Deesa, Dhanera and Palanpur from the Banaskantha district were selected on the basis of highest area under castor seed cultivation. Hence, these four talukas were selected purposively for the study. Then five villages selected from each selected taluka and six castor seed growers were selected from each selected village. Total 120 hybrid castor growers and 20 dealers were selected as sample respondents for the study.

The primary data were collected through personal interviews of hybrid castor growers by using a well-structured schedule. Secondary data were collected from published materials and websites. Tabular, frequency and percentage analysis and Garrett ranking technique were used for data analysis purposes.

Results and Discussion:

1. Buying behavior of hybrid castor growers

Time of purchase of hybrid castor seeds

Time of purchase of hybrid castor seeds of the sample hybrid castor growers are presented in the Table 1.

Table 1: Distribution of hybrid castor growers according to time of purchase

(n = 120)

Sr. No.	Time of purchase	Frequency	Percentage
1	At the time of sowing	93	77.50
2	Before the time of sowing	27	22.50
Total		120	100.00

Among 120 sample of the hybrid castor growers, 77.50 percent of hybrid castor growers purchased seeds at the time of sowing, whereas only 22.50 percent of hybrid castor growers purchased seeds before the time of the sowing. This pattern of time of purchase of hybrid castor seeds showed that majority of hybrid castor growers buy seeds at the time of sowing.

Mode of payment of hybrid castor seeds

Mode of payment of hybrid castor seeds to hybrid castor growers is also important to know buying behaviour. In this survey, two modes of payment are considered: cash and credit. The data regarding distribution of hybrid castor growers according to their mode of payment are presented in the Table 2.

Table 2: Distribution of hybrid castor growers according to mode of payment

(n = 120)

Sr. No.	Mode of payment	Frequency	Percentage
1	Cash	81	67.50
2	Credit	39	32.50
Total		120	100.00

Among 120 sample of the hybrid castor growers, 67.50 percent of hybrid castor growers purchased hybrid castor

seeds by cash whereas 32.50 percent of hybrid castor growers purchased by credit. This pattern of mode of purchase of hybrid castor seeds showed that majority of hybrid castor growers preferred to purchase seeds by cash.

Satisfaction level with the previously used hybrid castor seed variety

Farmer's perception and satisfaction regarding particular seed variety plays a critical role in future purchase of particular seed. In this study response of hybrid castor growers were accessed regarding the satisfaction realized from previously used company's hybrid castor seed and results are presented in Table 3. It is observed from the results that 81.67 percent hybrid castor growers were satisfied from the previous year seeds and only 18.33 percent hybrid castor growers were found unsatisfied with respect to the hybrid castor seeds variety grown in previous season.

Table 3: Satisfaction level of growers regarding hybrid castor variety grown in previous season

(n = 120)

Sr. No.	Satisfaction level	Frequency	Percentage
1	Satisfied	98	81.67
2	Unsatisfied	22	18.33
Total		120	100.00

Expectations of hybrid castor growers from different seed companies

The expectations of hybrid castor growers from company were presented in below Table 4. Field demonstrations ranked first which showed that the hybrid castor growers mainly expected field demonstrations from seed companies and affordable reasonable price which ranked second, followed by timely availability of seed, high yield quality of seed, free sample, and frequent visit of company.

Table 4: Expectations of hybrid castor growers from different seed companies

(n = 120)

Sr. No.	Expectations	Garrett's Score	Rank
1	Field demonstration	53.98	I
2	Affordable reasonable price	53.28	II
3	Timely availability of seed	50.31	III
4	High yield quality of seed	48.88	IV
5	Free sample	48.29	V
6	Frequent visits of company	45.41	VI

2. Constraints faced by farmers in purchasing and dealers in selling of hybrid castor seed

Constraints faced by farmers during purchasing hybrid castor seeds

Constraints analysis is important to overcome it, therefore this study point out the major constraints faced by farmers are presented in Table 5. The results of study showed that hybrid castor growers faced the major constraints as scarcity of particular brand of hybrid castor seeds followed by high price of hybrid castor seeds, timely non availability of seed, spurious seed, low yield and unavailability of seed in nearby area.

Table 5: Constraints faced by hybrid castor growers during purchasing hybrid castor seeds

(n = 120)

Sr. No.	Constraints	Garrett's Score	Rank
1	Scarcity of particular company seeds	55.53	I
2	High price of seeds	51.98	II
3	Timely non availability of seeds	50.64	III
4	Spurious seed s	49.88	IV
5	Low yield of seeds	47.95	V
6	Unavailability of seed in nearby area	44.10	VI

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Constraints faced by dealers during selling hybrid castor seeds

The data regarding constraints faced by the dealers in selling of hybrid castor seeds are presented in Table 6. The results revealed that major constraint faced by dealer was lack of awareness of use of seed by growers followed by credit sales, competition among dealers, lack of field staff and management of advertisement.

Table 6: Constraints faced by dealers during selling of hybrid castor seed

(n = 20)

Sr. No.	Constraints	Garrett's Score	Rank
1	Lack of awareness of use of seed by farmer	57.60	I
2	Credit sales	53.75	II
3	Competition among dealer	48.70	III
4	Lack of field staff	47.80	IV
5	Management of advertisement	41.15	V

Conclusion

Based on the finding of the present study, it can conclude that seed companies should give more emphasis on farmer meeting, field demonstration and experts visit as a promotional activity. The seed companies should provide the quality seed at reasonable price with on time availability. Seed companies should provide some promotional schemes against the case payment sales to reduce the problem of credit sales.

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