



Factors Affecting Marketing Behavior of Pea Farmers in Jabalpur District of Madhya Pradesh

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Authors' contributions

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

Article Information

DOI: 10.9734/AJAEES/2022/v40i930993

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/88231>

Original Research Article

**Received 05 April 2022
Accepted 10 June 2022
Published 15 June 2022**

ABSTRACT

Pea is a rich source of protein as well as income and employment in Jabalpur. Pea production is a highly good source of economic importance in Jabalpur. The study was conducted purposively from 2019 to 2020 in Shapura block of Jabalpur district, Madhya Pradesh (India) to find out the marketing behavior of pea farmers. A number of 120 pea farmers were selected in the Jabalpur district to bring to the fore the marketing behavior of pea farmers. The primary data were collected through a personal interview method with the help of a pre-tested interview schedule which was prepared based on the objectives of the investigation and variables. The statistical tests and procedures were used for analyzing the data with the help of statistical tools like mean, standard deviation, percentage, and Karl Pearson's coefficient of correlation. The result of the current study revealed that the majority of the respondents had a medium (53.33%) to a high level of marketing behavior.

Keywords: Pea farmers; marketing behavior; economic importance; packaging.

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1. INTRODUCTION

Field pea (2n=14) *Pisum sativum* (L.) var *arvense* is the second most consumed legume after chickpea and pigeon pea in India. It is an annual crop that belongs to the Leguminaceae or Fabaceae family. It is native to South Western Asia and widely grown in temperate countries [1]. Peas have been a key ingredient in cooking and food preparation for thousands of years. They are nutritious, versatile, and healthy. Common types include green peas, snow peas, and black-eyed peas. Green peas are low in saturated fat, cholesterol, and salt. They are a good source of protein, vitamins, and minerals, including vitamin A, vitamin B6, folate, and magnesium. They are also an excellent source of fiber, vitamin C, vitamin K, thiamin, and manganese [2]. According to United States Department of Agriculture Data [3], One cup (160 grams) of cooked green peas contains 134 calories (kcal), 8.6 grams of proteins, 25grams of carbohydrates, 8.8 grams of dietary fiber, 9.5 grams of sugars and 0.4 grams fat. In the district, the total Green Peas is sown in the year 2018-19 is 31,360 hectares area, and its annual production of the year 2018-19 is 52,500 tons [4]. Whereas, According to available secondary data, the pea crop yield in the Shahpura and Patan blocks is 9600 metric tons, with 1600 acres under this crop in the Shahpura and Patan blocks [5].

India is principally a vegetarian country and the second-largest producer of vegetables, next to china. Vegetables are edible plants or parts, intended for cooking or eating raw, as vegetables form an important part of our daily diet [6]. In a well-balanced diet, vegetables provide the most protective nutrients such as vitamins and minerals [7].

In agriculture, marketing is the terminating process that fetches income for farmers. Vegetables are the key diversifying component generating continuous income but are mainly practiced for subsistence purposes rather than commercializing [8]. There are three marketing functions involved in this, i.e., assembling, preparation for consumption, and distribution. The selling of any agricultural produce depends on a couple of factors like the demand for the product at that time, availability of storage, etc. The task of a distribution system is to match the supply with the existing demand by whole selling and retailing in various points of different

markets like primary, secondary, or terminal markets.

Marketing systems are dynamic, competitive, and characterized by constant change and improvement. Businesses with lower profit margin costs are lower, they are more efficient, and they can deliver [8]. Those who succeed are those who produce high-quality goods. Those that have high costs and are unable to respond to changes in the market demand are higher, but the quality is low. Often, businesses are forced out of business. It is necessary for marketing to be effective. Customers must be prioritized, and services must be provided. The farmer, the transporter, the trader, the processor, and so on, making a profit necessitates the participation of everyone concerned To comprehend the buyer, use marketing chains both in terms of product and service requirements and business circumstances.

Marketing behavior involves all the activities involved in the flow of goods and services from the production point till it reaches the ultimate consumer. The marketing activities involve the function of buying, selling, preparation of produce for marketing, assembling, transportation, grading, packaging, storage, processing, retailing, marketing, credit, distribution, quality assurance, market news and intelligence, extension, and training, development of the market network.

Government should give a fair deal in establishing markets at the village level and dissemination the latest market information to the farmers at the village level to avoid price fluctuation. Arrange adequate and timely transport facilities for the smooth movement of vegetables from the palace of production to market. The present study was carried out to know the various factors that are affecting the marketing behavior of pea growers.

2. METHODOLOGY

The present study was conducted in the Shahpura block of the Jabalpur district. The Shahpura block comprises 203 villages. Out of which 10 villages were selected randomly. A list of pea farmers was prepared with the help of a rural agricultural extension officer. From each village, 12 pea-growing farmers have selected thus a total of 120 respondents were selected as a sample of the study. The data were collected with the help of a pre-structured interview

schedule which was prepared based on the objectives of the study before the actual collection of the data. The data was organized, analyzed, tabulated, and presented in such a way that they may give proper representation and answers to the specific objectives of the study. For certain statistical tools frequency, percentage, mean, standard deviation, and correlation of coefficient were used.

3. RESULTS AND DISCUSSION

The study revealed that half of the respondents belonged to the middle age (56.67%) category. The majority of the respondents (48.00%) were educated in middle school, the majority of the respondents (95.83%) were irrigation potentiality to the high level, that more number of respondents belonged to medium level of farming experience(49.17%), the results regarding the annual income indicated that majority of the respondents (53.34%) belonged to medium annual income category, that 42.50 % of the respondents were large farmers, the result of the present study showed that the majority of respondents (70.00%) had farming

as their main occupation, 40.00 % of pea farmers had a medium level of extension participation, majority of pea farmers had medium level (45.00%) of mass media exposure, 49.17 % were in the category of medium market orientation, the data presented in a table that 40.00 % of them belonged to medium level of innovativeness category, 42.50 % pea farmers had a medium level of knowledge about pea production.

3.1 Marketing Behavior of Pea Farmers

The data presented in Table 1 reveals that highly perishable (91.67%) was the major reason for selling vegetables at a particular period followed by 79.17, 62.50, 53.33, and 24.17 percent of them disposing of their produce as it is financial urgency, nonavailability of cold storage facilities, quality was not good and indebtedness of traders, respectively. Most of the farmers sold vegetables immediately after harvest, in order to reduce the damage and to gain immediate monetary benefit. Vegetables like potatoes and onion were sold after initial storage, expecting a good price in the future [9].

Table 1. Marketing behavior

S. No.	Category	Frequency	Percentage
1	Reasons for selling at a particular period/time		
a.	Highly perishable	110	91.67
b.	Quality was not good	64	53.33
c.	No cold storage facilities are available	75	62.5
d.	Financial urgency	95	79.17
e.	Indebtedness to trader	16	13.33
2	Whom do you sell the produce		
a.	Directly to the consumer	61	50.83
b.	To the wholesaler through commission agents	100	83.33
c.	To the traders through co-operative societies	0	0
d.	To the Govt. agencies such as hostels	0	0
3	Reasons to sell a particular agency		
a.	The agency is very nearer one	104	86.67
b.	The agency is a worthy credit	86	71.67
c.	I have no time to engage myself in selling directly to consumers	108	90
d.	Immediate cash payment	85	70.83
e.	Previous agreement	96	80
f.	Better price	89	74.16
4	Where do you sell the produce		
a.	In the village	35	29.17
b.	In the nearby bazaar	99	82.5
c.	In mandy level market	102	85
d.	In the distant market	10	8.33
5	Reasons for selling at a particular place		
a.	The market is very near to a place	99	82.5
b.	The better transport facilities available in the market	88	73.33
c.	Better prices are available in the market	105	87.5
d.	Better market facilities available in the market	57	47.5

The majority of the respondents (83.33%) expressed that they sold their produce to wholesalers through commission agents followed by 50.83, 00.00, and 00.00 % who sold their produce directly to the consumers, to the traders through co-operative societies, and to the government agencies such as hotels, respectively.

Most of the respondents (90.00%) expressed that their selling the produce to the particular agency is due to the fact that they have no time to engage themselves in selling directly to the consumers, followed by 86.67, 71.67, 70.83, 80.00 and 74.16 % of them sold to particular agency mainly because of nearness to the agency, better price, immediate cash payment, the worthiness of the agency for credit settlement and previous agreement respectively, around 85.00 % of them sold their produce in mandi, whereas 82.50, 29.17 and 8.33 % of them sold in nearby bazaars, in their own villages and distant markets, respectively. A similar study conducted by Shrinivas et al. [9] revealed that “Farmers prefer nearby markets for sale, due to competitive prices and credit facility. If large quantity of marketable surplus they prefer to sell in for away

markets, usually farmers are not interested in selling products in the village because they perceive that they realize fewer prices for their produce.

The majority of the farmers (87.50%) expressed that they sold their produce at particular markets because of a better price and 82.50 % expressed that the markets were very near to them, 73.33 % told that it was because of better transport facility, while 47.50 % opined that it was because of the better market facility, respectively.

3.2 Overall Marketing Behavior

The data presented in Table 2 represents the percentage and frequency distribution of marketing behavior of pea farmers. It is clear that a maximum of 53.33 % of the respondents had a medium level of marketing behavior followed by 25.84 % of respondents who had a high level of marketing and only 20.83 % of respondents had a low level of marketing behavior. The present findings are supported by the findings of Maratha and Badodiya [6] and Rai and Dubey [10], Sonare et al. [11].

Table 2. Distribution of respondents according to their overall marketing behavior

S.No.	Categories	Frequency	Percentage	Mean	S.D.
1.	Low (up to 8)	25	20.83	12.8166	4.6957
2.	Medium (9 to 16)	64	53.33		
3.	High (17 to 23)	31	25.84		
Total		120	100		

Table 3. The correlation coefficient between independent variables and marketing behavior of pea farmers

S.No.	Independent variables	“r” value
1	Age	0.774**
2	Education	-0.632**
3	Irrigation%	-0.771*
4	Farming experience	0.746**
5	Occupation	-0.495**
6	Landholding	-0.138
7	Annual pea income	-0.187*
8	Extension participation	-0.006
9	Mass media exposure	- 0.661**
10	Market orientation	-0.697**
11	Innovativeness in pea production	-0.227*
12	Knowledge about pea production	0.662**

S* = Significant at 0.01 level of probability

S** = Significant at 0.05 level of probability

3.3 Relationship between Attributes of pea Farmers and Their Marketing Behavior

Table 3 represents the relationship between the independent variables and the marketing behavior of pea growers. Variables like age, education, Irrigation potentiality, farming experience, annual income, occupation, mass media exposure, market orientation, innovativeness in pea production, and knowledge about pea production of pea farmers show a significant relationship with the marketing behavior of pea farmers. Whereas, land holding and extension participation was having a non-significant relationship with the marketing behavior of the pea farmers [12]. The present findings are supported by the findings of Prashant Maratha and S.K. Badodiya [6] who studied marketing behavior and other attributes of vegetable growers at Kota block of Kota district in Rajasthan revealed in their study that age, education, farming experience, irrigation percentage, and knowledge about pea production is a very crucial and important variables and it is responsible for better marketing behavior and profit maximization and awareness regarding value addition.

4. CONCLUSION

It can be concluded that 53.33 percent of the pea farmers had a medium level of marketing behavior, selling their produce at a particular period just after the harvesting at nearby mandi(85.00%) as it is highly perishable(91.67%) and unavailability of any nearby cold storage facility for storage(62.50%) and Indebtedness to the trader(13.13%). It could be noted that most of the farmers (83.33%) sold their produce to wholesalers through commission agents. The factors like age, education, irrigation potentiality, farming experience, annual income, occupation, mass media exposure, market orientation, innovativeness in pea production, and knowledge about pea production of pea farmers show a significant relationship with the marketing behavior of pea farmers. Whereas, land holding and extension participation were having a non-significant relationship with the marketing behavior of the pea farmers.

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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