

# International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452

Maths 2023; SP-8(6): 362-366

© 2023 Stats & Maths

<https://www.mathsjournal.com>

Received: 26-09-2023

Accepted: 02-11-2023

**Sandhya Khanna**

Department of Extension  
Education, College of  
Agriculture, JNKVV, Jabalpur,  
Madhya Pradesh, India

**Kamini Bisht**

Department of Extension  
Education, College of  
Agriculture, JNKVV, Jabalpur,  
Madhya Pradesh, India

**Sonam Agrawal**

Department of Extension  
Education, College of  
Agriculture, JNKVV, Jabalpur,  
Madhya Pradesh, India

**Seema Naberia**

Department of Extension  
Education, College of  
Agriculture, JNKVV, Jabalpur,  
Madhya Pradesh, India

**Chandrika Sharma**

Department of Extension  
Education, College of  
Agriculture, JNKVV, Jabalpur,  
Madhya Pradesh, India

**Corresponding Author:**

**Chandrika Sharma**

Department of Extension  
Education, College of  
Agriculture, JNKVV, Jabalpur,  
Madhya Pradesh, India

## Marketing knowledge of onion growers of Indore district (M.P.)

**Sandhya Khanna, Kamini Bisht, Sonam Agrawal, Seema Naberia and Chandrika Sharma**

### Abstract

When it comes to vegetable production in Indian continent, onion plays a vital role in the country and foreign cuisine. Without onion there is no dish prepared and completed in Indian food. The study highlights characteristics of onion growers in the Mhow block of Indore district are similar to those in other regions of India. There is need for providing training to onion growers to enhance their productivity and profitability. The study recommends the establishment of an efficient market information system to provide onion growers with timely and accurate market information and recommends the provision of training to onion growers regarding good agricultural practices, market intelligence, and post-harvest handling techniques to help them realize better returns on their investments. Targeted interventions are needed to improve onion growers' marketing knowledge, particularly in areas like grading and packaging along with emphasis on the importance of extension services in providing growers with up-to-date information on market demand and price fluctuations. Overall, the study highlights the importance of marketing knowledge for smallholder farmers and the need for targeted interventions to improve their profitability and livelihoods.

**Keywords:** Onion growers, market information, training, smallholders etc.

### 1. Introduction

Agriculture plays a significant role in Indian economy as it constitutes 17-18% to country's GDP in 2018. The agriculture sectors meet up the food requirement in the country by taking much effort on production of almost all agricultural produces. India has occupied the second position with 5.5 lakh hectares of area of cultivable land and 77 lakh tonnes of production of onion next to China in the world [1]. In vegetables, onion plays a vital role in Indian and foreign cuisine. Without onion there is no dish prepared and completed in Indian food. However, India stands in the second place in production of onion with 20% of share in the world production next to China [1]. Since the demand for onion is throughout the year in India there are always problems in supply. A global review of area and production of major vegetables shows that onion ranks second in area and in production of the total vegetables in the world. Onion is an important commercial crop in India and is grown almost all part of the country of the country. At present, India stands second largest producer of onion in the world, next to China (FAO, Production Year 2020 Book). Indian onions are famous for their pungency and are available round the year. Per capita Consumption of Onion in India Price and religious consideration are the main factors which influence the consumption of onion in India. A particular segment of people avoids onion in their daily diet during the religious occasions. Usually, the price of the onion is lesser during the winter season. The level of its consumption depends upon the price. The per capita consumption of onion raised every year due to some reasons like changes of life and food style. During 2004-05 and 2009-10, the rural consumption of onions increased to 32% and urban consumption of onions increased to 18% in India. It is understood that the production of onions between these periods have increased to 90% in the country [2]. The share of onion production among major growing states includes Maharashtra (43%), Madhya Pradesh (15.20%), Karnataka (8.47%), Rajasthan (5.80%) and Gujarat (4.63%). It occupies an area of 1.24 million ha. with a production of 26.85 million tonnes in India (Horticulture Statistics Division, 2020).

**2. Materials and Methods**

The study was conducted in Indore district of Madhya Pradesh because it is one of the largest onion producing districts in the state. Indore district comprises of four blocks namely Indore, Mhow, Sanwer and Depalpur, out of only one block i.e. Mhow was selected because of having maximum number of onion growers. The block comprises of 174 villages, of which only two villages i.e. Datoda and Harsola were selected based on based on maximum number onion growers. From the selected two villages, 5 per cent of the respondents were selected randomly for the present investigation. Thus, the total numbers of selected respondents were 151. Major objective cover on this paper was socio economic characteristic of onion grower as we as marketing knowledge of onion growers.

Primary data was collected through a well- structured interview schedule; the data were presented in the form of table and graphs. The data was analysed by the use of appropriate statistical tools like percentage, frequency, mean, standard deviation and correlation coefficient.

**3. Results and Discussions**

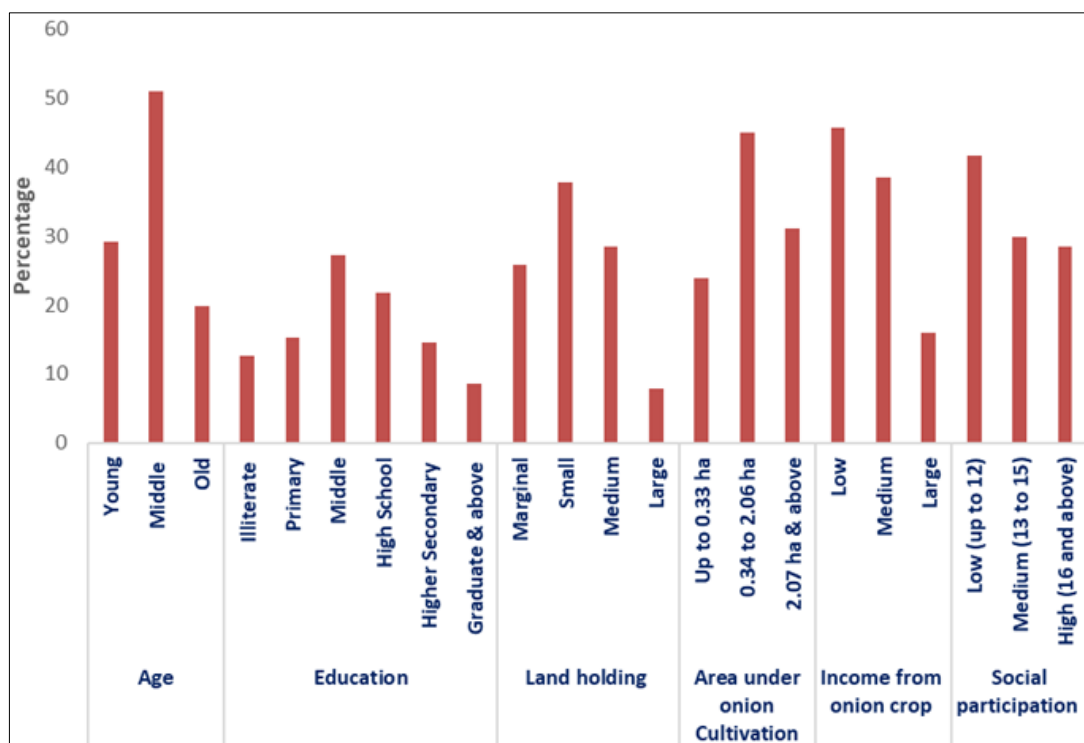
The explores the marketing knowledge and behaviour of onion growers in Indore district. The study aims to identify the gaps in the marketing knowledge of onion growers and suggest strategies to improve their marketing practices. The results of the study are presented and discussed in this paper.

**3.1 Age**

The results revealed that maximum percentage i.e. 51.00 per cent of the respondents were in middle age group followed by young age group (29.13%) while 19.87 per cent of the growers were in old age group. The probable reason for majority of the respondents being under middle age category might be due to the fact that most of the young people are not interested in farming and are looking for better livelihood options in urban area. This finding is supported by Agrawal (2013) and Patel (2015) [3]. The probable reason for majority of the respondents being under middle age category might be due to the fact that most of the young people are not interested in farming and are looking for better livelihood options in urban area.

**3.2 Education**

In study area, most of the growers i.e. 27.16 per cent were passed from middle school of education followed by high school (21.87%), whereas 14.56 per cent growers had education up to high second 15.23 per cent growers were passed upto primary school, 12.58 per cent of the growers were illiterate, 8.60 per cent of the growers were having education upto graduation and above. The reason behind it was that farmers believed that getting good education will help prosper in future. This might be due to the fact that farmers have easy access to schools and realization of importance of formal education in the present situation is also very high. This finding is supported by Kalaiselvi (2020) [1].



**Fig 1:** Socio-economic Profile of Respondents

**3.3 Land holding**

Most (37.75%) of the growers had small land holding followed by 28.48 per cent of the growers had medium size of land holding, 25.82 per cent of the growers had marginal size of land holding whereas, only 7.95 per cent of the growers had large size of land holding. This could be accredited to legacy of land from their ancestors who might have transferred from generation to generation. These findings are more or less similar to findings Patel (2015).

**3.4 Area under onion cultivation**

The result revealed that, 45.03 per cent of the growers had area 0.34 to 2.06 ha under onion cultivation followed by 31.13 per cent of the growers had area 2.07 ha and above, 23.84 per cent of the growers had area up to 0.33 ha under onion cultivation. These findings are more or less similar to findings of Agarwal (2013) [3], Tagore (2017) [4] and Baraker et al. (2021) [5].

### 3.5 Income from onion cultivation

The results of the study shows that considerable i.e. 45.69 per cent of the onion growers were in the range of low annual income (upto Rs. 260900) categories followed by 38.42 per cent in medium annual income (Rs 260901- 400000) categories whereas, only 15.89 per cent in the high annual income (Rs. 400001) categories. The credible reasons might be that average productivity and necessity for selling to get money, less prices for their produce, and small size of land holding.

### 3.6 Social participation

Majority of the respondents i.e. 41.72 per cent had low social participation followed by 29.80 per cent of the growers had

medium social participation and almost same 28.48 per cent of the growers had high social participation. The participation in the social activities provides opportunities for contrived experiences and sources of improved agricultural practices prevailing in the region or locality. The possible reason for above trend might be due to enthusiasm of respondents in solving their problems with social workers and also less attention due to lack of time to participate social activities to gather recent information and learn about practical utility of the new technology from extension workers. However, the results of medium category are in consonance with Baraker *et al.* (2021) [5].

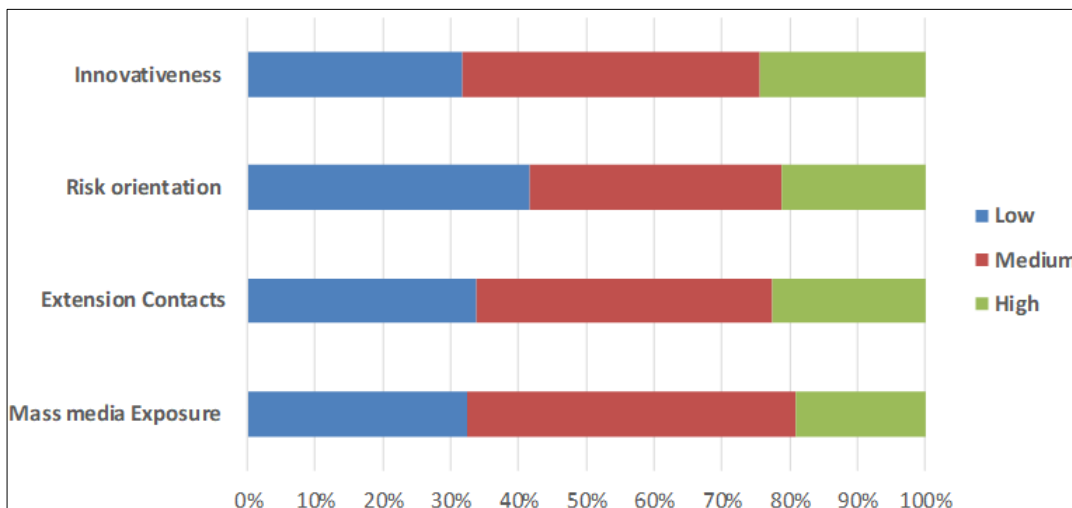


Fig 2: Profile Characteristics of Onion Growers

### 3.7 Mass media Exposure

Most of the respondents 48.35 per cent had medium level of mass media participation followed by 32.45 per cent had low and 19.20 per cent of the growers had high level of mass media participation. Mass media helps to update the newest developments in different fields including agriculture and possess the massive potential to be associates for change and improvement agriculture findings of this study is on par with the findings of Baraker *et al.* (2021) [5].

### 3.8 Extension contacts

Data showed that 43.70 per cent of the respondents had medium level of extension contact followed by 33.77 per cent had low level and 22.51 per cent of the growers had high level of extension contact. Different sources of information influence the knowledge and perception of the individuals towards any farming system and farming experience thus influencing extension contact. Extension contacts results in determined action which is largely conditional upon an individual's belief in his capability to carry out that action correctly and/or effectively and thus, he/she contacts various departmental officials to seek more information, to clarify the doubts pertaining to improving farming practices. The findings of this study is on par with the findings of Agrawal (2013) [3] and Baraker *et al.* (2021) [5].

### 3.9 Risk orientation

In study area, most of the respondents i.e. 41.72 cent had low risk orientation followed by 37.08 percent had medium whereas, 21.20 per cent of the onion growers had high risk

orientation. The risk bearing capacity of individuals depend upon the personal, psychological and socio-economic characteristics.

### 3.10 Innovativeness

It can be concluded that 43.51 per cent of onion growers were found who had belonged to medium innovativeness followed by 31.78 per cent of the growers belonged to low innovativeness category whereas, 24.51 per cent growers belonged to high innovativeness category. This also may be attributed to the fact that majority of the respondents had majority of the respondents (87.42%) had forma education and also most of the respondents were having medium level of extension contact. Generally, higher the formal education level, more favourable will be the attitude towards innovations. In such conditions, respondents try to seek more information and try out new ideas and technologies within their budget and limits and also farmers who are prone to innovations will try to gather information regarding the new technology from various aspects, they wanted to learn new ways of farming, improved cultivation practices and adopt those technologies at faster rate. Similar findings were reported Agarwal, (2013) [3] and Jangwad *et al.* (2021) [6].

### 3.11 Marketing knowledge of onion growers

The study on Marketing knowledge of onion growers aimed to assess the level of knowledge of onion growers regarding marketing of onions, and to identify the factors that influence their marketing knowledge. The results on level of knowledge about onion marketing practices is given in Table 1 below:

**Table 1:** Marketing knowledge of onion growers

S. No.	Statement	Frequency	Percentage	Rank
1.	Awareness about APMCs	108	71.52	VI
2.	Awareness about prevailing in the market for onion	100	66.22	VII
3	Perishable goods encounter more problem than semi-perishable	83	54.96	X
4.	Marketing of onion APMCs can realize more price	63	41.72	XIII
5.	Grading of onion fetches high prices	141	93.37	I
6.	Buyer pay money on the Spot	124	82.11	IV
7.	Quantity arrive in the market affect the prices of onion	59	39.07	XIV
8.	Weighment of commodity in APMCs is correct	89	58.94	IX
9.	Selecting of right marketing channel is first step in marketing of onion	131	86.75	III
10.	Awareness about the representation of farmer in management committee of regulate market	51	33.78	XV
11.	Selling of onion pre harvest contractor or village merchants result in realizing lesser prices	137	90.72	II
12.	Aware about the Share of farmer in the consumer rupee will come down drastically due to many middle man	79	52.31	XI
13	Aware about farmer need not to pay market fee	92	60.92	VIII
14	Extending the storage period increase the bargaining power	73	47.01	XII
15	Selling of onion in small quantity will increase the marketing cost	119	78.80	V

Results in Table 1 indicate that 93.37 per cent of the respondents had higher knowledge in case of Grading of onion fetches high prices followed by Selling of onion to pre-harvest contractors or village merchants result in realizing (90.72%), Selecting of appropriate marketing channels is first step in marketing of onion (86.75%), Buyer pays the money on the spot (82.11%), Selling of onion in small quantities will increase the marketing cost/transaction cost (78.80%), Awareness about APMCs (71.52%), Awareness about price prevailing in the market for onion (66.22%), Aware about no need to pay the market fee (60.92%), Weighment of commodity in APMCs is correct (58.94%), Perishable goods will encounter more problems than semi perishable (54.96%), Aware about the share of farmers in the consumer rupee will come down drastically due to many middle men (52.31%), Extending the storage period increase the bargaining power (47.01%), Marketing of onion in APMCs can realize more prices (41.72%), Quantity arrivals of onion in the market affect their prices (39.07%) and lowest was Awareness about the representation of farmers in management committee of regulated market (33.78%).

#### Distribution of respondent according to marketing knowledge of onion growers:

**Table 2:** Distribution of respondent according to marketing knowledge of onion growers

S. No.	Category	Frequency	Percentage
1	Low (Up to 4)	53	36.10
2	Medium (5 to 10)	62	41.06
3	High (11 and above)	36	23.84

Most of the respondents i.e., 41.06 percent had medium marketing knowledge followed by 36.10 per cent had low marketing knowledge and 23.84 per cent of the growers had high level of marketing knowledge. Majority of the respondents educated up to high school and when analysis of communication characteristics was made, majority of respondents had medium level of mass media exposure and extension contact. These factors have contributed more for possession of medium level of knowledge of onion cultivation practices. The present findings were in accordance with the results reported by Yashodhara *et al.* (2012)<sup>[7]</sup> and Kalaiselvi (2020)<sup>[11]</sup>.

#### 4. Conclusion

The study highlights characteristics of onion growers in the Mhow block of Indore district are similar to those in other

regions of India. The study also highlights the need for providing training to onion growers to enhance their productivity and profitability. The study recommends the establishment of an efficient market information system to provide onion growers with timely and accurate market information. It also recommends the provision of training to onion growers regarding good agricultural practices, market intelligence, and post-harvest handling techniques to help them realize better returns on their investments. Targeted interventions are needed to improve onion growers' marketing knowledge, particularly in areas like grading and packaging. There is need to emphasize the importance of extension services in providing growers with up-to-date information on market demand and price fluctuations. Policymakers and extension agencies should consider targeting older and less-educated growers with marketing training programs, as these groups were found to have lower levels of marketing knowledge. Overall, the study highlights the importance of marketing knowledge for smallholder farmers and the need for targeted interventions to improve their profitability and livelihoods.

#### 5. Reference

- Kalaiselvi P. Production and Marketing Problems Faced by Onion Growers in Perambalur District, Tamil Nadu. The International Journal of Analytical and Experimental Modal Analysis. 2020;12(1):1-8.
- Baraker SK, Lalitha KC, Manjunath KV, Reddy DA. Constraints and Suggestions in Production and Marketing of Onion in Gadag District of Karnataka, India. Int. J Curr. Microbiol. App. Sci. 2020;9(9):3155-3157.
- Agarwal N. A study on adoption behaviour of onion growers in relation to their socio-economic and psycho characteristics in Sehore district, Madhya Pradesh. M.Sc. (Ag.) Thesis, RVSKVV, Gwalior; c2013.
- Tagore L. A study on adoption behaviour of improved onion production technology of onion growers in Alirajpur district in Madhya Pradesh. M.Sc. (Ag.) thesis, RVSKVV Gwalior; c2017.
- Baraker SK, Manjunath KV, Lalitha KC, Lat CM. Profile characteristics and marketing behaviour of Onion growers in Gadag district of Karnataka. Indian Journal of Economics and Development, 2021, 9(40).
- Jangwad NP, Gaware KM, Kale NM, Salame SP, Bhopale PP, Wakle PK, *et al.* Correlates of profile of onion seed producers with their entrepreneurial behaviour, The Pharma Innovation Journal. 2021;10(2):72-75.

7. Yashodhara B, Narasimha N, Gopala YM. Marketing Knowledge and Problems Faced by Onion Growers of Chitradurga District of Karnataka. Research Journal of Agricultural Sciences. 2012;3(6):1192-1194.