



Research Article

CONSTRAINTS FACED BY THE FARMERS AND DEALERS IN PURCHASING AND SELLING FERTILIZERS IN BANASKANTHA DISTRICT OF NORTH GUJARAT

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Received: November 23, 2016; Revised: January 08, 2017; Accepted: January 09, 2017; Published: January 18, 2017

Abstract- The present investigation was under taken with the basic objective to know the constraints faced by the farmers and dealers in purchasing and selling fertilizers. The multistage random sampling technique was employed for the study. The study was conducted in Banaskantha district of Gujarat state. Three talukas namely Deesa, Dantiwada and Tharad were selected randomly from the district. In the next stage, four villages from each taluka were selected randomly. Thus, total 12 villages were selected through random sampling technique. In the last stage, 10 farmers were selected randomly from each village for making a sample size of 120 farmers. Further, 10 dealers from each taluka were selected randomly. Thus, total 30 dealers were selected through random sampling technique. The primary data were collected from the respondents through a pre-structured interview schedule by personal interview technique. The statistical tools such as frequency and percentage were used. The major constraints faced by the farmers in purchase of fertilizers were high price and non-availability on required time of the fertilizers. Large majority (86.67%) of the dealers faced constraint of less bonus on more sales.

Keywords- Constraints and Fertilizers

Citation: Patel Jatin, et al., (2017) Constraints Faced by the Farmers and Dealers in Purchasing and Selling Fertilizers in Banaskantha District of North Gujarat. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 9, Issue 3, pp.-3683-3685.

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Introduction

Just like humans and animals, plants need adequate water, sufficient food and protection from diseases and pests to be healthy. Commercially produced fertilizers give growing plants the nutrients they crave in the form they can most readily absorb and use. These nutrients are; nitrogen (N), available phosphate (P) and soluble potash (K). Elements needed in smaller amounts i.e. micronutrients include iron (Fe), zinc (Zn), copper (Cu) and boron (B). Primary nutrients are normally supplied through chemical fertilizers.

Fertilizer is generally defined as "a mined, refined or manufactured product containing one or more essential plant nutrients in available or potentially available forms and in commercially valuable amounts without carrying any harmful substance above permissible limits." [1]

Fertilizers have been considered as an essential input to Indian agriculture for meeting the food grain requirements of the growing population of the country. The fertilizer industry is one of the most energy intensive sectors in Indian economy. Being the backbone of agricultural productivity, the role of fertilizers has always remained crucial. The role of fertilizers for increased agricultural production particularly in developing countries is well established. Some argue that fertilizer is as important as seed in the Green Revolution [4].

The fertilizers industry in India consists of three major players; The Government owned public sector undertakings, cooperative societies like KRIBHCO, IFFCO and units from private sectors. There are about 33 major producers producing N, NP and NPK fertilizers in the country at present [1].

The installed capacity has reached a level of 132.58 lakh MT of nitrogen and

70.60 lakh MT of phosphatic nutrient in the year 2014-15, making India the 3rd largest fertilizer producer in the world. India is the second largest consumer of fertilizers in the world after China.

Table-1 Production of Urea, DAP and Complex fertilizers in India, 2014(In lakh MT) (Ministry of Chemicals and Fertilizers)

Year	2011-12	2012-13	2013-14
Urea	219.84	225.75	227.15
Complex	77.70	61.80	69.13
DAP	39.63	36.47	36.11

Methodology

In the process of achieving the objectives of the study, the ex-post-facto research design was used for the study. The sampling technique adopted was multi-stage random sampling. The present investigation was carried out in Banaskantha district of Gujarat state. The data on area under consumption of fertilizers in Gujarat indicated that Banaskantha is the leading district in consumption of fertilizers. Three talukas namely Deesa, Dantiwada and Tharad were selected randomly from the district. In the next stage, four villages from each taluka were selected randomly. Thus, total 12 villages were selected through random sampling technique. In the last stage, 10 farmers were selected randomly from each village for making a sample size of 120 farmers. Further, 10 dealers from each taluka were selected randomly. Thus, total 30 dealers were selected through random sampling technique.

The primary data were collected from the respondents through a pre-structured interview schedule by personal interview technique. The secondary data were collected from internet, magazines, scientific papers, journals related to agriculture, District Statistical Office and other related departments. The data were coded, classified, tabulated and analyzed in order to make the findings meaningful. The statistical tools such as frequency and percentage were used.

Formula of percentage:

$$\text{Percentage (\%)} = X \div Y \times 100$$

Where, X = Number of respondents

Y = Total number of respondents

Results and Discussion

Constraints faced by the farmers while purchasing fertilizers

The constraints faced by the farmers while purchasing the fertilizers were studied. The results in this regard are presented in [Table-2].

Table-2 Constraints faced by the farmers while purchasing fertilizers(n=120)

Sr. No.	Constraints	Yes		No	
		Frequency	Percentage	Frequency	Percentage
1	Less quantity	10	8.33	110	91.70
2	Poor quality	64	53.33	56	46.70
3	High price	117	97.50	03	2.50
4	Non availability in time	73	60.83	47	39.20
5	Lack of knowledge	34	28.33	86	71.70
6	More distance from the point of purchase	28	23.33	92	76.70
7	Lack of storage facility	52	43.33	68	56.70

The data in [Table-2] reveal that large majority (97.50%) of the farmers faced constraint of high price. Further, 60.83 per cent and 53.33 per cent farmers respectively faced constraints viz., non availability in time and poor quality while purchasing fertilizers.

On the other hand, 43.33 per cent and 28.33 per cent farmers faced constraints of lack of storage facility and lack of knowledge respectively. More distance from the point of purchase as constraint was mentioned by 23.33 per cent of farmers. Only 8.33 per cent farmers faced constraint of less quantity while purchasing the fertilizers. These results are in conformity with Mai chand and Sharma (2009), and Sidram *et al.* (2011) [2,3].

Constraints faced by the dealers while selling fertilizers

The constraints faced by the dealers while selling fertilizers were studied. The results in this regard are presented in [Table-3].

Table -3 Constraints faced by the dealers while selling fertilizers(n=30)

Sr. No.	Particular	Yes		No	
		Frequency	Per cent	Frequency	Per cent
1	Less commission	24	80.00	06	20.00
2	Not timely available	18	60.00	12	40.00
3	Less bonus on more sales	26	86.67	04	13.33
4	Poor packaging	04	13.33	26	86.67
5	Poor quality	07	23.33	23	76.67
6	High price	17	56.67	13	43.33

The data in [Table-3] reveal that large majority (86.67%) of the dealers faced constraint of less bonus on more sales. Further, 80.00 per cent and 60.00 per cent dealers faced constraints of less commission and timely non-availability while

selling fertilizers. On the other hand, 56.67 per cent and 23.33 per cent dealers faced constraints viz., high price and poor quality. Poor packaging as constraint was mentioned by 13.33 per cent dealers while selling fertilizers.

Expectations of the dealers from company

The data regarding expectations of the dealers in selling fertilizers from company are presented in [Table-4].

Table-4 Distribution of dealers according to their expectations (n=30)

Sr. No.	Particular	Yes		No	
		Frequency	Per cent	Frequency	Per cent
1	More commission	26	86.67	04	13.33
2	Easily and timely availability	20	66.67	10	33.33
3	Bonus on more sales	26	86.67	04	13.33
4	Good business relationship	18	60.00	12	40.00
5	Farmers' satisfaction	30	100.00	00	0.00

Almost all the dealers expected farmers' satisfaction by providing good quality of fertilizers. On the other hand, 86.67 per cent dealers expected more commission and bonus on more sales. Easily and timely availability as expectation was mentioned by 66.67 per cent dealers. Further, 60.00 per cent dealers expected good business relationship in selling fertilizers from company.

Conclusion

Looking to the constraints faced by the farmers, it can be concluded that farmers faced the constraints of high price and timely non-availability of the fertilizers. Large majority (86.67%) of the dealers faced constraint of less bonus on more sales. Further, 80.00 per cent and 60.00 per cent dealers faced constraints of less commission and timely non-availability while selling fertilizers. Almost all the dealers expected farmers' satisfaction by providing good quality of fertilizers.

Suggestions

The findings of the study will help the administrators and policy makers to know the constraints faced by the farmers and dealers in purchasing and selling fertilizers. Fertilizer manufacturing companies should open their fertilizer depot at village level for easy and timely availability of the fertilizer to the farmers. Manufacturing companies should make some effective strategies, which can help to reduce the constraint of high price.

Focus on customer relationship by providing toll free number to know and solve the problems of the farmers by the company is necessary.

Fertilizer manufacturing companies should pay reasonable commission to the dealers and make the fertilizers timely available to the dealers.

Farmers were most focusing on quality and good brand image rather than other factors, therefore, to sustain in the market, companies should maintain the quality for the farmers' satisfaction.

Acknowledgement

Indeed, the words at my command are not enough to convey the depth of my feeling and gratitude to the advisors, Dr. K. P. THAKAR, and Dr. K. M. JOSHI, Assistant Professor, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar for his most valuable guidance, keen interest and constructive suggestions during the course of investigation and help in preparation of this manuscript. I feel gratified to record abimopecto to the reviewers for assessing my article. Last but far from the least, I bow my head in extreme regards to the almighty and my parents whose blessings enabled me to reach this destination.

Author Contributions

This article is based on my (Jatin Patel) final project for the award of degree of MBA (Agribusiness) but without contributions of my co-authors this is next to impossible because they helped me in finding of some information, editing and giving me a valuable suggestions to prepare this manuscript.

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.

Abbreviations: DAP: Di-Ammonium Phosphate, GNFC: Gujarat Narmada Valley Fertilizers and Chemicals Limited, GSFC: Gujarat State Fertilizers and Chemicals Limited, IFFCO: Indian Farmers Fertilizer Cooperative Limited, KRIBHCO: Krishak Bharati Cooperative Limited, MT: Metric Tonne, NPK: Nitrogen, Phosphate, Potash

Conflict of Interest: None declared

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