

DEALER LOYALTY OF FARMERS TOWARDS PESTICIDES IN TUTICORIN DISTRICT

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ABSTRACT

A study was conducted in Tuticorin district of Tamil Nadu with 120 sample farmers to analyse the dealer loyalty of farmers to pesticides. A linear multiple regression model was employed. The results showed that the price of products and credit availability were significant, while all other included variables were not significant. The study showed that the farmers are loyal to dealers.

KEYWORDS: Dealers, Loyalty, Pesticides, Regression, Significant

The Indian economy is predominantly an agricultural one. The pressure on land in our country is constantly mounting, due to rapidly increasing needs for providing food, fibre and fuel to the ever increasing population. With the increased production of food grains, there is a subsequent need for increased use of pesticides to manage the fast emerging pest menace. In modern agriculture, plant protection is considered to be the key to a prospective crop and assured returns to investment. The amount spent on crop protection chemicals has increased from Rs. 600 million in 1970-71 to over Rs. 23,000 million in 1994-95, making India the twelfth largest consumer of pesticides in the world.

Marketing wing of any pesticide company has a great responsibility to see that the pesticides are made available to the farmers at the right time, at the right place and also to educate the farmers on the effective use of pesticides. Hence it would be necessary for the pesticide firms to develop perspectives on consumer characteristics, buying behaviour and problems faced by marketers in marketing of pesticides. The technical guidance and interaction between the retailers and the customers ensure mutual benefits. The retailing of pesticides is carried out by State departments, cooperatives and private dealers. The geographic coverage of the various dealers in an area will have an impact on the pesticide use and buying behaviour of the farmers. Although profit is the dealers' motive for sustaining the business, their minds are primarily filled with the thought of consumers, their needs, attitudes and preference. Dealer royalty is an integral part of the buying

behaviour and through this, the buying behaviour of farmers could be explained. Hence a study was attempted specifically to analyse the dealer loyalty of farmers towards purchase of pesticides.

MATERIALS AND METHODS

The study was carried out in three randomly selected blocks in Tuticorin district in Tamil Nadu during 1998. Tuticorin district was selected purposively since the pesticides usage in this district is relatively higher. Multi-stage random sampling technique was used to select the study blocks and sample respondents. In the first stage, three blocks namely, Kovilpatti, Tiruchendur and Srivaikuntam were selected at random by arranging the names of the blocks in the district alphabetically. In the second stage, from each selected blocks, four villages were selected at random in the same manner. Thus, twelve villages were selected for this study. In the final stage, from each of the twelve selected villages, the list of farmers were arranged and ten farmers were randomly selected from each village. Thus, 120 farmers spread over in three blocks formed the sample for this study.

A linear multiple regression model was specified to analyse the factors influencing the dealer loyalty of the farmers as follows :

$$Y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + u$$

Where,

Y = Dealer loyalty

b_0	=	Intercept
$b_1 - b_7$	=	Coefficients to be estimated
x_1	=	Price of the products
x_2	=	Credit availability
x_3	=	Availability of preferred brand
x_4	=	Customer service / Technical guidance
x_5	=	Quality of the products
x_6	=	Distance from farms
x_7	=	Malpractices
u	=	Error term

Measurement of variables

If a farmer purchased from a particular dealer for more than a year then he was considered as dealer loyal. A score of one was given to a farmer who had purchased from a dealer for one year, two for two years, three for three years and so on.

A four point scale was constructed to measure the independent variables x_1 to x_7 , using scores of four, three, two and one representing highly satisfactory, satisfactory, moderately satisfactory and not at all satisfactory. The variables x_6 represented the nearness to the farm and x_7 the extent of malpractices. A four point scale was used to measure the variable x_6 using four, three, two and one representing very near, near, distant and long distance respectively. Similarly variable x_7 was measured using scores of four, three, two and one representing none, some, many and too many.

Table 1. Estimates of dealer loyalty

Variables	Estimated coefficient	Standard error	t value	Significance
Intercept	-5.692			
Price of the products (x_1)	1.657	0.287	5.774	**
Credit availability (x_2)	0.809	0.130	6.223	**
Availability of preferred brand (x_3)	0.040	0.198	0.203	NS
Customer service (x_4)	-0.051	0.327	0.463	NS
Quality of product (x_5)	-0.099	0.368	0.269	NS
Distance from farms (x_6)	0.172	0.351	0.490	NS
Malpractice (x_7)	0.501	0.340	1.474	NS

$R^2 = 0.60$; $N = 120$; $F = 27.97$

** = Significant at one per cent level of probability

NS = Not significant

respectively. The following variables were included in the model.

Price of the product

The prices administered by different organisations in pesticide retailing varied and the farmers in their efforts to economise the expenditure on pesticides would become more loyal to a dealer who offers pesticide at a comparatively lower price.

Credit availability

Availability of credit facilities at the retail shops was found to influence the dealer loyalty among farmers. The amount and terms of credit offered were important to the farmers.

Availability of preferred brand

Availability of preferred brand, timeliness and adequacy of pesticides with a dealer made the farmers more loyal to the dealer.

Customer service / Technical guidance

It includes the treatment given by the dealer to the customers, who maintains a cordial and friendly relationship with his customers and induces the farmer to remain loyal to the dealer.

Quality of the product

This refers to the availability of quality pesticides with a dealer. When the farmers feel that high quality and efficient pesticides are available with the dealer, then, they tend to remain loyal to that particular dealer.

Distance

The farmers tend to purchase the inputs at points close to their farm and so distance from the farm to the dealer's shop was considered as a variable influencing dealer loyalty.

Malpractices

Adulteration, sale of expired pesticides, ill filled containers, duplicate products and higher price were some of the common malpractices adopted by the dealers. The farmers were disloyal to the dealers who were doing the above malpractices, whenever they happen to know it.

RESULTS AND DISCUSSION

The results are presented in Table 1. It could be seen that the coefficient of multiple determination (R^2) was 0.60, which implies that the explanatory variables included in the function explained 60 per cent of variation in the dealer loyalty of the farmers. Among the independent variables, the price of the products (x_1) and credit availability (x_2) were found to be highly significant, whereas all the other variables are not significant, even though the variables distance from the farm (x_3) and malpractices (x_4) had positive coefficients. This implies that they did not influence the dealer loyalty significantly. All other variables like availability of preferred brand (x_5), customer

service (x_6), quality of the product (x_7), etc are also non-significant. The study results implies that the dealers should ensure fair price for various products of pesticides, so that they can influence the dealer loyalty of farmers. In the long run this might help the dealers for realising larger turnover. Similarly the dealers should concentrate on extending credit to farmers at nominal interest rate which will help both the dealers as well as the farmers. If credit facilities are given by the dealers and the quality of products are good, naturally the farmers would tend to become more loyal to dealers. Rakila (1994) in her study at Coimbatore district found that credit availability and price of products were highly significant and the results of the study are in agreement with her findings.

CONCLUSION

The study shows that farmers are highly sensitive towards price of product and credit facilities. When credit facilities are made available to the farmers by dealers, coupled with reasonable pricing of products, the farmers become more loyal to the dealers.

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PATH ANALYSIS OF CHARACTERS CONTRIBUTING TO DROUGHT RESISTANCE IN GROUNDNUT

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ABSTRACT

Genotypic correlations were worked out among the six characters related to drought resistance and pod yield in 24 groundnut genotypes. Pod yield was negatively correlated with transpiration rate. Dry matter production had the highest positive direct effect on pod yield, while leaf area had the highest negative direct effect.

KEY WORDS: Path analysis, Drought resistance, Groundnut, Genotypic correlation

Drought is an important abiotic stress causing much reduction in yield. The stage at which the moisture stress occurs plays a major role in the final yield of the crop. The number of functional