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Puratchikkodi G, Srinivasan G. and Jeevamathi J.

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A Study on Factors Determining Consumers Purchase Decision on Palmyrah Palm Products in Tamil Nadu

Puratchikkodi G¹, Srinivasan G² and Jeevamathi J^{*3}

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Tamil Nadu is a potential centre for the growth and development of palm products industry to a greater extent so as to attract foreign exchange by way of export of Palm Products. Health and nutrition are the most important contributory factors for human resource development in the country. Hence, to improve nutritional status and health of consumers, consumption of like natural foods like palmyrah palm products are essential [1]. The domestic consumption of palmyrah palm products has been increasing because of urbanization, awareness and increases in per capita income. The growth of retail sector especially the growth of retailers on palmyrah palm products are tremendous [2]. In Tamil Nadu, cultivated area of palmyrah palm was 99 ha in irrigated area, 10343 ha in unirrigated area and 10442 ha in total area in the year of 2015-2016 (Department Economics and Statistics, Chennai). In this situation, this study on factor determining consumers purchase decision on palmyrah palm products in Tamil Nadu was selected for study with following specific objectives: i) To estimate the influence of factors determining the consumer preference for palmyrah palm products in Trichy city, ii) To offer suggestions for better marketability for palmyrah palm products in the study area.

Design of the study

i) Sampling design

In Tamil Nadu, Trichy is one of the major metropolitan city, located in the centre of the state and it representing urban and settled rural population. Hence it was purposively selected for the study. From the Trichy city, a representative sample comprising of 120 consumers from twelve corporate retail shops were selected randomly and three important palmyrah palm products namely palm jaggery, palm candy and palm sugar were considered for analysis.

ii) Tools of analysis

Logit model

In this study, Logit model is employed to assess the influence of the factors that determine the consumer's willingness to purchase. The empirical palmyrah palm products model specification was as below:

$$Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

$Z_i = 1$ if the consumers are willing to purchase palmyrah palm products, otherwise 0.

X_1 = Age of the consumer respondents (<30 (young) = 1, 31 - 60 (middle) = 2, > 60 (old) = 3).

X_2 = Educational status of the consumer respondents (Illiterate = 0, school=1, diploma=2, bachelor's degree=3, Post graduate=4, doctorate=5).

X_3 = Monthly income of the consumer respondents below 10,000 = 1, 10,000-25,000 = 2, 25,000-50,000 = 3, above 50,000 = 4).

X_4 = family size of the consumer respondents (small =1, medium =2, large =3).

X_5 Distance between consumers house and retail shop (5km =1, 5-10 kms =2, >10 km =3).

e = error term.

β_0 = Intercept term.

β_1 to β_5 is the elasticity coefficient.

The error term, which represented the unobservable socio-economic factors and characters of surveyed consumers were assumed to be independently distributed.

Factors determining the consumer purchase decision on palmyrah palm products

The factors which determine the consumer's preference to purchase palm products in retail shop viz, age, education, income, family size, additional price and distance were taken as independent variables. The dependent Z_i is the dichotomous variable i.e., it takes the value of one ($Z_i=1$) if the respondent having preference and take a value of zero ($Z_i=0$) otherwise. A logit analysis was done to identify the factors that determining the consumer's preference to purchase palmyrah palm products in retail shop.

* Jeevamathi J.

✉ jeevamathi1702@gmail.com

¹⁻² Department of Agricultural Economics, Faculty of Agriculture, Annamalai University, Annamalai Nagar - 608 002, Tamil Nadu, India

Table 1 Factors determining the consumer's willingness to purchase palmyrah palm products

S. No	Variables	Coefficient	Standard error	Odds ratio
1	Age(years)	-0.026**	0.020	0.974
2	Family size	-0.0364**	0.407	0.695
3	Education	0.099*	0.137	1.104
4	Distance (Km)	-0.20*	0.231	0.980
5	Additional price	0.111*	0.328	1.118
6	Income (Rs)	0.119*	0.268	1.127
7	Constant	1.553	1.462	
8	Count R ²	0.838		

**Significant at 5 percent level

*Significant at 1 percent level

It could be inferred from the table that the count R² takes the value of 0.83 i.e., the number of correct predictions was 83.8 per cent, which confirms the goodness of fit of the model. The coefficients of education, additional price and income were positively significant. From the odds ratio of these variables, it could be interpreted that if the education increases by one time, the consumer's willingness to purchase of palm products in retail shop would be increases by 1.10 times, if the additional price increased by one time, the consumer willingness to purchase palmyrah palm products would be increases by 1.12 times and the income increased by one time, the consumer willingness to purchase palmyrah palm products would be increases by 1.12 times [3-4]. The other three variables age, family size and distance were negatively significant. From the odds ratio of these variables, it could be interpreted that if the age (years), family size and distance increases by one time, the consumer willingness to purchase palmyra palm products would be decreases by 0.97, 0.69 and 0.98 times respectively [5]. Due to inability to find original palmyrah palm products, the consumers were increased their purchase if the price increase. This is due to the fact that most of the consumers have the idea that if the price is higher, quality also higher [6-7].

SUMMARY

Tamil Nadu is a potential centre for the growth and development of palm products industry to a greater extent so as to attract foreign exchange by way of export of Palm Products. The domestic consumption of palmyah palm products has been increasing because of urbanization, awareness and increases in

per capita income, the growth of retail sector especially the growth of retailers on palmyah palm products are tremendous. In this situation, the study on factor determining consumers purchase decision on palmyrah palm products in Tamil Nadu was carried out with following specific objectives: i) To estimate the influence of factors determining the consumer preference for palmyrah palm products in Trichy city, ii) To offer suggestions for better marketability for palmyrah palm products in the study area. Trichy is one of the major metropolitan cities, located in the centre of the state and it representing urban and settled rural population. Hence it was purposively selected for the study. From the Trichy city, a representative sample comprising of 120 consumers from twelve corporate retail shops were selected randomly. The results showed that at the consumer level, most of them are unaware of the palmyrah palm products especially brands. Therefore, the study suggested that information and awareness on health benefits of palmyrah palm products can be disseminated to consumers through advertisement and social networks for the better performance. The study concluded that the income of the consumer, price and quality of palmyrah palm products play an important role in taking decision regarding the purchase of the products. At the consumer level, most of them were unaware of palmyrah palm products especially brands. Therefore, information and awareness on health benefits of palmyrah palm products can be disseminated to consumers through advertisement and by mass media. All zonal railways may be requested to provide place for sale palmyrah palm products on the platform of major railway station to the cooperative societies and cooperative federations at the nominal rent considering the social significance.

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