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Research Article

Assessing the Factors Associated with Meat Consumption in Kerala

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ABSTRACT

A study was undertaken to assess the factors associated with the meat consumption in Kerala. The data pertaining to the demographic factors, socio -economic and cultural characteristics associated with consumption pattern of meat and meat products were collected using well-structured and pretested questionnaire. The results of the study revealed that the consumption of meat in Kerala is driven by several factors of which, the variables viz., central zone, south zone, occupation, family income, family size and frequency of meat consumption found to influence the consumption of meat significantly ($p<0.01$). Out of these significant variables, the variables - occupation, family income, family size and frequency of meat consumption were found to be positively influencing the consumption of meat. Other significant variables like central and south zonal dummies were found to be negatively influencing the consumption of meat. These factors play a vital role to the existing meat consumption pattern. Hence there is wide scope for the meat processors to establish their brands and shift the unorganized meat marketing system towards organized system through super markets.

Keywords: *Meat, Variables, Family income, Family size*

INTRODUCTION

Animal Husbandry is playing a pivotal role in the Indian economy by contributing about 3.9% of Indian GDP. Increased consumption of animal products will lead to increased demand for resources to produce animal products. The high income in the fast-growing developing countries tends to induce greater changes in the food consumption (Cranfield et al., 1998; Guo et al., 2000; Gould, 2002). Indian consumers require variety and choice in food and are increasingly concerned about the quality of the products. Golait and Pradhan (2006) analyzed the nature of shift in consumption pattern in India and observed that consumption of cereals is declining in urban India compared to rural and the study found clear shift towards meat, fish, milk and vegetables. Kerala has been experiencing an unprecedented consumption boom for animal products. A country's consumption pattern reveals a clear picture of its standard of living, poverty level, human development and the nature of its economic growth.

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Kerala depicts a paradoxical picture of high social development with uneven economic growth. Multinational companies have invested heavily in financial and managerial resources in Kerala to develop the market for their products. Consumerism found favour with people especially among the middle and high income groups.

MATERIALS AND METHODS

Selection of the Study Area

To analyze the effect of seasonal and regional trends on the consumption pattern of meat, Kerala was divided into three zones viz., south, central and north. The district selected includes Trivandrum, Kottayam and Pathanamthitta from south zones, Trissur, Eranakulam and Idukki from central zone and Calicut, Malappuram and Wayanad from north zone.

Sample Selection and data collection

To accomplish the objective of the study data was collected randomly from hundred consumers per district from each zone. A well-structured and pretested questionnaire was used by distributing to the meat consumers of different categories *viz.*, the farmers, labourers, private and government employees, students, house makers and business people. The respondents in each zone were grouped based on the different demographic characteristics viz., age groups, family income, type of family and religion.

The data pertains to the demographic factors, socio -economic and cultural characteristics associated with consumption pattern of meat and meat products.

Data Analysis

Semi Log Regression Model

In order to assess the interrelationships between consumption of meat and the socio-demographic factors, Semi-log function was fitted. The functional form was as below:

$$\ln Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \mu$$

Where,

Y	Quantity of meat consumption per family per month
X_1	Zonal Dummy (1=central, 0=otherwise)
X_2	Zonal Dummy (1=south, 0=otherwise)
X_3	Age of the Head of the Household (in years)
X_4	Religion
X_5	Occupation- Labour/farmer
X_6	Occupation-Govt. employee
X_7	Occupation – Private employee / Business
X_8	Family Income
X_9	Type of family
X_{10}	Family size in Consumption unit
X_{11}	Frequency of meat consumption
A	Intercept
β i	Regression coefficients to be estimated
μ	stochastic disturbance term

RESULTS AND DISCUSSION

Distribution of Respondents Based on Demographic Characteristics

The distribution of sample respondents based on their age and religion is furnished in table 1. They were classified under four categories based on their ages viz below 18 years, 18- 35 years, 36-50 years and above 50 years. The overall percentages in the above age groups were 34.82, 52.23, 21.28 and 14.88 per cent respectively across the zones. Majority of the sample respondents in south and central zones were Hindus (52.23, 62.50 per cent) while in north, majority of them were Muslims (45.53 per cent).

Table 1: The distribution of sample respondents based on their age and religion

Parameters	Categories	South	Central	North	Overall
Age	Below 18 years	55 (24.55)	13 (5.80)	10 (4.46)	78 (34.82)
	18-35	86 (38.39)	107 (47.7)	158 (70.53)	351 (52.23)
	36-50	53 (23)	56 (25)	34 (15.17)	143 (21.28)
	Above 50	30 (13.39)	48 (21.42)	22 (9.82)	100 (14.88)
Religion	Christian	56 (25)	57 (25.44)	30 (13.39)	143 (21.27)
	Hindu	117 (52.2)	140 (62.5)	92 (41.07)	349 (51.93)
	Muslim	51(22.76)	27(12.05)	102 (45.53)	180 (26.78)

Figures in parenthesis indicate number of respondents

Factors Influencing Meat Consumption in Kerala

The factors affecting the consumption of meat in the study area are presented in Table 2, 3 and 4. The model showed a good fit with the adjusted R^2 of 0.842, indicating that 84.2 per cent of variation in the dependent variable was explained by the independent variables incorporated. The ANOVA also showed that the model was statistically significant with a 'F' value of 49.105. Among the variables chosen for analysis, the variables *viz.*, central zone, south zone, occupation, family income, family size and frequency of meat consumption found to influence the consumption of meat significantly ($p<0.01$). Out of these significant variables, the variables - occupation, family income, family size and frequency of meat consumption were found to be positively influencing the consumption of meat. Other significant variables like central and south zonal dummies were found to be negatively influencing the consumption of meat.

Table 2, 3: Factors influencing the consumption of meat in Kerala: Model summary, Analysis of Variance

Table 2. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.942	0.887	0.842	0.36924

Table 3. ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	73.643	11	6.695	**49.105**	.000[b]
	Residual	89.573	657	.136		
	Total	163.216	668			

Table 4: Results of semi log function analysis

Variables	Unstandardized Coefficients		Standardized Coefficients	t-value	P value	Significance
	B	Std. Error	Beta			
(Constant)	.357	.082		4.350	.000	**
Zonal Dummy (1=central, 0=otherwise)	-.093	.038	-.089	-3.425	.006	**
Zonal Dummy (1=south, 0=otherwise)	-.154	.036	-.147	-4.277	.000	**
Age of the Head of the Household (in years)	.002	.001	.059	1.656	.098	NS
Religion	.010	.023	.014	.446	.656	NS
Occupation- Labour/farmer	-.056	.053	-.040	-1.044	.297	NS
Occupation-Govt. employee	.013	.062	.009	.218	.827	NS
Occupation – Private employee / Business	.129	.036	.125	3.601	.000	**
Family Income	.143	.029	.141	3.985	.000	**
Type of family	-.058	.055	-.044	-1.062	.289	NS
Family size in Consumption unit	.071	.013	.220	5.251	.000	**
Frequency of meat consumption	.177	.010	.574	17.461	.000	**

SUMMARY AND CONCLUSION

The results of the study revealed that the consumption of meat in Kerala is driven by several factors of which, the variables *viz.*, central zone, south zone, occupation, family income, family size and frequency of meat consumption found to influence the consumption of meat significantly ($p<0.01$). Out of these significant variables, the variables - occupation, family income, family size and frequency of meat consumption were found to be positively influencing the consumption of meat. Other significant variables like central and south zonal dummies were found to be negatively influencing the consumption of meat. These factors play a vital role to the existing meat consumption pattern. Hence there is wide scope for the meat processors to establish their brands and shift the unorganized meat marketing system towards organized system through super markets.

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