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An Investigation of Consumer Preference on Sea Food in Delta Districts

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Abstract

Fish farming contributes significantly to India's socioeconomic landscape, making it one of the country's most vital sectors. It is a high-quality dish with a substantial amount of protein. Furthermore, it provides a substantial source of income and employment for millions of rural farmers, particularly women, making it a critical economic driver in these areas. The Indian share in global production has reached 4.36%, with a 9.92% share in inland and 2.8% in marine. In the inland sector, India is ranked second after China. The present study was conducted to understand the individual purchase behaviour of sea products in the delta districts of Tamil Nadu. The researcher used the convenience sampling method and collected data from 100 respondents. A self-structured questionnaire was used in the study. A simple percentage analysis and SPSS was used applied. The study concluded that 38% of the respondents have lower level of consumer awareness, nearly 33% of respondents in this study have higher level of consumer awareness and only 29% of the respondents in this study have moderate level of consumer awareness.

Key Words: Consumer Preference, Purchase behavior, Sea food products, Fishery

1. Introduction

Fish farming contributes significantly to India's socioeconomic landscape, making it one of the country's most vital sectors. It is a high-quality dish with a substantial amount of protein. Furthermore, it provides a substantial source of income and employment for millions of rural farmers, particularly women, making it a critical economic driver in these areas. Domestic demand for fish and processed fish food is rapidly increasing as a result of India's large human population as well as its over 250 million economically powerful potential food consumers and those with suitable purchasing power **(Shoury Gupta 2011).**

In recent years, the global demand for marine products has risen. Seafood, with a high unit value, is well known as one of the commodities that moves the fastest on the world market. The global seafood market has more than doubled in the last decade, reaching US $49.32 billion. Shrimp is India's most important export product, accounting for the majority of the country's current 2.4 percent market share **(Muthusamy 2013).**

However, the situation is changing as a result of increased interest and demand for other fishing resources, such as squid, cuttlefish, fin fish, and so on, which are sold to markets in Western Europe and Southeast Asia. Global fish production from capture and aquaculture hit 130 million tonnes in 2000, up from about 20 million tonnes in 1950. The Indian proportion of global production has reached 4.36 percent, with an inland share of 9.92 percent and a marine share of 2.8 percent. In terms of inland trade, India is second only to China.

However, things are changing as Western Europe and Southeast Asia become more interested in and demand for other fisheries resources supplied to their markets, such as squid, cuttlefish, fin fish, and so on. Global fish production from catch fisheries and aquaculture totaled more than 130 million tonnes in 2000, up from less than 20 million tonnes in 1950. The Indian contribution to global output has reached 4.36 percent, with inland production accounting for 9.92 percent and marine production accounting for 2.8 percent. In the inland sector, India ranks second behind China.

China, Japan, the United States, the Russian Federation, and Indonesia are the other main producers. Exports have been steadily increasing, indicating a good trend. Domestic and export

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demand for fish and fishing products is expanding significantly. The country's expected demand for fish by 2012 is 9.74 million tonnes. That may be supplied by a predicted supply of 9.60 million tonnes of fish by 2012, with inland aquaculture accounting for the lion's share of 5.34 million tonnes, followed by marine fisheries accounting for 3.10 million tonnes. Currently, the fisheries of the Andaman and Lakshadweep island systems, as well as deep-sea resources like tuna, are underutilised.

Seafood is without a doubt the most important global product, with a seafood trade worth more than $60 billion per year. About 200 countries provide fish and seafood to the world market. There are more than 800 species of fish, crustaceans, and mollusks that are commercially significant. Fish supply has historically increased in tandem with per capita consumption and a rapidly growing population.

On the other hand, global catch fisheries have reached their maximum sustainable productivity, and while aquaculture is still expanding, it will struggle to supply the world's demand. The debate that follows focuses on the patterns in seafood consumption and supply, as well as future forecasts. The future appears bleak. Without prompt application of sustainable fishing management practises, supply will fall short of demand, and, even more concerning, we may see a drop in seafood availability as we deplete one of the world's most valuable resources.

The Cauvery Delta Zone (CDZ) is located in Tamil Nadu's eastern region. The Palk Straight and the Bay of Bengal border it on the east; the Perambalur and Ariyalur districts border it on the north; the Cuddalore district borders it on the north; and the Pudukkottai district borders it on the south. Trichy district lies to the west. The Cauvery delta zone covers a total land area of 14.47 lakh hectares.

Thanjavur district (which includes Thanjavur, Tiruvarur, and Nagapattinam) covers 5% of the Cauvery delta territory in the east, followed by Trichy, Ariyalur, Cuddalore, and Pudukkottai. Rice is the main cereal in the Cauvery delta region. Rice is either single-cropped or double-cropped in the rice-based cropping scheme. From January forward, pulses, black gramme, and green gramme are farmed in the rice belt that follows throughout the delta region.

2. Literature Review

The economic and infrastructure development of the fishing sector is heavily reliant on an efficient fish selling system **(Chourey et al. 2014).** According to Lancaster and Reynolds (2005), long-term distribution agreements mean that channel selections are typically categorised as strategic rather than tactical or operational. This is due to the fact that channel decisions have a direct impact on the remaining marketing initiatives of the company and that, once established, channel systems may be challenging to change, especially in the short term. Despite the fact that auctioneers handle the majority of transactions, about 40% of fresh fish is sold through commission agents or wholesalers. The choice of distribution channels is among the most crucial marketing factors. Smaller fishermen may find this to be less true, but choosing a distribution channel is still one of the most important decisions that any organisation or fisherman must make **(Berry 2010).**

(Carlucci et al. 2015) outlines and discusses the primary motivations for and constraints on fish consumption, as well as customer preferences for the key characteristics of fish and seafood products. The majority of consumers appear to prefer whole, unprocessed fish over processed fish, fresh fish over frozen, wild fish over farmed fish, domestic fish over imported fish, and wild fish over farmed fish in general. However, these preferences appear to be at odds with some general preferences of the same consumers in terms of accessibility, affordability, and environmental protection.

At the consumer end of the value chain, many respondents emphasised product quality factors such as flavour, look, freshness, accessibility, beneficial compounds, and seafood variety.Based on survey results and findings from **(Witter, Murray, and Sumaila 2021)**, it needs to be noted that various consumer segments network diversely with the key features emphasised by seafood AFNs (Alternative food networks).

(Wang et al. 2013) investigated customers' opinions of the level of safety connected to fish and shellfish items manufactured in 6 major seafood-importing nations. Women and the less educated are more concerned about safety labels. They also discovered that elderly persons are much more concerned with the label's location of origin, but customers with higher intake are much more concerned with the label's explicit food safety.

Consumers who knew much about product labelling, provenance, and freshness of seafood items were more inclined to buy a diversity of seafood items **(Altiok et al. 2021).** In order to diversify fish consumption choices, consumer awareness efforts should be customised to each unique culture in the Mediterranean, especially down to lower trophic level species. Therefore, a consumer behaviour change campaign should be run in the Mediterranean world to promote the intake of a wider variety of fish and seafood species. This campaign may help to reduce the impact of seafood consumption on the

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environment by encouraging the utilisation of low-trophic level species.

Traditional sea cuisine is influenced not just by perception or sensory issues, but also by consumer expectations, attitudes, and interests. The research revealed that the industry should ponder consuming luxury/prestige as well as nostalgic promotional or communication tools to boost preferences of consumers, their attitudes, predilections, intake, and readiness to emoluments for traditional products **(Olsen, Skallerud, and Heide 2021).**

Seafood is a good source of protein, omega-3 fatty acids, and a variety of bioavailable micronutrients. Study proved that respondents' desire for freshly available fish and the seafood was accompanied by substantial ambiguity about what constitutes fresh seafood, with the term "fresh" having various meanings for various informants. There is a necessity for additional endeavours to address consumer understanding of the terms "fresh", "frozen," "chilled" and "thawed"**(McManus et al. 2014).**

(Kim and Lee 2018) The estimated output showed that the coefficients of main consumption place, consumption rate, price importance, confirmation of origin, residential area, and household income are statistically significant. Respondents with low price elasticity of demand are much more likely to choose eco-labeled seafood; those with higher preferences consider price to be a more important factor.

Private markets frequently do not ensure appropriate food safety since safety is not easily evident to consumers and testing for product safety is sometimes prohibitively expensive. To decrease their exposure to food-borne dangers, consumers are likely to rely more on retailers and private food delivery systems. As a result, four primary factors affect consumer food consumption: rising income; changing demographics; changing food markets; and an increasingly global market for food goods **(Jensen 2006).** As a result, the purpose of this research is to examine existing literature reviews on the marketing and distribution of marine fish, as well as to identify marketing techniques and diverse distribution routes used in the marine fish Indian market.

(Sathiadhas and Panikkar (1988) investigated the marketing structure and pricing behaviour of marine fish in the Madras region of Tamil Nadu. Investigators discovered that the greatest amount of fish was flowing via the networks of fishermen, wholesalers, retailers, and consumers, as well as commission agents for wholesalers, retail outlets, and consumers. The fisherman's portion of the consumer's rupee ranged from 32 to 72%, and it was more than 60% for prom frets. Furthermore, they reported the wholesaler's profitability (12.50%), the retailer's margin (69.50%), and the marketing cost (18%) associated with pom-fest marketing. The pricing behaviour research found that the difference in wholesale prices for various fish varieties ranged from Rs.2.50 to Rs.7.10 per kg. The study advocated using a cooperative framework to defend the interests of both producers and consumers.

3. Research Methodology

Aim:

The main aim of this study was to investigate consumer preference for sea food in the Delta Districts.

Significance of the Study:

In present context markets were found to be non-competitive because of the presence of a few commission agents who, with their strong association, dealt with all the transactions in the market, exploiting the fishermen. Besides the factors like fish price, non-availability of fresh fish and preferred species, the study also identified poor marketing facilities and unhygienic conditions of market premises, which not only discourage people from purchasing fish but also may cause health hazards. Therefore the purpose of this study is to analyse the level of consumer preference for sea foods in Delta Districts of Tamil Nadu.

General Objectives:

1.1 To Investigate the level of Consumer Preference among respondents on Sea Food in Delta Districts

Specific Objectives:

- ❖ To study the socio demographic profile of the respondents.
- ❖ To identify the level of consumer awareness among respondents.
- ❖ To find out the difference between consumer awareness with selected demographic variables.

Research Design:

Descriptive Research design was adopted in this study by the researcher.

Sampling Procedure:

From the overall population, the researcher used the random sampling method and a total of 100

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respondents were selected by the researcher using the convenient sampling method from five districts, namely Tiruchirappalli, Pudukkottai, Thanjavur, Thiruvarur, and Nagapattinam.

Selection of Respondents:

The following inclusion and exclusion criteria were followed in selection of respondents:

1. Inclusion Criteria:

Both genders are included for the study.

Respondents staying in five districts, namely Tiruchirappalli, Pudukkottai, Thanjavur, Thiruvarur, and Nagapattinam will be considered as universe.

2. Exclusion Criteria:

Respondents staying outside the five districts, namely Tiruchirappalli, Pudukkottai, Thanjavur, Thiruvarur, and Nagapattinam will be excluded from the study.

ANALYSIS
Sources of Data Collection:

Table: 1 Socio Demographic Profile of respondents

S.No	Particulars	Category	Frequency	Percentage	Total
1	Age	Below 20 Years	10	10%	100
		20.1 to 25 Years	25	25%	
		25.1 to 30 Years	24	24%	
		30.1 to 35 Years	16	16%	
		35.1 to 40 Years	17	17%	
		Above 40 Years	8	8%	
2	Gender	Male	41	41%	100
		Female	59	59%	
3	Type of Family	Joint family	28	28%	100
		Nuclear family	72	72%	
4	Number of Member in Family	2 Members	48	48%	100
		3 Members	20	20%	
		4 Members	21	21%	
		5 Members and Above	11	11%	
5	Occupation	Farmer	19	19%	100
		Govt Employee	12	12%	
		Private Employee	34	34%	
		House wife	11	11%	
		Business	16	16%	
		Student	8	8%	
6	Monthly Income	Below 10000	14	14%	100
		10001-20000	41	41%	
		20001-30000	13	13%	
		Above 30001	12	12%	
		Nil	20	20%	
7	Earning Members in Family	1 Person	20	20%	100
		2 Persons	62	62%	
		3 Persons	14	14%	
		4 Persons	4	4%	
8	Mode of Residence	Rural	72	72%	100
		Town	16	16%	
		Urban	6	6%	
		Semi-urban	6	6%	

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INTREPRETATION

Age:

Nearly (25%) of the respondents in this study belongs to the age group of 20.1- 25 years, 24% of the respondents belongs to the age group of 25.1-30 years, 17% of the respondents belongs to the age group 35.1 to 40 years similarly 16% % of the respondents belongs to the age group 30.1to 35 years moreover 10% of the respondents are below 20 years and 8% of the respondents are above the age group of 40 years.

Gender:

The majority of the respondents (59%) are female and remaining 41% of the respondents are male in this study.

Type of Family:

The majority of the respondents (72%) come from nuclear family and 28% of the respondents comes from joint family.

Number of Member in Family:

Nearly half of the respondents (48%) have two members in their family, 21% of the respondents have 4 members in their family moreover 20% of the respondents have 3 members in family and 11% of the respondents have above 5 members in family.

Occupation:

Nearly one third of the respondents (34%) work as private employee, 19% of the respondents are farmers, 16% of the respondents are doing their own business, 12% of the respondents in this study are government employees moreover 11 % of the respondents are home makers and 8% of the respondents are students in this study.

Monthly Income:

Nearly half (41%) of the respondent's income is between 10,001- 20,000 rupees, 20% of the respondents in this study are homemakers or students, 14% of the respondent's income is below 10,000 rupees. Furthermore, 13% of the respondent's income is between 20,001- 30,000 rupees and 12% of the respondent's family income is above 30,000 rupees.

Earning Members in Family:

Most of the respondents (62%) have two earning members in their family, 20% of the respondents in this study have one earning member in their family, 14% of the respondents have three earning members in their family, and 4% of the respondents have four earning members in their family.

Mode of Residence:

The majority of the respondents (72%) live in rural areas, 16% of the respondents live in towns, 6% of the respondents live in urban areas, and 6% of the respondents live in semi-urban areas.

TABLE-II DISTRIBUTION OF RESPONDENTS BASED ON LEVEL OF CONSUMER AWARNESS

S. No	Level of Consumer Awareness	Frequency	Percentage
1	Low	38	38
2	Moderate	29	29
3	High	33	33
Total		**100**	**100**

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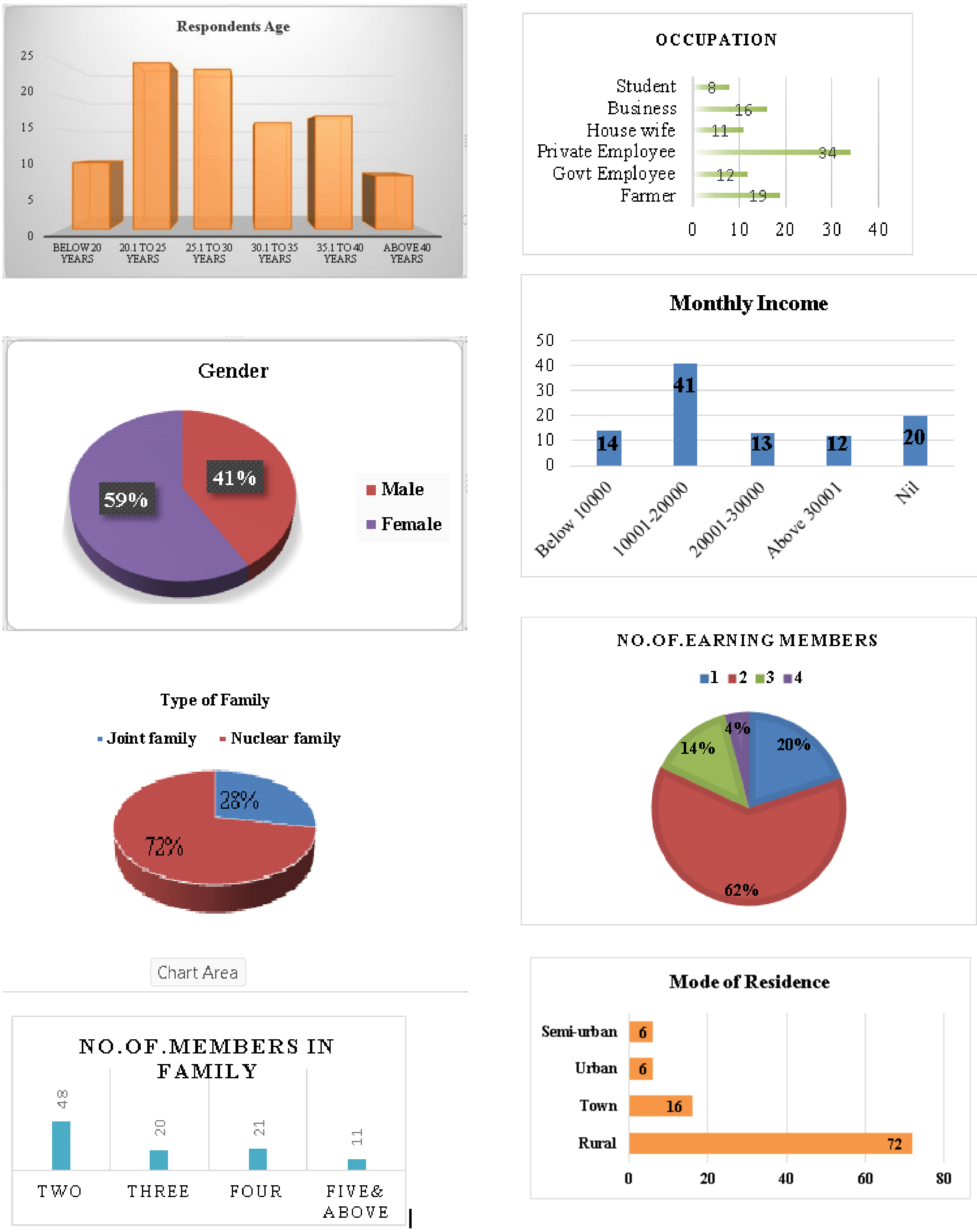

FIGURE-I GRAPHICAL REPRESENTATION OF RESPONDENTS BASED ON SOCIO DEMOGRAPHIC PROFILE

INTERPRETATION

Customer perception, when measured, provides a stream of valuable consumer insights. It is evident from the above table that (38%) of the respondents have lower level of consumer awareness, nearly 33% of respondents in this study have higher level of consumer awareness and only 29% of the respondents in this study have moderate level of consumer awareness.

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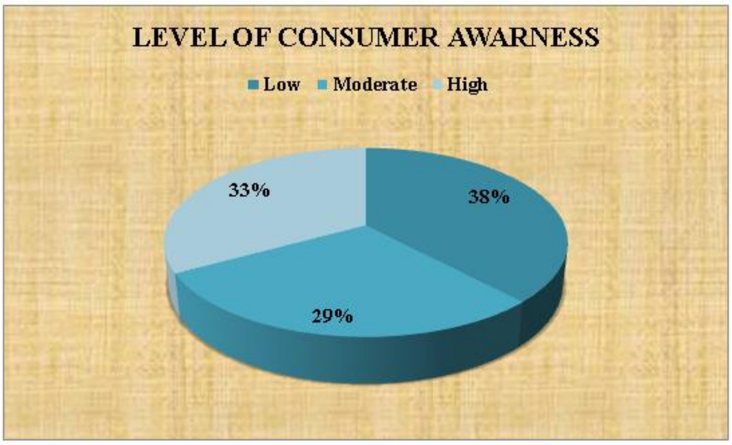

FIGURE-II : GRAPHICAL REPRESENTATION OF LEVEL OF CONSUMER AWARNESS

TABLE-III- Z- TEST

DIFFERENCE BETWEEN GENDER AND CONSUMER AWARNESS AMONG RESPONDENTS

Consumer Awareness	GENDER				Z value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Consumer Awareness	2.277	0.659	1.98	0.671	3.334	0.038*

Note*denotes significant at 5% level

Hypothesis:

H0: There is no significant difference between gender and consumer awareness.

H1: There is a significant difference between gender and consumer awareness.

INTERPRETATION

The above Table depicts the difference between gender and consumer awareness among respondents. Z-Test was applied to find out whether there is significant difference between gender with respect to consumer awareness among respondents. Since p value is less than 0.05 the null hypothesis is rejected at 5% level with regard to consumer awareness. Hence there is significant difference among gender with respect to consumer awareness.

FINDINGS

Findings related to Socio- Demographic Profile of the respondents:

Nearly (25%) of the respondents in this study belongs to the age group of 20.1- 25 years, 24% of the respondents belongs to the age group of 25.1-30 years, 17% of the respondents belongs to the age group 35.1 to 40 years similarly 16% % of the respondents belongs to the age group 30.1to 35 years moreover 10% of the respondents are below 20 years and 8% of the respondents are above the age group of 40 years.

The majority of the respondents (59%) are female and remaining 41% of the respondents are male in this study.

The majority of the respondents (72%) comes from nuclear family and 28% of the respondents comes from joint family.

Nearly half of the respondents (48%) have two members in their family, 21% of the respondents have 4 members in their family moreover 20% of the respondents have 3 members in family and 11% of the respondents have above 5 members in family.

Nearly one third of the respondents (34%) work as private employee, 19% of the respondents are farmers, 16% of the respondents are doing their own business, 12% of the respondents in this study are

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Nearly half (41%) of the respondent's income is between 10,001- 20,000 rupees, 20% of the respondents in this study are homemakers or students, 14% of the respondent's income is below 10,000 rupees. Furthermore, 13% of the respondent's income is between 20,001- 30,000 rupees and 12% of the respondent's family income is above 30,000 rupees.

Most of the respondents (62%) have two earning members in their family, 20% of the respondents in this study have one earning member in their family, 14% of the respondents have three earning members in their family, and 4% of the respondents have four earning members in their family.

The majority of the respondents (72%) live in rural areas, 16% of the respondents live in towns, 6% of the respondents live in urban areas, and 6% of the respondents live in semi-urban areas.

FINDINGS RELATED TO LEVEL OF CONSUMER AWARENESS:

Nearly one third (38%) of the respondents have lower level of consumer awareness, nearly 33% of respondents in this study have higher level of consumer awareness and only 29% of the respondents in this study have moderate level of consumer awareness.

C. FINDINGS RELATED TO STASTICAL ANALYSIS:

Z-Test was applied to find out whether there is significant difference between gender with respect to consumer awareness among respondents. Since p value is less than 0.05 the null hypothesis is rejected at 5% level with regard to consumer awareness. Hence there is significant difference among gender with respect to consumer awareness.

Conclusion:

According to the study, 38 percent of respondents have a low degree of consumer awareness; roughly 33 percent of respondents have a high level of consumer awareness; and just 29 percent of respondents have a moderate level of consumer knowledge. It has frequently been noticed that consumers do not receive appropriate goods and services. He/she gets charged an excessively high price, or he/she is sold tainted or low-quality items. As a result, they must be made aware of their rights.

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