

Purchase Decision of Customers of Steel - Tamil Nadu

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Abstract: Steel is one of the core infrastructure product, whose per capita consumption indicates the Industrial development of a nation. The average per capita consumption of steel in India is at a level of 30% of the world per capita consumption. This article attempts to examine the relationship between different dimensions of purchase decision taken by customers of steel in Tamil Nadu. This study also aims to investigate the effect of the location of the customers and their education qualification while making the Purchase decision. Based on literature review the impact of location and qualification of the customers on the purchase decision of steel is examined and conceptual model is developed to analyze the relationship between study variables. Simple Purposive random sampling was followed for collecting data from steel customers of Tamil Nadu This research would be useful to the organization that marketing steel to understand what are the key areas to be concentrated for impacting the Purchase decision of the customer of steel in Tamil Nadu. This will help in formulating the market strategy of the customers of steel. Customers irrespective of their area of living, either urban or semi-urban, they are price conscious and expect availability of products at one source. People with higher educational qualifications have more perceptions about the factors involved in taking purchase decision.

Keywords: *Steel, Customers, Dimensions of Purchase decision, Location, Educational Qualification.*

1. Introduction:

Steel is one of the material whose usage is crucial for determining the development of any nation. It is

considered to be the backbone of modern economy. One of the indices that determine the standard of living of people of a nation is Per capita consumption of steel. It is essential for the socioeconomic development of a country. Steel is a key product supplier to various other industries which multiplies employment. Steel is the most environment friendly metal for usage in which more than 87% can be recycled even after many years the per capita consumption of steel in India is 61 kg/year/capita against worldwide average of 210 kg/year/capita.

Organizations have to find out the factors that impact the purchase decision of steel customers and create an atmosphere favoring the customers of steel. This will not only help in increasing the sales of the organization and also the economic index of the nation

There was a huge research gap in purchase of steel as no study has been made. The study is confined to Tamil Nadu. A questionnaire was prepared and responses of 200 steel customers were collected. Two aspects of the customers of steel of Tamil Nadu - location of the customers (urban / semi urban) and their educational qualification in making a Purchase decision are analysed in this article.

2. Literature Review:

The relevant studies and research work done earlier in the domain of Purchase Decision making, were collected and the

important variables for the study could be identified and analysed. As follows:

Has stated different non-linear view of the decision process, He mentions how the engagement of the consumers inter mixed with participation, conversation, affinity, and community as a pattern of spiral cycle [1]. The decision making process of consumer is elaborated in this book also emphasis studies conducted on consumer behavior in order to understand what the consumer looking for ultimately... The consumer decision process, buying roles and various steps involved in consumer decision making linking them to the life stages of the consumer [2]. The results of their study indicate that respondents have a good perception of price variables, design, location, purchase decisions and satisfaction post-purchase housing in Banda Aceh City. Then the research also proves that there is an indirect influence between price, design and location on the satisfaction of post-purchase of housing in Banda Aceh City through purchasing decision [3]. Price influence to partial purchasing decision, brand awareness influence partial purchasing decision, and product quality, price, and brand awareness influence simultaneous purchasing decision [4]. The study has done a depth review to study the market drivers that influence the customers purchase decision making in steel products in Tamil Nadu. They studied the influence of market drivers on the purchase decision making method of the customer during consumption of steel in Tamil Nadu and through correlation analysis it was found that there is a positive correlation between the factors of market stimuli [5]. Mention the five elements of marketing mix significantly impacted to the consumer decision. Among them, promotions and products have been evaluated as the crucial factors [6]. The details the decision making process is discussed and evaluates how the various inputs and their alternatives are influencing the decision making process. He elaborates how the seeking of information and the dwelling of alternatives have influence in the process of Decision making [7]. Mentions that consumer behavior varies from product to product and it is not uniform for all products [8].

Explains the educational qualifications of the consumer and its role in the process of purchasing decision made by the consumer. It also has a significant correlation with knowledge and acceptance of products and services by consumers [9].

Explains the influence of brand on consumer decision making process. The findings of this study brings out the fact that brand awareness is the dominant tactics among others. Even at the cost of quality, consumers give more weightage to the brand [10]. Find out the importance of brand preference who are new to market. A theoretical framework was worked out to analyse the progress of the consumer from first purchase to subsequent purchases [11].

Discusses how consumers' use the knowledge and experience they use in making purchase decisions The consumer behavior was looked in a different angle of cognitive orientation towards decision-making. The process model developed is of five-stage and leads how the consumer becomes a problem solver and information processor within a variety of mental processes to reach at the optimum satisfaction [12].

3. Methodology:

The study is descriptive in nature. The data has been collected from primary & Secondary Source. The primary data was collected from the 200 respondents of urban & Semi urban area of various districts in Tamil Nadu. The sampling technique adopted in the study is Purposive & judgement sampling

4. Results & Discussions:

Here a detailed analysis of the collected data has been made as per the objectives stated earlier

4.1 Demographics Profile of the Respondents – Area of Living:

Frequency distribution of Area of living & Educational Qualification of the customers:

Table 1 Frequency distribution of Area of living and Educational Qualification

Area of Living	Frequency	%age
Urban	88	44.0
Semi Urban	112	56.0
Total	200	100.0
EDUCATIONAL QUALIFICATION		
Qualification	Frequency	%age
Upto HSc	16	8.0
Diploma	27	13.5
UG	92	46.0
PG	32	16.0
Professional	33	16.5
Total	200	100.0

From the table it can be seen that out of the total customers of steel responded 88 (44.0%) are from urban and 112 (56.0%) are from semi-urban locations

Also out of the total 200 respondents, the educational qualification up to HSc are 16 (8.0%), Diploma holders are 27 (13.5%), Undergraduate (UG) completed are 92 (46.0%), Post graduates(PG) are 32 (16.0%) and professional degree holders are 37 (13.5%). The maximum number of respondents are UG followed by Professional degree holders, Post graduate degree holders, diploma holders and UptoHSc.

Table: 2 Mea and Standard Deviation of factors of Purchase Decision

	Mean	SD	Rank
Product Choice	12.61	1.98	3
Brand Choice	12.52	2.01	4
Source Choice	17.31	2.47	1
Price Consciousness	12.82	1.99	2

Based on mean score, ranking, source choice is the most important factor, followed by price consciousness, product choice and brand choice.

To test the above hypothesis on both aspects of location, urban and semi-urban “t” test for significant differences between urban and semi urban with respect to Purchase decision of Customers of Tamil Nadu was done.

Hypothesis: 1 There is significant difference between areas of living of customers with respect to making purchase decision of steel in Tamil Nadu.

Table 3 ANOVA test of area of living with relation to factors of Purchase Decision

	Area of living				“t” Value	p Value
	Urban		Semi Urban			
	Mean	SD	Mean	SD		
Brand Choice	12.59	2.01	12.49	2.02	0.303	0.762
Source Choice	17.71	1.97	17.15	2.62	1.144	0.049*
Price Consciousness	13.23	1.54	12.66	2.13	1.833	00.008**
Overall Purchase Decision	56.13	6.22	54.92	7.45	1.076	0.283

** denotes significant at 1% level

* denotes significant at 5% level

Since P value is less than 0.01, the null hypothesis is rejected at one percent level of significance and hence it is concluded that there is significant difference between Urban and Semi urban with regard to Price consciousness of Purchase Decision. Based on mean score, urban customers (13.23) have higher perception on Price consciousness than semi-urban customers (12.66).

It is also revealed that p value is less than 0.05 with regard to Source choice of the customers (0.049). Since P value is less than 0.05, the null hypothesis is rejected at 5 percent level of significance with regard to source choice of the

purchase decision. Hence it is concluded that there is significant difference between urban and semi-urban customers with regard to source choice. Based on mean score, urban customers have higher perception on source choice (17.71) than semi-urban customers (17.15).

Since p value is greater than 0.05, the null hypothesis is accepted at five percent level of significance with regard to product choice (0.945), Brand choice (0.762) and overall purchase decision (0.283) and hence it is concluded that there is no significant difference between urban and semi-urban customers with regard to product choice, brand choice and Overall purchase decision.

Based on mean score, semi urban customers (12.61) have higher perception about product choice than urban customers (12.59). Urban customers (12.59) have higher perception about Brand choice semi-urban customers (12.49). Also urban customers (59.13) have higher perception about overall Purchase decision than semi urban customers (54.92)

4.2 EDUCATIONAL QUALIFICATION

ANOVA was done using F test. The five Education Qualification groups considered in the present study were uptoHSc, Diploma, UG, PG and Professional Qualification. The mean of the various educational groups were found out along with standard deviation. Based on this, the F value was computed. The results are summarized in Table below:

Hypothesis: 2

Hypothesis (H₀₂): There is significant difference among qualification of customers of steel in Tamil Nadu and dimension of purchase decision making.

Since P Value is less than 0.01, the null hypothesis is rejected at 1 percent level of significance with respect to Product choice. . Hence it is concluded that there is significant difference between the educational qualifications with respect to product choice of the customers of steel in making Purchase Decision. Based on Duncan Multiple Range Test, the

Table 4 ANOVA test of Educational Qualification with respect to Educational Qualification

Variable		Educational Qualification					F value	P value
		Upto HSc	Diploma	UG	PG	Professional		
Product Choice	Mean	11.50 ^a	12.48 ^{ab}	12.51 ^{ab}	13.22 ^b	12.91 ^b	2.332	0.001 ^{**}
	SD	(2.92)	(1.91)	(1.99)	(1.50)	(1.74)		
Brand Choice	Mean	11.56 ^a	12.59 ^{ab}	12.47 ^{ab}	13.03 ^{ab}	12.58 ^b	1.466	0.214
	SD	(2.19)	(1.58)	(2.10)	(1.94)	(2.00)		
Source Choice	Mean	16.88 ^a	17.04 ^a	17.09 ^a	18.28 ^a	17.42 ^a	1.676	0.157
	SD	(3.56)	(2.16)	(2.65)	(1.85)	(1.89)		
Price Consciousness	Mean	12.13 ^a	12.59 ^{ab}	12.82 ^{ab}	13.56 ^{ab}	12.64 ^b	1.780	0.134
	SD	(2.66)	(1.87)	(2.12)	(1.52)	(1.64)		
Overall Purchase Decision	Mean	52.06 ^a	54.70 ^{ab}	54.88 ^{ab}	58.09 ^{ab}	55.55 ^b	2.241	0.046 [*]
	SD	(10.20)	(6.56)	(7.44)	(5.90)	(5.24)		

** denotes significant at 1% level * denotes significant at 5% level

Different alphabets between age denotes significance at 5 % level using Duncan Multiple Range Test (DMRT)

Up to HSc category (11.50), significantly differ with PG category (13.22) and Professional category (12.91) at 5% level of significance. But Diploma category (12.48)

and UG category do not differ with any other category for the Product Choice at 5% level of significance

Since P value is less than 0.05, the null hypothesis is rejected at 5 percent level of significance with regard to overall purchase decision (0.046) and hence it is concluded that there is significant difference between qualifications with respect to the Overall Purchase decision of the customers. Based on Duncan Multiple Range Test, the utoHSc category of customers (52.06) significantly differs with Professional category (55.55) of customers at 5% level. But Diploma category (54.70), UG category (54.88) and PG (58.09) do not differ with any other category for the Overall Purchase Decision at 5% level of significance.

Since P value is greater than 0.05, the null hypothesis is accepted at 5 percent level of significance with regard to Brand Choice (0.214), Source Choice (0.157), and Price consciousness(0.134) and hence it is concluded that there is no significant difference among qualification of the customers in the aspects of brand choice, source choice and Price consciousness.

Based on DMRT, with respect to brand choice, the UptoHSc category (11.56) significantly differs with Professional category of customers (12.58) at 5%level, but Diploma category (12.59), UG (12.47) and PG (13.03) do not differ with any other category

The age group above 45 (12.27) significantly differs with below 30 (11.09) and age group 31- 45 (10.56) at 5 percent level on employee performance.

The study reveals that there is significant difference among educational qualification with respect to product choice of customer of steel in Tamil Nadu at 1 percent level. It is also found that there is significant difference between educational qualifications with respect to Overall Purchase decision at 5 percent level. Customers with PG qualification has significantly higher perception on Product Choice compared to the other four educational qualification groups considered in this study.

To test the 21st hypothesis, the correlation coefficient was found for all the factors of Purchase decision factors.

4.5 CORRELATION ANALYSIS

Hypothesis: 3

Hypothesis (H₀₃): There is significant relation between Product Choice, Brand Choice, source choice and Price consciousness

The results are summarized in the table .5

Table .5 Correlation test between dimensions Of product decision

	Product Choice	Brand Choice	Source Choice	Price Consciousness
Product Choice	1.000	0.685**	0.518**	0.473**
Brand Choice		1.000	0.554**	0.518**
Source Choice			1.000	0.898**
Price Consciousness				1.000

** Significant at 1% level

It reveals that the correlation coefficient between Product Choice and Brand Choice is 0.685 which indicate 68.5% positive relationship between Product Choice and Brand Choice, 51.8% positive relationship source choice and Product Choice and 47.3% positive relationship between Product choice and Price consciousness. 55.4% positive relationship between Brand choice and Source Choice, 51.8% positive relationship between Brand Choice and Price consciousness and 89.8% positive relationship between Source choice and Price consciousness. All are significant at 1% level. Hence the null hypothesis is rejected at 1% level.

5. Conclusion:

From the analysis, it can be concluded that Price consciousness of steel material is the top most significant factor in the minds of customers of steel in both urban and semi-urban areas of Tamil Nadu. . Organisations have to fix a more competitive price to attract the customers of both urban and semi-urban customers. It is also seen in Source choice is also there is significant difference. Urban customers may prefer source which is nearer, where all items are available in single location and also where there is after sales service is better. Regarding steel material there is no significant difference between urban and semi-urban customers with regard to product choice, brand choice and Overall purchase decision.

With regard to education qualification, it may be noted that customers with educational qualification of uptoHSc is having less perception about the various attributes of Purchase decision like Product choice, brand choice, source choice and price consciousness. Customers with higher qualification have more or less higher perception about the attributes of Purchase decision. PG degree holders have more perception about the product choice than others. There is no significant difference among qualification of the customers in the aspects of brand choice, source choice and Price consciousness.

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