

Impact of Some Socio-Economic Factors and Market Characteristics on Brand Switching

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Abstract:

More and more new brands of products are being launched every day. Switching is the consumer's decision to purchase a product of a brand different from that earlier or usually purchased. Brand Switching occurs when a consumer or a group of consumers switches their loyalty from one brand of a certain type of product to another. This paper aims at examining the impact of some socio-economic factors and brand loyalty influencing factors on brand switching and also investigates the association of brand switching with socio-economic and loyalty influencing factors. Here Binary logistic regression model and significance test has been used.

Keywords — Switching, logistic regression, loyalty influencing factors, socio-economic factors.

I. INTRODUCTION

A Brand is any name, design, style, words or symbols used singularly or combinations that differentiate one product from another in the eyes of the consumer. Switching is the consumer's decision to purchase a product of a brand different from that earlier or usually purchased. More and more new brands and products are being launched every day. A consumer's decision of which brand to buy and how much quantity of that brand to buy depends on brand specific factors like consumer's brand loyalty, consumption rate, product inventory and customer's sensitivity to brand and promotion. Brand switching occurs when a consumer or a group of consumers switches their loyalty from one brand of a certain

type of product to another. The brand switching may be temporary, or it may be long lasting. Sometimes brand switching may be called as brand jumping. It is the process of choosing to switch from regular use of one product or brand to steady use of a different but similar product. Brand switching takes place most commonly by price promotions, in-store displays, superior availability, perceived improvements or innovations in competitive brands, desire for novelty, number of available brands, perceived risk, frequency of purchase, change in quality or level of satisfaction with the most recent purchase. Most of the advertising process is aimed at encouraging brand switching among consumers

which helping to grow market share for a given brand or set of brands.

Price is often an important factor to consumers who are price-consciousness. Advertisers will often use a price comparison model to entice long time users of one brand to try a new one. The idea is to convince the consumer at the end that it is possible to purchase the same amount of product while spending less money and ideally it means that the consumer can use the savings for other purchases. Price is not always enough to encourage brand switching and in this case comparing the quality of one brand to another is a common approach among the customers. The new brand will work just as well as the more established brand if that is of good quality. There are some customers who are less concerned with cost of the product and for these customers; the approach is to present the new brand as brands of superior quality when compared to the established one. It is always essential to have a better understanding of brand loyalty in order to understand brand switching. It is also useful to segment the market based on brand loyalty and to understand the needs of loyal customers and potential brand switchers, as well as their attitude towards key brand attributes. Maffei (1961) presented in his article a new method for studying advertising effects. Brand loyalties and switching can be defined in probability term. Author used transition probability matrix to study the effectiveness of a spot advertising promotion in super markets. Lowrence (1969), in his

study examine one aspect of consumer buying behaviour – the pattern of brand purchase following a period of relative brand loyalty- to establish whether the patterns were consistent with learning model assumptions and to suggest alternative hypothesis using the data from panel records. Majeed and Jasmine (2016) in their study discussed the effect of sales promotion on consumer's buying behaviour using descriptive statistics. Bhatt and Saiyed (2018) in their study examined the brand switching behaviour of consumers by using descriptive statistics. They found that consumer's buying behaviour is not only influenced by the social factors, personal and psychological factors but also price, product and promotion.

Ying Wang and Zengrui Xino (2022) in their study examined the effect of consumer satisfaction on the brand switching. They found that overall impact of consumer satisfaction on brand switching intention was not significant.

II. OBJECTIVES:

Objectives of this paper undertaken go as:

- To examine the impact of some socio-economic factors and market characteristics on brand switching.
- To investigate the association of brand switching with socio-economic factors and market characteristics.

III. METHODOLOGY:

The Study based on primary data collected from a probability sample of 2210 households in Guwahati City.

Binary logistic regression model has been used to estimate the probability of a binary response based on one or more predictors or independent variables.

Let Y be a binary response variable,

$Y_i = 1$ if the household is loyal to the brand

$= 0$ otherwise.

$X = (X_1, X_2, X_3, \dots, X_k)$ be a set of explanatory variables which can be discrete or continuous.

The logistic regression model is

$$\pi_i = P_r(Y_i = 1 / X_1 = x_1, X_2 = x_2, \dots, X_k = x_k) \\ = \exp(\beta_0 + \beta_1 x_1) / 1 + \exp(\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k)$$

The logit transformation is

$$\text{Logit}(\pi_i) = \log(\pi_i) \\ = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \dots + \beta_k x_{ki}$$

Thus, the general form of the logit model is

$$\text{Log}(\pi_i) = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \dots + \beta_k x_{ki} + U_i$$

$$\text{Where } \pi_i = \frac{P_i}{1 + P_i}; P_i = \text{Prob}(Y_i = 1)$$

The parameters are obtained by method of Maximum Likelihood Estimation.

In this paper $P_i = \text{Prob}(Y_i = 1) = \text{Prob. that a household is loyal to a particular brand with respect to a particular market characteristics. Here, only one (X) explanatory variable has been used, where,$

$X = 1$, if a household switches a particular brand and

$= 0$, otherwise.

Here the suspected market characteristics are price of the product, satisfaction of brand, availability in

the market, quality of the product, brand trust, repetition of followers etc.

In addition, the usual test of significance based on χ^2 - distribution has also been used.

IV. RESULTS AND DISCUSSION:

In this section, the results based on methodology used as stated above have been presented along with discussion thereupon.

4.1 Brand Switching and Socio-economic Factors (family types, income, activity, annual income and education of the households):

Table 4.1: Brand Switching versus Socio - Economic Factors.

Brand switching Status	Family type (%)		Income activity (%)		Annual Income (%)		Educational level (%)	
	Joint family	Nuclear family	Service	Others	Up to 5 lakhs	5 lakhs and above	Undergraduate	Graduate and above
Switching	20.38	79.62	53.93	46.07	52.65	47.35	31.42	68.58

The **Table 4.1** presents the brand switching status of family types, income activity (service and industry and others), two income groups (up to 5 lakhs and 5 lakhs and above) and two educational level of households (undergraduate and graduate and above). It is observed that nuclear families prefer switching from one commodity to other more than the joint families. The reason behind this difference may be due to frequent change in

taste, habits etc. among the members of nuclear family. So far as the source of income is concerned, it can be said that service holders prefer to switch more (53.93%) than the others. It means the service holders use the different brands of fast moving consumer goods and they are less affected by the hike of price. At the beginning they choose an item from reputed company based on brand trust, quality of the product etc. and they are generally not concerned about price. But, they are more aware about the new product compared to the customers who are busy with their business, farming etc. So, the former group of customers may change their choice frequently. When considering the factor annual income of the head of the households, among the two income groups namely up to 5 lakhs and 5 lakhs and above customers of income group up to 5lakhs switches (to another brand) more (52.65%) than other income groups. In other words we may say that lower income families uses different brands as they are more affected by price change. While considering the factor education, among two educational levels viz., undergraduate and graduate and above (educational level of head of the households) customers of undergraduate level switches less (31.42%) than customers of graduate and above level. Highly educated customers may influence more by some market characteristics like brand trust, market availability, quality of the product etc. and so

their brand switching is more than other group of educational level. Thus from above discussion we may conclude that customers of nuclear family switched their particular brand of products more in comparison to the other factors namely income activity, annual income and educational level of the households. In other words we may say that in case of switching of different brand of products by customers, customers are very much affected by family type of the household followed by educational level of the head of the households ,income activity and annual income of the households.

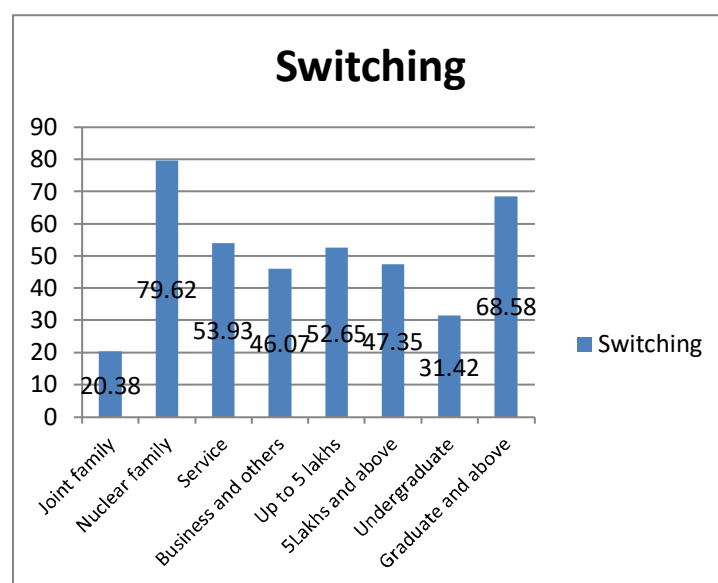


Fig.4.1: Brand switching versus Socio-Economic factors.

4.2 Brand Switching Versus Loyalty Influencing Factors:

This study is limited to two statuses of market characteristics (used w.r.t. a particular market Characteristics/not used w.r.t. considered factor).

Table 4.2: Brand switching Versus Market characteristics

Market Characteristic	Switching(%)
w.r.t. Price of the product	92.08
Not w.r.t. Price of the product	7.92
w.r.t. Availability in the market	90.76
Not w.r.t. Availability in the market	9.24
w.r.t. Quality of the product	92.09
Not w.r.t. Quality of the product	7.91
w.r.t. Satisfaction of brand	94.51
Not w.r.t. Satisfaction of brand	5.49
w.r.t. Brand trust	92.31
Not w.r.t. Brand trust	7.69
w.r.t. Repetition of followers	87.03
Not w.r.t. Repetition of followers	12.97
w.r.t. Advertisement	92.57
Not w.r.t. Advertisement	7.43

Considering the customers switching their product with respect to market characteristic price of the product, the status of brand switching of customers is more than other customers. In other words if the customers choose their particular brand of product w.r.t. price of that product, they switch their brand when price changes. Thus effect of price change on brand switching is important for those customers who are loyal due to price of the product. Considering the factor availability in the market, brand switching percentage of the customers used and not used of a particular brand of the product w.r.t. the factor availability in the market are presented in **Table 4.2**. The figures in the table indicate that brand switching status of households used a particular brand of the product due to the

factor availability in the market (90.76) is more than that of the households used a particular brand of the product not due to the factor availability in the market. It has been noticed that the households for whose availability in the market of the product is an important factor for choosing a particular brand of the product, their brand switching status is more than non-switching of brand due to availability in the market. While the households choosing a particular brand for other market characteristics i.e not with respect to availability in the market, the brand switching percentage is less than that of not switching the brand, which indicate the effect of availability in the market is important on brand switching of the households. Thus from above observation we may say that when availability of any product in the market changes brand switching also changes.

Table 4.2 also exhibits the percentage of brand switching of households used and not used of a particular brand of the product w.r.t. the quality of the product. It is found that the percentage of brand switching of households used a particular brand of the product with respect to the factor quality of the product (92.09%) is more than that of the households used a particular brand of the product not due to the factor quality of the product. It is revealed that the households for whose quality of the product is an important factor for choosing a particular brand of the product, their brand switching percentage is more than non-

switching of brand due to quality of the product .When the households choosing a particular brand for other market characteristic i.e not due to quality of the product, the brand switching percentage is less than that of switching the brand w.r.t. quality, which indicate the effect of quality of the product on brand switching of the households. In other words when the customers choose their fast moving consumers goods due to the factor quality of the product, they switch their brands as quality changes. Hence quality has an effect on brand switching. Considering the other market characteristics viz., satisfaction of brand, brand trust and repetition of followers, the status of brand switching of customers w.r.t. a particular market characteristic is more than other customers when the effect of each market characteristic considered individually .The percentages of brand switching of households used and not used of a particular brand of the product with respect to the motivating factor advertisement of the product it is observed that brand switching of the households used a particular brand of the product due to the factor advertisement of the product (92.57) is more than that of the households used a particular brand of the product not effecting by the factor advertisement of the product. It is found that the households for whose advertisement of the product is an important factor for choosing a particular brand of the product or who are motivated by advertisement, their preference of switching from

one product to another is more than others who are not influenced by advertisement. In other words when the households choosing a particular brand for other reason i.e not due to advertisement of the product, the brand switching is less than others, which indicate the effect of advertisement of the product on brand switching of the households.

It has been observed from **Table 4.2** that most of the households (94.51%) switched their particular product due to the factor satisfaction of brand in comparison to the other factors, viz., availability of the product in the market, quality of the product and advertisement of the product and so on. Thus brand satisfaction is an important consideration of brand switching. However we cannot claim that the above findings are final without statistical test of significance. So in order to validate these finding the usual test of significance based on Chi-square distribution has been applied to investigate the association of brand switching with socio-economic variables and market characteristics. The findings of the same are presented in **Table 4.3**.

Table 4.3: Testing Association between Brand Switching and other variables.

Socio-economic factors and Market characteristics	Value of test statistic	p-value
Advertisement	87.752	<.01

Family type	14.551	<.01
Annual income	55.637	<.01
Education	1.968	<.01
Income activity	36.022	<.01
Market availability	1.264	<.01
Quality of product	33.037	<.01
Price of the product	1.727	<.01
Satisfaction of brand	93.80	<.01
Brand trust	77.250	<.01
Repetition of followers	2.82	<.01

It has been observed from **Table 4.3** that all the socio-economic variables and loyalty influencing factors are associated with brand switching as the value of p is less than 0.01 in each case.

4.4 Impact of socio-economic variables and market characteristics on brand switching

Considering the socio-economic variables like family type, annual income and education some loyalty influencing factors viz., price of the product, availability in the market, satisfaction of brand, brand trust, quality of the product and repetition of

followers, we have been observed that these factors may have effect on brand switching of the households. Binary logistic regression model has been applied to examine the effect of socio-economic variables on brand switching of the households

Table 4.4: Effect of socio-economic variables and market characteristic on brand switching

Market characteristics and Socio-Economic factor	β	S.E.	p value	Odds ratio	95.0% C.I. for odds ratio	
					Lower	Upper
Price of product(w.r.t.)	-1.333	0.387	0.001	0.264	0.124	0.563
Satisfaction of brand(w.r.t.)	-0.630	0.365	0.084	0.532	0.260	1.089
Market availability(w.r.t.)	0.994	0.434	0.022	2.701	1.154	6.321
Quality of product(w.r.t.)	0.901	0.36	0.012	2.462	1.215	4.989
Brand trust(w.r.t.)	-0.043	0.362	0.906	0.958	0.471	1.950
Repetition of followers (w.r.t.)	0.053	0.329	<.01	0.054	0.028	0.103
Family-type(joint family)	0.320	0.303	0.290	1.378	0.761	2.493
Annual income(up to 5 lakhs)	-1.385	0.243	<.01	0.250	0.156	0.403
Income activity(service)	-0.753	0.279	0.007	0.471	0.273	0.814
Educational level(undergraduate)	-1.128	0.281	<.01	0.324	0.187	0.561
Constant	3.436	0.349	<.01	31.07		

Considering the effect of market characteristics on brand switching of products of households it is observed that the chance of brand switching of customers w.r.t. loyalty influencing factor price of the product is $1/0.246=4.06$ times more than the other customers. The confidence interval indicates that the odd for customers used w.r.t. price of the product is as little as $1/0.563=1.78$ times and as much as $1/0.124=8.06$ times more than other customers who are not w.r.t. price of the product at 95% confidence.

The chance of brand switching of customers w.r.t. the factors availability in the market, quality of the product and repetition of followers are 2.701times, 2.462 times and $1/0.054=18.52$ times more respectively than other customers. The confidence interval for customers indicates that the odd for customers used w.r.t. considered loyalty influencing factor are as little as 1.154times, 1.215 times and $1/0.103=9.7$ times and as much as 6.321times, 4.989 and $1/0.028=35.71$ times more than other group of customers respectively for availability in the market, quality of the product and repetition of followers at 95% confidence. The loyalty influencing factors satisfaction of brand and brand trust are statistically insignificant. Although the test of significance based on chi-square distribution signifies satisfaction of brand and brand trust or, both are two determinants of brand switching, the multiple logit regression analysis shows that these are not significant. It may be due to consideration of all variables together in logit regression analysis. In other words, compared to other factor factors considered in this analysis, their impact is negligible.

Considering the effect of different socio-economic factors on brand switching of products of households it is observed that the chance of brand switching of customers belonging to the two income group of families the chance of brand switching of customers belonging to income group up to 5 lakhs is less than the customers of income group more than 5 lakhs. In other words the customers whose income

more than 5 lakhs (per annum) switches the different brand of products more than others. The confidence interval indicates that the odd for customers of income group more than 5 lakhs is as little as $1/0.403=2.48$ times and as much as $1/0.156=6.41$ times more than up to 5 lakhs group at 95% confidence. Considering the different source of income activity the customers whose income activity is service, their chance of brand switching is less than the customers of income activity group business and others. In other words the households whose source of income is business and others their chance of brand switching is more than the households of income source service. The confidence interval indicates that the odd for customers of income activity group business and others is as little as $1/0.814=1.231$ times and as much as $1/0.273=3.67$ times more than customers of income activity service at 95% confidence. Considering the two educational level of head of the households the chance of brand switching of customers belonging to graduate and above level is more than the customers of undergraduate level. The confidence interval indicates that the odd for households belonging to graduate and above level is as little as $1/0.561=1.78$ times and as much as $1/0.187=5.35$ times more than households of undergraduate level at 95% confidence. All other factors are statistically insignificant. The interpretations are made from

Table 4.4

CONCLUSIONS

In this paper we have studied impacts of different socio-economic factors and market characteristics on brand switching of FMCG products and association of these factors with brand switching. The major revelations of the paper go as under:

- Brand switching from one product to another product of nuclear family is more than that of the joint family.
- Brand switching of households having the income source service is more than that of the households having income other than service.(when socio-economic factors are considered individually)
- The chance of brand switching of the customers having the income source business and others is more than the customers belonging to income activity service. (considering socio-economic factors jointly)
- Brand switching of households belonging to the income group 5lakhs and above is less than that of the households belonging to the income group up to 5lakhs.(considering the factors individually)
- The chance of brand switching of customers belonging to the income group more than 5lakhs is more than the customers belonging to the income group up to 5lakh.(considering the factors jointly)
- Considering the two educational level of households the chance brand switching of the customers belonging to graduate and above group is more than the customers belonging to under graduate group.
- Brand switching of the households used a particular product w.r.t. loyalty influencing factor price of the product is more than that of the households used a particular brand of the product ignoring the factor price of the product. The chance of brand switching of customers due to price of the product is $1/0.124=8.06$ times more than other customers.
- Brand switching of households used a particular brand of the product w.r.t. the factor availability in the market is more than that of the households used a particular brand of the product not considering the factor availability in the market. Also chance of brand switching is 1.154 times more than other customers.
- Brand switching of households used a particular brand of the product w.r.t. the factor quality of the product is more than that of the households used a particular brand of the product ignoring the factor quality of the product. The chance of brand switching of customers w.r.t. quality of product is 1.215 times more than others.

- Brand switching of the households used a particular brand of the product w.r.t. the factor advertisement of the product is more than that of the households used a particular brand of the product ignoring the factor advertisement of the product.
- Brand switching of customers w.r.t. repetition of followers is more than other customer ignoring factor repetition of followers.
- Finally from Descriptive Statistics, Test of significance and logit regression analysis it can be conclude that All the socio-economic variables and market characteristics have impact on brand switching except the factor satisfaction of brand and brand trust.

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