Influence of Information Search and Loyalty Behaviour on **Consumer Choice Process**

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Key Words:

1.Information search efforts 2. Product-specific attributes 3.Satisfaction 4.Loyalty 5.Structural equation modelling

Abstract

An attempt is made to evolve a unique consumer choice process by adding satisfaction as an intervening variable. Consumer evaluates various alternatives so as to find the best alternative. Satisfaction with the actual chosen brand determines the post purchase process of the consumer. Thus the choice process of the consumers is comprised of 1) information search efforts, 2) evaluation of alternatives, 3) satisfaction with the actual chosen brand, 4) post purchase process/loyalty behaviour. Path model is build to analyse the above mentioned relationship. Further more, a new relationship which is observed in this study is that loyalty behaviour is also influenced by information search efforts and evaluation of alternatives leads to less loyalty. Results depict that information search and loyalty are inversely related. It means that when the consumers make information search, they are less loyal

INTRODUCTION

Every consumer consumes varied products from morning to night. Consumer buyer behaviour refers to the buying behaviour of final consumers – individuals and households who buy the goods and services for personal consumption. It is important for a marketing manager to determine how consumer decides - what to buy. In the choice process of the consumers, five stages are generally involved. 1) problem recognition stage, 2) information search process, 3) evaluation of alternatives, 4) actual choice and 5) post purchase process.

Problem recognition stage arises whenever need for a product/service arises. He/she recognises his/her problem and starts searching for a solution to the problem.

Information search as defined by Haines (1978) means data that induces the consumer to construct or alter an existing decision process for the relevant product, including raw data, encoded symbols, and any other data capable of representing reality to the decision-maker. Understanding the information search behaviour of the consumer is crucial for the marketing managers for designing effective marketing communication campaigns because it is that stage where marketers can influence the decision making process of consumers (McColl-Kennedy and Fetter, 1999).

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Further brands are considered a marketer's tool for creating product differentiation. The various alternatives of an option are stored in the mind of the consumer. He/she evaluates the alternatives on the basis of their attributes and that alternative is chosen which proves best on his/her evaluative criteria.

The actual chosen brand determines the level of satisfaction of the consumer. Satisfaction is post choice evaluation of a specific transaction (Selnes, 1993).

Further the post purchase process of the consumers is examined in terms of loyalty behaviour of the consumers. Customer loyalty refers to continuation of the same product/brand/service. In other words, loyal customers actually insist on buying the same brand again though there may be better alternatives. Loyalty of the consumers gives an indication of their future purchase intention, which in turn assists the marketing managers to forecast the sales of their existing as well as new products. Thus, important marketing decisions relating to product demand, market segmentation, pricing strategies, promotional tools and loyalty programs can be easily made.

The above discussion elaborates the importance of the stages in the overall choice process of consumers. However, a review of literature reveals that an important aspect which decides the post purchase process of the consumers that is, satisfaction has been ignored in the choice process of the consumers. Satisfaction is considered to be a determinant of the loyalty as depicted by Mittal (1994), Hallowell (1996), Arora and Shaw (2002) and Taylor et al.

(2004). Satisfaction is also considered as a determinant of loyalty in this whole analysis. However, satisfaction is also added as one of the prominent stages in the choice process of the consumers.

In this study, an attempt has been made to evolve a unique consumer choice process by adding satisfaction as an intervening variable. The consumer evaluates various alternatives so as to find the best alternative. Satisfaction with the chosen brand determines the post purchase process of the consumer. However, in this analysis, the first stage that is, problem recognition stage is deleted since it is obvious that if consumer has some problem or has some need only then he/she would follow the cumbersome process of choice. Thus the choice process of the consumers comprises of 1) information search, 2) evaluation of alternatives, 3) satisfaction with the actual chosen brand, 4) post purchase process/loyalty behaviour.

Further on, an attempt is made to explore an unexplored relationship between information search process and loyalty behaviour plus evaluation of alternatives and loyalty. Understanding information search as well as loyalty behaviour is essential for the marketing manager. Those consumers, who make more search for information, have large consideration sets (Punj and Staelin, 1983; Srinivasan and Ratchford, 1991) and vice versa. A small consideration set size gives an indication that there are more chances of buying the same brand on the next purchase occasion as consumers are aware of a small number of brands only whereas a large consideration set decreases the consumer's probability of buying the same brand on the next purchase occasion. In other words, the group of consumers who is low information searcher represents a loyal customer base of the company. These are not interested in searching for the information related to new products. On the other hand, another group of consumers comprise buyers making an intensive search for information and thus these may not be as loyal. Thus, it becomes interesting to determine whether there is an interrelationship between these two important stages of consumer choice process.

This study explores how information search activities are related to loyalty behaviour in case of fast moving consumer goods (FMCG) namely, toothpaste. Empirically, this relationship has not been explored yet. Though Bennett and Mandell (1969) and Kiel and Layton (1981) provide that satisfied consumers are less willing to make search for information, they have established a relationship between satisfaction level and information search but not with loyalty and information search process.

RESEARCH METHODOLOGY

In order to examine the information search behaviour of the consumers, data is collected through survey method from India. A sample of 785 respondents is selected on the basis of judgement cum convenience sampling. Finally, 766 questionnaires have been used in the analysis by removing biased and incomplete questionnaires.

Out of the total respondents, 43% were male and 57% were females. The percentage of married respondents was 46% and unmarried was 54%. The age of the respondents varied between 18years to 45 years of age. Only 8% of the respondents were under graduate, 44% were graduate and 48% were postgraduate and professionally qualified. Out of total respondents, 28% were self employed (businessman and professionals), 15% were student, 17% were housewives, 35% were salaried person and 5% were retired personnel. Ten percent of the respondents were earning up to Rs.15000/-, 34% were having Rs.15001/-Rs.25000/-, 35% were in Rs.25001/-Rs.35000/- income group and 21% were earning above Rs.35001.

One product belonging to FMCG category, namely toothpaste is selected. The reason for selection of this product is that a) this product has a large number of brands; b) this product is used by end consumer c) this product is purchased frequently. d) in the FMCG category, toothpaste is high involvement product Thus, it is deemed that information provided by the consumers about these products is correct.

THE STRUCTURE

As already mentioned, the consumer choice process comprises of four steps 1) information search efforts 2) evaluation of alternatives 3) satisfaction with actual chosen brand 4) loyalty (post purchase process).

McColl-Kennedy and Fetter (2001) suggest that information search is a primary means of increasing knowledge, reducing perception of risk and uncertainty and increasing post purchase satisfaction. Further, attributes of brand play an important role in the choice of a brand. Consumer makes an actual choice of the brand by evaluating the brands on the basis of their attributes. After evaluating the brand, consumer chooses one brand and finally purchases it. After purchase, he/she uses that brand which determines his/her level of satisfaction. This level of satisfaction determines the post purchase/loyalty behaviour of the consumer.

All the above mentioned stages of consumer choice process viz. information search efforts, evaluation of alternatives, satisfaction with actual chosen brand and loyalty behaviour are measured with the help of multi-scale items (twenty

four scale items) which have been borrowed from the previous literature. These items along with the name of the construct, label and their AMOS code are shown in Table 1.

Information search efforts is measured with the help of four statements, 'I usually talk with other people before deciding what to buy;' 'I usually seek advice from other people while making a decision upon brand to buy;' 'I usually take many factors into account before buying toothpaste,' 'I usually spend a lot of time while choosing toothpaste.

For evaluation of alternatives, seven attributes are used. Scale items were, 'It has a good flavour;' 'It prevents tooth decay;' 'It gives me a feeling of freshness;' 'It has a good whitening power;' 'It is sweet in taste;' 'It is vegetarian toothpaste.' 'It has herbal ingredients'. In case of packaged tea, the scale items are, 'It has a good flavour;' 'It is strong in taste;' 'It has a good texture;' 'It provides good nutritional value;' 'It is easily available'. These scale items are asked in the context of a particular brand being used.

For satisfaction, eight scale items are used. These items are, 'This brand of toothpaste has exceeded my expectations;' 'The brand is among the best I could ever buy;' 'The brand is exactly what I needed;' 'My choice to buy this brand was wise one;' 'I am satisfied with my decision for this brand;' 'I am sure that it was right to buy this brand;' 'Using this brand has been a good experience;' 'I have been delighted with this brand'.

As per Oliver (1999), loyalty consists of three aspects involving commitment towards brand irrespective of price change, recommendation, intention and repeat purchase patronage. Also, Rowley (2005) provide that consumers demonstrate their loyalty behaviour in any of the three ways, first staying with the same brand; second increasing the number of purchases or frequency of purchase and lastly they exhibit loyalty by acting as advocates of the brand. To cover these three aspects, this study measures the concept of loyalty with the help of five statements, 'I am committed to this brand;' 'I will pay a higher price for this brand over other brands;' 'I will recommend this brand to others;' 'I will buy this brand the next time I buy this product;' 'I intend purchasing this brand again and again'.

The respondents are to rate all the above mentioned items on seven-point scale ranging from 'strongly agree' to 'strongly disagree'. These seven point Likert scale are assigned values of 7, 6, 5, 4, 3, 2 and 1 respectively for the purpose of analysis. All the above mentioned scale items are depicted in Table 1.

RELIABILITY AND VALIDITY OF SCALE ITEMS

Multi-items scales for each of the constructs mentioned

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above are borrowed from the previous research. However, as these scale items have been used in context of different products and environments (country), thus validity and reliability of items is checked.

Reliability

To check the internal consistency of items, coefficient alpha is calculated. According to Nunnally (1978), the value of 0.7 or above is taken as acceptable measure. As shown in Table 1, only those scale items are taken as an acceptable measure whose value ranges from 0.71 to 0.96, which indicates a good consistency amongst the items. Only sixth item of product-specific attribute and fourth item of loyalty is deleted from further analysis because its inclusion leads to lower coefficient alpha. The value of coefficient alpha of the various scale items are shown in Table 1.

Exploratory factor analysis (EFA)

Exploratory factor analysis (Malhotra, 2004 and Nargundker, 2003) is carried out using SPSS 18.0 to assess the underlying factor structure of all scale items. The total variance explained is 85%. This percentage of variance is acceptable since the satisfactory percentage of variance explained in social sciences is 60% (Hair et al., 2005). The resultant factors are product class involvement, product class knowledge, benefits of information search and satisfaction. Factor loadings are shown in Table 1. All items are taken for further analysis, as no item is having factor loading below the acceptable range.

Further exploratory factor analysis is carried out to check the appropriateness of factor analysis through Kaiser-Meyer-Olkin (KMO) statistic. The value of KMO is considered significant if it is greater than 0.6 (Seth et al., 2008). The values of KMO and Barlett's test of sphericity are also depicted in Table 1.

Confirmatory factor analysis (CFA)

Confirmatory factor analysis is a theory-testing model as opposed to exploratory factor analysis, which is theory-generating method. In confirmatory factor analysis, the researcher begins with a hypothesis prior to the analysis. This model, or hypothesis, specifies which variables will be correlated with which factors. The hypothesis is based on a strong theoretical and/or empirical foundation (Stevens, 1996). Confirmatory factor analysis is acceptable if the value of CFI (comparative fit index) is 0.90 or above (Seth, et al., 2008). The value of CFI for various constructs is shown in Table 1. The accepted value of CFI shows that data fits in a hypothesised measurement model.

Validity

Validity of scale items is checked through content validity,

Table 1: Scale items for information search efforts, evaluation of alternatives, satisfaction and loyalty behaviour

Name of the construct	Amos code	Scale Items	Source	Coefficient alpha	Factor loadings	КМО	Barlett's test of sphericity	CFI	NFI
Information Search Efforts	C1	I usually talk with other people before deciding what to buy.		0.95	0.578	0.789	606.640	0.938	0.941
	C2	I usually seek advice from other people while making a decision upon brand to buy.			0.547				
	СЗ	I usually take many factors into account before buying.			0.640				
	C4	I usually spend a lot of time while choosing.			0.556				
Evaluation of	C5	It has a good flavour.	-	0.89	0.567	0.843	341.292	0.912	0.922
alternatives (Product-	C6	It prevents tooth decay.			0.887				
Specific Attributes	C7	It gives me a feeling of freshness.			0.812				
	C8	It has a good whitening power.			0.671				
	C9	It is sweet in taste.			0.541				
	*	It is vegetarian toothpaste.		deleted	(already deleted)				
	C10	It has herbal ingredients.			0.812				
Satisfaction	C11	This brand of toothpaste has exceeded my expectations.	Taylor et al. (2004) c.f. Oliver (1997) and Sirdeshmukh et al. (2002).	0.88	0.833	0.776	595.164	0.902	0.920
	C12	The brand is among the best I could ever buy.			0.881				
	C13	The brand is exactly what I needed.			0.854				
	C14	My choice to buy this brand was wise one.			0.916				
	C15	I am satisfied with my decision for this brand.			0.781				
	C16	I am sure that it was right to buy			0.901				

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Name of the construct	Amos code	Scale Items	Source	Coefficient alpha	Factor loadings	КМО	Barlett's test of sphericity	CFI	NFI
		this brand.							
	C17	Using this brand has been a good experience.			0.878				
	C18	I have been delighted with this brand.			0.817				
Loyalty	C19	I am committed to this brand.	Chaudhuri (1999)	0.87	0.891	0.659	329.155	0.945	0.966
	C20	I will pay a higher price for this brand over other brands.			0.912				
	C21	I will recommend this brand to others.			0.712				
	**	I will buy this brand the next time I buy this product.	Chaudhuri and Holbrook (2001)	deleted	(already deleted)				
	C22	I intend purchasing this brand again and again.			0.739				

Note: \ast is already deleted because of less value of coefficient alpha.

Table 2: Construct correlation matrix

Construct	Information search	n Product-specific attributes	Satisfaction	Loyalty
Information search	n1	.40	.61	.12
Product-specific attributes	63	1	.61	.01
Satisfaction	.78	78	1	.88
Loyalty	34	13	94	1
Variance extracted	9.11	6.08	6.19	6.75

Note: Values above the diagonal represents the squared correlations.

construct validity, convergent validity and discriminant validity. This study uses Amos 16.0 to observe the validity of items.

Content validity

Content validity means each item of the scale deals

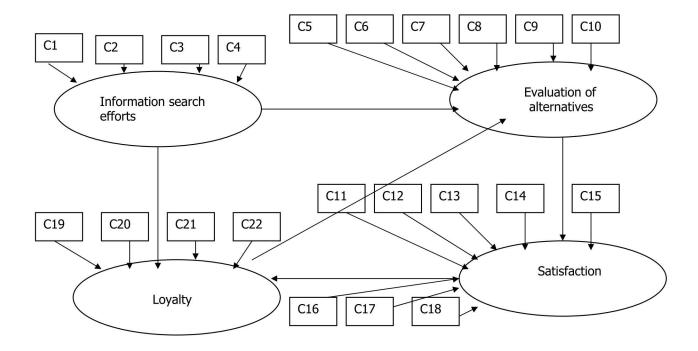
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effectively with the content of the construct that is measured (Odin et al., 2001). In this study, content validity is ensured as the underlying dimensions are taken from literature and thoroughly reviewed by experts and academicians.

^{**} is already deleted because of less value of coefficient alpha.

Figure 1: Overall choice process of consumers



Construct validity

Construct validity means proving that a construct is actually measuring what it is supposed to do. According to O'Leary–Kelly and Vokurka (1998), construct validity measures the degree to which a construct actually measures its besieged value. The value of comparative fit index (CFI) shows how closely an individual item pertains to the same dimension. If the value of CFI is equal to or above 0.90, the dimension is said to have construct validity. Values of CFI displayed in Table 1 show the presence of construct validity.

Convergent validity

Convergent validity refers to the degree to which multiple methods of measuring a variable provide the same results (O'Leary –Kelly and Vokurka , 1998). A dimension is said to have convergent validity if the value of NFI is above .90 or equal. In the present analysis, as shown in Table 1, the values of NFI are above 0.90 or equal which indicates the presence of convergent validity (Bentler-Bonett, 1980).

Discriminant validity

Discriminant validity is the extent to which a construct is truly distinct from other constructs. Thus, high discriminant validity provides evidence that a construct is unique and captures some phenomena that other measures do not (Hair et al., 2005). To examine the discriminant validity,

correlations between factor scores for each construct are calculated and then these are compared with the variance extracted from each factor. If the variance extracted is greater than inter-construct squared correlation, then the analysis shows the presence of discriminant validity. Table 2 shows all variance extracted are greater than interconstruct squared correlation, thus indicating high discriminant validity amongst the constructs.

MODEL DEVELOPMENT

A path model is built up to examine the choice process of consumers. The various stages of the choice process of consumers are tested through Figure 1. A new relationship between information search efforts and loyalty plus evaluation of alternatives and loyalty is also shown in Figure 1.

The above figure shows that while choosing a brand of toothpaste, a consumer makes information search which is measured with the help of four statements, then he/she makes an evaluation of the alternatives on the basis of six statements. Then he/she determines his/her level of satisfaction with actual brand chosen which is measured with the help of eight statements. The satisfaction level further decides his/her post purchase process or loyalty behaviour, which is measured with the help of four statements.

Further on, a new relationship examined in this study is



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between information search efforts and loyalty behaviour which is depicted in Figure 1.

RESULTS

Amos is used to estimate the model. Overall model fit in terms of absolute fit measures is within the acceptable level. All values are provided in Table 3.

Table 3 shows that degree of freedom is 209 whereas p-level is .000. The Goodness-of-fit index (GFI) value is .93, Adjusted goodness-of-fit (AGFI) is .91 and Normed Fit index (NFI) is .90, which indicate good overall data model fit. Finally relatively high Incremental Fit Index (IFI) .94,

Tucker-Lewis Index (TLI) .92, Comparative Fit Index (CFI) .95 and relatively low Root Mean Square Error of Approximation (RMSEA) having value of .05,Root Mean Square Residual (RMSR) value of .02 provide more evidence that the model fits the data. As per Hu and Bentler's (1999) cutoff criteria, values of absolute fit measures discussed in Table 3 indicate that the model is acceptable

It is clear from the above table that all the paths have significant value. As is clear from the results, information search efforts lead to evaluation of alternatives. Evaluation

Table 3: Goodness-of-fit measures

Goodness-of-fit Measure	Toothpaste
Degree of freedom	209
p-level (probability level)	.000
RMSR (Root Mean Square Residual)	.02
RMSEA (Root Mean Square Error of Approximation)	.05
GFI (Goodness of Fit Index)	.93
AGFI (Adjusted Goodness of Fit Index)	.91
NFI (Normed Fit Index)	.90
IFI (Incremental Fit Index)	.94
TLI (Tucker-Lewis Index)	.92
CFI (Comparative Fit Index)	.95

The path coefficients between the various constructs of the proposed model along the path, the associated estimates and the probability level are depicted in Table 4.

Table 4: Parameter estimate

Variable	Parameter estimate	p-value
Information search efforts Evaluation of alternatives	0.435	0.05***
Evaluation of alternatives Satisfaction	0.445	0.01**
Satisfaction — Loyalty	0.661	0.01**
Information search efforts Loyalty	-0.452	-0.05***
Evaluation of alternatives Loyalty	-0.129	-0.05***

of alternatives leads to satisfaction with the chosen brand and the level of satisfaction decides the loyalty of the consumer towards the brand. The highest coefficient value is for satisfaction (0.661) which means that if the consumers are really satisfied with their present brand of toothpaste, they are also loyal.

A new and important relationship which is examined in this study depicts that information search efforts and loyalty behaviour are inversely related. It means that when the consumers make information search, the degree of loyalty decreases. The reason may be that toothpaste is considered as an essential part of life and is related to the health of the consumers. As the consumer searches for relevant information, evaluates attributes of different brands, he/she will learn facts about other brands and thus he/she may not remain loyal. Further it is found that more evaluation of alternatives leads to less loyalty. When the consumers makes the evaluation of alternatives in detail, they may come to know various loopholes in their brand which may lead to less loyalty.

CONCLUSION

When a consumer decides to buy a product, he/she searches for information for the various brands available in the market. An information search activity makes the consumer aware about the different brands available in the market. After making information search, the consumer evaluates those alternatives on the basis of certain attributes which are specifically related to a particular brand. He/she makes evaluation of alternatives to find the best alternative. After evaluation, the consumer buys a particular brand. But his/her choice process does not come to an end. It is the satisfaction level with the actual chosen brand which determines the post purchase process of the consumer. If the consumer is satisfied with his/her present brand, his/her chance of being loyal to the brand increases.

Further on, information search and loyalty are the important steps in consumer decision making process. Thus, marketing managers needs to understand that how a consumer searches for information and how he/she will be loyal to the company. This analysis presents interesting results with regard to these two stages and also explores the relationship between these two.

This analysis finds an interesting relationship between two stages of consumer choice process. It shows that information search and loyalty are inversely related. It means that if the consumer makes information search, his/her degree of loyalty decreases. As discussed earlier, more information search increases the knowledge of the consumer about various brands prevailing in the market

and when consumer has knowledge about various brands for daily use products like toothpaste, he/she may move to some other brand, thus resulting in disloyalty.

This study also explores one new concept which says that if the consumers evaluate various alternatives, they exhibit less loyalty pattern. Further research can be made to determine the vice versa effect that is, whether higher loyalty leads to lesser evaluation of alternatives

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