Research Paper

Factors Affecting Consumer Decision Making For Purchasing Selected Home Appliance Products Based On Market Segmentation-A Feedback Study of People Associated With Management Education.

Dr. Debasis Ray[1], Dr. Sayantani Roy Choudhury[2]

[1]*Program-Head (PG) & Senior Faculty, Marketing and Strategic Management, Management Studies,*
ILEAD-Institute Of Leadership, Entrepreneurship And Development
[2]*Dr. Sayantani Roy Choudhury Associate Professor, Economics United world School of Business, Kolkata*

ABSTRACT:- *Technological up-gradation as a crucial criterion for societal growth resulted in drastic change in consumer's taste and preferences. People are shifting from traditional one to modern lifestyle product. During mid of twentieth century the marketing concept has been developed with hard core materialistic exchange concept. But introduction of service sector changed the scenario with value concept based on psychological view point of the consumer. In this research paper we have drawn sample from Kolkata, segmented by people associated with management education. This study is to establish empirically the external and internal influences on customers' decision making. Several market segmentation factors over consumers' perception towards selected home appliances products have been taken. We have tried to judge market segmentation factors like demographic (age, gender, education, occupation) and psychographic (lifestyle, social class, personality, behavioral (values, status and Convenience), self concept and their impact on Customers' decision Making. It scrutinizes the association between above mentioned independent variables with dependent one (purchase intention). This paper reveals the fact that 'psychographic' is the most significant market segmentation factor. It also reveals most important combination of factors behind people's buying intension is 'occupation', 'life style' and 'value'. The result may lend a hand towards organization to percept consumers' perception for the benefit of organization as well as customers.*

Keywords:- *Consumer Decision Making, Purchase Intention, Modern Marketing, Regression Analysis, Psychographic factors.*

I. INTRODUCTION

Modern market is always known for setting up new trends and attracts new as well as existing customers. In the present era of competition where alternatives are easily available in the market in a huge way knowing customers state of living is very much necessary to analyze the current situation. In metros where consumers' taste and preferences are changing very fast, creating business opportunities for new as well as existing marketers is very important. There are threats to fail to adopt changes. Generally a person's living standard or life-style depends on his/her background, standard of education, family, peer group and the nature of works he/she performs. Consumer buying behavior is a very tricky concept, specially for home appliances in modern marketing because several internal and external stimuli are there to contribute towards consumer purchase process. In modern marketing after introduction of ecommerce buyer behavior has been changed drastically because now a days it is very easy to figure out the needed product through internet with help of online shopping portals. This study is also aiming to frame out empirically the influence of segmentation variables to project the customer.

II.   LITERATURE REVIEW

Several studies have been done on this particular topic with different angle and view point. But as market environment is changing drastically, organizations have to take alternative strategic steps to cope with the situation. We have just extended previous studies with a view point of consumer's ever changing buying pattern.

According to Zeithaml (1988), a consumer's perceived value may be seen as an expression of "an overall assessment of the utility of a product/service based on perceptions of what is received and what is given".

According to Ostergaard and Jantzen (2000), consumers always seek equilibrium to make a balance between their beliefs and attitude and actual environment.

According to Shiv and Fedorikhin (1999) consumer decision making characterized as interplay between cognition and affect.

According to A. Ranasethu (2014) the Indian consumers are fighting a desperate battle on two fronts such as costs and quality.

According to Anderson (2005) knowledge of consumer behaviour directly affects marketing strategy.
According to Solomon (2010) a consumer has to go through classical five stages of decision-making process such as problem recognition, information search, alternatives evaluation, product choice, and post-purchase evaluation.
According to Jobber (2007) brands that are included in the consumers' evoke sets will have more opportunities to be selected by the consumers.
According to Mitchell and Walsh (2004) males and females want different ways of liking and obtaining these.
The expectation, need, wants always varies based on gender and reflects on their behavior of consumption (Akturan, 2009:66).
According to Professor Theodore Levitt (Harvard Business School) the importance of studying consumer behavior is to create and keep customers on the basis of their needs and demands.
According to Prinzie and Poel (2007) authorities of the marketing department in home appliance category would find it very useful if they can predict the proper positioning strategy.
From a marketing point of view it is much more important to predict the schedule of purchase rather than just the order in quantity (Bayus 1988)
Different scholars have given their point of view on said topic especially on home alliances but the foremost thing is to analyze the current market situation. We can't be able to stick with a single decision or strategy rather than searching for most suitable strategy with customers in mind.

III.   OBJECTIVES AND SIGNIFICANCE

Consumer research is used to study consumer behavior throughout their consumption process. It also shows the varied reasons for buying the same product by different customers. Brand association is generally created and maintained by marketing strategies based on feasible organizational objectives. So acquiring information regarding customers is very much essential for developing successful marketing strategies to face the modern marketing challenges and get the competitive edge over their rivals.
Here we have taken following selected home appliances products for consideration.

• **Television**	• **Laptop**
• **Induction Cookers**	• Microwave Ovens
• **Washing Machines**	• Refrigerator

Major objective of the study is to study the various factors and its impact on consumer buying decision of home appliances in Kolkata.

IV.   HYPOTHESIS

To give a specific focus to the objectives, following hypotheses have been formed to test by using appropriate tool.
   a)   Whether market segmentation factors influence the consumer decision making.

b) Whether the independent variables selected for the study are significantly correlated with the dependent variable-consumer decision making.

Problem Identification

We have created research questions based on market segmentation variables in following ways:

1. Demographic- Age, Occupation, Gender, Education.
2. Psychographic- Lifestyle, Social-Class, Personality
3. Benefits Sought (from Products)- Convenience, Status, Value

Factors	Variables (Independent)	Variable (Dependent)
Demographic	Age (X_1)	
	Occupation (X_2)	
	Gender (X_3)	
	Education (X_4)	(Y) - Consumer's Purchase Intention
Psychographic	Lifestyle (X_5)	
	Social-Class(X_6)	
	Personality(X_7)	
Benefits Sought (from Products)	Convenience (X_8)	
	Status(X_9)	
	Value(X_{10})	

V. ANALYSIS

We took data from 250 people associated with management education in and around Kolkata area. They have been asked about the number of purchase of above mentioned home appliances within last two years. Along with that likert scale was presented to the customers to rank the independent variables.

Initially, we have used regression analysis because it is a powerful technique used for predicting the unknown value (Y) of a variable from the given values of x_1, x_2, x_3,.....,x_k

Number of Purchase Intention = f (Age, Occupation, Gender, Education, Lifestyle, Social-Class, Personality, Convenience, Status, Value)

SPSS was used to analyze the data.

Table-1:-Reliability Test

Case Processing Summary

		N	%
Cases	Valid	250	100.0
	Excluded[a]	0	.0
	Total	250	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.782	.791	10

The table-1 shows the Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The close the coefficient is to 1.0, the greater is the internal consistency of the item. It illustrates that the alpha value is .782, indicates that the high reliability between items as well as high level of internal consistency.

Table-2: Model Summary
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771[a]	.594	.577	.115

a. Predictors: (Constant), Value, Age, Education, Occupation, Status, Gender, Lifestyle, Personality, Convenience, Social Class

The R column represents the value of R, the multiple correlation coefficients. R can be considered to be one measure of the quality of the prediction of the dependent variable; in this case, Y (purchase intention). A value of .771, in this example, indicates a good level of prediction. The "R Square" column represents the R^2 value (also called the coefficient of determination), which is the proportion of variance in the dependent variable that can be explained by the independent variables (technically, it is the proportion of variation accounted for by the regression model above and beyond the mean model). Table-2 shows the value of "R Square" as .594 to indicate that independent variables explain 59.4% of the variability of our dependent variable, Y. We also need to be able to interpret "Adjusted R Square" (adj. R^2) to accurately report the data.

Table-3: ANOVA MODEL
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.598	10	.460	34.927	.000[b]
	Residual	3.146	239	.013		
	Total	7.744	249			

a. Dependent Variable: P_Intention
b. Predictors: (Constant), Value, Age, Education, Occupation, Status, Gender, Lifestyle, Personality, Convenience, Social Class.

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The table shows that the independent variables statistically significantly predict the dependent variable, F (10,239) =34.927, ρ<.05 (i.e., the regression model is a good fit of the data).

Table-4: Estimated Model Coefficient

Model		Sig.
	Beta	
1 (Constant)	1.078	.000
Age	-.509	.000
Occupation	.166	.000
Gender	-.015	.762
Education	-.144	.417
Lifestyle	.106	.045
Social_Class	.160	.360
Personality	.163	.020
Convenience	-.566	.000
Status	.216	.614
Value	.098	.030

We are going to test for the statistical significance of the each of the independent variables as coefficients are equal to 0 in the population. If ρ<.05 then we can conclude that the coefficients are statistically significantly different to 0.

For comparison of the three market segmentation factors, table 4 can be referred. Here, we have taken the average of significance of factors in each of the three categories.

Demographic	**.286**
Psychographic	.142
Benefits Sought (from Products)	.214

Since average significance level is minimum for the psychographic factors, psychographic factors become most significant on an average. Therefore, out of three market segmentation factors, people used to be pushed by this psychographic factor most for their buying intension.

From this general regression model, we eliminate the least important factors like 'gender', 'education', 'social class' and 'status' from the list and we are having two components in each of the segment as follows.

Factors	Variables (Independent)	Variable (Dependent)
Demographic	Age (X_1)	
	Occupation (X_2)	
Psychographic	Lifestyle (X_5)	
	Personality(X_7)	(Y) - Consumer's Purchase Intention
Benefits Sought (from Products)	Convenience (X_8)	
	Value(X_{10})	

Thus, now we can make 2*2*2, that is, 8 orthogonal combinations.
The orthogonal matrix can be as follows-

Demographic	Psychographic	Benefits Sought (from Products)
1	1	1
1	1	2
1	2	2
1	2	1
2	1	1
2	2	1
2	1	2
2	2	2

Here, 1 for age, lifestyle and convenience; 2 for occupation, personality and value in different categories. Therefore, each of the rows gives a unique combination of three types of factors. So, the first row means a combination of 'age', 'life-style' and 'occupation'. Similarly, second row refers to 'age', 'life-style' and 'value'. The respondents have been asked to select the most important combination behind their buying behavior.

The table below shows maximum response that we get, it is for 2-1-2. That means, the combination of 'occupation', 'lifestyle' and 'value' got maximum vote from the respondents. 'Occupation', 'life-style' and 'convenience' got second highest number of vote and so on.

Demographic	Psychographic	Benefits Sought (Behavioral)	Respondents
1	1	1	6
1	1	2	16
1	2	2	24
1	2	1	18
2	1	1	55
2	2	1	37
2	1	2	67
2	2	2	27

Therefore, it is clear from the above table that drive to purchase a new home appliances or change the existing one comes mostly from 'occupation' which is a demographic factor, 'life-style' which is a psychographic factor and 'value' which is a behavioral factor.

VI. CONCLUSION

It can be concluded that the Consumer's Purchase Intention for home appliances generally comes from demographic, psychographic as well as behavioral factors. But out of these three, psychographic factors are

most significant. Therefore, the sellers should consider these factors while selling the home appliances. Marketing strategies should also be determined accordingly.

If we further categorize these groups it is revealed through our study that occupation is the most prominent factor behind purchase decision. It can be related to 'bandwagon effect' which tells us about the typical human nature where people used to follow their friends, colleagues as well as neighbors while taking decision to buy products. It depends on the peer pressure. On the other hand, to maintain a certain life style people go for new product frequently. From the 'behavioral' factor 'value' comes out as most important independent factor.

It can be suggested trough the discussion that producers have to target people according to the occupation and life-style. Similarly, they have to maintain quality and features of their products because 'value' of the product has eternal criteria behind purchase decision.

REFERENCE

[1]. Anderson, R. C., Fell, D., Smith, R. L., Hansen, E. N., and Gomon, S. (2005); Current Consumer behaviour research in forest produts; *Forest Products Journal*, 55 (1): 21- 27.
[2]. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
[3]. Ajzen, I., & Fishbein. M. (1980). Understanding attitudes and predicting social behavior. New Jersey, Englewood Cliffs, Prentice-Hall.
[4]. Ajzen. I., & Madden, T. J. (1986). Prediction of Goal-Directed Behavior: Attitudes, Intentions, and Perceived Behavioral Control. *Journal of Experimental Social Psychology*, 22, 453-474.
[5]. Burke SJ, Milberg SJ (1993). The role of ethical concerns in consumer purchase behavior: Understanding alternative processes. *Adv. Consumer Research*, pp. 119-122.
[6]. Carpenter JM (2008). Consumer shopping value, satisfaction and loyalty in discount retailing, *Journal of Retail and Consumer Service*, 15: 358.
[7]. Dasu, S., Ton, g, 2010. Dynamic pricing when consumers are strategic: Analysis of posted and contingent pricing schemes. European *Journal of Operational Research* 204, 662-671.
[8]. Graillot L (1998). Emotions and Consumer Behavior. Res. Appl. Mark., 13(1): 5-25.
[9]. Jobber, D., 2007. Principles and Practice of Marketing. 5th ed. Berkshire: McGrawHill Education.
[10]. M. Rajarajan and T. Priyanga, Consumer Behaviour towards selected household appliances in Ramanathapuram, Primax International *Journal of Commerce and Management Research*, Vol. 1, Issue No. 1, April - June 2013.
[11]. Malhotra, K. Naresh, "Information Load and Consumer Decision Making", *Journal of Consumer Research*, Vol. 8, No. 4 (Mar., 1982), pp. 419-430
[12]. Mitchell, V.W. & Walsh, G. 2004. Gender differences in German consumer decision-making styles. Journal of Consumer Behaviour 4(4): 331-346.
[13]. Ostergaard,P. and Jantzen, C, (2000): 'Shifting perspectives in consumer research: From buyer behavior to consumption studies', in Beckmann, S. C. and Elliot, R,H, (eds) Interpretive Consumer Research—Paradigms, Methodologies & Applications, Handelshsjskolens Forlag, Copenhagen, Denmark, 9-23
[14]. Pickering, J.F., 2005. Verbal explanations of consumer durable purchase decisions. *Journal of the Market Research Society* 17, 107-113.
[15]. S. Dyna. Herlin (2012), "Identifying Key Factor Affecting Consumer Decision Making Behavior in Cinema Context: A Qualitative Approach", International Conference on Business, Economics, Management and Behavioral Sciences (ICBEMBS' 2012) Jan, 7-8, 2012 Dubai.
[16]. Sherman E, Mathur A, Smith RB (1997). Store Environment and Consumer Purchase Behaviour: Mediating Role of Consumer emotions. Psychol. Mar., 14(4): 361-378.
[17]. According to Shiv and Fedorikhin (1999) consumer decision making characterized as interplay between cognition and affect.
[18]. Senechal S (2006). Proposition of a Scale Assessing the Perceived Ethics in a Business Relation between Customers and Service Organizations. 12th Conference of the French Marketing Association, May, Nantes.
[19]. Solomon, M. R., Bamossy, G., Askegaard, S., & Hogg, M. K., 2010. Consumer Behaviour: a European perspective. Essex: Pearson Education.
[20]. Wayne, D. Hoyer, " An Examination of Consumer Decision Making for a common Repeat Purchase Product", *Journal of Consumer Research*, Vol. 11, No. 3 (Dec.,1984), pp. 822-829
[21]. Zeithaml, V.A. (1988): Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing,* Vol.52, pp. 2-22.
[22]. Indian Economic Overview, November, 2014- http://www.ibef.org/economy/indian-economy-overview.
[23]. International Journal of Consumer Studies 31 (2007) 220–229 © The Author. Journal compilation © 2006 Blackwell Publishing Ltd.