

Applied Management Research Project

on

Customer Behavior as an Input for E-Marketing Strategies



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Introduction

- The total number of Internet users in India could reach the 150 million mark by December 2012, growing around 10 per cent from 137 million as of June this year.
- The active Internet users during the same period would reach 111 million, according to a report released by the Internet and Mobile Association of India (IAMAI).
- With the above background in mind, this research has been conducted to gain an insight into the online buying behavior of consumers.
- The objective is to understand the buying decision process, the psychographic profile of the consumers and to find the factors which influence online buying behavior.
- The findings should help an Internet marketer to determine the product/service categories to be used for marketing or to be introduced for a specific segment of consumers.



Consumer Buying Behavior

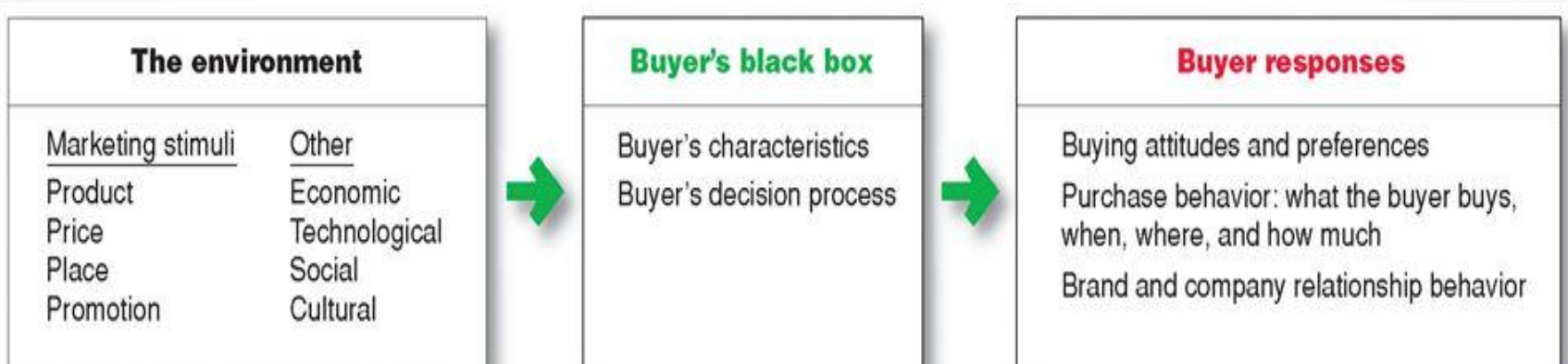
- Quality of marketing strategies depends on knowing, serving, and influencing consumers.
- The study of consumer behavior enables marketers to understand and predict buying behavior of consumers in the marketplace .
- Consumer buying behavior can be defined as the way in which consumers or buyers of goods and services tend to react or behave when purchasing products that they like.
- Factors Affecting Consumer Buying Behavior:
 - Cultural factors
 - Social factors
 - Personal factors and
 - Psychological factors



Consumer Buying Behavior

- **Stimulus-response Model**

- The stimulus–response model is a characterization of a statistical unit as a black box model, predicting a quantitative response to a quantitative stimulus.
- marketing and other stimuli enter the customers “black box” and produce certain responses.
- Marketing management must try to work out what goes on the in the mind of the customer – the “black box”.



Research Objective

Primary Research Objective

- To determine the factors and attributes which influence online buying behavior of consumers.

Secondary Research Objectives

- To determine the psychographic profile of consumers who purchase over the Internet.
- To identify the key product and service categories opted by consumers depending on their profile.
- To identify the factors influencing online shoppers and consumers.
- To study the customer's level of satisfaction with regard to online shopping.
- To determine the average spending and frequency of purchase over the internet by a consumer.



Hypotheses

To test the consumer's online buying behavior following hypothesis are proposed:

1. H1: Owning a credit card has an impact on the frequency of online purchase.
2. H2: Age of the respondent does not have any impact on the frequency of online purchase.
3. H3: Gender does not have any impact on the average amount spent per purchase made online.
4. H4: Gender has an impact on the frequency of purchase of online products and services
5. H5: Income of respondents does not have any impact on the frequency of purchase of online products and services.
6. H6: E-banking has an impact on the frequency of online purchase.



Data Collection Method

Exploratory Research

For exploratory research, following techniques were used:

- A. Open-ended questionnaire- These questions were used to discover different attributes required to study the online buying behavior.
- B. Focused group discussions- A discussion among a group of students was arranged to decide upon the attributes that need to be evaluated to study the online buying behavior.

Secondary Research

Secondary research was done from the following sources:

- A. Journals and research papers available online.
- B. Expert surveys (studied through internet).



Data Collection Method

Primary research

- primary research data collection was done using questionnaire (online survey)
- The questionnaire comprised of 19 questions (Appendix) which measured responses for different factors of frequency of purchase, payment methods, preferred products, average spending, hours spent on the internet etc.
- Some questions measured respondent attitudes using Likert Scale (1-5).
- The methods used for survey was questionnaire administration with respondents filling out the responses themselves and online survey through mail posting.



Research Methodology

Data Analysis

- Post Data Reduction, the data would be analyzed to find out the impact of various factors on each other as well the correlation amongst them using SPSS.
- The factors as well as their correlation would be studied with the help of the following techniques:
 - Cross-tabs With Chi-square
 - Regression Analysis
 - Anova
 - Factor Analysis
 - Cluster Analysis
 - Discriminant Analysis



Questionnaire Development Process

Cross-tabs With Chi-square

The questionnaire designed specific to the proposed hypothesis are:

- 1. Do you own a credit card?
- 2. How frequently do you purchase products/services online?
- 3. What is your age?
- 4. What is your gender?
- 5. On an average, how much time (per week) do you spend while surfing the Net?
- 6. What is your annual family income?
- 7. Do you use E-banking?



Questionnaire Development Process

Regression Analysis

The Regression Analysis would be performed between the dependent variable “Average Amount spent per purchase made online” and the independent variables such as Frequency of Purchase of products and services online, Family Income, owning a Credit Card, Marital Status, Gender, Occupation, Education and Age.

Along with the questionnaire listed for CROSS-TABS WITH CHI-SQUARE, following additional questionnaire are applicable to regression analysis:

- 1. What is the highest level of education you have completed?
- 2. What is your current primary occupation?
- 3. What is your marital status?

ANOVA

Questionnaire listed for CROSS-TABS WITH CHI-SQUARE can also be used to test the hypothesis of ANOVA.

Questionnaire Development Process

Factor Analysis

To find the major factors on which customers can be loaded, Factor Analysis would be done based on the following questionnaire and the attributes:

Q: Recall your earlier online buying/shopping experience and indicate your agreement with the following statements:

- I prefer making a purchase from internet than using local malls or stores
- I can get the latest information from the Internet regarding different products/services that is not available in the market
- Online shopping is more convenient than in-store shopping
- Online shopping saves time over in-store shopping
- It is safe to use a credit card while shopping on the Internet



Questionnaire Development Process

Factor Analysis Continued....

- Online shopping allows me to shop anywhere and at anytime
- I trust the delivery process of the shopping websites
- Products purchased through Internet are of guaranteed quality
- Internet provides regular discounts and promotional offers to me
- Cash on Delivery is a better way to pay while shopping on the Internet
- Sometimes, I can find products online which I may not find in-stores
- I have faced problems while shopping online
- I continue shopping online despite facing problems on some occasions
- I do not shop online only because I do not own a credit card



Questionnaire Development Process

Cluster Analysis

Depending on the reasons for a person to be online, consumers can be clustered into homogeneous groups. The corresponding questionnaire and factors are listed below:

Q: I usually look on the internet (please indicate the frequency):

- News or Information
- Websites of company regarding product
- Travel and leisure
- Spent time in social media sites like Facebook
- Online shopping sites such as Flipkart
- Education related sites
- Official works, email



Questionnaire Development Process

Cluster Analysis Continued....

Once the consumers are online, they can further be clustered on the basis of factors which influence them while making an online purchase. The corresponding questionnaire and factors are listed below:

Q: Mark the importance of the factors which influence you while making an online purchase?

- Brand Name
- Service delivery time
- Website Content
- Recommendation by friends
- Online Ads - posters/banners
- Online reviews by users of product
- Ease of payment and security



Questionnaire Development Process

Discriminant Analysis

- The Discriminant Analysis would be performed between the dependent variable “online buyer or none buyer” and the independent variables such as Education, Gender, Monthly Income, owning a Credit Card, E-banking, use of social media sites and Age.
- The questionnaires used for Discriminant Analysis have already been listed down as part of the other statistical techniques explained above.



Conclusion

Analysis of the data will conclude in the next semester (spring 2013) after the sample size of 100 is collected for an efficient result.

References

Papers

- “Predictors of Online Buying Behavior”.
<http://163.17.12.2/drupal/sites/default/files/Predictors%20of%20online%20buying%20behavior.pdf>. Retrieved 2012-08-30
- “Computers in Human Behavior”,
<http://www.sciencedirect.com/science/article/pii/S0747563212002336>,
Retrieved 2012-09-10
- “Consumer Behavior”,
[http://nptel.iitm.ac.in/courses/110105029/pdf%20sahany/Module5.\(10\)_doc.pdf](http://nptel.iitm.ac.in/courses/110105029/pdf%20sahany/Module5.(10)_doc.pdf), Retrieved 2012-10-28

Books

- Naresh K. Malhotra, Satyabhushan Dash [2011], Marketing Research, Sixth Edition, Pearson Education, South Asia

Websites

- http://www.tutor2u.net/business/marketing/buying_stimulus_model.asp
- http://en.wikipedia.org/wiki/Frequency_distribution
- http://www.tutor2u.net/business/marketing/buying_decision_process.asp

