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Impact of Product and Market Factors on Consumer Behavior: A Study on Personal Computers Purchase

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ABSTRACT

Today is age of computers, that make everything fast in the world. Without computers, human cannot live sophisticated life and computers are the most advanced invention compare to other innovations in the last decade. Personal computers purchase decision process mostly based on product factors and marketing factors. Therefore, it is very significant for marketers and manufacturers to recognize the nature of consumer buying behavior on personal computers, so that they can build up successful marketing strategies to increase market share. Current study aims to assess consumer behavior and purchase decision on personal computer purchase and what are the main aspects that manipulate consumer behavior for purchasing personal computers. Totally 600 respondents who had their own computers were randomly selected from south Tamilnadu for the survey. The questions applicable to this study were found in two parts. First part includes demographic characters and second part includes factors related with marketing, product features and purchase intentions. Data collected from the respondents was analyzed through IBM SPSS 21 statistical package. Study concludes that manufactures and marketers must be always be prepared to secure their customers satisfaction and beyond their happiness level.

Key words: Consumer behavior, consumer decision making, personal computers

INTRODUCTION

Customers are usually going to retail stores to locate and buy products. In common a customer goes to a shop and then prefers products cautiously and gradually surveying the items. When the customer discovers the product that he really interested to purchase, customers acquires the particular product and make payment. The buyer might travel a long and a stand in line to purchase the product. The above process is the traditional shopping method but it is not the only shopping process accessible in this day and age. This new tendency has made a new confront for manufacturers, as buyers are always evaluating their wants and making buy decisions. As an effect, manufacturing companies are required to reconsider their strategies and marketing policies and discover more efficient ways to sell the products and also meeting the consumer requirements with increased product values. If a company or retailer really wants to recognize consumer behavior and purchase decisions then their marketing policy will be a great deal than if they just promote the product alone. The most excellent marketing strategies started with understanding what the

consumers exactly expecting from the marketers and factors that influencing the behavior of the customers on a profound level and creating an efficient marketing policy as of this perception (Ramanathan and Jahnavi, 2010; Brosekhan and Velayutham, 2011).

In marketing customers are the embattled people who will use the product. It is very vital to understand the behavior of customers on any products. Trying to sell any product without understanding customers' behavior is same like looking for something in the dark. Each company needs to know what makes customers to choose their product over a competitor's, or why customers need to buy a product (Lonkila, 2011). In order to find out the answer for the above question, companies put much effort on finding the customers behavior of any certain product or service. This effort may help the companies to find the ways to satisfy the customers needs. The impact of brand on behavior of the customers can be deliberated based on some workings in order to analyze how brand is very important in the customer decision making process, therefore, manipulating the behavior of the customers. The study of Consumer Behavior is quite multifaceted, because of numerous variables complicated and their propensity to interact with and influence each other (Kulkarni, 2013).

Nowadays, personal computers are the most advanced invention compare to other innovations. Computers are the like heart of the current modern world (Tania, 2012). Computers are used by all kind of age groups in all kind of professions. Prabhu (2011) study revealed that computers are such an invention that had most influencing and complete power on humanbeings. Without the computers, there won't be global awareness. Personal computers purchase decision process based on product factors and marketing factors (Singh, 2012). The decision to purchase personal computers is typically a cooperative decision and it includes evaluation of product factors and marketing factors of the personal computers (Behzadian *et al.*, 2011; Aghdaie and Tafreshi, 2012; Sudhakar, 2010). Therefore, it is very significant for marketers and manufacturers to recognize the nature of consumer buying behavior on personal computers, so that they can build up successful marketing strategies to increase market share (Soni *et al.*, 2010; Geetha, 2014). Rahimi *et al.* (2014) study concludes that design of the product is the most important attribute in product selection and brand, material of the product are the next important attribute in purchase decision. Aghdaie *et al.* (2014) study on customer-oriented benefit segmentation is not only help managers to segment customers but also to provide a method to analyze behavior of the customers and determine the marketing approach and excerpt the importance of each characteristic in each section.

LITERATURE REVIEW

For the current study factors affecting purchasing of personal computers, there are only limited number of literatures are available in India. This part will assess some important literatures that related with consumer behavior on personal computer purchase. Many models and theories has been created and studied in order to understand consumer buying behavior. Now, those models and theories have been improved and based on which new studies are being conducted. Current study will spotlight on the purchase decision process in terms of buying behavior. The combination of this previous study supposed to help the basis for adding to a presented model to explain purchase decisions and buying behavior in the consumer overall computer market particularly in personal computers.

There are many definitions available for consumer behavior, Lai (1995) defined it as grouping of social anthropology, economics, sociology and psychology to help clarify how, when, where and why consumers purchase products and the buying decision process of the consumers.

The procedure of making any final decision from a range of alternative choices is known to as decision making. Each and every product purchase has its own purchase decision that has to be considered (Lawson, 1997). Consideration of the progression of how customers make buying decisions has discussed among many authors for years. Examining and sympathetic steps in purchase decision making not only help marketer or companies produce more value for consumers but will also assist to enlarge more effectual marketing strategies.

There are many internal factors that affect the consumer purchase decision process, such as perception, motivation, attitude, age and gender (Oleson, 2004; Schaninger and Danko, 1993). Consumers' external factors also affect purchase decisions. The external factors include culture, family size, members (Assael, 1987), peer reference groups and economic conditions of the consumers like monthly income and earning members in family. Above mentioned factors will influence consumers' decisions (Kotler, 2000).

The social factors like educational qualification of the customers, consumer preferences and income levels of the consumer affects personal computers sales. All the social factors influence the different type and level of demand for computers in the market. Differing consumer segments will outlook different personal computer producers in a different way and vice versa. Personal computer producers can use the above mentioned demographic factors to segment the consumer market and decide which kind of buyers they intended to sell their products (MacWilliams, 2010).

Components in computers like hardware and software are developing fast and technology development makes computers become increasingly cheaper while increased performance (Weiser, 1999; Aaker, 1998). Most of the consumers purchase new computers or updating the peripherals of their existing personal computers every two years as old computers cannot hold good for new software (Shum *et al.*, 2008).

Shah and Dalal (2009) studied on global laptop industries shows, that technological advancement and innovation over the last ten years, such as high speed processor with low power usage and low cost, or the consistency of windows, are some reasons for boost in market share of the computer industry. Personal computers also be assembled from consistent components as per the consumer preference and price of the personal computer can be reduced. Due to cheap assembled peripherals, many small companies making personal computers that carry out similar functions as the consumers expected (Kozierok, 2001).

Cooper and Inoue (1996) study concluded that different purchase source like past experience, recommendations from family and friends also influence the purchase decision on personal computers. Malhotra (1986) study revealed that consumer normally attempt to collect more information for evaluate when he\she purchases durable products. Product like personal computer, product durability always related with two types of potential risks like high price and long period usage. To reduce more risk, consumer always tries to collect more product related information.

Based on the limited literature studies, the following research questions were employed. This study aims to assess consumer behavior and purchase decision on personal computer purchase and includes the main aspects that manipulate consumer behavior for purchasing personal computers.

MATERIALS AND METHODS

Hypothesis of the study:

H₁: Demographic characteristics have significant effects on market related factors, product related factors and purchase intentions

H₂: Market related factor, product related factors have significant effects on purchase intentions

Methods: For the current study, total 600 samples are randomly selected from 6 different Districts in south Tamilnadu namely Madurai, Virudunagar, Tirunelveli, Tuticorin, Kanyakumari and Ramanathapuram. In each district, about 100 questionnaires are distributed and target total number of respondents was about 600. All respondents are knowledgeable about the computer and who are over the age of 18. Present study employs the self-administered questionnaire approach. Two research assistants were selected for the study. The research assistants with detailed knowledge about the research approached the respondents directly and explain the purpose of the survey. If the respondents agreed to take part in the study, the questionnaire are given to them.

The questions applicable to this study were found in two parts. In the first part, demographic questions like gender, age, marital status, education, family income, nature of occupation, family size, source of information to purchase and preference of personal computers. In the second part, they were asked to state the personal, market and product features on the purchase decision and purchase intentions. The data collected from the respondents was analyzed through IBM SPSS 21 statistical package. Percentage analysis, reliability analysis, correlation, ANOVA and hierarchical regression analysis are the some statistical tools used for the present study.

Cronbach alpha coefficient (α) was used to find the reliability of the instrument. It concludes that Cronbach alpha coefficient value is greater than accepted level of 0.700 (Nunnally, 1978). Cronbach alpha coefficient for product related factors (15 items) is 0.854 and market related factors (9 items) is 0.914, shows significant level of reliability.

RESULTS

The Table 1 shows that most of the respondents are male, about 46% respondents are 26-35 years old, about 56% respondents have under graduation level educational qualification. Forty three percent respondents are getting Rs. 20000-30000 as their monthly income, about 40% respondents are working in private firms and 60% respondents have 3-5 members in their family. Forty percent respondents purchasing source of information is show rooms. HP and Dell are the most consumer preferable computers.

Table 2 shows the Pearson moment correlation between market related factors, product related factors and purchase intentions. Correlation coefficient between marketing factors and product factors shows that 38% positive and significant relation. Correlation coefficient between marketing factors and purchase intention shows that 21% positive and significant relation. Correlation coefficient between purchase intentions and product factors shows that 62% positive and significant relation.

The Table 3 shows that (F values, ANOVA results) demographic characteristics like gender, age, educational qualifications, monthly income, occupation, family size, source of information and most preferred PC brand have effect on market factors, product factors and purchase intentions at 1% significant level. It concludes that hypothesis 1 was supported.

Hierarchical regression was used to find the relative worth of market and product related factors on purchase intentions of personal computers. First step of the hierarchical regression shows the bivariate relationship between and market related factors on purchase intentions

Table 1: Demographic characteristics of the respondents

Demographics characteristics	Frequency	Percent
Gender		
Male	507	84.5
Female	93	15.5
Age		
Less than 25 years	176	29.3
26-35 years	275	45.8
36-45 years	119	19.8
46-55 years	30	5.0
Educational qualification		
School level	51	8.5
Under graduation level	335	55.8
Post-graduation level	110	18.3
Professional qualification	82	13.7
Others	22	3.7
Monthly income		
Less than Rs. 10000	183	30.5
Rs. 10001-20000	51	8.5
Rs. 20001-30000	258	43.0
Rs. 30001-40000	37	6.2
Above Rs. 40000	71	11.8
Occupation		
Business	168	28.0
Government employee	79	13.2
Private employee	250	41.7
Professionals	39	6.5
Others	64	10.7
Family size		
Less than 3 members	51	8.5
3-5 members	357	59.5
More than 5 members	192	32.0
Source of information		
Advertisements	41	6.8
Show rooms	241	40.2
Sales person	21	3.5
Friends and relatives	70	11.7
Family members	81	13.5
Sales letters	74	12.3
Internet	54	9.0
Others	18	3.0
Most preferred brand of personal computer		
HP	153	25.5
Dell	108	18.0
Lenovo	50	8.3
Toshiba	60	10.0
Apple	41	6.8
Acer	57	9.5
Compaq	31	5.2
HCL	47	7.8
Sony	42	7.0
Samsung	5	0.8
Others	6	1.0
Total	600	100.0

Table 2: Correlation analysis

Correlation analysis	1	2	3
Marketing factors	1.000		
Product factors	0.382**	1.000	
Purchase Intentions	0.209**	0.622**	1

**Significant at the 0.01 level

Table 3: Effects of demographic characteristics on market factors, product factors and purchase intentions

Demographics	Market factors	Product factors	Purchase intention
Gender	78.053**	7.751**	11.532**
Age	64.483**	53.917**	9.436**
Educational qualification	5.266**	71.020**	24.911**
Monthly income	98.170**	30.041**	34.123**
Occupation	84.886**	25.189**	25.302**
Family size	9.068**	135.649**	41.489**
Source of information	3.308**	27.758**	11.205**
Most preferred PC brands	3.664**	5.642**	6.915**

**Significant at the 0.01 level

Table 4: Relative importance of market factors, product factors on purchase intentions

Factors	R	R ²	Adjusted R ²	R ² Change	F change	β	t-value	Significant
Market factors (F = 13.179, p<0.01)	0.41	0.17	0.16	0.167	13.179			
Availability						-0.22	-4.01	0.00**
Corporate image						0.03	0.50	0.62
Brand image						-0.19	-3.07	0.00**
Advertisement						0.49	6.82	0.00**
Sales person						0.08	1.66	0.10
Competing products						0.30	6.46	0.00**
Special offers						-0.08	-1.48	0.14
Level of customization						0.02	0.34	0.73
Value added services						0.03	0.71	0.48
Product factors (F = 185.05, p<0.01)	0.94	0.89	0.88	0.718	240.146			
Quality						0.45	8.36	0.00**
CPU speed						0.38	8.55	0.00**
Warranty						-0.72	-24.81	0.00**
RAM						-0.26	-6.49	0.00**
After sales service						0.51	17.31	0.00**
Flexibility in up gradation						0.10	4.06	0.00**
Hard disk drive						-0.36	-14.10	0.00**
Price						0.41	13.07	0.00**
Extra offer						0.47	11.98	0.00**
Software						0.37	6.13	0.00**
Monitor size						0.37	6.69	0.00**
Selling store						-0.62	-8.04	0.00**
Brand						-0.34	-6.35	0.00**
Style/model						0.39	8.19	0.00**
Color						0.23	5.14	0.00**

**Significant at the 0.01 level

(F = 13.179, p<0.01) Table 4. Bivariate correlation (R) is 0.41 and it accounts only 17% variance on purchase intentions. Availability, brand image, advertisement and competing products

factors have significant effect on purchase intentions of personal computers. Advertisement factors is have high significant effect on purchase intentions at 1% level.

Second step of the hierarchical regression shows the bivariate relationship between product related factors on purchase intentions ($F = 185.05$, $p < 0.01$) (Table 4). After the entrance of independent variable (product related factors) $R^2 = 0.89$ and adjusted $R^2 = 0.88$, that point to almost most, 89 of purchase intention on personal computers can be accomplished by the product related factors. Hierarchical regression shows significant increase in the second stage after the entrance product related factors and contribute additional change of 72% of purchase intentions. All the product related factors like quality, CPU speed, warranty, RAM, after sales service, flexibility in up gradation, hard disk drive, price, extra offer, software and monitor size, selling store, brand, style/model and color have high significant effect on purchase intentions. Selling stores and product warranty have high significant effect on purchase intentions at 1% level.

DISCUSSION

Correlation analysis between product, marketing and purchase intentions factors concludes that positive and significant effects. This result directly corresponds with (Lawson, 1997) results. Demographic characteristics like gender, age, educational qualifications (Oleson, 2004; Schaninger and Danko, 1993; MacWilliams, 2010), monthly income (Kotler, 2000), occupation, family size (Assael, 1987), source of information (Cooper and Inoue, 1996; Malhotra, 1986) and most preferred PC brand have effect on market factors, product factors and purchase intentions. Hierarchical regression results conclude that market related factors accounts only 17% variance on purchase intentions and product related factors accounts 89% variance on purchase intentions. This results directly corresponds with (Shum *et al.*, 2008; Shah and Dalal, 2009) and many others research results.

Personal computer manufactures must study the economic, social and demographic setting of the Indian families before developing their marketing strategies. Also needs of the personal computers in the family and purchase motives must be studied. Personal computer manufacturers' awareness of the method of Indian consumer decision making will help them to offer a suitable marketing mix which enables marketers to serve the consumers more effectively. Knowledge about the consumer social and economic status helps to identify the consumers' lifestyle which in turn helps to define the demanded goods and services (Ramanathan and Jahnavi, 2010).

Consumer has different needs for information at each of the purchase decision stages. Also he is subjected to certain influences at each stage and perceives some risks association with the decision. Realizing this, marketers must provide decision makers with information, advice or action that leads them to the proper decision at the prepare time. Current study concludes that manufactures and marketers must always be prepared to secure their customers satisfaction beyond their happiness level (Geetha, 2014). This will only be achieved by offering a product that satisfies the customers need as well as by marketing efforts that facilitate decision making and maximize the benefits the customer gets from the product.

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