

DETERMINANTS OF CUSTOMERS' WILLINGNESS TO BUY: AN EMPIRICAL INVESTIGATION

Nadim Jahangir¹, Noorjahan Parvez² and Dhrubanil Bhattacharjee³

Abstract

The goal of the present study was to examine factors that influence willingness to purchase personal computer (PC) peripherals in the context of Bangladesh. Data were collected from 205 university students through conducting survey. The result shows significant statistical relationships between product quality, price sensitivity, and promotion with willingness to buy. The result also suggests that the brand name does not act differentially as an important predictor in consumers' willingness to buy PC peripherals products in the context of Bangladesh.

บทคัดย่อ

การวิจัยครั้งนี้มีจุดมุ่งหมายหลักที่จะศึกษาปัจจัยที่มีอิทธิพลต่อความเต็มใจที่จะซื้ออุปกรณ์คอมพิวเตอร์ในประเทศบังคลาเทศ โดยทำการสำรวจจากนักศึกษาระดับมหาวิทยาลัยจำนวน 205 คน ผลการวิจัยพบความสัมพันธ์อย่างมีนัยสำคัญทางสถิติระหว่างคุณภาพของสินค้า ความอ่อนไหวในราคาที่แตกต่างกัน และการส่งเสริมการขายกับความเต็มใจซื้อ นอกจากนี้ยังพบว่าตราสินค้าไม่ได้เป็นตัวทำนายที่สำคัญต่อความเต็มใจที่จะซื้ออุปกรณ์คอมพิวเตอร์ของผู้บริโภคในประเทศบังคลาเทศ

¹Dr. Nadim Jahangir (Professor & Director, School of Business) holds a Ph.D. in Management from Australian Catholic University (Australia). Currently he is teaching in the Independent University, Bangladesh.

²Ms. Noorjahan Parvez holds BBA and MBA in marketing from Independent University, Bangladesh. Currently she is working as a EMBA programme manager in Independent University, Bangladesh.

³Mr. Dhrubanil Bhattacharjee holds a Bachelor in English from Rajshahi University (Bangladesh) and MBA degree in marketing from Independent University, Bangladesh. Currently he is working as a Research and Development Officer in the Independent University, Bangladesh.

INTRODUCTION

The late '90's has witnessed a rapid and increasing growth in the personal computer peripherals industry of Bangladesh. The favorable tax policy of the government of Bangladesh in 1998 accompanied by the global affordability of personal computers has had tremendous impact on the usage of computers. The favorable import tax policy on computers and computer accessories taken during that time was an appropriate and sensible step taken by the government of Bangladesh. From then on, in accordance with global trends, both private and public sectors in Bangladesh caught up with effective utilization of information technology. This has boosted computer imports and led to a drastic reduction in retail prices (www.um.dk). Therefore, nowadays, most vendors are targeting small offices and home users. For these vendors, to adopt effective strategies to enhance the willingness of the customers to purchase their products is the most important task, as this kind of effective and profitable strategy results in more new customers, more business with existing customers, fewer customer loss, more insulation from price competition and fewer mistakes regarding the performance of the products and services.

Willingness to buy is, in fact, the behavioral intention of the customer to purchase a product. Growing evidence supports that willingness to buy is influenced by the brand name, product quality, price sensitivity, and promotion. These four very significant variables (brand name, product quality, price sensitivity, and promotion) will assist PC peripherals selling brands, to plan and execute marketing strategies that will maximize

their customers' willingness to buy as well as profits. At present, PC peripherals manufacturers are coming up with new technologies and want their customers to buy their products and familiarize themselves with it. Factors related to brand name, product quality, price sensitivity, and promotion will provide those manufacturers with the strategic and financial insight on the buying patterns of customers. Furthermore, sound strategies can eventually help firms become more profitable and help them sustain a competitive advantage in their served markets (Hampton, 1993).

The purpose of this research is to explore the aspects of customers' willingness to buy PC peripherals products. In this study, the researchers will reveal which dimensions of willingness to buy customers attach importance to, and will provide an insight into their expectations and perceptions of willingness to buy PC peripherals products in the context of the Bangladeshi market.

LITERATURE REVIEW

Brand Name

A principal component of branding is the selection of a brand name. A commonly used definition of a brand name is that it is the component of a brand which can be spoken or verbalized (Bennett, 1988). It can contain words, numbers or letters. A short crisp brand name is usually preferred over longer more complex names. It should suggest benefits or qualities associated with the product. A good brand name should be easy to spell, pronounce, and remember. It should also be distinctive and free of any

negative connotations. In short, the brand name should contain some important information about the brand.

Although there has been a lot of argument on how to measure a brand through its name (Dobni & Zinkhan, 1990), one general accepted view is that, consistent with an associative network memory model, brand name can be defined as a name linked to the perceptions about a brand that is reflected by the cluster of associations by the consumers as the name of the brand takes a permanent place in their memory. Thus, brand name associations are very important information linked to memory and contain the meaning of the brand for consumers.

Product Quality

Product quality has been selected as one of the independent variables of this study. In 1994, Deming stated that a necessary ingredient for improvement of quality is the application of profound knowledge (Deming, 1994). A number of literatures have identified quality as a core content respondent variable (Adam & Swamidass, 1989; Montoya-Weiss & Calantone, 1994). Different definitions have been derived from different viewpoints. The most common definition of quality can be regarded as excellence, value, conformance to specifications, and meeting or exceeding customers' expectations. Actually, defining quality is very difficult as it involves translating future needs of the user into measurable characteristics, so that a product can be designed and is able to give satisfaction at a price that the user will pay (Deming, 1986). For example, a quality aspect of PC peripherals can be the warranty service.

Therefore, the warranty function of the product (PC peripherals) is based on the appraisal that the brand is reliable, efficiently carries out its performance qualities, and meets the service expectations (Ambler, 1997).

The emphasis on quality during the 1980s came about as a result of rapidly changing customers in terms of their number, need, and purchasing attitude. Of all the tangible factors that affect customers' opinion about a firm, the quality of the products offered by the firm is among the most important. Hence, it would seem plausible for managers to think that: product quality should be a major focus and customers' [view of the firm's product quality will be equal to the managers' perception of their firm's product quality. Hence, two constructs were identified to test prevalence of this attitude of managers towards their organization's quality as perceived by the managers (manager perceived product quality); and managers' perception of the customers' views about the firm's product quality.

Price Sensitivity

Price sensitivity is a variable describing how individual consumers react to price levels and changes in price levels. Consumers high in price sensitivity will exhibit much less demand as price goes up and vice versa, whereas consumers low in price sensitivity will not react as strongly to a price change.

At an aggregated level, price sensitivity is often used as a synonym for price elasticity (Link, 1997). Sensitivity of demand refers to how volume-sensitive a product or a service is to price changes. Sensitivity represents a valuable strategic tool in pricing

(Tucker, 1966). Price sensitivity at the individual adopter level appears to be equivalent to the concept of price consciousness for a potential buyer of any product. Price consciousness has been defined as: the degree to which he or she is unwilling to pay a high price for a product and willing to refrain from buying a product whose price is unacceptably high (Monroe, 1990). Price sensitivity is related to the price acceptability level (Lichtenstein et al., 1988). Furthermore, the range of acceptable prices is relatively narrow for price conscious individuals (Link, 1997).

Promotion

Promotion is one of the key 4Ps in the marketing mix (Dibb et al., 1994) and as such has a key role to play in market success. Promotion is concerned with ensuring that customers are aware of the products that the organization makes. Promotion is used by organizations to communicate with customers with respect to their product offerings. In this sense, promotion is one side of the communication process with customers. Market research, in which suppliers seek to elicit information on consumer requirements from consumers, is the complementary component of the communication process.

Willingness to Buy

In this research, willingness-to-buy consists of the patron's likelihood to shop, buy products and recommend the store to others. These measures are similar to those used throughout the service literature (Baker et al., 1992). It is the reliance on self-reported answers to measure the consumers' willingness to buy user friendly PC pe-

ripheral products or their willingness to pay higher prices for PC brands, resulting in a socially desirable response bias. Respondents professing their willingness to buy PC peripheral products might respond differently in case of other products (Lampe & Gazda, 1995).

Conceptual Framework

It is proposed that brand name, product quality, price sensitivity, and promotion are important in the context of their relationships with willingness to buy. Based on the preceding literature review, the conceptual framework (see Appendix 1, figure 1) depicts the measured variables and their relationships in the presents study. In line with the conceptual links proposed between brand name, product quality, price sensitivity, promotion and willingness to buy, the following hypotheses are proposed for this study:

1. There is a significant relationship between brand name and willingness to buy in context of PC peripherals industry in Bangladesh.
2. There is a significant relationship between product quality and willingness to buy in context of PC peripherals industry in Bangladesh.
3. There is a significant relationship between price sensitivity and willingness to buy in context of PC peripherals industry in Bangladesh.
4. There is a significant relationship between promotion and willingness to buy in context of PC peripherals industry in Bangladesh.

RESEARCH METHODOLOGY

Sampling Method

The sample consisted of private university undergraduate students who had desktop PC's at their home. Data were collected from 205 university students belonging to universities located in Baridhara, Mohakhali, Banani, and Dhanmondi, areas of the metropolis. The researchers applied convenience sampling technique to collect the data.

Survey Instruments

The items employed to measure brand name were developed by Jacoby and Chestnut (1978) and the reported reliability was 0.75. The items of product quality were developed by Garvin (1988) and have reliability of 0.80. The items employed to measure price sensitivity were developed by William and Anuchit (2002) and the reported reliability was 0.72. The items of promotion were developed by May (1971) and has a reliability 0.86. The items of willingness to buy were developed by Dodds et al. (1991) and the reported reliability was 0.94.

Data Analysis

In this study, the coefficient alphas for the different constructs were computed using the reliability procedure in SPSS (version 12.0). Table 1 indicates that the reliabilities of most constructs in this study fall within the acceptable range (0.60-0.80) (Nunnally, 1978). The researchers applied test-retest method to determine the reliability of the scale. The mean scores (see Appendix 2, Table 1) have been computed by equally weighting the mean scores of all

items. On a five point scale mean score for Brand name is 4.34 (sd = .54). The mean score for Price sensitivity is 4.38 (sd = .58). The mean score for Product quality is 4.23 (sd = .64). The mean score for Promotion is 4.26 (sd = .60) and the mean score for Willingness to buy is 4.40 (sd = .46).

Correlation Analysis

A correlation analysis was conducted on all the variables to explore the relationship between the variables. The results of the correlational analysis are depicted in Table 2 (see Appendix 2). It examines the correlation among Brand name, Product quality, Price sensitivity, Promotion, and Willingness to buy. The variables which significantly correlated with Willingness to buy were Brand name ($r = .54, p < .01$), Price sensitivity ($r = .63, p < .01$), product quality ($r = .51, p < .05$), and promotion ($r = .57, p < .01$).

Stepwise Regression Analysis

Stepwise regression was conducted to assess the relationship between variables. Hanushek and Jackson (1977) suggested that stepwise regression is a useful procedure in determining the variable which is most significant in explaining the behavior of the dependent variable. In this analysis, independent variables are individually admitted to the model according to their marginal ability to explain the response variable. If the F value and T value associated with any independent variable within the model is found to be insignificant, the associated variable is removed from the analysis. Thus, the stepwise regression procedure is both a selection and an elimination algorithm.

Table 3 (see Appendix 2) depicts that

in PC peripherals industry, price sensitivity ($p < .001$), promotion ($p < .01$), and product quality ($p < .05$) were found to be statistically significantly related to willingness to buy. Brand name failed to enter into the regression equation, which indicates it was not significantly related to consumers' willingness to buy like the other variables. These results provide a partial support for hypothesis. The three predictor variables together explained 52% of the variance in willingness to buy. Price sensitivity, promotion, and product quality explained about 40%, 9% and 3% respectively of the variance in willingness to buy.

Discussion and Conclusion

The results of stepwise regression analysis depicts that in PC peripherals industry, price sensitivity, promotion, and product quality were found to be statistically significantly related with willingness to buy. Brand name failed to enter differentially into the regression equation, which indicates it was not significant enough to influence the consumers' willingness to buy.

In context of Bangladesh, brand name does not differentially add to the best prediction equation in consumers' willingness to buy PC peripherals products. Therefore, firms selling PC peripherals should concentrate only on clone products. Firms producing PC peripherals need to improve performance, longevity, and range of color of the products. According to the findings, price sensitivity seems to be a very important factor. Hence, if the companies can reduce price without compromising on the quality, then the demand for that PC peripheral will increase. Study results indicate promotion to be an indispensable factor for buying PC

peripherals product. At present, there are not that many promotional activities on the part of the PC peripheral sellers. Consumers obtain PC peripherals promotion related information only from the print media (Magazines, Newspapers). Thus, PC peripheral sellers should come up with promotional activities which will induce the consumers' to buy more PC peripherals.

The present study is significant in various aspects as the findings can be useful for the vendors of PC peripherals in devising a strategy which will capitalize profits. It can also be useful for further research in a comprehensive context because this study is restricted to only a small group of PC peripheral buyers within the Dhaka City only. This study will trigger future researchers to conduct research in the similar area and beyond, incorporating a wide range of variables which are also relevant to the willingness to buy aspect of PC peripherals.

REFERENCES

- Adam, E. E. Jr., & Swamidas P. M. (1989). "Assessing operations management". *Management*, 15, 181-203.
- Ambler, T. (1997). "Do brands benefit consumers?" *International Journal of Advertising* 16(3), 167-198.
- Baker, J., Levy, M., & Grewal, D. (1992). "An experimental approach to making retail store environmental decisions". *Journal of Retailing*, 68, 445-60.
- BBS (2005). *Sectoral Statistics: Trade & Industry*. Bangladesh Bureau of Statistics.
- Bennett, P.D. (1988). *Dictionary of Marketing Terms*, American Marketing As-

- sociation. Chicago: IL.
- Deming, J.E. (1994). *The System of Profound Knowledge, in The New Economics*, MIT, Centre for Advanced Educational Services, 2nd edition, Cambridge: MA.
- Deming, W. E. (1986). *Out of the Crisis: Quality, Productivity and Competitive Position*, Cambridge University Press: Cambridge.
- Dibb, S., Simkin, L., Pride, W. M., & Ferrel, O. C. (1994). *Marketing Concepts and Strategies* (2nd European Edition). Boston: Houghton Mifflin Company.
- Dobni, D. & Zinkhan G.M. (1990). "In search of brand image: A foundation analysis". *Advances in Consumer Research*, 1, 110-119.
- Dodds, W.B. (1991). "In search of value: how price and store name information influence buyers' product perceptions". *Journal of Consumer Marketing*, 8 (Spring), 15-24.
- Garvin, D.A. (1988). *Managing Quality: The Strategic and Competitive Edge*, Free press New York, Maxwell Macmillan, Toronto.
- Hampton G. (1993). "Gap analysis of college student satisfaction as a measure of professional service quality". *Journal of Professional Service Marketing*, 9(1), 115-28.
- Hanushek, E. A., & Jackson, J.E. (1977). *Statistical Methods for Social Scientists*, Academic Press: New York.
- Jacoby, J., & Chestnut, R. W. (1978). *Brand Loyalty Measurement and Management*, Wiley: New York.
- Lampe, M., & Gazda, G. M. (1995). "Green Marketing in Europe and the United States: an Evolving Business and Society Interface". *International Business Review*, 4(3), 295-312.
- Lichtenstein, D. R., Peter H. B., & William C. B. (1988). "Correlates of price Acceptability". *Journal of Consumer Research*, 15 (September), 243-252.
- Link, F. (1997). *Diffusion dynamics and the pricing of innovations*, PhD thesis, Lund: Lund University.
- May, E.G. (1971). *Image Evaluation of a department store: Techniques for conducting the study*. Marketing Science Institute, Mass: Cambridge.
- Monroe, K.B. (1990). *Pricing: Making Profitable Decisions*, NY: McGraw-Hill.
- Montoya-Weiss, M., & Calantone, R. (1994). "Determinants of New Product Performance: A Review and Meta-Analysis". *Journal of Product Innovation Management*, 11(5) (November), 397-417.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd edition). NY: McGraw Hill.
- Tucker, S. (1966). *Pricing for Higher Profit: Criteria, Method, Applications*, NY: McGraw-Hill.
- William, C., & Anuchit, S. (2002). "Service Quality in the Thai Telecommunication Industry: A Tool for Achieving a Sustainable Advantage". *Management Decision*, 4(1).

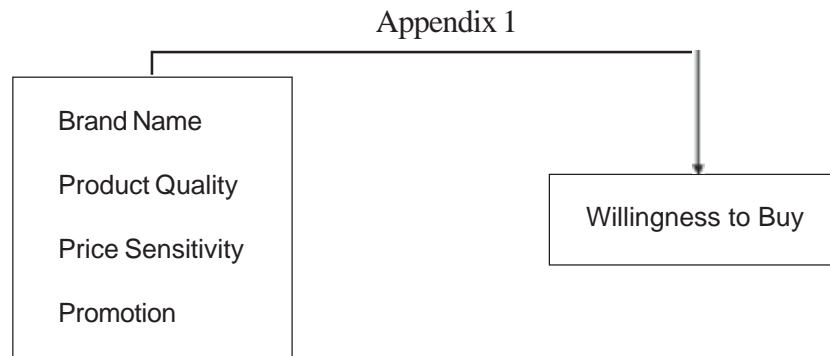


Figure 1: Conceptual Framework of Research Variables and their Relationships

Appendix 2

Table 1: Descriptive statistics and Reliability Coefficient of Brand name, Product quality, Price sensitivity, Promotion, and Willingness to buy

Scale	No. of Items	Alpha	Mean	SD
Brand name	4	0.75	4.34	0.54
Price sensitivity	3	0.69	4.38	0.58
Product quality	4	0.70	4.23	0.64
Promotion	3	0.61	4.26	0.60
Willingness to buy	5	0.72	4.40	0.46

Note: n = 205

Table 2: Correlation Matrix for Brand name, Product Quality, Price sensitivity, Promotion, and Willingness to buy

Variables	Brand name	Price Sensitivity	Product Quality	Promotion	Willingness to Buy
Brand name	-	.56**	.32**	.57**	.54**
Price Sensitivity		-	.49**	.48**	.63**
Product Quality			-	.43**	.51**
Promotion				-	.57**
Willingness to Buy					-

Note: **p < 0.01

Table 3 : Stepwise Regression on Willingness to buy					
Variable	B	SEB	β	R²	ΔR
Step 1					
Price sensitivity	.506	.064	.637***	.405	.089
Step 2					
Price sensitivity	.375	.067	.471***	.494	.026
Promotion	.262	.065	.341***		
Step 3					
Price sensitivity	.319	.071	.401***		
Promotion	.224	.066	.291**	.520	
Product quality	.137	.062	.192*		

Note: *p < .05, **p < .01, ***p < .001