

Review Article

Factors Influencing Brand Switching of Smartphones among University Students: A Study on Bangladesh

Tapas Bala¹, Israt Jahan², Md. Mahbubar Rahman³, A.K.M. Golam Rabbani Mondal⁴, Autoshi Roy⁵

¹Assistant Professor, Department of Marketing, Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj, Bangladesh

²Lecturer, Department of Marketing, Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj, Bangladesh

^{3,4}Professor, Department of Marketing, University of Rajshahi, Bangladesh.

⁵MBA student, Department of Marketing, Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj, Bangladesh

Received Date: 18 June 2020

Revised Date: 30 July 2020

Accepted Date: 04 August 2020

Abstract - Mobile phones are a fundamental part of communication for the modern world. The Bangladeshi mobile market is one of the fastest-growing markets for mobile handsets. Although mobile phones have been used widely for several decades, smartphones are a more recent advance for Bangladesh. Mobile communication technology, e.g., wireless internet, a mobile phone, and Global Positioning System (GPS), is providing advanced and standard facilities to meet up the consumer's needs and preferences. The objective of the current study is to examine the factors that explore the brand switching behavior in the consumer mind. The study was undertaken on 200 smartphone users among the university students of Bangabandhu Sheikh Mujibur Rahman Science and Technology University (BSMRSTU), Gopalganj. The data were explicated with factor analysis and multiple regressions. The entire hypotheses were tested with SPSS, and two factors of them were accepted. Two factors (product price and social influence) were accepted as per statistical results. They affected the satisfaction of the consumer that was a direct influence on brand switching behavior for smartphones.

Keywords - Smartphones, mobile communication, brand switching behavior, consumer satisfaction.

I. INTRODUCTION

The smartphone industry is one of the popular parts of the present dynamic world. The smartphone users are growing gradually, and smartphone users are still just 33.4% of the total population in the smartphone market share, thus making it a very promising market [1]. Though the present mobile markets are more blooming and have the same types of smartphone services, there is a tendency of rivalry for acquiring the new consumer and keeping the existing customers. That's why customer satisfaction is a captious aspect for smartphone service organizations to

keep and to enhance their marketability and profitability [2]. In the smartphone industry, there are many types of brands with innovative features available in the market to attract consumers. University students are the target customer for every smartphone industry. Eventually, university students' expectations change over time; for this reason, they are frequently switching their smart phone's brands.

“Reference [3] shows a smartphone is a mobile phone with highly advanced features. A typical smartphone has a high-resolution touch screen display, Wi-Fi connectivity, Web browsing capabilities, and the ability to accept sophisticated applications.” The majority of these devices run on any of these popular mobile operating systems: Android, Symbian, iOS, BlackBerry OS, and Windows Mobile”. A smartphone is a mobile phone that includes advanced functionality beyond making phone calls and sending text messages. Most smartphones can display photos, play videos, check and send e-mail, and surf the Web. Modern smartphones, such as iPhone and Android-based phones, can run third-party applications, which provides limitless functionality [4].

But innovation creates frequent life stage changes in the smartphone industry, and that has a great impact on young students and influences them to change the brand frequently. The social condition also has a blowy – in flax with fresh developments in selection modeling, a familiar selfhood supposition inspires that kind whip also assist socio-psychological plan besides official use maximization. So, the familiar shift applies to conduct jealousy without family to find higher conditions.

Researchers have more focused on Smart Phone's brand switching behavior because technological products, especially smartphones, have very short product life cycles



and international politics have more effect on the technological market. But in Bangladesh, especially in the southern part, there are the least researches done on a smartphone. That's why this research provides a critical analysis of the brand switching behavior of the university's students in the southern part of Bangladesh due to updating technology. Smartphone plays a great role in the university student's education for attending online class, class lecture, assignment, and communication purpose. Consumer switching behavior depends on the cause-effect relationship [5]. However, there are numerous researches conducted on the consumer's brand switching behavior in the smartphone industry. None of them focused on the student's brand switching, especially in Bangladesh. This study will address such factors that can significantly motivate the students of the southern part of Bangladesh to choose the brand of smartphone. The following objectives drive in this research:

- To identify factors that attract the consumer's mind for buying a smartphone
- To determine the factors for switching the customers towards another brand.
- To find out the reasons for changing one brand to another brand.
- To identify the preference of university students for purchasing the smartphone.
- To explain the relationship between the identified factors and brand switching intention among the students.

II. LITERATURE REVIEW

Every organization tries to retain existing customers and attract new customers for the time demanded product due to the diversification of smartphone industries. University students' mind is sophisticated, and they usually expect up-to-date products. So, determining the factors on the brand switching behavior of different brands of university students in the southern part of Bangladesh is very important. So, it sounds like a major problem for smartphone companies to deliver the updated technology-based smartphone. The needs of smartphone users always change rapidly due to the advancement of new technology. That's why the brand switching behavior of the user is increasing dramatically day by day due to product price, innovative features of the new Smartphone, social influence, the phone's color, the capacity of RAM, ROM, display's size, and customer satisfaction. For this reason, Smartphone companies are facing many issues in results like customer churn, loss of market share, low profitability, etc.

A. Brand Switching Behaviour

Brand switching happens when customers switch their devotion from certain types of products of one brand to another brand. Marketing researchers have an interest in modeling brand switching behavior and offering a useful demonstration that motivates the previous buying on current buying [6]. Consumer behavior is the emotional process that customers hold in identifying needs,

determining the means to resolve these needs, and making buying decisions. Indication shows that price, inconvenience, and the quality of service are crucial for customer brand switching behavior. Brand switching of the smartphone industry is becoming admired. One company tries to attract customers, whereas another organization loses the respective customers at the same time. Though customer attitude is vulnerable, and it is an alarming issue for companies. That's why every organization wants to retain its existing customers because of the low turnover rate, and building relationships with customers is the key pillar for long-term profitability. If any organization loses the existing customer, they are not only trailing the upcoming profit but also the cost of searching for the new customer as well. "Reference [7] shows that Acquisition of customers can cost 5 times more than retaining current customers and repeat purchases and loyal customers are the main driver of profitability for most businesses." A lot of brands of smartphones are available in the market to satisfy the consumer's needs and wants. The consumers' preferences and expectations should vary from time to time. Thus, it is important to determine the factor that influences switching the brand of university students. This research is going to examine variables such as product price, product features, brand image, and social influence that impact the customer satisfaction for the brand switching behavior of smartphones among university students.

B. Product Price

"Reference [7] shows price is the sum of all the values that customers give up to gain the benefits of having or using a product or service." There are three components to the conception of the price: objective price, non-monetary price, and sacrifice [8]. The objective monetary price (Merely, the amount of currency compensated for the product) is not correspondent with the perceived price (that is, the price as understood and documented in the belief of the user) since customers do not always recognize or mention the factual value compensated for a product. The product price acts a very significant position in the smartphone diligence, particularly for the period of the smartphone industry. The correlation between the product price and customer loyalty describes that customer satisfaction of the smartphone industry depends on some factors like the camera capacity of both the front camera and back camera, color, display size, battery capacity, charging option, RAM, and ROM size and so on. Though the smartphone industry is so competitive that the perception of price fairness plays a vital role in customer satisfaction, and it affects brand switching behavior. For this reason, product price is a critical impact on the switching behavior of customers to switch from one brand of the smartphone to another. Smartphone companies sell the latest product to the university's students because of changing their needs rapidly.

C. Product Feature

Nowadays, in the market, smartphones have different types of features with updated technology. "Reference [7]

shows product can be offered with varying features. A stripped-down model, one without any extras, is the starting point. The company can then create higher-level models by adding more features. Features are a competitive tool for differentiating the company's product from competitors' products. Being the first producer to introduce a valued new feature is one of the most effective ways to compete." Smartphones are designed with various types of features such as Wi-Fi connectivity, web browser built-in, the installation of application, programmability, filing system, multimedia presentation, huge storage capacity, and display with high resolution and motion sensors [9]. Consumers expected five features on their smartphones for their promotion, such as the camera, color, screen, command-activated dialing, internet browsing, and Wi-Fi connectivity [10]. Hardware is physically touchable of a smartphone device such as smartphone body, size, weight, color, and design. On the other hand, computer programs, procedures, and documentation are the software [11]. They further added the operating platform, storage, or application as software. They also pointed out some operating software such as iOS, Android, Windows, RIM Blackberry, Symbian, Bada, and Maemo software as product features. Based on earlier research escort by [12], consumers in Malaysia mostly like Android of 41%, maintained by IOS with 18%, RIM Blackberry, and Windows recorded the same with 6%. Users in other countries such as Singapore, Australia, New Zealand, Thailand, and Vietnam mostly use the Android operating system. 31% of users like software, whereas only 17.6% of users prefer hardware [11].

D. Brand Image

In marketing literature, the conception of the brand has been repeatedly discussed. The building of a brand is crucial for the marketing of both physical products and service firms [13]. "Reference [7] shows a brand is a name, term, sign, symbol, or design or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of the competitor". Almost every organization accentuates the brand name as precious benefits of products and services, and it will add the extra advantages of the organization [14]. A brand is the form of the perception or mental picture of the consumer's expectation that is held in the customer's mind, and it may be rational and emotional [15]. From discussing the earlier literature, it found that a positive brand held greater brand equity and customer predilection because it has high market favourability and greater demand of the respective brand among their social circle. The organization's brand image also assists in drawing the attention of the other organization's users and switching from their existing brands. If the brand image or identity increases, customer loyalty to the brand will also increase concurrently [16]. This brand differentiates them from the competitors for selling different versions with separate storage capacity and colors to meet up customer expectations [17]. That's why a positive brand image is able to satisfy the customer's expectations and suggest more benefits for building customer loyalty and trust.

E. Social Influence

Social influence is the varying of approach, attitudes, judgment, and activities that some persons inspired purposely or accidentally. It is the result of interaction with other people, such as parents and peers [18]. Media, parents, peers would motivate consumers to buy smartphones [19]. Reference [7] shows surrounding people inclined consumer actions. Consumers would get the idea, guidance, and experience of people who have used smartphones. They might get from different types of people who are close to them, such as friends, peers, and family members. 35.6% of the respondents like to buy smartphones from a group of people [20]. The young generation, especially students, rely on surrounding people to buy smartphones [21]. Nowadays, different types of social media such as Facebook, Instagram, Twitter, Whatsapp, Imo, Google duo, zoom, and so on are available. So people can easily develop their social network online that influences them to switch the smartphone. Customers find information regarding products such as product quality, features, product user-friendly, product reviews, which inspire them to switch from the existing one to the new one.

F. Customer Satisfaction as a mediating role

Customer satisfaction is the assessment of the consumers based on buying experience and disregarding any specific experience. "Reference [7] shows customer satisfaction is the 'person's feeling of pleasure or disappointment, which resulted from comparing a product's perceived performance or outcome against his/her expectations". The present study will conceptualize customer satisfaction as the overall perception of consumers at the time using smartphones. Customer satisfaction is the combination of the betterment of price, innovative features, strong brand image, and social influence. For knowing the modern marketing and analyzing the customer behavior, Customer satisfaction plays an important role, and it helps to retain the existing customers, so the smartphone industry should focus on corporate image and analyze the reason for increasing customer loyalty.

III. CONCEPTUAL FRAMEWORK

A theoretical framework is the underpinning that is rationally developed, explained with sophisticated affiliation between variables of different dilemmas, and is identified from the rigorous process such as prior research, investigation, and interviews [22]. The Conceptual framework is the arrangement of the analyst's judgment to demonstrate the innate advancement of the experience to be considered [23]. It attempts a plausible format of associated approach that aids to afford a picture or visual demonstration of different thoughts in a study [24]. Based on the concept, theory, and reasoning conclusion, the conceptual framework has used in this study is a development from the prior research on the analysis among the variable of the product price, product features, brand image, and the social influence factor toward the customer satisfaction to the brand switching behavior

towards the smartphone industry in Bangladesh. We can get a clear picture of the overall customer brand switching behavior from the following figure 1. These four constructs have been measured to know the parameters of brand switching behavior. Customer brand switching behavior is conceptualized to apply the subsequent three approaches; “Attitudinal Approach” by [25], “Behavioural Approach”, and “Composite Approach” by [26], [27].

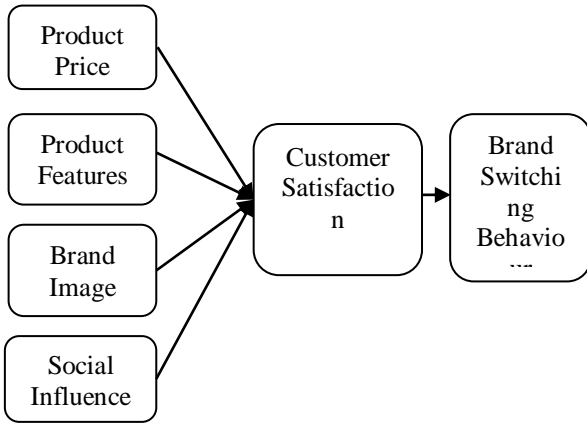


Fig. 1 Proposed Model

- H1: Product price has a positive relationship with brand switching behavior.
- H2: Product features have a positive relationship with brand switching behavior.
- H3: There is a positive relationship between Brand image and brand switching behavior
- H4: Social influence has a positive relationship with brand switching behavior.
- H5: Consumer satisfaction has a positive relationship with brand switching behavior.

IV. RESEARCH METHODOLOGY

The current study has followed the quantitative research technique for determining the relationships between the variables that affect customer switching behavior identified in the literature review in the smartphone industry in Bangladesh. Quantitative research is an inquiry into a social problem, explaining phenomena by gathering numerical data that are analyzed using mathematically based methods, e.g., in particular statistics [28]. Quantitative research is gathering quantitative information of experience, analyzing methodical and executing numerical, scientific, or computing approaches. The researcher has prepared a structural questionnaire both in the manual and online format and has collected the required information from the present and future consumers with the help of convenience sampling. The analysis of the result should be portrayed in the form of numerical value. This study has used both types of data collection methods, i.e., primary and secondary data. Primary data has been gathered from a structured questionnaire, whereas secondary data has been collected from journals, articles, the internet, textbook, media publication, electronic library database, and articles. The researcher is pursuing the data of the target population that

is the combination of the elements or objects[29]. This study has selected 200 students of Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj, as the main population to conclude the entire population, which is approximately 11,000 students.

V. DATA ANALYSIS

A. Demographic Analysis

Table 1. Demographic Profile of the Respondents

Category	Item	Number	Percentage (%)
Gender	Male	150	75
	Female	50	25
Age Group	15-20	17	8.5
	20-25	176	88.0
	25-30	7	3.5
Source of Income	Tuition	40	20.0
	Family	136	68.0
	Outsourcing	8	4.0
	Others	16	8.0
Smartphone purchased last time	Samsung	39	19.5
	Nokia	16	8.0
	I-phone	7	3.5
	Xiaomi	47	23.5
	Hawaii	28	14.0
	Others	63	31.5
SmartPhone would you like to purchase	Samsung	44	22.0
	Nokia	9	4.5
	I-phone	60	30.0
	Xiaomi	54	27.0
	Hawaii	27	13.5
	Others	6	3.0
Budget	Less than 10000	11	5
	10000-15000	53	26
	15000-20000	69	34
	20000-25000	25	13
	25000-30000	23	12
	30000-above	19	10

Meanwhile, BSMRSTU student’s price or budget range to purchase a smartphone were 5% for budget below than BDT10,000, 26% for budget between BDT 10,000 – BDT 15,000, and 34% for range BDT15,000-BDT 20,000, 13% for budget of BDT 20,000 - BDT 25,000, 12% for range of BDT 25,000- BDT30,000 and 10% for budget above BDT 30,000. As per the survey report, if we compare the statistics report, the demand for Samsung, iPhone, and Xiaomi has increased in the students' minds, Nokia, Huawei, and others' demand has decreased. 68% of students’ source of income is coming from their family, 20% from the tuition, 4% from outsourcing, and 8% from others. 88% of respondents’ age group with 20-25, 8.5% from 15-20 group, and only 7% of respondents who are above 25 years. 75% of respondents are male, and only 25% of respondents are female.

Table 2. Reliability Analysis Test for Dependent and Independent Variables

Variables	No of Items	Alpha
All	30	0.779
Brand Switching Behavior (BSW)	4	0.843
Customer Satisfaction (CS)	8	0.803
Product Price (PP)	3	0.725
Product Features (PF)	3	0.626
Brand Image (BI)	3	0.619
Social Influence (SI)	3	0.613

For measuring the accuracy of an instrument, Cronbach's alpha is an indispensable mechanism. Cronbach's alpha value of more than .60 has been used as the benchmark of a reliable instrument [30]. It is mostly practiced to evaluate the internal accuracy of the construct used in the research. Its normal accuracy range between 0 and 1. When the Cronbach's alpha coefficient value is close to 1, it indicates that the items in the scale have greater flexibility. In this research, the researcher has used 30 items, and its Cronbach's alpha value is 0.779, which is more than 0.60. This means that the variables which are used in this study are standardized and can be acknowledged as referring to the thumb rules of Cronbach's alpha coefficient [31]. Brand switching behavior (BSW) consists of four items, and its Cronbach's alpha value was 0.843, which is the highest in this research. Other's Cronbach's alpha value was customer satisfaction (8 items) 0.803, Product price (3 items) 0.725, Brand image (3 items) 0.619, and Social influence (3 items) 0.613.

B. Kaiser-Meyer-Olkin (KMO) Test for Sampling Adequacy

Table, with the value of Kaiser-Meyer-Olkin (KMO), indicates that the study does not have any issue with sample adequacy. It is noted that the KMO value is more than .60, and the significant value of Bartlett's test of sphericity is good enough for the study to proceed with factor analysis.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.866
Bartlett's Test of Sphericity	Approx. Chi-Square	1858.602
	df	276
	Sig.	.000

C. Factor Extraction

Factor extraction is the model of clustering or clubbing the variable into distinctive factors. Eigenvalue has been used as a standard method to choose the appropriate number of factors. Latent root value or Eigenvalue 1 or greater determines the expected number of factors in a study [32]. The table has shown below where a total of six factors have been extracted. A total of more than 62.97 percent of variance has been explained.

Table 4. Factor Extraction

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	6.893	28.723	28.723	6.893	28.723	28.723	4.462	18.592
2	2.446	10.190	38.913	2.446	10.190	38.913	2.863	11.930	30.521
3	1.893	7.886	46.799	1.893	7.886	46.799	2.236	9.315	39.836
4	1.651	6.880	53.678	1.651	6.880	53.678	1.891	7.877	47.713
5	1.140	4.749	58.428	1.140	4.749	58.428	1.875	7.811	55.524
6	1.091	4.546	62.974	1.091	4.546	62.974	1.788	7.450	62.974

D. Rotated Component Matrix

Most of the variables have loaded in the first factors in the unrotated component matrix. Some items were cross-loaded to more than one. The loading of the unrotated factor matrix defies the possibility of deriving the significant factors. A factor loading of the correlation coefficient is based on the Varimax rotation of factors influencing the brand switching behavior of university students.

Table 5. Rotated Component Matrix

	Rotated Component Matrix ^a					
	Component					
	1	2	3	4	5	6
Dust and water resistance	.759					
Battery life and heating issue	.757					
Good and fast processor	.737					
Durability	.732					
Brand image	.721					

Extended memory	.702				
High resolution of camera	.552				
Brand Image quality	.546				
Product price		.788			
Affordable smartphone		.733			
Glass body, display, and sound		.701			
ROM and RAM		.605			
Your idol person			.804		
Promotional offer influence			.776		
Social status?			.764		
Strong brand performance				.714	
Updated and advanced technology				.610	
Promotional offer				.603	
A large size SP				.785	
Social influence				.690	
Bikroy. Com, Daraz				.659	
Friends and family					.705
Influence of Advertisement					.612
Different social group					.555

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

E. Multiple Regression Model Analysis

The study included the use of multiple regression analysis to identify a line of “best fit” for more than one independent variable in predicting or explaining a dependent variable [33]. This analysis is necessary for attempting to answer the study’s research question. Multiple regression analysis has been used in an attempt to demonstrate the impact of all independent variables and brand switching behavior.

Multiple regressions are a statistical procedure that examines the combined impact of several variables to predict or explain a dependent variable. The researcher used SPSS Version 22 to assess the calculation. Specifically, linear multiple regression analysis with a stepwise method has been used. The stepwise method has been used because it uses the best predictors in estimating the regression model. The following sections report an analysis of the findings of the multiple regressions.

The multiple regression analysis indicated that the brand switching factors of university students consumer purchase intension, product price, product features, brand image, and social influence (independent variables) has combined to explain smartphone brand switching behavior with $r = .653$, $r^2 = .427$, and adjusted $r^2 = .412$ (Table). The regression model fits the data with an F test = 28.873 that was significant at the $p < .001$ level. Table 6 includes the beta weights (slopes) of each variable and constant enterprise success. The table includes both no standardized and standardized coefficients along with t value and significance level. The independent variables in combination can predict reasons for branch switching behavior of the smartphone of the university students.

Table 6. Model Summary

Model Summary ^b								
R Square	Adjusted R Square	Std. The error of the Estimate	Change Statistics					Durbin-Watson
			R Square Change	F Change	df 1	df 2	Sig. F Change	
.427	.412	.80655	.427	28.873	5	194	.000	1.683

a. Predictors: (Constant), Consumer Purchase Intension, Product price, product features, product image, social influence.

b. Dependent Variable: Brand Switching Behavior

Table 7. ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	93.915	5	18.783	28.873	.000 ^b
1 Residual	126.203	194	.651		
Total	220.117	199			

a. Dependent Variable: Brand Switching Behavior

b. Predictors: (Constant), Consumer Purchase Intension, Product price, product features, product image, social influence.

F. Linearity Test

For testing linearity, the study had run here the multiple regressions and scanned the significance values for identifying the variables for which the majority of the values are less than .05. The correlation matrix table helped to identify such variables, which were excluded later on. For observing the linearity issue, the study then checked whether or not there exists any correlation among the variables more than 0.90. The result showed that the highest correlation coefficient was .844. So, no items have the linearity problem.

Table 8. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.455	.376		1.212	.227
Cust. Satis. (F1)	-.019	.057	-.020	-.337	.737
Pro. Price (F2)	.345	.073	.301	4.708	.000
Pro. Features (F3)	-.003	.067	-.003	-.047	.963
Br. Image (F4)	.015	.090	.009	.162	.871
Soc. Inf. (F5)	.539	.075	.452	7.212	.000

a. Dependent Variable: Brand Switching Behavior

Table 9. Pearson Correlation

	Cus. Satis.	Pr. Price	Pr. Feature	Br. Image	So. Inf.	Br. S. Beh.
Customer Satisfaction	1					
Product Price	.598**	1				
Product Features	.070	.048	1			
Brand Image	.490**	.522**	.111	1		
Social Influence	-.103	-.101	.136	-.168*	1	
Br. Switch. Beh.	-.006	.039	.320**	.129	.092	1

VI. CONCLUSION AND RECOMMENDATION

The objective of this study was to analyze the factors affecting the brand switching behavior of smartphones among university students in Bangladesh. Particularly, this research focused on the affiliation among independent variables (product prices, product features, brand image, and social influence) and mediating variables (customer satisfaction) and dependent variables (brand switching behavior). Data was gathered and analyzed from 200 university students from Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj.

After analyzing the variables, the findings indicated that two variables were supported. Product price has a significant relationship with brand switching behavior, and Parents, friends, a social reputed people motivate the students to purchase smartphones.

There is a positive relationship between product price and brand switching behavior. The main sources of income of the students' of BSMRSTU, Gopalganj were the family income and tuition and budget of the students for purchasing smartphones from BDT. 10,000.00 to BDT. 20,000.00.

This study also found that social influence has a positive relationship with the brand switching behavior of smartphones. Similar findings were reported in the study of social influence and purchase intention [20], [21], [11]. According to Ibrahim et al. (2013), brand switching behavior and social influence have a positive relationship, and its strength is moderate at 0.463 [34]. The study was conducted among adolescents aged 19 to 26 years in Perlis. The purchase behavior of university students has depended on social influence [35]. They also recommended that positive word of mouth among friends and family encouraged the university students' for purchasing smartphones. Marketers should focus on this point. However, we found that brand image and product features were not accepted, as we hypothesized.

The results of the study have several suggestions for the smartphone industry. The findings will provide information to the smartphone producer regarding the demand of university students, especially in the periphery area in Bangladesh. This research concludes that independent variables (product price, product features, brand image, and social influence) and mediating variables (customer satisfaction) are positively related to the brand switching behavior of the smartphone industry.

The research has some limitations. The population has selected only the university students of Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj, Bangladesh. The findings might not apply to the students in other universities in Bangladesh. Furthermore, for the generalizing of the findings, the research needs to require various types of samples across the university students.

In conclusion, the present research helps us to understand the importance of product price, product features, brand image, and social influence on customer satisfaction which is directly affected to brand switching behavior of smartphones among University students. Contrary to expectation, there was no momentous liaison between product features and brand image with brand switching behavior. In the future, some other factors should be analyzed that may influence the brand switching behavior of smartphones. In encapsulation, smartphones should focus on university students' latent demand and determine the factors that play a role in the brand

switching behavior of smartphones because students represent the future main uses of smartphones, and they will help to extend the market share and profitability.

REFERENCES

[1] Jain, R. R., Aagja, J., & Bagdare, S., Customer experience – a review and research agenda, *Journal of Service Theory and Practice*, 27(3) (2017) 642-662. doi: 10.1108/JSTP-03-2015-0064

[2] Zhang, S., Zhao, L., Lu, Y. and Yang, J., Do You Get Tired of Socializing? An Empirical Explanation of Discontinuous Usage Behaviour in Social Network Services. *Information & Management*, 53 (2016) 904-914. <https://doi.org/10.1016/j.im.2016.03.006>

[3] <https://www.techopedia.com/definition/2977/smartphone>

[4] Christensson P. ICT Definition. (2010). <http://techterms.com/definition/ict> website.

[5] Ahmed, Z., Gull, M., & Rafiq, U., Factors Affecting Consumer Switching Behavior: Mobile Phone Market in the Manchester-United Kingdom. *International Journal of Scientific and Research Publications*, (2015) 2250-3153.

[6] Bass, F.M., The Theory of Stochastic Preference and Brand Switching. *Journal of Marketing Research*, 11 (1974) 1-20. <https://doi.org/10.2307/3150989>

[7] Kotler, P., & Armstrong, G., *Principles of Marketing* (12th ed.). Boston: Pearson Education. (2007)

[8] Zeithaml, V.A., Customer Perceptions of Price, Quality, and Value, A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52 (1988) 2-22. <https://doi.org/10.2307/1251446>

[9] Oulasvirta, A., Wahlstrom, M. and Ericsson K. A., What does it mean to be good at using a mobile device? An investigation of three levels of experience and skill. *International Journal of Human-Computer Studies*, 69 (2011) 155-169.

[10] Ling C., Hwang W. and Salvendy G., Diversified users' satisfaction with advanced mobile phone features, *Universal Access in the Information Society*, 5(2) (2006) 239-249.

[11] Lay-Yee, K.L., Kok-Siew, H., and Yin-Fah, B.J., Factors affecting smartphone purchase decision among Malaysian Generation Y. *International Journal of Asian Social Science*, 3(12) (2013) 2426-2440

[12] Russell, J., Android dominates Southeast Asia's smartphone market (2012): Report [Online]. Available from <http://thenextweb.com/asia/2012/09/04/android-southeast-asia-ericsson-report/>

[13] Donald, R.O., Exploring the Relationship between Relationship Marketing, Relationship Quality, and Customer Loyalty in the Nigerian Telecommunication Industry. *Global Journal of Emerging Trends in e-Business, Marketing and Consumer Psychology*, 1 (2015) 269-281.

[14] Cornelis, P., Effect of co-branding in the theme park industry: a preliminary study. *International Journal and Contemporary Hospitality Management*, 22(6) (2010) 775-796.

[15] Dobni, D. and Zinkhan, G.M., In Search of Brand Image: A Foundation Analysis. *Advances in Customer Research*, 17 (1990) 110-119.

[16] Ibok, N. and Etuk, G.S., (2015) Brand Identity and Customer Loyalty: Evidence from the Nigeria Telecommunication Industry. *International Journal of Managerial Studies and Research*, 3 (2015) 1-8.

[17] ChangeWave Research, (2010), <http://www.investorplace.com/19044/another-major-leap-for-google-android-os-among-consumers/>

[18] Rashotte, L., *Social Influences* (2007). Retrieved April 21, 2011, http://www.blackwellpublishing.com/443/sociology/docs/BE_OS_S1413.pdf

[19] Nelson, M. R. & McLeod L.E., Adolescents brand consciousness and product placement: Awareness, liking and perceived effects on self and others. *International Journal of Consumer Studies*, 25 (1) (2005) 1-13.

[20] Mohd Azam Osman., Abdullah Zawawi Talib., Zainal Abidin Samui., Tan Shiang Yen., & Abdullah Sani Alwi., A study of the trend of smartphones and their usage behavior in Malaysia. *International Journal on New Computer Architectures and Their Application (UNCAA)*, 2(1) (2012) 274-285.

[21] Suki, N. M., & Suki, N. M., Dependency on Smartphones: An Analysis of Structural Equation Modelling. *Journal of Technology*, 62(1) (2013) 49-55.

[22] Sekaran, U., & Bougie, R., *Research Methods for Business, a Skill Building Approach*. UK, John Wiley and Sons, Inc (2009).

[23] Camp, W. G., Formulating and evaluating theoretical frameworks for career and technical education. *Career and technical education research*, 26(1) (2001) 4-25.

[24] Grant. C., & Osanloo. A., Understanding, Selecting, And Integrating A Theoretical Framework In Dissertation Research: Creating The Blueprint For Your House, *Administrative Issues Journal Education Practice and Research*, (2014), <https://doi.org/10.5929/2014.4.2.9>

[25] Bennett, R. and Rundle-Thiele, S., A Comparison of Attitudinal Loyalty Measurement Approaches. *Journal of Brand Management*, 9 (2002) 193-209. <https://doi.org/10.1057/palgrave.bm.2540069>

[26] Dick, A.S., and Basu, K., Customer Loyalty, Toward an Integrated Conceptual Framework. *Journal of the Academy of Marketing Science*, 22 (1994) 99-113. <https://doi.org/10.1177/0092070394222001>

[27] Oliver, R.L. Whence Customer Loyalty? *Journal of Marketing*, 63 (1999) 33-44. <https://doi.org/10.2307/1252099>

[28] Aliaga, M. and Gunderson, B., *Interactive Statistics*. Saddle River, (2002) 3-15.

[29] Malhotra, N. K., & Peterson, M., *Basic marketing research: A decision-making approach* (2nd ed.). Upper Saddle River, NJ, Pearson Education. Management, 25(8) (2006) 269-274.

[30] Alan Gerber and Neil Malhotra, Do Statistical Reporting Standards Affect What Is Published? Publication Bias in Two Leading Political Science Journals, *Quarterly Journal of Political Science*, 3(3) (2008) 313-326. <http://dx.doi.org/10.1561/100.00008024>

[31] Nunnally, J.C., and Bernstein, I.H., *The Assessment of Reliability. Psychometric Theory*, 3 (1994) 248-292.

[32] Malhotra, N. K., *Marketing research: An applied orientation*, (6th ed.), Pearson Education, Upper Saddle River, USA (2010).

[33] Creswell, J. W., *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson Education, Inc (2008).

[34] Ibrahim, I.I., Subri, K.A., Mohamaed Kassim, K., and Mohamood, S.K., Antecedents stirring purchase intention of smartphone among adolescents in Perlis. *International Journal of Academic Research in Business and Social Science*, 3(13) (2013) 84-97.

[35] Ting, D.H., Lim, S.F., Patanmacia, T.S., Low, C.G., and Ker, G.C., Dependency on smartphones and the impact on purchase behavior. *Young Consumers*, 12(3) (2011) 193-203.

QUESTIONNAIRE

Dear Respondent,

We are going to identify the reason for brand switching behavior towards smartphones among University Students. Your information will provide the actual fact of the students of the university. We are requested to provide the actual data. We confirm that we will conceal your data, and your data will be used only for academic purposes.

- 1) Name:
- 2) Gender: Male(1) Female(2)
- 3) Age group : 5-19 (1) 20-24 (2) 25-29 (3) 30+(4)
- 4) Source of Income : Tuition (1) Family (2) Outsourcing (3) Others (4)
- 5) Which brand of the smart phone would you purchase last time Samsung (1) NOKIA (2) iPhone (3) Xiaomi (4) Huwayi (5) Others (6)
- 6) which brand of the smart phone would you like to purchase Samsung (1) NOKIA (2) iPhone (3) Xiaomi (4) Huwayi (5) Others (6)
- 7) What amount of money would you like to spend on Smart Phone 0-10,000 (1) 10,001-15,000 (2) 15,001-20,000 (3) 20,001-25,000 (4) 25,001-30,000(5) 30,001-above

Please fill up (✓) the following statement on a scale of 1 to 5
 1) Strongly agree 2) Agree 3) Neutral. 4) Disagree. 5) Strongly disagree.

		1	2	3	4	5
1.	The high resolution of the back and front camera is the main criteria for choosing a smartphone.					
2.	App facility is noticeable for selecting the Smart Phone. Do you agree with this?					
3.	Battery life and heating issue are important for obtaining the Smart Phone.					
4.	Do you believe that full glass body, display, and sound quality indicate the best quality of a smartphone?					
5.	Do you think a good and fast processor is necessary for a smartphone?					
6.	Do you believe that an Expected Smartphone is necessary with better ROM and RAM?					
7.	Updated and advanced technology is the main criteria for choosing a smartphone.					
8.	Extended memory enriches the quality of Smart Phone.					
9.	Dust and water resistance must have with a good Smart Phone.					
10.	Brand Image is the most important factor for expected Smart Phone.					
11.	Do you think the image of a brand can influence buying behavior?					
12.	Branded smartphones decrease the tension of customers.					
13.	A strong brand ensures the best performance of the non-branded smartphone.					
14.	Product price is an important factor for purchasing a Smart Phone.					
15.	Do you think an affordable smartphone is necessary for students?					
16.	Durability is one of the important factors for choosing a Smart Phone.					

17.	Product price is more important to select a SmartPhone than the quality of the product.					
18.	Promotional offer is one of the important factors for selecting a Smart Phone.					
19.	Advertisement is one of the great influencers to choose a smartphone					
20.	Promotional offers influence a customer to get the expected Smart Phone.					
21.	Your idol person impresses you to choose a Smart Phone.					
22.	Do you believe that Smartphone enhances your social status?					
23.	The different social groups insist you take the decision for purchasing the Smart Phone.					
24.	Friends and family play an important role in taking the decision to purchase a Smart Phone.					
25.	Social influence is one of the most important factors to choosing a smartphone					
26.	Your present Smartphone meets up your expectation.					
27.	Do you think that some software such as Bikroy? Com, Daraz help you to sell the present cell phone and purchase your expected Smartphone.					
28.	Do you expect a large size Smart Phone to meet up your expectation?					
29.	Do you believe that purchasing intention depends on your financial capability?					
30.	The company offers effect for changing the decision to get a Smart Phone.					