

Brand Equity and Buying Behaviour of Smartphones among Students of Department of Marketing, Akwa Ibom State University, Nigeria.

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ABSTRACT: The study was conducted to determine the relationship between brand equity and buying behaviour of smartphones among students of Department of Marketing, Akwa State University, Nigeria. The survey research design was used for the study. Data for the study were obtained through questionnaire administered to respondents. A simple random sampling technique was used to select 118 respondents for the study. Data obtained for the study were analyzed using tables, frequency and percentage while hypotheses were tested using simple and multiple linear regressions. The findings of the study revealed that there is significant positive relationship between brand awareness, brand association, perceived quality, brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University. It was concluded that brand equity plays a crucial role in influencing consumers buying behaviour of smartphones. Based on the findings, it was recommended among others that attention should be given to an overall improvement in the brand equity dimensions by smartphone manufacturing companies in offering their products to the market.

Keywords: Brand equity, brand awareness, brand association, perceived quality, brand loyalty and consumer buying behaviour

I. INTRODUCTION

The Nigeria mobile phone market is fastest growing with large number of smartphones users. According to www.idc.com, Nigeria remains Africa's largest Smartphone market with Tecno, Infinix, ITEL and Samsung brands of smartphones continued to dominate the Nigerian market, launching various models and promotions with network operators to attract customers.

In a competitive business environment, where consumers are faced with a wide variety of product to make purchase, there is need for firms to

understand the factors that encourage consumers to select and make purchase, in order to increase sales and profitability of the product. One of the business strategies in which a firm can use to achieve marketing objective is to understand the relationship between brand equity and consumer buying behaviour. Brand equity is central to create, build and maintain competitive advantage in the market. According to Satvati, Rabie and Rasoli (2016), brand equity is often an indication of product quality which affects the choice of consumers. A brand is the use of name, symbol, logo, sign or combination of these to differentiate a firm's product from the competitors. Brand equity is the commercial value that a brand adds to a product that derives from consumer perception. It influences the mindset of the buyers toward a particular brand of a product. Brand equity dimensions are brand awareness, brand association, perceived quality and brand loyalty (Aaker, 2010).

Keller (2013) asserts that one of the most popular and potentially important marketing concepts to arise in the 1980s was brand equity. According to Keller (2013), brand equity enables customer to make distinction between preferred brand and others, and this influences how he or she responds to marketing of the brand.

In Nigerian smartphone market, where there are increased of customers and stiff competition among firms within the industry, the objective of any brand of smartphone is to showcase and attract customers attention to the brand. According to Zavaltaro, Daspit and Adams (2015), the goal of any brand is to attract and retain customers to ensure the success of the brand and the product. Londono, Elms and Davis (2016) opine that consumers are looking for brands that have specific features.

Buying behaviour of consumers can be changed with the help of brand name and equity. Aaker (2010) stated that there is need for

manufacturers and marketers to gain a better understanding of brand equity in terms of consumer behaviour. Consumer behaviour is exhibited when consumer searches, buys, uses and evaluates goods and services. Therefore, understanding consumer buying behaviour and the reasons why consumer buys a particular brand of smartphone is very important for a smartphone manufacturing firm to succeed in a highly competitive business environment. Hence, this study is basically to determine the relationship between brand equity and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University, Nigeria.

Objectives of the Study

The main objective of this study was to determine the relationship between brand equity and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University, Nigeria. The Specific objectives were:

- (1) To examine the relationship between brand awareness and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.
- (2) To investigate the relationship between brand association and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University
- (3) To ascertain the relationship between perceived quality and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.
- (4) To find out the relationship between brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.
- (5) To determine the joint relationship between brand awareness, brand association, perceived quality, brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

Research Questions

Based on the objectives of the study, the following research questions were raised:

- (1) What is the relationship between brand awareness and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University?
- (2) To what extent does brand association relate with the buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University?
- (3) What is the relationship between perceived quality and buying behaviour of smartphones

among students of Department of Marketing, Akwa Ibom State University?

- (4) To what extent does brand loyalty relate with buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University?
- (5) What is the joint relationship between brand awareness, brand association, perceived quality, brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University?

Research Hypotheses

Based on the objectives of the study, the following hypotheses were formulated:

H₀₁ There is no significant relationship between brand awareness and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

H₀₂ There is no significant relationship between brand association and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University

H₀₃ There is no significant relationship between perceived quality and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

H₀₄ There is no significant relationship between brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

H₀₅ There is no joint significant relationship between brand awareness, brand association, perceived quality, brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

Significance of the Study

The findings of this study will be useful to firms in the smartphone industry. It will assist the manufacturers of smartphones to use a better brand equity strategy to attract customers to their products. The findings will also give the manufacturers and marketers of smartphones the knowledge of what dimensions of brand equity really influence the buying behaviour of users. The findings will add to the existing body of knowledge on brand equity and consumer buying behaviour in smartphone industry, especially in Nigeria. It will serve as a reference material for researchers who want to carry out a study in similar or related topics.

Scope of the Study

The study was restricted to the students of Department of Marketing, Akwa Ibom State University, Nigeria. It focused only on four (4) dimensions of brand equity – brand awareness, brand association, perceived quality and brand loyalty, to determine how they influence buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University. The unit of analysis was the students of Department of Marketing, Akwa Ibom State University who use smartphones.

II. LITERATURE REVIEW

This section covered the conceptual framework and empirical review of literature.

Concept of Brand Equity

Kotler and Keller (2013) define brand equity as the added value endowed on products and services. It may be reflected in the way consumers think, feel and act with respect to the brand, as well as the price, market share and profitability the brand commands. According to Aaker (2010), brand equity is a set of brand assets and liabilities linked to a brand, its name and symbol that add to, or subtracts from the value provided by a product or service to a firm and or to that firm's customers. Hawkins and Mothersbaugh (2010) describe brand equity as the value consumers assign to brand above and beyond the functional characteristic of the product. Lin (2015) describes brand equity as the rational assessment of brand and can be a measuring tool for consumers' attitude towards the brand. Brand equity is the commercial value that is added to a brand which reflects consumer perceptions of a brand.

Dimensions of Brand Equity

Brand Awareness: According to Aaker (2010), brand awareness can be referred to as the degree of consumers' familiarity with a brand. Aaker pointed out that brand awareness is the ability of the potential buyer to recognize and recall that a brand is a member of a certain product category. Keller (2013) describes brand awareness as comprising of brand recall and brand recognition. He said that brand recognition may be more important when product decisions are made in the store and no one buys what they do not know. According to Koapaha and Tumiwa (2016), brand awareness is the first step to create brand equity. If consumers are not aware of the products first, then it is likely to be impossible to experience the rest elements of brand equity. Lua, Gursob and Lud (2015) opine that customers achieve brand knowledge through direct experience such as use of the product or

service or indirect experience such as advertising and marketing.

Brand Association: Aaker (2010) describes brand association as anything linked in memory to a brand. According to Kotler and Keller (2013), brand association consists of all brand related thoughts, feelings, perceptions, images, experiences, beliefs, attitudes, and so on, that become linked to the brand node. Aaker (2010) asserts that the underlying value of a brand name is often based upon specific association linked to it, whether positive or negative. Consumers' favourite brand beliefs will influence their buying behaviours and choice of the brand. According to Keller (2013), brand association can be created by linking the brand to a node or information in memory that conveys meaning to consumers. Brand association is anything that connect consumer to a brand.

Perceived Quality: According to Aaker (2010), perceived quality is the perception of superiority of brand when compared to alternative brands in the competitive set. Keller (2013) states that perceived quality is a core dimension of customer-based brand equity as it relates to the willingness to pay a premium price, brand choice and brand purchase intention. Perceived quality is the overall customer satisfaction towards the quality of goods and services which is received from the companies (Koapaha and Tumiwa, 2016). According to Mohan (2014), perceived quality is directly related to the reputation of the firm that manufactured the product. It is used as a key factor by many firms to create their competitive advantage in their relative industry. The component of perceived quality of a brand by consumer can be performance, durability, reliability, etc.

Brand Loyalty: Aaker (2010) defines brand loyalty as the attachment that a customer has to a brand. According to Attih (2019), brand loyalty is a process by which consumer consistently buys a particular brand of a product despite competing brands. Brand loyalty is also defined as a repeat purchasing behaviour that reflects a conscious decision to continue buying the same product (Solomon, 2011).

Concept of Consumer Buying Behaviour

Deliya and Parmar (2012) describe consumer buying behaviour as a process by which individuals search for, select, purchase, use and dispose of goods and services in satisfaction of their needs and wants. Rajesuari and Pirakatheeswari (2014) provide a different

definition by explaining consumer buying behaviour as a behaviour exhibited by people in planning, purchasing and using economic goods and services in the satisfaction of their wants. White (2015) defines consumer buying behaviour as the decision processes as well as the actions the consumer takes in buying and using products.

Empirical Review of Literature

Murty, Udayashankarand Varma (2018) examined the impact of brand equity on consumer buying behaviour of selected car users in Vijayawada City, India. The survey research design was used to obtain data from the selected car users. The sample size of 250 respondents of car users was selected using simple random sampling technique. The hypotheses for the study were tested using linear regression model. The finding of the study showed that brand equity components-brand awareness, brand association, perceived quality and brand loyalty have significant positive relationship with consumer buying behaviour of selected car users. It was concluded that brand equity plays a crucial role in influencing buying behaviour of car users in Vijayawada City, India.

Fouladvanda, Pashani, Hooman and Khanmohammadi (2013) investigated the effect of brand equity on consumer buying behaviour in terms of FMCG in Iran. The survey research design was used in the study. The sample size of 150 consumers was selected using simple random sampling technique. The hypotheses for the study were tested using multiple regression models. The findings of the study revealed that dimensions of brand equity such as brand awareness, brand association, perceived quality and brand loyalty have significant positive influence on consumer buying behaviour of fast moving consumers goods (FMCG) in Iran.

Muigai (2017) studied the impact of brand equity on consumer buying behaviour of smartphone among millennials. A case study of the United States International University in Nairobi. The cross sectional descriptive research design was employed in conducting the study. The sample size of 153 MBA students was selected using simple random sampling technique. The data obtained for the study were analyzed using descriptive statistics, correlation and regression models to determine the relationship between independent variables and dependent variable. That is the dimensions of brand equity-brand awareness, brand association, perceived quality, brand loyalty and consumer buying behaviour. The findings of the study revealed that brand equity variables-brand awareness, brand association and brand loyalty

have positive and statistical significant relationship with consumer buying behaviour. It was concluded that brand awareness, brand association and brand loyalty play an important role in consumer decision-making process in smartphone purchase, while perceived quality does not have any influence in the purchase of smartphones.

Satvati, Rabbie and Rasoli (2016) studied the relationship between brand equity and consumer behaviour in Iran. The descriptive correlational research method was used. In the study, the sample size of 384 people (respondents) was selected using Cochran formula and cluster sampling technique. The data obtained for the study were analyzed using structural equation, inferential statistics and factor analysis. The findings of the study showed that brand equity was positively associated with some aspects of consumer behaviour including willingness to pay extra costs, brand preference and purchase intention. The findings showed a strong relationship between brand equity and brand preference than willingness to pay extra cost and purchase intention.

Hossain and Ahmed (2018) investigated the impact of brand equity on the buying behaviour of millennials towards smartphones in Bangladesh. The survey research design was used in the study. The sample size of 154 respondents was obtained using simple random sampling technique. The data obtained for the study were analyzed using correlation and factor analysis. The findings of the study revealed that all four brand equity elements – brand awareness, brand association, perceived quality and brand loyalty have positive correlation with consumer buying behaviour. However, it was also notable that in the smartphone market in Bangladesh, there was a weaker relationship between brand awareness and the buying behaviour of millennials.

Koapoha and Tumiwa (2016) examined the effect of brand equity on consumer buying behaviour of coffee in Starbucks' Manado Town Square. The survey research design was used for the study. The sample size of 100 respondents was selected using convenience sampling technique. The data obtained for the study were analyzed using Pearson Correlation and Multiple Regression Models. The findings of the study showed that variables of brand equity-brand awareness, perceived quality and brand loyalty have positive influence on consumer buying behaviour of Coffee in Starbucks Manado Town Square, whereas brand association does not have positive significant influence on consumer buying behaviour of Coffee in Starbucks, Manado Town Square.

Ashraf, Naeem and Shahzadi (2017) investigated the impact of branding on consumer buying behaviour: An evidence of footwear industry of Punjab in Pakistan. The survey research design was used for the study. The sample size of 170 respondents was selected using simple random sampling technique. The data obtained for the study were analyzed using Pearson’s Correlation and Multiple Regression Model. The findings of the study revealed that there was a strong relationship between independent variables – advertisement, brand image, brand association and brand loyalty with dependent variable – consumer buying behaviour in Footwear industry in Punjab, Pakistan. It was concluded that branding plays a crucial role in influencing the consumer buying behaviour.

Akhtar, Ul-ain, Siddioi, Ashraf and Latif (2016) examined the impact of brand equity on consumer purchase decision in L’Oréal Skincare products in Pakistan. The survey research design was used for the study. The sample size of 100 respondents was selected using probability sampling technique. The hypotheses for the study were tested using Correlation and Multiple Regression Model to determine the relationship between independent variables – brand awareness, brand association, perceived quality, brand loyalty and dependent variable – consumer purchase decision. The findings of the study showed that there was significant positive relationship between brand equity and consumer purchase decision. It was concluded that brand equity highly influences purchase decision of L’Oréal Skincare products in Pakistan.

III. METHODOLOGY

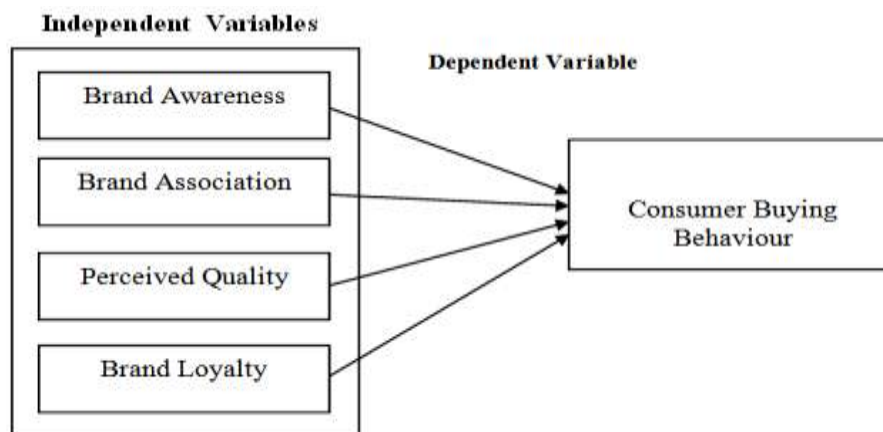


Figure 1: Conceptual model

This section focused on the methods and procedures for collecting and analyzing data for the study. It consists of research design, population of the study, sample size, sampling technique, conceptual specification of model, empirical specification of model, source and nature of data, instrument for data collection and methods of data analysis.

Research Design

The survey research design was used for the study. It involved gathering data from the respondents through the use of a structured questionnaire.

Population of the Study

The population of the study consists of all students in the Department of Marketing, Akwa Ibom State University, Nigeria using smartphones.

Sample Size/Sampling Techniques

The sample size of 118 users of smartphones was selected among students of Department of Marketing, Akwa Ibom State University using simple random sampling technique. This sampling technique gives every student in the Department of Marketing, Akwa Ibom State University using smartphones equal chance to be selected for the study.

Conceptual Specification of Model

In line with the research hypotheses, conceptual model was developed to determine the relationship between independent variables and dependent variable. The model specifies that consumer buying behaviour of smartphones is a function of brand awareness, brand association, perceived quality and brand loyalty.

Empirical Specification of Model

To determine the relationship between independent variables (brand equity) – brand awareness, brand association, perceived quality, brand loyalty and dependent variable (consumer buying behaviour) of smartphones, a multiple regression model was developed.

The model is expressed mathematically as follows:

$$Y = f(X_1, X_2, X_3, X_4)$$

$$Y = a_1 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Where:

Y = Consumer Buying Behaviour

X₁ = Brand Awareness

X₂ = Brand Association

X₃ = Perceived Quality

X₄ = Brand Loyalty

a = Constant

b₁, b₂, b₃, b₄ = Regression coefficient of each variable

e = error term

Source and Nature of Data

Data for this study were collected through primary source. The primary source of data was obtained through a structured questionnaire administered to respondents.

Instrument for Data Collection

The research instrument for this study was a structured questionnaire. The questionnaire was divided into two sections. Section A captured items on the demographic data of respondents. Section B consisted of items based on the research questions. The questionnaire contained 20 items based on four-point Likert Scale. Items included in the questionnaire ranged from strongly agree 4, agree 3, disagree 2 and strongly disagree 1.

Methods of Data Analysis

Data obtained from the respondents were analyzed using tables, frequency and percentage. The hypotheses for the study were tested using simple and multiple linear regression models. All hypotheses were tested at the 0.05 level of significance with p < 0.05 indicating statistical significance. To enhance data analysis, Statistical Package for the Social Sciences (SPSS), version 22.0 was used to analyze the data.

Data Presentation, Analysis and Discussion of Results

This section focused on data presentation, analysis and discussion of results.

Table 1: Analysis of the Demographic Data of Respondents

Variable	Frequency	Percentage (%)
Sex		
Male	34	28.8
Female	84	71.2
Total	118	100%
AGE		
18-30	112	94.9
31 – 40	6	5.1
Total	118	100%
BRAND OF PHONE		
Tecno	49	41.5
Infinix	23	19.5
Itel	18	15.3
Nokia	15	12.7
Samsung	4	3.4
Apple	1	0.8
Motorola	1	0.8
Express Music	1	0.8
D –Horse	1	0.8
HTC	1	0.8
Gionee	1	0.8
1 Phone	3	2.8
Total	118	100%

Source: Researchers Field Survey (2020).

Result of the demographics of the respondents indicates that 28.8% of the respondents were male, while 71.2% were female, meaning that

the majority of the respondents were females. The distribution of their age shows that 94.9% were between 18-30 years while 5.1% were between 31-

40 years, meaning that more than half of the respondents were between 18-30 years. The distribution of respondents by brand of phones were as follows: 41.5% for Tecno, 19.5% for Infinix, 15.3% for Itel, 12.7% for Nokia, 3.4% for Samsung, 0.8% for Apple, 0.8% for Motorola, 0.8% for Express Music, 0.8% for D-Horse, 0.8%

for HTC, 0.8% for Gionee and 2.8% of the respondents make use of Iphone, meaning that Tecno is the most common brand of phone used by the respondents (41.5%). The descriptive statistics for the research variables are as presented in Table 2.

Table 2: Descriptive statistics for the research variables

Variables	Min	Max	Mean	SD	Skewness	Kurtosis
Brand awareness	9.00	16.00	13.0847	1.75692	-0.160	-0.465
Brand association	4.00	16.00	11.0678	2.31210	-0.616	0.830
Perceived quality	9.00	16.00	14.0339	1.77799	-0.887	0.412
brand loyalty	4.00	16.00	10.3559	2.52687	0.152	-0.254
Consumer buying behavior	6.00	16.00	12.7288	2.04505	-0.211	-0.173

Result as presented in Table 2 reveals that among the brand equity variables, perceived quality reported the highest mean score of 14.034 compared with brand awareness, brand association and brand loyalty with mean scores of 13.085, 11.068 and 10.356 respectively. This implies that perceived quality is more rated than other brand equity variables while the least rated was brand loyalty. The standard deviations of 1.75692, 2.31210, 1.77799, 2.52687 and 2.04505 were

obtained for brand awareness, brand association, perceived quality, brand loyalty and consumer buying behaviour respectively. The skewness were all negative except for brand loyalty with skewness of 0.152 meaning that the scores decreased more than it decreased for all the variables with the exception of brand loyalty. The kurtoses were all less than 1 indicating a platykurtic series. The relationship among the variables was presented in Table 3.

Table 3: Relationship between the research variables

		1	2	3	4	5
1.Brand awareness	r-value	1.000				
	P-value					
2. Brand association	r-value	.096	1.000			
	P-value	.301				
3. Perceived quality	r-value	.184*	.132	1.000		
	P-value	.047	.154			
4. Brand loyalty	r-value	.052	.223*	.099	1.000	
	P-value	.573	.015	.286		
5. Consumer buying behavior	r-value	.243**	.225*	.214*	.288**	1.000
	P-value	.008	.014	.020	.002	

*Significant at 5 % (P<0.05), **Significant at 1% (P<0.01)

Result as presented above shows significant positive relationship between brand awareness and consumer buying behaviour (r =0.243, P= 0.008, P<0.01) and that brand association (r =0.225, P= 0.014, P<0.05), perceived quality (r =0.214, P= 0.020, P<0.05) and brand loyalty (r =0.288, P = 0.002, P<0.01) all have significant positive relationship with consumer

buying behaviour (P<0.05). This significant positive relationship implies that when there is an improvement in brand awareness, brand association, perceived quality and brand loyalty, there will be a corresponding improvement in consumer buying behaviour and verse versa.

Hypothesis 1

Ho₁: There is no positive significant relationship between brand awareness and buying behaviour of

smartphones among students of Department of Marketing, Akwa Ibom State University.

Table 4: Summary of the regression result for the relationship between brand awareness and consumer buying behaviour of smartphones

	B	Sβ	S.E	t-cal.	P-value	R	R ²	DW	F-calc.	F-crit.
Constant	8.718		1.376	6.334	0.000**	0.263	0.069	1.625	8.645	3.92
Brand awareness	0.307	0.263	0.104	2.940	0.004**					

S.E = standard error, β =unstandardized coefficient, sβ= Standardized coefficient, DW= Durbin Watson, *Significant at 5% (P<0.05), **Significant at 1% (P<0.01). **Source: Researcher's Computation with SPSS 20.**

Result in Table 4 presents summary of the regression result for the relationship between brand awareness and consumer buying behaviour of smartphones. Result reveals r-square of 0.069 which means that 6.9 percent of the variation in consumer buying behaviour of smartphones was accounted for by brand awareness. The Durbin Watson value of 1.625 was obtained which implies that there is no evidence of autocorrelation. This is because The Durbin Watson value of 1.625 is greater than 1 but less than 3.00 which indicate that the error terms are not correlated as suggested by Field (Field, 2009).Result also show F-critical of 8.645 and F- critical of 3.92 at the 0.05 level of significance were obtained. The result reveals that the F-calculated (8.645) is greater than the F-

critical (3.92) at the 0.05 level of significances which means that there is a significant linear relationship between brand awareness and consumer buying behaviour of smartphones. The standardized beta coefficient of 0.263 was obtained which indicates that for every 1 unit improvement in brand awareness, consumer buying behaviour for smartphones will improve by 0.263 while the t-calculated of 2.940 with p-value of 0.004 were obtained meaning that there is a significant positive relationship between brand awareness and consumer buying behaviour for smartphones among students of Department of Marketing, Akwa Ibom State University. This implies that brand awareness enhances consumer buying behaviour for smartphones.

Hypothesis 2

Ho₂: There is no positive significant relationship between brand association and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

Table 5: Summary of the regression result for the relationship between brand association and consumer buying behaviour of smartphones

	B	Sβ	S.E	t-cal.	P-value	R	R ²	DW	F-calc.	F-crit.
Constant	10.744		0.909	11.818	0.000**	0.203	0.041	1.668	4.973	3.92
Brand association	0.179	0.203	0.080	2.230	0.028*					

S.E = standard error, β =unstandardized coefficient, sβ= Standardized coefficient, DW= Durbin Watson, *Significant at 5% (P<0.05), **Significant at 1% (P<0.01). **Source: Researcher's Computation with SPSS 20.**

From Table 5, r-square of 0.041 was obtained meaning that 4.1percent of the variation in consumer buying behaviour of smartphones was accounted for by brand association. The Durbin Watson value of 1.668 was obtained which implies that there is no evidence of autocorrelation. This is because The Durbin Watson value of 1.625 is

greater than 1 but less than 3.00 which indicate that the error terms are not correlated as suggested by Field (Field, 2009).Result also show F-critical of 4.973 and F- critical of 3.92 at the 0.05 level of significance were obtained. The result reveals that the F-calculated (4.973) is greater than the F-critical (3.92) at the 0.05 level of significance which means that there is a significant linear relationship between brand association and consumer buying behaviour of smartphones. The standardized beta coefficient of 0.203 was obtained which indicates that for every 1 unit improvement in brand association, consumer buying behaviour

for smartphones will improve by 0.203 while the t-calculated of 2.230 with p-value of 0.028 were obtained meaning that there is a significant positive relationship between brand association and consumer buying behaviour for smartphones among students of Department of Marketing, Akwa Ibom State University. This implies that when there is a significant improvement in brand association, there will be a corresponding

improvement in consumer buying behaviour for smartphones.

Hypothesis 3

Ho₃: There is no positive significant relationship between perceived quality and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

Table 6: Summary of the regression result for the relationship between perceived quality and consumer buying behaviour of smartphones

	B	Sβ	S.E	t-cal.	P-value	R	R ²	DW	F-calc.	F-crit.
Constant	8.552		1.459	5.861	0.000**	0.259	0.067	1.708	8.325	3.92
Perceived quality	0.298	0.259	0.103	2.885	0.005**					

S.E = standard error, β =unstandardized coefficient, sβ= Standardized coefficient, DW= Durbin Watson, *Significant at 5% (P<0.05), **Significant at 1% (P<0.01). **Source: Researcher’s Computation with SPSS 20.**

From Table 6, r- square of 0.067 was obtained meaning that 6.7 percent of the variation in consumer buying behaviour of smartphones was accounted for by perceived quality. The Durbin Watson value of 1.708 was obtained which implies that there is no evidence of autocorrelation. This is because The Durbin Watson value of 1.708 is greater than 1 but less than 3.00 which indicate that the error terms are not correlated as suggested by Field (Field, 2009).Result also show F-critical of 8.325 and F- critical of 3.92 at the 0.05 level of significance were obtained. The result reveals that the F-calculated (8.325) is greater than the F-critical (3.92) at the 0.05 level of significance which means that there is a significant linear relationship between brand association and

consumer buying behaviour of smartphones. The standardized beta coefficient of 0.259 was obtained which indicates that for every 1 unit improvement in brand association, consumer buying behaviour for smartphones will improve by 0.259 while the t-calculated of 2.885 with p-value of 0.005 were obtained meaning that there is a significant positive relationship between perceived quality and consumer buying behaviour for smartphones among students of Department of Marketing, Akwa Ibom State University. This implies that when there is a significant improvement in perceived quality, there will be a corresponding improvement in consumer buying behaviour for smartphones.

Hypothesis 4

Ho₄: There is no positive significant relationship between brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

Table 7: Summary of the regression result for the relationship between brand loyalty and consumer buying behaviour of smartphones

	B	Sβ	S.E	t-cal.	P-value	R	R ²	DW	F-calc.	F-crit.
Constant	10.547		0.773	13.640	0.000**	0.260	0.068	1.805	8.432	3.92
Brand loyalty	0.211	0.260	0.073	2.904	0.004**					

S.E = standard error, β =unstandardized coefficient, sβ= Standardized coefficient, DW= Durbin Watson, *Significant at 5% (P<0.05), **Significant at 1% (P<0.01).**Source: Researcher’s Computation with SPSS 20.**

From Table 7, r- square of 0.068 was obtained meaning that 6.8 percent of the variation in

consumer buying behaviour of smartphones was accounted for by brand loyalty. The Durbin Watson value of 1.805 was obtained which implies that there is no evidence of autocorrelation. This is because The Durbin Watson value of 1.805 is greater than 1 but less than 3.00 which indicate that the error terms are not correlated as suggested by

Field (Field, 2009).Result also show F-critical of 8.432 and F- critical of 3.92 at the 0.05 level of significance were obtained. The result reveals that the F-calculated (8.432) is greater than the F-critical (3.92) at the 0.05 level of significance which means that there is a significant linear relationship between brand loyalty and consumer buying behaviour of smartphones. The standardized beta coefficient of 0.260 was obtained which indicates that for every 1 unit improvement in brand association, consumer buying behaviour for smartphones will improve by 0.260 while the t-calculated of 2.904 with p-value of 0.004 were obtained meaning that there is a significant positive relationship between brand loyalty and consumer

buying behaviour for smartphones among students of Department of Marketing, Akwa Ibom State University. This implies that when there is a significant improvement in brand loyalty, there will be a corresponding improvement in consumer buying behaviour for smartphones.

Hypothesis 5

Ho5: There is no significant joint relationship between brand awareness, brand association, perceived quality and brand loyalty and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University.

Table 8: Summary of the regression result for the relationship between brand awareness, brand association, perceived quality and brand loyalty and buying behaviour of smartphones

	B	Sβ	S.E	t-cal.	P-value	R	R ²	DW	F-calc.	F-crit.	VIF
Constant	4.027		1.865	2.159	0.033						
Brand awareness	0.233	0.200	0.102	2.281	0.024*	0.417	0.174	1.836	5.959	2.45	1.057
Brand association	0.087	0.099	0.079	1.107	0.270						1.091
Perceived quality	0.209	0.181	0.102	2.051	0.043*						1.071
Brand loyalty	0.169	0.209	0.071	2.372	0.019*						1.063

S.E = standard error, β =unstandardized coefficient, sβ= Standardized coefficient, DW= Durbin Watson, *Significant at 5% (P<0.05), **Significant at 1% (P<0.01).

Source: Researcher’s Computation with SPSS 20.

From Table 8, the coefficient of determination of 0.174 was obtained which implies that 17.4 percent of the variation in consumer buying behaviour of smartphones was accounted for by brand awareness, brand association, perceived quality and brand loyalty. The Durbin Watson value of 1.836 was obtained which implies that there is no evidence of autocorrelation. This is because The Durbin Watson value of 1.836 is greater than 1 but less than 3.00 which indicate that the error terms are not correlated as suggested by Field (Field, 2009).Result also show F-critical of 5.959 and F- critical of 2.45 at the 0.05 level of significance were obtained. The result reveals that the F-calculated (5.959) is greater than the F-critical (3.92) at the 0.05 level of significance which means that there is a significant joint relationship between brand awareness, brand association, perceived quality and brand loyalty

and buying behaviour of smartphones. The standardized beta coefficient of 0.200, 0.099, 0.181 and 0.209 were obtained for brand awareness, brand association, perceived quality and brand loyalty meaning that these brand equity variables enhance consumer buying behaviour for smartphones. Result also reveals that brand awareness (β =0.233, t-cal. = 2.281, P= 0.024, P<0.05), perceived quality (β =0.209, t-cal. = 2.051, P= 0.043, P<0.05) and brand loyalty (β =0.169, t-cal. = 2.372, P= 0.019, P<0.05) have significant positive influence on consumer buying behaviour while brand association (β =0.087, t-cal. =1.107, P= 0.270, P>0.05) has no significant influence on consumer buying behaviour. Result also indicates that among brand equity variables, brand loyalty has the most significant influence on consumer buying behaviour. Multicollinearity among the variables was checked using Variance Inflation Factor (VIF) and VIFs of 1.057, 1.091, 1.071 and 1.063 for brand awareness, brand association, perceived quality and brand loyalty respectively. The VIFs are less than 10 meaning that there is no evidence of multicollinearity.

IV. CONCLUSION

The study was on brand equity and buying behaviour of smartphones among students of Department of Marketing, Akwa Ibom State University, Nigeria. The results clearly showed that brand awareness, brand association, perceived quality and brand loyalty have significant positive relationship with consumer buying behaviour. The results revealed that when there is an improvement in brand equity dimensions, there will be positive influence on consumer buying behaviour. Therefore, it is concluded that brand equity plays a crucial role in influencing consumers buying behaviour of smartphones.

V. RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

- i. Smartphone manufacturing companies should ensure that consumers are familiar and recognize their brands of smartphone through aggressive promotion to encourage patronage.
- ii. Smartphone manufacturing companies should consistently maintain an identity that will always link their products in the minds of consumers to elicit positive response.
- iii. Smartphone manufacturing companies should ensure constant improvement in their products quality to capture large market share.
- iv. Smartphone manufacturing companies should ensure consistent performance of their brands in the market to give customers require satisfaction to attract repeat purchase.
- v. Attention should be given to an overall improvement in the brand awareness, brand association, perceived quality and brand loyalty by smartphone manufacturing companies in offering their products to the market.

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