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## Article

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## Empirical Paper

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# An investigation of brand equity dimensions and customer retention: A perspective of postpaid telecom subscribers in Lagos State, Nigeria

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**Abstract:** This study investigates brand equity dimensions and customer retention of the Nigerian telecommunications industry. Cross-sectional research design was adopted to survey 368 postpaid subscribers. The respondents were selected through multistage sampling techniques. The four dimensions of brand equity (brand awareness, brand association, perceived quality, and brand loyalty) were found to be correlated with one another and with overall brand equity. Similarly, the four dimensions were correlated to and significantly predicted customer retention. The study concluded that improvement of all the four dimensions of brand equity is indispensably vital to customer retention in the mobile telecom industry. The study recommended that telecom operator that is desirous of sustaining high brand notch in the marketplace should intensify their effort to improve on all the four dimensions of brand equity to enhance subscribers' retention. Findings of this study fill important gaps and contribute to the body of literature related to brand equity dimensions and customer retention from customers' perspective.

**Keywords:** brand awareness, brand association, perceived quality, brand loyalty, customer retention

**JEL Classification:** J11, M10, M31

## 1 Introduction

Increasing competition has motivated and compelled businesses across industries to develop strategies aiming at retaining customers for profitable growth. Brand played a significant role in enhancing the competitive position of firms, because consumers confer an added value to products or service with high brand value [Pappu and Quester, 2008; Alkhawaldeh and Eneizan, 2018]. Business organizations across all sectors are desirous of offering a strong brand that will create a long lasting impression in the minds of their customers and because of that they may enjoy sustainable competitive advantage. Aaker [1991] argued in favor of a consumer-based approach of brand equity and maintained that only if there is value for the customer, will there be value to the organization. The notion of brand equity is progressively widespread and has given credence to the position advocated by researchers and practitioners that brands are one of the most treasured assets that a business has. The value of a brand is deeply-rooted in the hearts and minds of customers and is therefore, a fundamental factor in the study of consumer buying behavior [Jing et al., 2015; Switała et al., 2018].

According to Keller [2003], brand equity is the differential effect of brand knowledge on consumer response to the marketing of the firm product or service. Elangeswaran and Rigel [2014] emphasized that

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brand equity is the benefit related to brand's or the degree to which the brand acquired greater brand loyalty, deeper brand association, perceived brand quality, brand awareness and other intangible assets consisting of patents, trademarks, and channel relationships. Given the substantial cost difference between recruiting a new customer and retaining an existing one, marketing strategies and activities have shifted toward customer retention. Customer retention is firm's effort to sustain continuous business relationship with customers over a long period of time. Customer retention is a strategy through which business organizations build mutual relationship with customers in order to reduce the number of customers it loses over time. Dawkins and Reichheld [1990] suggested that improvement of customer retention by 5% will create expansion on the net present value of the customer at a rate of 25% to 95% in a number of businesses.

Africa countries are becoming the fastest growing mobile market in the world with mobile penetration rate in the region ranging from 30% to 100% [Ghirmai and Kefela, 2011]. Nigeria, South Africa, and Egypt are the fastest growing telecom markets with progressive growth that is not only exceeding the expected growth, but creating a radical shift in the telecom industry [Ghirmai and Kefela, 2011]. The telecommunication sector in Nigeria is a foremost contributor to the nation's Gross Domestic Products (GDP) accounting for 10.11% in the first quarters of 2019 which is slightly higher than 9.85% recorded in first quarter of 2018 [National Bureau of Statistics-NBS, 2019]. According to NBS [2019] reports, Nigeria teledensity as on April, 2019 stood at 90.97%, with broad band penetration of roughly 33.70%. A total of 470 MHz spectrum is allocated to mobile sector in Nigeria which is far ahead among the Sub-Saharan African countries which stood at an average of 268 MHz, but due to some inefficiency, the telecom operators jointly account for less than 2% of the mobile market spectrum in Nigeria [GSMA Intelligence, 2018].

Telecom services presently available in Nigeria comprised of fixed telephony, mobile communications, VSAT satellite transmission, microwave, and fiber optic backhaul, and internet services among others. Contrary to what is obtainable in most developed nations, mobile subscriptions in Africa countries is largely on prepaid, because of the fact that pre-paid subscription platform is more open to people who do not have the prerequisite bank account and self-identity documentation mandatory to enter into a contract billing arrangement [Ghirmai and Kefela, 2011]. As reported by Statista [2011], roughly 95.7% of telecom subscribers in Africa are on prepaid platform. According to [Juha, 2015], the popularity of prepaid subscription platform is a usual evolutionary market development that permits the telecom operators to satisfy the needs of the lucrative segment of the telecom market.

Due to the the growing and hyper-intensive competitive cellular market in Nigeria, the notion of customer retention has become a veritable tool to enhance firm's competitive advantage and business performance [Ukpabi et al., 2017]. The liberalization of the Nigerian telecom sector and its phenomenal growth since the introduction of mobile telephony in 2001 has created a highly competitive environment, hence, the need for the operators to strive toward enhancing their brand equity. According to Nicholas et al. [2018], the degree of customer attrition is growing in the Nigerian telecom industry due to a number of reasons such as mobile number portability-MNP which enable subscribers to change networks without changing their numbers and the growing proportion of new mobile telephone devices that have multi-subscriber identification module-SIMs. In the opinion of Michael [2015], the Nigerian telecom industry is confronted by changing market dynamics in term of greater choice for subscribers and intense market competition which erode value to the operators. Because of the aforementioned trend, there is a clear threat to future capital investment in the telecom sector, which requires the operators to strive for customer retention to sustain performance improvement [Michael, 2015].

The Nigerian mobile telecom industry is undergoing intense competition, caused by high degree of product or service similarity. As expressed by Aurelian et al. [2007], numerous business models set up when providing cellular services are vertically combined to offer generic content to subscribers' mass markets, which do not satisfy the needs of the postpaid customers. Also, as the telecom markets evolve and mature, subscribers' expectations are harder and tougher to shift and this creates serious challenges for contract subscribers, because postpaid customers have no credit risk and so customer allegiance is difficult to maintain [Ghirmai and Kefela, 2011]. According to the Nigerian Communications Commission [2013], the mobile telecom subsector is considerably in a maturity stage in Nigeria, and the sector therefore, requires the need for detailed and comprehensive strategies to manage all the product/service elements efficiently

to build strong brand. Despite some empirical evidence on the positive association of brand equity on a number firm's performance criteria such as market performance, consumer preference, repeat purchase intention, and customer retention among others, the outcomes of these studies showed considerable heterogeneity across industries [Mizik and Pavlov, 2017; Olaleke et al., 2017; Anne and Nieves, 2018; Nguyen et al., 2018]. The primary objective of this study is to examine brand equity dimensions and customer retention among postpaid telecom subscribers in Lagos State, Nigeria. Specific objectives of this study are to: (i) investigate the relationship between brand equity dimensions (consisting of brand awareness, brand association, perceived quality, and brand loyalty) and customer retention among postpaid telecom subscribers in Lagos State, Nigeria; and (ii) examine the influence of brand equity dimensions (comprising brand awareness, brand association, perceived quality, and brand loyalty) on customer retention among postpaid telecom subscribers in Lagos State, Nigeria.

## 2 Theoretical framework and literature review

### 2.1 Aaker brand equity theory

The concept of brand equity was promoted by David Aaker in the 1980s [Keller, 2003]. Brand equity refers to the value of having a well-known brand name, founded on the belief that the owner of a well-known brand name will be able to generate more revenue stream through brand recognition. There is also a shared idea which describes brand equity in terms of marketing effects distinctively attributable to the brand [Keller, 2003]. Brand equity has been defined as assets and liabilities connected to a name or a symbol [Aaker, 1991]. Marketing literature views the relationship between customers and brands as “brand equity” [Wood, 2000]. According to Aaker [1991], brand equity can be classified into five elements consisting of brand association, perceived quality, brand awareness, brand loyalty, and other proprietary assets (such as patent right and trade mark among others). Brand awareness is related to brand recognition, degree of brand recall, and the probability that a given brand name will come to consumer's mind rapidly than competing brands [Zavattaro et al., 2015]. Brand association relates to the informational nodes connected to the brand and the sense consumers made of the brand [Henry, 2004]. According to Aaker [1991], if these associations are added so that they result in some significance, then the impression created would become a source of brand image. Perceived quality is viewed as consumer's decision about brand's overall superiority or dominance with respect to its anticipated purposes and possibility of substitutes [Aaker and Jacobson, 1994]. Perceived quality is believed to be a form of association necessitating progression towards the prominence or popularity of a distinct aspect of brand's equity [Pappu and Quester, 2008]. The notion of brand loyalty is viewed from wide-ranging facets: behavioral (or purchase) loyalty [Chaudhuri and Holbrook, 2001] and attitudinal loyalty [Moreau et al., 2001]. Other proprietary brand assets related to patents right, trademarks, and channel relationships offer strong competitive advantages to a firm [Aaker, 1991].

### 2.2 Brand equity—dimensions and measures

Pride and Ferrell [2003] viewed brand equity as a tool resulting in the marketing and financial benefits associated with the brands in the marketplace. According to Simon and Sullivan [1993], brand equity refers to the incremental cash flows attributed to branded products over and above the cash flows that unbranded products will be able to generate. As mentioned earlier, Aaker [1991] delineated brand equity into five elements consisting of brand awareness, perceived quality, brand association, and other proprietary assets. Aaker and Joachimsthaler [2000] highlighted brand loyalty, brand awareness, brand association, and perceived quality as dimensions of brand equity. Keller [2003] categorized brand equity dimensions into: brand knowledge, perceived quality, brand loyalty, and brand image. Dib and Alhaddad [2014] suggested a brand equity framework consist of four elements: brand awareness, brand trust, perceived quality, and brand loyalty. According to Baalbaki [2012], attempts have been made to measure brand equity using two contrasting measurement methodologies: (i) the direct method, which evaluates customer-based brand

equity by measuring the real influence of brand knowledge on customer response to diverse marketing influences' and (ii) the indirect methodology, which evaluates possible sources of customer-based brand equity through customers' brand knowledge.

## 2.3 Customer retention—definition and importance

Retention of customer is a core issue for business organization that wants to sustain performance and build competitive advantage. Usman and Mahmood [2014] reported that customer retention is a vital factor in firm's marketing activities and a means of sustaining competitive advantage. The process of sustaining business relationship between organization and customer over a long term is labeled as customer retention. Customer retention, according to Payne [2000] can be improved through three approaches: retention rate of customer, customer defection causes, and advancement of customer retention through corrective measures. Petzer et al. [2009] claimed that it is essential for service industry to capture the reasons behind retained customer whether through satisfaction or other indirect approaches for the purposes of resource allocation and strategy development. High brand equity (BE) results in number of benefits such as greater consumer preference and purchase intentions [Kotler and Keller, 2012], higher stock returns [Evelin, 2017], conveys an opportunity for successful brand extensions, resilience against market turbulence, and formation of strong barriers to competitive rivalry [Sasirekha and Sathish, 2017].

In most industries, customers are retained only after the first stage of transactions; consequently, customer retention provides a clue of customers switching and other forms of behavioral tendency towards a brand [Srinivasana et al., 2002]. Customer retention strategy aims to maintain a reasonable percentage of valuable customers by decreasing customer defections (churn) and foster repeat patronage over a long period of time [Keller and Lehmann, 2006]. The rationale for striving towards customer retention, according to Aspinall et al. [2001], is the degree of dissimilarity of customer retention degree among industries and businesses. According to Motshedisi and Geoffrey [2011], customer retention within the service industry revealed that service industries adopt diverse customer retention tactics [Motshedisi and Geoffrey, 2011]. According to Fluss [2010], yearly customer attrition rates range from 7% in businesses that have high exit barriers for example banking and insurance, to roughly 40% in the mobile telecom industry. Some academics have contended that customer attrition is indirectly observed in some companies such as Pay-television subscription, as customers do not totally withdraw from their relationship with the enterprise but rather become inactive or display inconsistent purchasing behavior [Karamura et al., 2005].

Everyone agrees that focusing on customer retention can produce numerous economic benefits [Reichheld, 1996]. For instance, as customer period of relationship with firm extends, the volume of purchases increases and customer referrals rate grow [Keller, 2003]. Also, relationship maintenance costs decrease as both customer and business learn more about each other due to declining customers churn tendency and customer replacement costs [Aaker, 1991]. The benefits of customer retention are well recognized, Healy [1999] reported that long-term customers are more inclined to buy more, offer positive word of mouth communication and are less sensitive to price increment. Also, there is a common belief that customer retention brings more revenue and cheaper to maintain [Keller, 2003].

## 2.4 Hypotheses development

Research findings concerning the role of a brand in firm's marketing effort endorse the prominence, as well as the existence of strong association between brand awareness, perceived quality, brand association, brand loyalty, and brand equity [Dlagic and Kezman, 2014; Nguyen et al., 2018]. It has also been documented that consumers are favorably disposed to product and service with a strong brand [Aaker, 1991]. Consumer attitude towards a product depends on the capability of the product or service to meet and exceed buyer's expectations, because consumers comprehend product through brand name, brand experience, and benefit embedded in the brand. Hence, customer purchase and usage of any product or service are largely depend on their perception of the product, which is cultivated through the way and manner a product or service has been effectively marketed to create stronger preference for the brand [Rahim, 2016]. Brand perception is affected by the degree of marketing exposure, individual interpretation of the brand and how it impacts on

consumer purchase intention [Aaker, 1991]. Researchers maintained that brand choice can be explained by what is known as “the expectancy valued model” in which consumers assign scores on the basis of pleasurable outcome of using or consuming a product or service [Schiffman and Kanuk, 1997]. Therefore, when faced with competing brands, consumers assign scores to these expectancy value parameters to make a choice decision. Shieh and Lai [2017] alluded that it is important for business organizations to comprehend how the brand value is generated in the mind of the customer and how this value transformed into customer loyalty formation. As expressed by Keller and Lehmann [2006], brands streamline choice decision, serve as cues to customer’s previous consumption experience and engender trust. Strong brands are also cherished because they decrease the risks for the consumers and leads to cost saving in decision-making [Aghdaie and Honari, 2014]. Building and sustaining brand is also vital to firm marketing strategy, because resilient brands create strong awareness, brand association, perceived quality, and contribute to the formation of loyalty towards the brand [Kotler and Keller, 2012]. On the basis of the above statement, this study proposes the following hypotheses:

Hypothesis 1: There is no significant relationship between brand equity dimensions (consisting of brand awareness, brand association, perceived quality, and brand loyalty) and customer retention among postpaid telecom subscribers in Lagos State, Nigeria.

Hypothesis 2: Brand equity dimensions (comprising brand awareness, brand association, perceived quality, and brand loyalty) will not significantly influence customer retention among postpaid telecom subscribers in Lagos State, Nigeria.

### 3 Research methods

#### 3.1 Research design

This study employed cross sectional survey research design and used empirical analytical approach. The survey approach was adopted because a large number of academics have suggested that it is the most efficient and appropriate approach for conducting behavior, attitude and perception related research [Saunders et al., 2011].

#### 3.2 Population of the study

The population of this study consisted of 3,626,649 postpaid subscribers on the network of the four GSM operators in Nigeria (MTN Telecommunications Limited, Airtel Nigeria, Glo Mobile Telecommunication, and 9Mobile—formerly Etisalat). The choice of postpaid subscribers as the focus of attention in this study is justified because of the fact that the postpaid subscribers are willing to make an upfront investment for mobile telecom services and thus, their retention is very fundamental to the profitability and survival of the telecom operators. Statistics on telecom sector report by Nigerian Communications Commission-NCC [2018] revealed that since the introduction of mobile telephone in Nigeria, Lagos state has consistently led the pack in both active voice subscriptions and internet connectivity, which substantiates the choice of Lagos state for our the study.

#### 3.3 Sample size and sampling technique

Sample size formula developed by Cochran 1963 [cited in Abubakari, 2019] was used to compute the sample size. The formula is:

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{(N-1)err^2 + p \cdot q}$$

$$n = \frac{1.96^2 \times 0.07 \times 0.93 \times 3626649}{(3626649-1)0.02^2 + 0.07 \times 0.93} = 672$$



where

$P$  = Sample proportion,  $q = 1 - p$ ,  
 $N = 3626649$  refer to a number of subscribers on postpaid platform,  
 $n = 607$  represent number of sampled subscribers,  
 $err = 0.02$  is an acceptable margin of error,  
 $z$  = standard variation at a given confidence level.

Using the formula, a sample size of 672 was arrived at for this study. Although the targeted sample size was 672, a total 376 responses were collected and 368 were valid for data analysis. Three stage sampling approaches were adopted. Purposive sampling approach was adopted in the first stage to identify those subscribers on postpaid payment plan. In the second phase, volunteer sampling procedure was used to ascertain those that are willing to participate in the survey. In the third stage, convenience sampling approach was used to survey respondents that are accessible and favorably disposed to participate in the survey. Participants were enrolled at the sales outlet through referrals and at service center of the four telecom operators within Lagos state, Nigeria for a period of three months.

### 3.4 Measure and instrumentation

Based on the documented literature evidence related to the recognition and adoption of the first four elements of Aaker [1991] brand equity dimensions, this study used brand awareness, brand association, perceived quality, and brand loyalty as a measure of brand equity [Brody et al., 2010]. Measures were adapted from previous validated studies. Data for this study were gathered using self-completed structured questionnaire to obtain response from the respondents. Likert scale consisting of five (5) point classification; strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5) was used. To accomplish content validity and reliability, the instrument was given to marketing experts to peruse and their comments were combined to produce the final draft of the questionnaire. Afterwards, the researchers carried out pilot study to further discover ambiguities in the questionnaire. The study variables and sub-dimensions have Cronbach alpha (measure of scale reliability) scores that exceeded  $\alpha = .7$ , and so it can be deduced that the survey instrument (questionnaire) has acceptable reliability value [Cooper and Schindler, 2011].

### 3.5 Analytical procedure

The completed copies of the questionnaire were collated, coded, and analyzed. Hypotheses were tested using Pearson correlation and multiple regression statistical analysis.

## 4 Results and discussion

### 4.1 Hypothesis one

There is no significant relationship between brand equity dimensions (consisting of brand awareness, brand association, perceived quality, and brand loyalty) and customer retention among postpaid telecom subscribers in Lagos State, Nigeria.

As shown in Table 1, the descriptive statistics (mean and standard deviation) of brand equity/its dimensions, and customer retention ranged from 3.36 to 3.52 and standard deviations ranged from .655 to .967. As shown in Table 1, inter-correlations among brand equity/dimensions exhibit low, to moderate, and high positive significant correlations among themselves (the correlation ranged from .224 to .746 and  $p < 0.01$ ). Similarly, there exists a moderate to high positive significant correlation between brand equity/dimensions and customer retention. Specifically, brand awareness and customer retention ( $r = .554$ ,  $p < 0.01$ ), perceived quality and customer retention ( $r = .812$ ,  $p < 0.01$ ), brand association and customer retention ( $r = .717$ ,  $p < 0.01$ ), and brand loyalty and customer retention ( $r = .603$ ,  $p < 0.01$ ). Over all, brand

**Table 1.** Correlations matrix (brand equity/dimensions and customer retention)

	Mean	SD	1	2	3	4	5	6
Brand awareness	3.52	.737	1					
Perceived quality	3.49	.687	.511**	1				
Brand association	3.50	.805	.457**	.512**	1			
Brand loyalty	3.36	.967	.224**	.297**	.346**	1		
Brand equity	3.52	.659	.667**	.711**	.746**	.739**	1	
Customer retention	3.44	.655	.554**	.812**	.717**	.603**	.887**	1

\* $p < 0.05$  \* $p < 0.01$ . Correlation is significant at 0.01 levels (2-tailed).

Source: Field survey, 2018.

equity exhibits high positive correlation with customer retention ( $r = .887, p < 0.01$ ). The result of hypothesis one corroborates the finding of the study carried out by Dlacic and Kezman [2014], and Mohsan and Nighat [2017] that reported brand awareness, brand association, brand loyalty, and perceived quality as the underlying dimensions of brand equity. Studies carried out by Muhammad et al. [2015], and Nguyen et al. [2018] also documented significant correlation among the four dimensions of brand equity and overall brand equity.

In contemporary turbulent business environment, customer retention presents a major challenge for many companies including telecommunication service companies. Based on this recognition and the implications, it is inevitable that the mobile telecom operators need to think about retention in a more strategic way than simply focusing on subscription renewals rate [Eva et al., 2016]. To build a robust brand, brand awareness is essential in shaping the strength of brand relationships in the mind of the customer to prompts brand choice [Valavi, 2014]. As expressed by Tong and Hawley [2009], brand equity is one of the elements through which firm's shows a strategy of differentiation from competitors and so strong brand equity implies that customers will have high brand-name awareness, uphold a favorable brand image, recognize that the brand is of high quality, and display loyalty towards the brand. As a result of the benefits associated with brand equity, such as improve quality perception, and brand awareness, there is need for telecom operators to leverage on the value of their brands as a customer retention strategy to discern customers, influence brand acuities and promotes risk minimization approach.

## 4.2 Hypothesis two

Brand equity dimensions (comprising brand awareness, brand association, perceived quality, and brand loyalty) will not significantly influence customer retention among postpaid telecom subscribers in Lagos State, Nigeria.

As shown in Table 2, the regression model reveals the following statistics,  $F = 661.016, p = .000, R = .938, R^2 = .880$ , and adjusted  $R^2 = .878$ . The ANOVA section in Table 2 also shows that brand equity and its dimensions significantly predicted customer retention, with 88% prediction of customer retention accounted for by brand equity in the Nigerian telecommunications industry. The Coefficient row in Table 2, displayed that all the brand equity dimensions significantly predicted the model's: brand awareness ( $\beta = .077, t = 3.502, p = .001$ ), perceived quality ( $\beta = .521, t = 22.663, p = .000$ ), brand association ( $\beta = .303, t = 13.412, p = .000$ ), and brand loyalty ( $\beta = .327, t = 16.607, p = .000$ ). The dimension that contributed most to the model is perceived quality (52%) and the lowest is brand awareness (7.7%). Valavi [2014] claimed that brand awareness is the most important driver of brand choice and consumer purchase decision. Therefore, the observation that brand awareness contributes the least to the prediction of customer retention may be due to the fact that the four telecom firms selected for this study are the top mobile operators in the Nigerian telecommunications industry and have been in operation for almost two decades. So, they are well-established and known among subscribers. The result of hypothesis two endorses the view advocated by Shadi et al. [2016] that brand equity is connected to some aspects of consumer behavior comprising readiness to pay additional price, brand fondness, and choice decision



**Table 2.** Multiple regression of brand equity/dimensions and customer retention

Model Summary	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. error of the estimates	
1	0.938	0.880	0.878	0.228	
Anova	Sum of Square	Df	Mean Square	F	Sig.
Regression	137.984	4	34.496	661.016	0.000
Residual	18.891	362	0.052		
Total	156.876	366			
Coefficient	Unstandardized coefficient		Standardized coefficient	t	Sig.
	B	Std. Error	Beta		
Constant	0.063	0.071		0.888	0.375
Brand awareness	0.068	0.020	0.077	3.502	0.001
Perceived quality	0.496	0.022	0.521	22.663	0.000
Brand Association	0.246	0.018	0.303	13.412	0.000
Brand loyalty	0.162	0.010	0.327	16.607	0.000

Source: Field survey, 2018.

among others. Similarly, it corroborates the view expressed by Anaraki [2013] and Zavattaro et al., [2015] that brand equity dimensions exert influence on the reaction of customers towards a brand; one of which is the tendency to patronize a particular business consistently over a long period of time.

In terms of business, the most valuable customers are the repeated ones. If a company successfully wins the hearts of their customer by adopting effective brand strategies through improved brand awareness, perceived quality, brand association, and loyalty among others, such company will find it easier to retain customers [Peppers and Rogers, 2004]. The notion of customer retention enlarged when most businesses experienced remarkable loss of customers, along with the difficulty and high costs of acquiring new customers [Bird, 2005]. According to the opinion of Athanasopoulou [2009] and Nicholas et al. [2018], nowadays customers have more options to choose from, and so the basis of rivalry has shifted from acquiring new customers to retention. Brand equity through brand awareness, perceived quality, brand association, and brand loyalty give self-confidence to customer when taking an informed choice decision [Valavi, 2014]. High brand equity also offers the product or service hidden worth in term of satisfactory trustworthiness particularly in a situation where it is not feasible for consumers to check or infer quality of a product/service at the point of purchase [Chen and Hsieh, 2011]. As expressed by Keller et al. [1998], brand equity is not managed in the short run but over time, by ensuring brand consistency, shielding the foundations of brand equity, taking an effective suitable decision on how to leverage the brand, and changing or modifying the supporting marketing initiatives such as product features, price, place, and promotion among others. According to Yoo et al. [2000], brand equity can be created, preserved, and extended by strengthening the dimensions of brand equity, which consist of brand awareness, perceived quality, brand loyalty, and brand association; thus marketing effort will be positively related to strong brand equity if it results in a more favorable behavioral tendency towards firm's product and service.

## 5 Conclusion

This study investigated and analyzed brand equity dimensions and customer retention among postpaid subscribers in Lagos state, Nigeria. Results of this study showed that all the four elements of brand equity consisting of brand awareness, brand association, perceived quality, and brand loyalty are connected to one another and collectively contribute to overall brand equity. Brand equity can be established, managed, and extended by improving various factors, and hence, to build a successful brand, business organization should leverage on brand awareness, brand association, perceived quality, and brand loyalty. Strong brands built on strong brand awareness, perceived quality, brand association, and brand loyalty are easily recognized equally and provide basis for customer retention [Dlagic and Kezman, 2014]. The prominence

of brand equity, from marketing viewpoint, give both marketers and consumers the opportunity to analyze consumer attitudes, evaluate their behavioral disposition, and preference formation, which are based on brand awareness, perceived quality, brand association, and brand loyalty [Aaker, 1991]. The importance of having a strong brand cannot be over emphasized because the business landscape in a number of industries is getting tougher. In particular, the upsurge of telecommunications brands in Nigeria has led to cut-throat competition and growing desire to jostle for market share. As a result, telecom operators must realize that in order to remain competitive, they need to develop innovative techniques such as customer analysis, competitors mapping, and brand equity formation through improving brand awareness, perceived quality, brand association, and brand loyalty to retain subscribers. Further, the rising tendency of subscribers to port has also called for more radical and innovative tactics such as quality improvement and enhancing brand awareness to secure increased market share through customer retention.

This study has contributed the knowledge along the number of important scopes. First, it offers empirical evidence on the relevance of brand equity in the Nigerian telecommunications industry by showing that brand equity is connected to customer retention. Second, the study documented that brand equity dimensions individually and collectively predicted customer retention in the telecom industry, and as such provide basis for broader understanding of the relative importance of BE dimensions. Findings of this study can assist in prioritizing and allocating resources across the brand equity dimensions for optimal balance. Findings of this study also offer empirical evidence on how telecom operators can strengthen their brand equity valuation and further increase the postpaid subscribers' cluster, which is smaller compared to prepaid segment in most Africa countries including Nigeria.

Since all the elements of brand equity are inter-correlated, organizations should be aware of the relative importance of each dimension of brand equity to develop effective brand management. Telecom operators should equally develop an understanding that managing a brand would be a long-term perspective; therefore, the operators should adopt holistic approach to manage their brand by considering brand as assets whose value should increase over time. Also, with the rising cost of acquiring a new customer, the prominence of customer retention is becoming paramount and the operators should develop effective marketing strategy that will capture and address marketing challenges associated with managing customer lifelong. Although the connection of brand equity to customer retention is crucial, it does not operate in a vacuum, and therefore, innovative marketing initiatives such as—product innovations, promotion campaign, competitive pricing, and relationship marketing among others should be developed by telecom operators to enhance their competitiveness.

## 5.1 Implications of the study

Some years ago, product of high quality reigned, particularly, when demand level surpassed supply [Kotler, 2010]. Contemporary marketplace is ruled by high notch brand; therefore, organization needs to develop superior strategies through branding to sustain performance [Chaudhuri and Holbrook, 2001]. According to the opinion of Aaker [1991], effective brand management is a potent strategy to compete successfully in any form of industry, because without branding, most organizations product and services will be undifferentiated and are likely to trade solely on price. Ojeyinka and Ajayi [2014] maintained that marketing managers can analyze market situation through effective brand management and determine the viability of the target market as a guide towards customer retention [Adjei and Denanyoh, 2014]. To build relationships with subscribers, telecom operators need to develop retention strategies instead of attempting to acquire a new customer which has been found to be costlier [Dawkins and Reichheld, 1990]. Accordingly, measurement of brand equity will continue to be very vital because they echo the strength of the brand and indicate whether the company's brand management is effective or not [Shabbir and Rehman, 2013].

## 5.2 Research limitations and suggestion for further studies

This study contributes to knowledge and business practice; however, it is not free from some limitations. The sample size of this study is relatively small and should be considered when evaluating the results.

Therefore, larger sample size is required to enhance the generalization of this study. Another limitation connected to the sample size is the potential presence of biases of the notion of “brand awareness,” and this is because the telecom operators selected are the top players in the mobile telecom industry, which are well-established and known. As a result, the use of negatively worded items is suggested to really test the degree of subscriber’s awareness of the telecom brands. Also, since the limited geographical area is covered by this research, this study should be replicated in other areas outside Lagos state. It is envisaged that telecom operator’s capability, brand visibility, and subscribers’ habits in each state of the federation may be different and exert influence on consumer perceptions of the telecom brand.

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