

## **Application of the “Brand-Choice Sequences” Theory to Measure Brand Loyalty to Beer Brands in Nigeria**

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This paper focused on the lacuna that may be extant in the non-application of brand loyalty theories to study consumers' loyalty to beer in parts of Nigeria. The study operationalized a behavioral construct of brand loyalty theory, the 'brand-choice sequences' theory, to measure consumers' loyalty to five brands of beer, namely, Harp, Star, Heineken, Gulder, Hero, and Guinness Stout in Awka, Anambra State, Nigeria. Using the survey method, a convenience sample of 200 beer consumers in selected socioeconomic and demographic segments was used for the study. Data from the survey were computer-analyzed using t-tests and ANOVA models. The results from the study indicated that, generally, significant undivided loyalty does not exist among the beer consumers and across the beer brands in the study. There are, however, significant variations in brand loyalties across the socioeconomic and demographic segments. The study recommends that for academics and pedagogy in brand loyalty, future empirical studies on brand loyalty should consider, conjointly, attitudinal and behavioral approaches to measure brand loyalty, in order to further test the efficacy and convergence of behavioral and attitudinal theories on brand loyalty. The study further recommends that marketing practitioners will need innovative promotional strategies, targeted at consumer segments, to cultivate undivided brand loyalty towards beer brands.

Key Words: Nigeria, brand, choice, sequences, behavioral, loyalty, beer

### **Introduction**

Intuitively, consumers' purchase and repeat purchases of a good or service may be characterized as some form of brand loyalty to that good or service. However, marketing scientists and theorists have attempted vigorously over the years to give some structured and non-intuitive meanings to brand loyalty, thus producing different theoretical frameworks for measuring and studying brand loyalty in the consumer goods categories.

The literature on consumer behavior indicates that research in brand loyalty includes early studies by Brown (1952), Cummingham (1967), Tarpey (1973), Engel, Blackwell, and Kollat (1978), inter alia. Later researchers on brand loyalty include Danaher, Wilson, and Davis (2003), Villas-Boas (2004), Terech, Bucklin, and Morrison (2009).

The studies by the authors mentioned above measured brand loyalty to specific product categories, such as toilet paper, tea, orange juice, coffee, etc. The data for the studies were from consumers of specific products in consumer goods markets outside Nigeria, a country with diverse and contiguous cultural cleavages.

The literature on brand loyalty in Nigeria and Africa is apparently lean. Some of the brand loyalty studies done in Nigeria include the work of Omotayo

(2010) whose study focused on examining relationships between brand loyalty and variables such as promotions and customer satisfaction, but not in the beer market. This work by Omotayo is not clear on whether brand loyalty theories were applied in measuring the construct of brand loyalty used in the study. Okeke (2009) posited that promotions of the beer brand, Star Beer, by the marketers of the Star brand in Nigeria has grown consumer loyalty and goodwill. In this view, Okeke did not specify what the concept of brand loyalty was defined to be, and did not suggest that any brand loyalty theory was applied in reaching the conclusion that promotion of the Star brand of beer in Nigeria enhances consumers' loyalty and goodwill. Marketing research organizations such as Canadean (2011), Euromonitor International (2012) have studied, analyzed, and reported on the increase in beer sales in Nigeria, and the proliferation of breweries in Nigeria. The reports point to 'strong consumer loyalty', especially among consumers of the premium beer brands as a major variable that can help to explain the differentiations in sales among the competing brands of beer in Nigeria. Again, the research reports by Canadean and Euromonitor did not specify if any theory was used to obtain what they characterized as 'strong consumer loyalty' in their reports.

Brand loyalty may exist in the Nigerian beer market generally, according to the works and marketing research reports cited above. However, it is not clear, from the literature, the extent to which consumers' loyalty to different beer brands exists in different parts of Nigeria. The desire to study consumers' loyalty to brands of beer in different parts of Nigeria, using a theory on brand loyalty, motivated the researcher to undertake this study of consumers' loyalty to beer brands in Awka, capital and a commercial city of Anambra State, Nigeria. Anambra state, one of the thirty six states of Nigeria, has a population of about 4.1 million people, which is about 3% of Nigeria's 140.5 million people (Nigerian Population Commission, 2006).

Consumer characteristics, such as socioeconomic and demographic variables (income, education, and age) may produce differentiations in consumers' loyalty to brands of beer. Researchers on brand loyalty such as Frank, Massy, and Lodahl, as cited in Engel et al. (1978), used panel data from the Advertising Research Foundation, USA, and focused on beer, coffee, and tea purchasing behavior of the consumers. They found a mild correlation between brand loyalty and socio-economic, demographic, and personality variables. Also, as noted earlier, based on reports by some marketing research organizations, premium brands attract strong consumers' loyalty in the Nigerian beer market. Premium brands, perhaps, may be slightly pricier than non-premium brands, suggesting that consumers with higher income, higher education, and older in age may be more likely to show more repeat purchases or brand loyalty than other consumers, thus making income, education, and age, variables of interest in a study on consumers' loyalty to beer brands in Nigeria.

Extant in the literature on brand loyalty are theories (or concepts) and empirical studies that depict brand loyalty as having both behavioral and attitudinal components which could be used to define and classify types of brand loyalty, thus yielding typologies of brand loyalty. As mentioned earlier, there is a plethora of studies in the literature on the development, tests, and application of the theories on brand loyalty, using data external to the Nigerian consumer goods market.

However, this research is an application of a behavioral construct on brand loyalty, referred to as the "brand-choice sequences" theory, using data from beer consumers in Awka, Anambra State, Nigeria. Consequently, the theoretical framework for this study is the "brand-choice sequences" theory which posits that if, for instance, A, B, C, D, E, F are different brands (Harp, Star, Heineken, Gulder, Hero, and Guinness Stout) in the beer category, then for at

least five consecutive purchases of beer by a consumer or household, the consumer or household is classified as exhibiting one of the following loyalty types, thus yielding a four-fold typology of brand loyalty, represented by:

“AAAAAA	Undivided Loyalty
ABABAB	Divided Loyalty
AAABBB	Unstable Loyalty
ABCDEF	No Loyalty”.

(Brown, 1952)  
Brand loyalty may exist in the Nigerian beer market, and perhaps exists in various degrees in different parts of Nigeria. Consequently, the research problem focuses on the lacuna that may exist in the non-application of brand loyalty theories to study beer loyalty in parts of Nigeria.

The subject scope of this study is delimited to consumer brand loyalty, a subject in the arena of consumer behavior, which is a subject in the field of marketing. Consumer brand loyalty is not only a subject, but also a variable in the study. Brand loyalty is one of the variables considered in the study, and has a range of 'no loyalty' to 'undivided loyalty', as per the theory of behavioral brand loyalty, 'brand-choice sequences' theory, operationalized in this study. The continuum of 'no loyalty' to 'undivided loyalty' presumably makes brand loyalty both an interval and ordinal variable. Education, income, and age, are categorical variables in the study. The geographical scope of the study is Awka, Anambra State, Nigeria. Awka is the capital and a major commercial city of Anambra State, Nigeria. Anambra state, one of the thirty six states of Nigeria, has a population of about 4.1 million people, which is about 3% of Nigeria's 140.5 million people (Nigerian Population Commission, 2006). Anambra State of Nigeria consists of a constellation of closely related cultural groups, in terms of language, customs and traditions, with nuances that may or may not be distinguishable. Nigeria is one of Africa's most populous countries, thus suggesting a sizeable market that should attract attention of consumer goods producers and marketers. The study unit scope is only the adult beer consumers who buy beer by themselves and consume any of the following brands of beer: Star, Harp, Gulder, Heineken, Guinness Stout, and Hero, which are the brands of beer of interest in the study. The study units reside in the geographical area described above. In this study, several limitations and exigencies, both anticipated and unanticipated, were encountered in various forms and degrees. It is not possible to comprehensively describe the limitations. The concept of consumer based marketing research is perhaps still in its infancy in many parts of the world, including the part of Nigeria in this study. In view of this, cooperation

of the respondents was not as readily available as expected. The literacy levels of some respondents also came into question at some points, in terms of their requiring additional explanation to fully comprehend the questions posed in the data collection instrument. However, these limitations were adequately managed so as not to compromise the findings from this study.

## Literature Review

In the literature and pedagogy on consumer behavior, interests in brand loyalty, and in variations of brand loyalty across socioeconomic and demographic groups have been shown by researchers and academics over the years, including, as cited in Engel, Blackwell, and Kollat (1978), early studies by Brown (1952), Cummingham (1956), Tucker (1964), Cummingham (1967), Day (1969), Jacoby (1971), Tarpey (1973), Kyner and Jacoby (1973), Engel et al. (1978) (1978), inter alia. Later studies on brand loyalty include the works of DuWORS Jr., and Haines Jr. (1990), Wernerfelt (1991), Kumar, Ghosh, and Tellis (1992), Paptla (1993), Villas-Boas (2004), Danaher, Wilson, and Davis (2003), Stern and Hammond (2004), Terech, Bucklin, and Morrison (2009).

The literature on brand loyalty in the beer market in Nigeria and Africa is apparently lean. Some of the brand loyalty studies done in Nigeria, but not in the beer market of Anambra State, include the work of Omotayo (2010) whose study focused on examining relationships between brand loyalty and variables such as promotions and customer satisfaction. This work by Omotayo is not clear on whether brand loyalty theories were applied in measuring the construct of brand loyalty used in the study. Okeke (2009) posited that promotions of the beer brand, Star Beer, by the marketers of the Star brand in Nigeria has grown consumer loyalty and goodwill. In this view, Okeke did not specify what the concept of brand loyalty was defined to be, and did not suggest that any brand loyalty theory was applied in reaching the conclusion that promotion of the Star brand of beer in Nigeria enhances consumers' loyalty and goodwill. Marketing research organizations such as Canadean (2011), Euromonitor International (2012) have studied, analyzed, and reported on the increase in beer sales in Nigeria, and the proliferation of breweries in Nigeria. The reports point to 'strong consumer loyalty', especially among consumers of the premium beer brands as a major variable that can help to explain the differentiations in sales among the competing brands of beer in Nigeria. Again, the research reports by Canadean and Euromonitor did not specify how the construct of brand loyalty was

measured to yield what they characterized as 'strong consumer loyalty' in their reports. In their reports, there was no indication that the concepts and theories on brand loyalty were utilized in their market research studies on beer sales and consumers' loyalty to brands of beer in Nigeria.

Extant literature on brand loyalty seems to characterize brand loyalty as a composite phenomenon, and perhaps rightly so, consisting of many forms of brand loyalty. The many forms of brand loyalty have given rise to brand loyalties, thus giving brand loyalty a manifold nature consisting of a multiplicity of definitions, concepts, theories, and typologies of brand loyalty. The review of related literature below examines some of the definitions, concepts, theories, and typologies of brand loyalty, and also looks at the research designs used in studies on brand loyalty.

As mentioned above, one of the earliest empirical and theoretical works on brand loyalty is a study by Brown (1952), as cited in Engel, Blackwell and Kollat (1978). Brown's work gave an early definition to brand loyalty. Brown's definition of and theory on brand loyalty are still valid in contemporary research on brand loyalty. In the empirical study, which culminated in the concept of the "brand-choice sequences" definition of brand loyalty, Brown used a Chicago Tribune panel data base of 100 households and analyzed the frequencies of purchases of consumer items such as coffee, orange juice, soap and margarine and came up with a theoretical definition of brand loyalty, based on empirical data analysis. From that study, Brown enunciated the theory of "brand-choice sequences", a behavioral theory on brand loyalty, which postulates that different categories or taxonomies of brand loyalty exist based on the sequences or order of brands that consumers buy. In line with Brown's analysis and conceptualization, if, for instance, A, B, C, D, E, F are different brands (Harp, Star, Heineken, Gulder, Hero, and Guinness Stout) in the beer category, then for at least five consecutive purchases of beer by a consumer or household, the consumer or household is classified as exhibiting one of the following loyalty types, thus yielding a four-fold typology of brand loyalty, represented by:

AAAAAA	Undivided Loyalty
ABABAB	Divided Loyalty
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(Brown, 1952)

This definition of brand loyalty by Brown failed to recognize the antecedents of brand loyalty, which would include the consumers' attitudinal disposition towards the brand. The study and theoretical framing of the definition of brand loyalty by Brown was later augmented by Day (1969) and Jacoby

(1971) who argued that the attitudinal antecedents of behavioral brand loyalty must be recognized in defining brand loyalty. Day and Jacoby's arguments were based on the premise that a consumer is truly brand loyal if the consumer's attitude towards the brand is also favorable. A possible thesis, based on the position of Day and Jacoby is that a consumer must be attitudinally brand loyal in order to be behaviorally brand loyal. By this, Day and Jacoby pointed to some underlying and latent correlation between behavioral and attitudinal brand loyalty measures. The position of Day and Jacoby engendered the "preference-purchase" definition of brand loyalty. The "preference-purchase" theoretical definition of brand loyalty can be characterized as a hybrid theory in the sense that the definition is based on both a behavioral and an attitudinal component. It is a two-component theory which argues that a consumer is indeed brand loyal if a consumer's attitude towards a brand is positive and favorable, and if the consumer shows repeat purchase behavior for the brand.

Writing on the relationship between behavioral and attitudinal components of brand loyalty, Jacoby (1971), as cited in Engel et al. (1978), stated as follows concerning the definition of brand loyalty: *Brand loyal behavior is defined as the overt act of selective repeat purchasing based on evaluative psychological decision processes, while brand-loyal attitudes are the underlying predispositions to behave in such a selective fashion...To exhibit brand loyalty implies repeat purchasing behavior based on cognitive, affective, evaluative and predispositional factors...(Jacoby, 1971)*

Building on that definition of brand loyalty by Jacoby, Engel et al. (1978) surmised that "brand loyalty is the preferential attitudinal and behavioral response toward one or more brands in a product category expressed over a period of time by a consumer (or buyer)" Engel et al. (1978). However, Engel did not seem to include a family or household in this definition, and it is arguable if a family or household of individuals can be perceived as a consumer or buyer. Jacoby and Kyner (1973) extended the definition of brand when they opined that: *Brand loyalty is (1) the biased (i.e., random) (2) behavioral response (i.e., purchase) (3) expressed over time (4) by some decision making unit (5) with respect to one or more alternative brands out of a set of such brands, and is (6) a function of psychological (i.e., decision making, evaluative) processes. (Jacoby and Kyner (1973)*

The work by Jacoby et al., as synthesizing and articulate as it looked, left time as an open-ended variable, since this theoretical definition of brand

loyalty by Jacoby et al. did not specify if time refers to repeat purchases or time between purchases. However, Jacoby did recognize that brand loyalty is product specific, and can include the smallest decision making unit such as an individual consumer. This study draws from Jacoby et al.'s work by focusing on a specific product category, beer, and individual consumers of beer in Awka, Anambra State, Nigeria. Numerous other works in the literature on brand loyalty build and pivot on the attitudinal and behavioral concepts enunciated by the earlier studies. Such later researchers on brand loyalty include Newman and Werbel (1973), Sheth (1968), Shugan (2005), Mazumdar and Papatla (1995), inter alia. Suffice it to say here that variations of the behavioral and attitudinal constructs found respectively in the "brand-choice sequences" and "preference-purchase" definitions, concepts and theories on brand loyalty are found in many early and later studies on brand loyalty. This study, using data from beer consumers in Awka, Anambra State, Nigeria, extends the testing and application of the theoretical definitions, concepts and theory of the behavioral construct of brand loyalty, the 'brand-choice sequences' theory as enunciated by Brown in Engel et al. (1978).

Over the years, various categorizations of brand loyalties emerged from different cross classifications of behavioral and attitudinal dimensions associated with brand loyalty, thus yielding typologies of brand loyalty. At the core of the typologies and embedded in the typologies of brand loyalty found in the literature, are elements and extracts, in one form or another, of the behavioral and attitudinal constructs, concepts, and theories of brand loyalty, such as reviewed above. Each typology of brand loyalty in the literature suggests that a continuum of brand loyalty does exist within each typology, thus yielding a scale or measurable gradation of brand loyalty. The scales of measurement may be arguable, but such scales should exist, within a given typology, as discussed next.

An early classification of consumer brand loyalty into degrees of loyalty is found in the work of Brown who did not only give an early definition of brand loyalty, but also developed an early typology of brand loyalty by categorizing brand loyalty into a continuum of "no loyalty" to "undivided loyalty", thus:

AAAAAA	Undivided Loyalty
ABABAB	Divided Loyalty
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ABCDEF	No Loyalty". (Brown, 1952)

This taxonomy of brand loyalty into four levels by Brown did not incorporate the antecedents of brand loyalty, which would include some attitudinal

persuasions that underlie consumers' behavioral loyalty. A latent but obvious gradation or scale of brand loyalty from very negative to very positive, or very unfavorable to very favorable loyalty can be said to exist, and does exist, in the continuum of "no loyalty" to "undivided loyalty", as depicted in the Brown theoretical model shown above, even though the theoretical representation emanated from an empirical study by Brown. The argument by Day et al. that to be truly brand loyal, consumers have favorable or positive attitude towards the brand, substantiates the existence of a scaled behavioral and attitudinal continuum of brand loyalty in the Brown model of "no loyalty" (very negative attitude) to "undivided loyalty" (very positive attitude). Subsequent studies synthesized the behavioral and attitudinal constructs and extensions of the constructs to generate typologies of brand loyalties. The taxonomies of brand loyalties that emerged from the various syntheses converge in some instances and are divergent in other instances, as reviewed next.

Another continuum of brand loyalty embodied in another typology is the work by Aaker (1991) which suggests a "loyalty pyramid" typology. The base of the pyramid consists of mostly "switchers" who buy when the price is right and are apathetic towards the brand. Since this is the base of the pyramid, obviously the base width suggests a broad market of switchers, perhaps the majority in consumer markets. The next level, "habitual" in the pyramid represents consumers who will have no reason to switch brands, except perhaps that they are habitual switchers. The third level up the pyramid depicts a "satisfied" consumer group who will evaluate the cost of switching in terms of time and money before switching, unless incentives from competitors induce them to switch. The fourth level up the pyramid is the group of consumers who "like" the brand and seem to have developed emotions towards the brand, perhaps as a result of repeated purchase of the brand over time. The fifth and narrowest segment of the pyramid represents consumers who are "committed" to the brand and can be said to truly loyal to the brand and will testify of the brand to other consumers. Aaker's pyramid however seems not to have been built with a lot of behavioral constituents in terms of frequencies and amount of purchases which each level in the pyramid depicts. The pyramid can at best be characterized as an attitudinal pyramid of brand loyalty. Howbeit, the gradation of loyalty tendencies reflected in the Aaker pyramid suggests an underlying continuum of brand loyalty that can be scaled and measured.

Based on a continuum of low to high attitude, and low to high patronage, Dick and Basu (1994) configured a matrix or classification of brand loyalty

that produced a typology of "no loyalty", "spurious loyalty", latent loyalty" and "loyalty" levels, thus again suggesting a continuum of brand loyalty with a range of no loyalty to loyalty.

Terech, Bucklin, and Morrison (2009) presented an approach to "classify a brand's buyers into groups with varying degrees of loyalty along a continuum from hard-core loyal to hard-core switcher". Terech et al.'s presentation showed a four-fold typology of brand loyalty, and supports a visualization of a continuum imbedded in brand loyalty measurements. Other works in the literature discussed other typologies of brand loyalty including Wernerfelt (1991) who discussed inertial, time lag, and cost based brand loyalties. Seth (1970) considered a typology of brand loyalty based on multiple dimensions and multiple brands. Jacoby et al. (1973) considered the construct of a typology based on brand loyalty versus repeat purchasing behavior.

This study operationalized the brand loyalty typology enunciated in the literature by Brown (1952), as cited in Engel et al. (1978), and discussed in the literature above. This brand loyalty typology espoused by Brown also provides the theoretical framework on which this study rests.

## Objectives

In line with the problem definition, this study using empirical quantitative data from beer consumers in Awka, Anambra State, has the following objectives which are to:

1. know whether beer consumers in Awka, Anambra State, are brand loyal to the brands under study and to what extent, based on the 'brand-choice' sequences theory
2. examine any variability that may exist in brand loyalties across the beer brands under study, based on the 'brand-choice sequences' theory
3. compare across levels of socioeconomic and demographic groups (age, income, and education), consumers' brand loyalties, based on the 'brand choice sequences' theory

## Research Questions

In order to accomplish the objectives of the study, the following research questions (RQs) were addressed:

- RQ 1. Are consumers of beer in Awka undividedly brand loyal to the brands under study, based on the 'brand-choice' sequences theory?
- RQ 2. Is there any significant variation in brand loyalties across the beer brands in Awka, based on the 'brand-choice sequences theory'?

RQ 3. Across levels of socioeconomic and demographic groups (age, income, and education), are there any significant differences in the brand loyalties of beer consumers in Awka, based on the 'brand-choice' sequences theory?

## Methodology

Quantitative and qualitative research methodologies exist in the literature on research methodology (Malhotra, 2007). Quantitative methodology was used in this study. Unlike qualitative methodology, quantitative methodology uses quantifiable and structured data, as were collected for this study, and statistically analyzed the data to make inferences and recommendations. This section on research methodology considers also the research design for this study, geographical area of the study, population, from which the sample was taken, sampling method and sample size, measuring instrument for data collection, reliability and validity of the instrument for data collection, data collection, analytical techniques, and assumptions.

The survey method was used as the research design for the study. The survey method involved a descriptive, single cross-sectional design in which non-probability sampling methods (convenience and judgmental sampling methods) were used to obtain a one-time (single cross-sectional) sample from a specified population of beer drinkers in Awka, Anambra State, Nigeria.

This quantitative study permitted the quantification of brand loyalty, as defined by the operationalized theory. The quantitative methodological approach also permitted the use of analysis of variance factorial designs to study and analyze the data collected from the study. The quantitative methodology was used on the assumption that behavioral brand loyalty can be measured on a continuum, and thus be treated as an interval variable that possesses means and variances which permitted statistical analysis and inference about the brand loyalty means generated from the consumers' responses.

The study titled 'Application of the Brand-Choice Sequences Theory to measure Consumers' Loyalty to Beer Brands in Awka, Anambra State, Nigeria', suggests the area in which the study was done. Specifically, the geographical area in which the study was done is Awka, Anambra State, Nigeria. The population for the study consisted of only adult beer consumers in Awka who made their own purchases of beer for consumption, and resided in

Awka, Anambra State, Nigeria. Anambra state, one of the thirty six states of Nigeria, has a population of about 4.1 million people, which is about 3% of Nigeria's 140.5 million people (Nigerian Population Commission, 2006). There was no data base of adult beer consumers who made their own purchases of brands of beer, and resided in Anambra State, Nigeria. Consequently, there was no sampling frame, i.e., a listing of all adult beer consumers in Awka, Anambra State, Nigeria. Where no sampling frame exists, probability sampling techniques cannot be used, and Malhotra (2007) suggests the use of non-probability sampling techniques, such as convenience or/and judgmental sampling methods, to reach subjects in such a situation. Malhotra (2007) further suggests a minimum sample size of 200 in non-probability sampling techniques aimed at problem solving. Consequently, a non-probability sample of size 200 was obtained from the defined population of beer drinkers in Awka. Using the convenience sampling method, the sample was obtained using the equivalent of a 'mall intercept' in which the qualified respondents were conveniently and judgmentally located at restaurants, hotels, fast food joints, and beer retail outlets in the commercial city of Awka, capital of Anambra State, Nigeria. Information about the consumers' behavioral brand loyalties was obtained using a questionnaire.

The construct of brand loyalty has theoretically been characterized as a variable that can be scaled on a continuum, as discussed in the review of related literature. Leaning on the continuum property of brand loyalty, as espoused in the literature, a structured questionnaire containing interval and nominal variables was used for data collection in the study. Interval variables on the questionnaire were used to measure consumers' behavioral loyalty and attitudinal propensity for the brands of beer. Behavioral loyalty was scaled on a continuum represented by an interval variable with a range of no loyalty to undivided loyalty. Nominal variables on the questionnaire were used to facilitate the description of classes that may exist.

There are typologies of reliability tests in the literature including test-retest, alternative forms, internal consistency, and split-half which yield the Cronbach's alpha reliability tests (Malhotra, 2007). The Cronbach's alpha reliability test approach seems to have an edge in the literature over the others, given its user friendliness which is easily facilitated through the use of SPSS computer software, and the interpretability of the resulting Cronbach's alpha. Cronbach's alpha is a correlation coefficient which ranges from 0 to 1. Values of Cronbach's alpha less than or equal to .6 are indicative of unsatisfactory

internal consistency reliability (Malhotra, 2007). The Cronbach's alpha internal consistency reliability test was used to test the internal consistency reliability of the interval scales. A relatively high Cronbach's alpha of .76 was obtained, pointing to a high internal reliability of the scales. A convenience sample of 100 beer consumers in Awka was used to pretest the questionnaire, and Cronbach's alpha was computed from the pretest data, using the SPSS computer software. As in reliability tests, a multiplicity of validity tests exist in the literature. Among these are content, criterion, construct (including convergent, discriminant, and nomological) validity tests (Malhotra, 2007). The validity of the interval scales in the study instrument was tested using the convergent construct validity test approach which measured the correlation between the behavioral and attitudinal constructs of brand loyalty. A high positive Pearson correlation of .70 was obtained showing high convergent construct validity for the interval scales in the study instrument (Malhotra, 2007).

The area of study from which primary data were collected was Awka, Anambra State, Nigeria. A survey method of data collection was used to collect primary data from adult beer consumers who resided in Awka, the capital city of Anambra State, Nigeria. Since a questionnaire was used as the instrument of data collection in the survey, the questionnaire was administered to qualified consumers by the equivalent of a 'mall intercept' type of interview which involved a face-to-face administration of the questionnaire. The respondents were judgmentally and politely intercepted at restaurants, hotels, fast food joints, and beer retail outlets in the commercial city, Awka, and the qualified beer consumers were requested to willingly participate in the survey. Only primary data were collected during the survey. Convenience and judgmental sampling techniques were used to obtain the required sample of adult beer consumers who resided in Awka, Anambra State, Nigeria.

One objective of this study is to know whether beer consumers in Awka, Anambra State, Nigeria, are brand loyal to the beer brands under study and to what extent, based on the 'brand-choice' sequences theory. To accomplish this objective, one sample *t*-tests were used to compare the consumers' mean behavioral loyalty to the measurement scale value of 4.00 which represents 'undivided loyalty'. The second objective of the study is to compare the brand loyalties for the brands under study, based on the 'brand-choice sequences' theory. To accomplish this objective, computerized analysis of variance (ANOVA), with post-hoc multiple means comparisons and overlap analysis, were used to

compare the brand loyalties attracted by the beer brands in the study. Based on the brand-choice sequences theory, the third objective of the study is to compare across levels of socioeconomic and demographic groups (age, income, and education), consumers' behavioral brand loyalties, based on the 'brand choice sequences' theory. To accomplish this objective, computerized analysis of variance (ANOVA), with post hoc multiple means comparisons, and overlap analysis was done.

The notion that statistical inferences can be made on the basis of non-probability sample information, such as information obtained through convenience and judgmental sampling methods, is a 'painful' assumption that must be noted. The results from a non-probability sample may not be generalized to the population, simply because the convenience and judgmental sampling methods do not produce representative samples. However, Malhotra (2007) notes that even though convenience sampling has its limitations, yet it is used in huge market research surveys, and the author recommends sample sizes that are experientially suitable for market research surveys involving non-probability sampling (Malhotra, 2007). The assumption that typologies of brand loyalty can be measured on continuums bearing the semblance of interval scale may be arguably overbearing. Using interval scales for collecting data in the study presents some theoretical and pragmatic issues that may be considered to be painful assumptions. Using an interval scale to measure consumers' behavioral brand loyalty suggests that brand loyalty in the context of the study is a continuous variable. Arguably, the calibration on the scale does not represent equal distances, but the scale suggests that it does. Churchill (1979) posited that there was some controversy surrounding the use of itemized rating scales that are used to measure variables that may be non-continuous. To worsen the pain in the assumption of continuity in the scale of measurement, theoretical statistics requires that such variables assumed to be continuous should be normally distributed; and the error terms in the analysis of variance models should be uncorrelated, normally distributed, with means equal to zero, and variances that are constant, Malhotra (2007). However, Malhotra (2007) opined that, often, the statistical theory requirements are satisfied in pragmatic data analyses involving analysis of variance, and regression analysis, thus making them commonly used analytical techniques. Furthermore, the assumption that the variables involved in the study need not be transformed into other forms, such as log-linear, quadratic, and other forms, may be erroneous. The assumptions made in this study are by no means exhaustive.

**Findings**

Computerized data analysis was used to test the hypotheses in the study, as shown in Tables I, II, IIIA, IIIB, and IIIC below. Note that in QII on the questionnaire, a score of 4 represents the sequence

AAAAAA = Undivided Loyalty, a score of 3 represents the sequence ABABAB = Divided Loyalty, a score of 2 represents the sequence AAABBB = Unstable Loyalty, and a score of 1 represents the sequence ABCDEF = No Loyalty. The findings from this study are presented in the tables that follow.

Table 1. Ho1: Based on the ‘brand choice sequences’ theory, beer consumers in Awkaare undividedly brand loyal to the brands under study.

Brand	n	Observed Mean Loyalty	Test Value (Undivided Loyalty)	P-value	Significance Level (alpha)
Harp	30	3.12	4.00	.000	.01
Star	38	3.63	4.00	.000	.01
Heineken	39	3.87	4.00	.023	.05
Gulder	35	3.60	4.00	.000	.01
Hero	38	3.87	4.00	.023	.05
Guinness Stout	30	3.37	4.00	.000	.01

The results of the computerized data analysis in Table 1 above indicate that, generally, beer consumers in Awka are significantly not undividedly loyal to the beer brands in the study. This is because the observed values of the consumers’ mean loyalties for each brand are significantly less than the test value of 4.00 which indicates undivided brand loyalty on the questionnaire. Relative to consumers of other brands in the study, the consumers of Heineken and Hero show relatively higher mean brand loyalties of 3.87 each, which is still significantly less than undivided brand loyalty value of 4.00. Reasons for the apparently higher brand loyalties for Hero and Heineken brands can be garnered from the literature on beer studies in Nigeria, cited in the review of

related literature. The literature on beer studies in Nigeria point to ‘strong customer loyalty’ towards premium brands. Participants in focus group discussions on beer consumption in Awka, the study area, perceive the Hero brand of beer as a premium brand name that is reminiscent of some latent heroism among the residents of the area. This perception, perhaps, explains the high brand loyalty for the Hero brand. Heineken, in the focus group discussions is also perceived as a premium, pricier brand, and this may also explain the relatively higher brand loyalty it has among its consumers in Awka. The consumers of Harp with a mean loyalty of 3.12 have close to divided loyalty to Harp.

Table 2. Ho2: Based on the ‘brand choice sequences’ theory, there is no significant variation in brand loyalties across the beer brands in the study.

Brands	n	A	B	C	D
Heineken	39	3.87			
Hero	38	3.87			
Star	38	3.63	3.63		
Gulder	35		3.60	3.60	
Guinness Stout	30			3.37	3.37
Harp	30				3.17

\* Means with the same letter are comparable at the .05 significance level.

The model for the Analysis of Variance (ANOVA) results shown in Table II above is significant at .01 significance level (p=.000). This indicates that there is significant variation in brand loyalties across the beer brands considered in the study. The results shown in Table II indicate that Heineken, Hero, and Star have comparable mean brand loyalties, but that

Heineken and Hero stand out as the two top brands with mean loyalties of 3.87 close to undivided loyalty. However, the mean loyalty for Star overlaps with Gulder’s, which overlaps with Guinness Stout’s, which overlaps with Harp’s.

Harp, however, has the lowest outstanding mean brand loyalty of 3.17, almost a divided loyalty.

Deductions from focus group discussions on beer consumption in Awka also indicate that the Star, Gulder, Guinness Stout, and Harp brands have a common characteristic of longer presence in the

study area market, and are seen as beer brands with comparable appeals to the consumers, and this may explain the overlap in brand loyalties for the brands.

Table 3: Ho3: There is no significant variation in brand loyalties across the education groups in the study, based on the 'brand choice sequences' theory.

Education Groups	n	A	B	C
University	49	3.98		
Secondary	77		3.69	
Less than Secondary	84			3.32

\* Means with the same letter are comparable at the .05 significance level.

The ANOVA model that produced the results in Table IIIA above is significant at .01 significance level ( $p=.000$ ), which indicates that there is significant variation in brand loyalties across the education groups. The consumers of the brands in the study who have university education have the highest mean brand loyalty, almost undivided loyalty, of 3.98. Consumers of beer brands who have less than secondary school education have the lowest mean brand loyalty of 3.32, almost divided loyalty to the beer brands in the study.

Literature may help to explain this relatively wide gap between the loyalties of the university and

non-university education groups. Literature points to 'strong consumer loyalty' for brands perceived as premium brands, which are often pricier than brands perceived to be non-premium. Furthermore, higher education attracts higher income, and may place people in higher social classes. Consequently, the relatively much higher loyalty exhibited by the group with university education may be attributed to the fact that they can afford to repeatedly buy and consume the pricier, premium (first class) brands more than the group with less than university education.

Table 4: Ho3: There is no significant variation in brand loyalties across the income groups in the study, based on the 'brand choice sequences' theory.

Income Groups	n	A	B	C
Above N200,000 per month	63	3.98		
Between 50N & 200N per month	63		3.71	
Less than 50,000 per month	84			3.25

\* Means with the same letter are comparable at the .05 significance level.

The ANOVA model that generated the results depicted in Table IIIB above is significant at .01 significance level ( $p=.000$ ), indicating a significant variation in mean brand loyalties across the income groups. The results in Table IIIB show that the income group of above two hundred thousand naira per year has the highest mean brand loyalty of 3.98, almost an undivided brand loyalty towards the beer brands in the study. The income group of less than

fifty thousand naira per year has an almost divided loyalty reflected by a low mean brand loyalty of 3.25.

Since literature suggests that premium, and invariably, pricier brands attract 'strong consumer loyalty', then presumably, the very high loyalty exhibited by the highest income group is possibly attributable to the group's earning power that enables them to consistently purchase and consume premium, and pricier brands.

Table 5: Ho3: There is no significant variation in brand loyalties across the age groups in the study, based on the 'brand choice sequences' theory.

Age Groups	n	A	B
Above 50yrs	77	3.79	
36 to 50 yrs	42	3.76	
25 to 35 yrs	91		3.38

\* Means with the same letter are comparable at the .05 significance level.

The ANOVA model that produced the results in Table IIIC is significant at .01 significance level ( $p = .000$ ), indicating that there is significant variation in mean brand loyalties across the age groups. The results in Table IIIC show that, among the age groups, the above 50 years age group has the highest mean brand loyalty of 3.79, somewhere in between divided and undivided brand loyalty. The youngest age group of 25 to 35yrs has the lowest mean brand loyalty of 3.38, almost a divided loyalty to the brands of beer in the study. In trying to explain the phenomenon of the higher age group showing higher brand loyalty than the lower age segment, it could be argued that as beer consumers grow older, the likelihood of earning more money increases, thus increasing the consumers' propensity to repeatedly purchase and consume pricier, premium brands of beer.

### Conclusion and Discussion

From the analysis contained in Tables I, II, IIIA, IIIB and IIIC above, the following conclusions emanate.

1. Generally, the consumers of the beer brands in the study significantly do not have undivided loyalty towards their brands.
2. The brands of beer studied significantly do not enjoy undivided loyalties from their consumers.
3. When the education levels of the consumers are taken into consideration, there is significant variation in beer brand loyalties across the education segments.
4. Considering the income categories, there is significant variation in beer brand loyalties across the income groups.
5. The age segments show significant variation in brand loyalties towards the beer brands in the study.

The implication of this study can be assessed in terms of its relevance in the areas of research and marketing in the Nigerian beer market. The behavioral construct of brand loyalty, the 'brand-choice sequences' theory, operationalized in this study was developed using data from USA consumers. Using data from beer consumers in Awka, Anambra State, Nigeria, to extend the testing and application of this theory not only extends the universality of the theory, but also provides useful input in the literature and pedagogy on brand loyalty in the Nigerian beer market. Knowing the extent of consumers' loyalty to brands of beer in this part of Nigeria, and the distribution of brand loyalties across the beer brands, and across the socioeconomic and demographic groups in the study, provides beer marketers and beer brands' managers with marketing intelligence on consumers' loyalty to beer brands in this part of Nigeria. Such marketing intelligence can contribute

to formulation of appropriate promotional strategies targeted at the different socio-economic and demographic groups, as part of a company's marketing strategy in the beer market in Anambra State, Nigeria. Sustaining and increasing brand loyalty for a beer brand in this part of Nigeria enhances a brand's sales volume, with expected positive impact on the brand's profitability and equity. Brand loyal consumers constitute a market niche for a brand. A market niche ultimately gives a brand a competitive position, based on the brand's attributes that have emotional appeals to its loyal consumers.

In line with the findings and significance of the study, the following recommendations are made.

1. For academics and pedagogy on brand loyalty, since a behavioral construct, the 'brand choice sequences' theory, was used in the study, another study based on both behavioral and attitudinal constructs of brand loyalty is worthwhile to examine the extent to which the attitudinal antecedents of brand loyalty agree with the behavioral manifestations of brand loyalty. Furthermore, juxtaposing the two constructs in another study will provide verification of the extent to which the two constructs can be used interchangeably as valid paradigms and theories for measuring brand loyalty. Additionally, the convergent construct validity of the two theories will be further substantiated when the correlation between the behavioral and attitudinal constructs is computed.

2. Beer marketers should cease the opportunities provided due to the lack of undivided brand loyalty among the beer consumers, by evolving innovative marketing strategies aimed at cultivating undivided loyalty for their brands. This may be a utopian recommendation, but the payoff in terms of sales and subsequent effect on brand equity may be rewarding for any beer brand that can attract and sustain undivided brand loyalty from its consumers.

3. The findings from the study based on a behavioral construct of brand loyalty show that, generally, there is significant variation in beer consumers' loyalties across socio-economic and demographic segments. Consequently, to enhance loyalty towards a brand within the segments, beer brands' managers should use promotional tools aimed at positively stimulating and changing the purchase intent and, subsequently, purchase behavior of beer consumers in segments that show less than undivided loyalty towards a brand of interest.

4. While caution should be exercised in adopting and generalizing the results from this study because non-probability sampling methods were used in data collection, a larger probability sample, if possible, should be used in future studies to make the results of the study more generalizable.

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