

EFFECT OF BRANDING ON THE PURCHASE OF EUROPEAN AND ASIAN DRUGS IN SOUTH-WESTERN NIGERIA

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ABSTRACT

Although consumers purchase drugs based on the physician's prescription and user's experience, they have increasingly shown personal and emotional consideration in determining branded or generic drugs in the purchase decision. In terms of the marketing of drugs, little research has been undertaken in this area in Nigeria. Emphasis has rather been on regulation and control. This study therefore examined consumers' preference in terms of the effects of country of origin brand name, package branding, and ingredients branding on purchase of drugs between the European and Asian drugs. Data were collected from 312 buyers of Over-the-Counter (OTC) drugs in Lagos and Osun states in Nigeria through a cross-sectional survey. Data were analysed using both descriptive and Independent Sample t-Test. The results showed that there is no statistically significant difference in consumers' perception of the branding elements in purchase between European and Asian drugs. It is therefore recommended that marketers comply with standards set by the regulating institutions for drug manufacture and administration as competitors would endeavor to meet up with expected standards and thus render the effect of branding as a differentiation strategy among competitors void. It is also recommended that pharmaceutical companies operating in international markets recognize branding elements such as the country of origin brand name, package branding, and ingredient branding employed by competitors as consumers rate them reasonably high in their purchase decision.

Keywords: Country of Origin, Consumer, Drugs, Package branding, Ingredient branding.

INTRODUCTION

Consumer purchase decision is greatly influenced by branding elements such as the brand name and package design which are very important determinants of sales volume (Aaker, 1991). In terms of purchase of drugs, consumers' perceptions of critical branding elements such as the name of country of origin, package quality as well as the drugs ingredient tend to influence their expectations and hence inform the branding strategy by a firm (Desai & Keller, 2002; Agrawal & Kamakura, 1999; Ogbojafor, Ladipo & Nwagwu, 2012). Moreover, consumers' expectations and perception of product quality define their stake in a firm's performance and are of primary significance to a firm's performance and the overall corporate strategy goals (Dixon-Ogbechi & Jagun, 2013).

Kotler and Armstrong (2008) define branding as a name, term, sign, symbol, design, or a combination of the above that identifies a producer of a good or service. Because of this, firms both at the local and international levels invest heavily in branding activities and strategies since brands provide added value to both customers and management since they foster brand loyalty and increased market share (O'Neill & Mattila, 2010). Besides, Aaker and Keller (1990) opine that branding serves as a critical factor in a firm's overall marketing and corporate strategy mainly for the sake of corporate identity in the marketplace. It also establishes a solid customer franchise as well as the basis for brand extensions, which will further strengthen the firm's position and enhance its value (Aaker & Keller, 1990). The above views, therefore, make for a good positioning strategy since firms can successfully establish a market for themselves through an effective branding strategy (Alashban, Hayes, Zinkhan, & Balazs, 2002).

In an attempt to sustain quality and improve consumers' perceptions in drugs purchase, Chika, Bello, Jimoh and Umar (2011) observe that pharmaceutical companies are committed to fighting counterfeit drugs by focusing more on developing better technologies for protecting the brand identity of their products as a short term strategy. However, this does not imply that branding cannot be employed as a long term strategy since firms can successfully establish a market for themselves through an effective branding strategy (Alashban, *et al.*, 2002). This can lead to valuable relationships which become strengthened over time as the consumers get to know about the brand and evaluate their experiences (O'Neill & Mattila, 2010). According to Garuba, Kohler and Anna (2009), there have been institutional efforts to sustain quality brand perception of drugs and to reduce the production and trafficking of counterfeit drugs through the activities of the National Agency for Food, Drug, Administration and Control (NAFDAC). The deadly consequences of poor quality drugs created the high trends of mortalities and morbidities which prompted the public and the Pharmaceutical Society of Nigeria (PSN) to pressure the government to take incisive steps towards the

establishment of NAFDAC in 1993 to help create a fake drug-free environment with the intent of ensuring effective registration of good quality drugs (Akinyandenu, 2013).

Memisoglu (2018) argued that although consumers purchase drugs based on physician prescription and user experience, they have increasingly shown personal and emotional consideration in determining branded or unbranded drugs in the final purchase decision and have thus become strong advocates of their own healthcare. Consequently, Memisoglu (2018) suggests that marketers need to deeply understand the consumers' underlying beliefs and deploy effective branding strategies before engaging in any marketing campaign as consumers can drill deeper to seek manufacturer details as an important part of their purchase decision especially in this age of rapid social and technological changes replete with information channels. Moreover, Memisoglu (2018) argues that the branding of over the counter (OTC) is not different from the branding of fast-moving consumer goods (FMCG) as they both aim to achieve brand recognition, brand preference, brand loyalty and increased market share.

There is a general concern for genuine and quality drugs by all stakeholders especially the consumers due to the inundation of less quality or counterfeited drugs in the market over genuine ones by both foreign and domestic manufacturers (Osibo, 1998). Consequently, the common branding elements associated with purchase of imported drugs include the country of origin (COO), package quality, and the drug's ingredient which serve as the basis for trust, risk reduction, additional information, good feeling, convenience, easier comparisons, and company accountability to the buyer (Dogramatzis, 2015; Memisoglu, 2018). This trend is critical to the firm's objective of achieving consumer satisfaction because the consumer's stake in business activities and their perception of the quality of a firm's product is of a primary significance to a firm's performance and the overall corporate strategy goals (Dixon-Ogbechi & Jagun, 2013).

Previous studies (Osibo, 1998; Bate & Boateng, 2007; Akinyandenu, 2013) laid more emphasis on regulation and control without considering the effect of branding on consumer purchase of drugs in Nigeria. The present study, therefore, attempts to examine the effect of country of origin brand name, package branding, and ingredient branding on the purchase of drugs between selected European and Asian countries. These countries constitute the major countries-of-origin (COO) consideration set for purchase of choice drugs based on differing branding perceptions in Nigeria (Bate & Boateng, 2007; UK Trade & Investment, 2014). The study excludes other branding strategies such as brand extension, co-branding, and business to business (B2B) strategy commonly associated with ingredient branding (Pfoertsch & Chen, 2010) to focus on specific elements that directly influenced the purchase of drugs (Dogramatzis, 2015).

Research Objectives

The objectives of the study, therefore, are as follows:

- i. To determine the effect of country of origin brand name on consumers' purchase between European and Asian drugs in Nigeria.
- ii. To examine the effect of package branding on consumers' purchase between European and Asian drugs in Nigeria.
- iii. To determine the effect of ingredient branding on consumers' purchase between European and Asian drugs in Nigeria.

LITERATURE REVIEW

Consumer Purchase Behavior of Drugs

In a competitive market, the tendency for buyers to depend on brand perception elements for identification and differentiation in their purchase decisions is well anticipated. Douglas, Craig, Nijssen (2001) suggest that branding emphasizes the quality and reliability of a firm's product. Roth (1995) suggests that firms may find it appropriate to standardize their branding strategies such as the brand name in the face of heterogeneous markets in the host country. However, when faced with the challenge to satisfy the needs of several market segments with a wide range of choices, Alashban et al. (2002) warn that such firms may try to avoid having the same brand name across the different choices, because such a strategy may negatively affect the firm's or product's image.

In terms of purchase of drugs, Memisoglu (2018) argues that the branding of over the counter (OTC) drugs is not different from the branding of fast-moving consumer goods (FMCG) as they both aim to achieve brand recognition, brand preference, brand loyalty and increased market share. Drugs are typically part of the consumer market consisting of large number of buyers than the industrial markets (Porter, 1980). The country of origin (COO), package quality, and the drug's ingredients serve as the basis for trust, risk reduction, adequate information, good feeling, convenience, easier comparisons, and company accountability to the buyer (Dogramatzis, 2015; Memisoglu, 2018). Similarly, Ladha (2007) indicates that brand perception is the most important predictor of OTC drug purchase. In terms of preference between generic and branded drugs, Shrank, Cox, Fischer, Mehta, and Choudhry, (2009) argue that even though the acceptance of generic drugs is still strong, generic drugs are still not preferred to branded ones due to the perceived risks and poor advertising. Faasse, Martin, Grey, Gamble, and Petrie (2015) observe that branding of drugs with the name of a well-recognized pharmaceutical company bestows on the drug an added assurance of authenticity and effectiveness compared to a generic preparation.

Dogramatzis (2015) argues that consumers purchase branded drugs because they derive benefits such as efficacy, risk reduction, trust, more information, good feeling, convenience, easier comparisons, and the company's accountability to the buyer. Similarly, Battistoni, Colladon and Puglia (2014) observe that the branding of OTC drugs determine 60 percent of consumer purchase of drugs. Akinyandenu (2013) observes that the purchase of counterfeit drugs in Nigeria includes preparations without active ingredients, toxic preparations, expired drugs that are relabeled, drugs issued without complete manufacturing information and drugs that are unregistered with the National Agency for Food, Drug, Administration and Control (NAFDAC).

In counterfeiting trading of drugs, Bate and Boateng (2007) confirm the involvement of Asian manufacturers from India and China as the market leaders in pharmaceutical manufacturing and the biggest culprits of drug counterfeiting globally. This includes the fact that much of global outsourcing is contracted to firms in Asia, both for manufacturing and increasingly for services (Bate & Boateng, 2007). Similarly, Chika, et al (2011) indicate that statistics by the European Commission described India as the source of 75 percent of counterfeit drugs.

Country of Origin (COO) and Consumer Purchase of Drugs

Akinyandenu, (2013) suggests that the brand identity provided by the seller of a drug can help the consumer to discriminate between products and the country of origin to mitigate the vulnerability of Nigeria as a place for drug counterfeiters who see her as a good base for their crimes but lucrative trade. Consumers tend to rely on extrinsic cues such as the name of the country of origin (COO) as the basis of judgment in terms of the perception of quality and trust in the purchase of OTC drugs. Smaoui, Kilani, and Touzani (2016) observe that in developing countries, COO and brand status have a greater effect on consumers' perceptions of drug quality and trust. Granzin and Olsen (1998) opine that the image associated with the country of origin (COO) plays a significant role in consumers' purchase of products such that country of origin serves as a signal, enabling consumers to make an instant decision. Consequently, they suggest that consumers may rely on such signals when more systematic search is very expensive or more comprehensive information is unavailable (Granzin & Olsen, 1998). When consumers hold a certain image about the COO of a product, the impression could be generalized to evaluate other brands originating from that particular country. This image perception sums up the COO- based equity which might even extend to other products due to stereotypical bias and consequently enable the product to command premium prices or discounted prices (Aaker, 1996; Keller, 1993).

The extent to which COO influence consumer preference between competing countries in terms of purchase of OTC drugs in the extant literature is scarce. We, therefore, hypothesize that:

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H₀₁: Country of origin brand name will not significantly influence consumers' preference in the purchase between European and Asian drugs in Nigeria.

Packaging Branding and Consumers' Purchase of Drugs

Alagala, Bagbi, and Shaleye (2018) argue that there exists a significant relationship between Pharmaceutical packaging and consumers' product identification and differentiation in the marketplace. Kotler and Keller (2007) state that packaging refers to all activities of designing and producing the container for a product and forms the primary encounter for consumer evaluation of branding attributes. This includes styling, dependability, prestige, convenience, functionality, attraction, confidence, brand image, brand identity and innovation which can also create brand personality. Kotler and Keller (2007) added that the packaging elements which include colors, font, text, and graphics, size, shape, and material, have a very significant role in the package appearance and are critical to shaping the market offerings. Packaging includes the label which may be a simple tag or graphics that contains information about the product as well as warranties which are formal statements of expected product performance by the manufacturer and which entitles the buyer to get compensation or restitution in case of product failure while guarantees are promises by the manufacturer about the product's ability to give complete satisfaction (Kotler & Keller, 2007).

Akinyandenu (2013) states that the two categories of packaging namely; visual and informational elements, can be enhanced by complex labels and holograms to make it difficult for counterfeiters to imitate. Similarly, Ogbojafor, Ladipo, and Nwagwu (2012) argue that brand equity and loyalty are created when consumers consider the nutritional labeling of packaged food products as significant. Consumers exhibit these behaviours by a conscious search for nutrition information on the package, reading of the information on the package, buying based on the nutritional information on the package, and trust the authenticity of the nutritional information on the package (Ogbojafor *et al.*, 2012). According to Alagala, Bagbi, and Shaleye (2018), drug appearance in terms of colour and design has played a key role in consumers' perceived expected therapeutic outcome right from the early days of medicine. However, the extent to which this perception may influence the preference of buyers between countries of origin is not well ascertained. We, therefore, hypothesize as follows:

H₀₂: Package branding will not significantly influence consumers' preference in the purchase between European and Asian drugs in Nigeria.

Ingredients Branding and Consumers Purchase of Drugs

The ingredient in a drug is critical to the physiological functioning of the body and thus has been the major debate in assessing the efficacy of drugs especially for antibiotics

which is measured in terms of its ability to kill and inhibit the growth of disease (Finberg, et al., 2004). Also, emphasis has been placed on the standard for drug administration that can lead to improved clinical outcomes (Klastersky, 1986).

Ingredient branding occurs when elementary products or services are embedded within an end product with particular emphasis on consumer recognition and identification of the components in the final product and with the motivation revolving around the ingredient to create brand awareness and consumer loyalty for the brand (Pfoertsch & Chen, 2010). Desai and Keller (2002) also conceptualize ingredient branding in which key attributes of one brand are incorporated into another brand as a strategy for product line extensions or brand expansions. Desai and Keller (2002) further suggest that the impact of ingredient branding depends upon the importance of the ingredient itself such that branding a more important ingredient should facilitate the host brand's differentiation and evaluations to a greater extent. Similarly, Kotler and Keller (2007) note that ingredient branding creates brand equity especially in 'self-branding' where the firm advertises and trademark its own ingredients which can create sufficient awareness and preference for the "host" product.

Faasse *et al.* (2015) report that branded drugs conferred a treatment benefit and absence of side effects even in the absence of an active ingredient, while generic labeled tablets were considered substantially less effective if they contained no active ingredient. Consequently, owing to this outcome, it is expected that an ingredient associated with a branded drug will be preferred to a generic drug even when it possesses a better active ingredient. We, therefore, hypothesize that:

H₀₃: Ingredient branding will not significantly influence consumers' preference in the purchase between European and Asian drugs in Nigeria.

Theoretical Framework

The underlying theory for this study is the customer-based brand equity model (Aaker, 1991). The theory posits that the power of a brand lies in what customers have responded, seen, read, heard, learned, thought and felt about the brand over time.

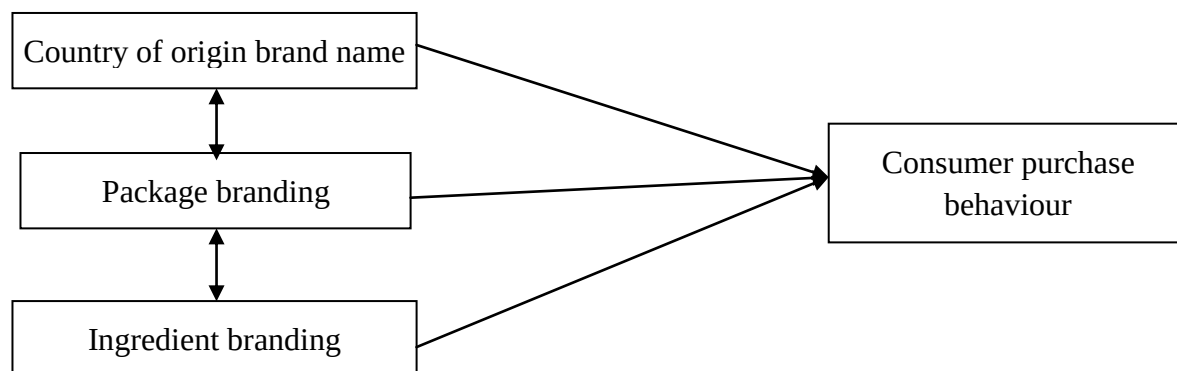


Figure 1: Branding strategy and consumer purchase of drugs

In other words, the power of a brand lies in the minds of existing or potential customers based on the branding elements they have experienced directly and indirectly about the brand. Consequently, this study follows the traditions of (Aaker, 1991; Yoo & Donthu, 2001) based on their suggestions that the customer's evaluation of a brand includes awareness, image, quality, and loyalty dimensions. Consequently, Aaker and Keller (1990) indicated that brand values can be used as information cues for consumers' judgments and preferences.

METHODOLOGY

This study employed a descriptive research design using a cross-sectional survey method. This type of design enables the researchers to understand the market characteristics, estimation, and to determine the degree to which marketing variables are related (Malhotra, 2007). The population comprises of consumers of over-the-counter drugs in Lagos and Osun States of Nigeria. Lagos and Osun States are recognized as homes to several of Nigeria's most famous landmarks, and are important destinations for political, religious, and cultural tourism and have overtime shared a common cultural heritage (Bankole, 2013). Moreover, Lagos State is recognized as the commercial nerve centre of Nigeria and the hub for business transactions in the West and Central Africa region (LASG Economic & Fiscal Update, 2016). This makes the two states viable sites for research. Thus, care was taken to purposefully select adult respondents from 18 years and above who are consumers of over-the-counter drugs and that have attained a minimum of high school qualification. This was done through a brief interview before the questionnaire was administered to them. The age and educational criteria were necessary because of the respondents' ability to comprehend the contents of the instrument and be motivated to elicit responses (Nachmias & Nachmias, 1996).

In terms of the drugs population, the study considered over-the-counter (OTC) drugs. According to the U.S. Food and Drug Administration - FDA (2015), OTC drugs are defined as drugs that are safe and effective for use by the general public without a prescription. The study selected four commonly purchased OTCs by consumers which include analgesics, antibiotics, antimalarial, and multivitamins. The selection was done in consultation with reputable pharmacists and resellers in the two states.

The study employed judgmental and convenience sampling method. These methods are non-probability sampling techniques useful when typical cases are studied and the sampling frame is unavailable (Saunders, Lewis, & Thornhill, 2009). The judgmental sampling method is appropriate when the sample elements are handpicked because it is expected that they can serve the research purpose (Dixon-Ogbechi, 2002). The convenience sampling method provides the researcher with the opportunity to conveniently administer questionnaire to respondents who are readily available and cooperative (Nachmias & Nachmias 1996; Malhotra, 2007). Consequently, selected pharmacies were judgmentally selected while questionnaire were administered to willing customers who patronize them.

The following quantitative sample size determination as suggested by Rose, Spinks, and Canhoto (2005) was employed:

$$n = \frac{(1.96)^2 pq}{d^2}$$

where n = required sample size

p = proportion of known and unknown population

q = 1- 0.5

d = margin of error

Since the proportion of the drugs buyers in relation to their total population is unknown, p will assume maximum heterogeneity (i.e. a 50/50 split) and p will be equal 0.5(p = 0.5) (Rose, Spinks, & Canhoto, 2014). The margin of error is also assumed at 0.05(5 percent) which implies 95 percent confidence level or 1.96 confidence interval.

Substituting in the equation therefore: $n = \frac{(1.96)^2 \times 0.5 \times 1- 0.5}{0.05^2}$

$$0.05^2$$

$$= 3.8416 \times 0.25/0.0025$$

$$= 0.9604/0.0025$$

$$n = 384.16 = 384 \text{ approx.}$$

The calculated sample size as stated above is approximately 384. However, the study adopted a sample size of 400 with the provision of excess made for non-response questionnaire in order to pre-empt the low response rate sometimes associated with questionnaire administration (Dixon-Ogbechi, 2002).

Data Collection Instrument

For the purpose of data collection, the study made use of a structured questionnaire to gather data from consumers of OTC products in Lagos and Osun states in Nigeria. The questionnaire was designed to contain questions useful for hypothesis testing and is divided into two parts. The first part asked questions concerning the respondents' demographic background while the second part contained the scaled statements on branding dimensions and purchase behavior based on the constructs of the study. The response structure used for the demographic data was the closed-ended questions type with multiple choice options where respondents are offered the opportunity with a set of answers to choose the one that most closely represents their opinions (Nachmias & Nachmias, 1996).

The rating type statements based on the Likert-style summated rating scale were used to gather data on the study variables. This is meant to enable respondents make judgments in terms of ordered categories of the statements on the perceived brand dimensions of the study (Saunders, Lewis, & Thornhill, 2009; Nachmias & Nachmias, 1996). The rating of the ordered categories by respondents of the perceived brand dimensions was based on their level of agreement/disagreement on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Validity and Reliability Tests

To test the questionnaire for suitability and refinement so that the respondents will easily provide the relevant responses to the questions in the instrument, a pilot study was conducted to test for its validity and reliability (Saunders, Lewis, & Thornhill, 2009).

The validity tests include content and construct validity. The content validity was conducted by consulting two reputable pharmacists and marketing academics each who reviewed each statement contained in the questionnaire to assess the extent to which they relate and adequately cover the relevant questions meant to represent the topic of the study (Nachmias & Nachmias, 1996). The construct validity was also verified by the same experts to ascertain the extent to which the measures measure the constructs contained in the questionnaire (Saunders, Lewis, & Thornhill, 2009).

In terms of reliability test, questionnaire was administered to a sample of 50 respondents who are also part of the final respondents. Reliability test was also conducted to test for consistency of findings, internal validity, and to ascertain the

questionnaire overall robustness (Saunders, Lewis, & Thornhill, 2009). The reliability test conducted used the Cronbach alpha method of testing internal consistency with SPSS statistical software (Version, 21).

Table 1: Test of Reliability of Constructs

Construct	Cronbach's Alpha	No. of Items
Country of Origin Brand Name	0.804	3
Package Branding	0.727	5
Ingredients Branding	0.753	4
Purchase Behaviour of Drugs	0.82	3
Overall Cronbach alpha	0.778	

The result of Cronbach alpha overall coefficient of α .778 or .78 is considered sufficient proof of the instrument's reliability (Nunnally, 1978). Table 1 above shows the inter-item correlation of the individual constructs Cronbach alpha coefficient based on the result of a pilot study conducted for this study.

Data Analysis

The independent group sample t-test was conducted for hypothesis testing and the necessary test of assumption of equal variance between the two groups was carried out using Levene's test for equality of variance to determine the significant level (Pallant, 2010). The assumption that the data for the two groups must have the same standard deviation was corrected by the usage of the large sample size (Hays, 1994).

RESULTS AND DISCUSSION

The respondents rated four countries two each of European (Britain and Switzerland) and Asia (India and China) based on the level of preference of the countries' product branding. 400 copies of the structured questionnaire were administered and 312 returned. This represents a returned rate of 78 percent which were equally confirmed as usable for data analysis.

Descriptive Statistics (Branding Elements and Socio-Demographic Data)

Figure 2 shows consumers' rating of the individual branding elements. The order indicates that ingredient branding is rated highest, followed by the country of origin (COO) brand name, and lastly the package branding.

Table 2 shows the result of analysis of the socio-demographic data of the respondents. The result shows that 53.8 percents were males and 46.2 percent females. The result of

the analysis showed that there were more male than female respondents that participated in the study. This indicates the pattern of patronage by buyers at the pharmaceutical stores where most men buy for self and family.

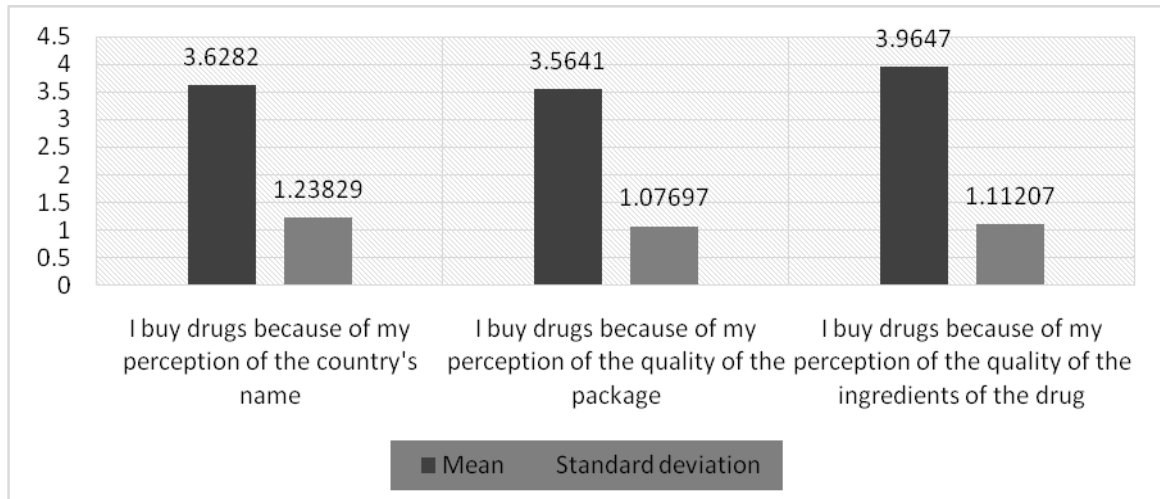


Figure 2: Perception of Branding Elements and Purchase of Drugs.

Table 2: Socio-Demographic Characteristics of Respondents

Variables	Items	Frequency	Percent
Sex	Male	168	53.8
	Female	144	46.2
Age (years)	18-22	18	5.8
	23-27	47	15.1
	28-32	99	31.7
	33-37	57	18.3
	38-42	41	13.1
	43-47	28	9.0
	48 and above	22	7.1
Educational Qualification	School certificate	40	12.8
	Diploma	72	23.1
	HND/B.Sc.	150	48.1
	Postgraduate Degree	38	12.2
	Others	12	3.8
Occupation	Teacher	60	19.2
	Corporate Worker	50	16.0
	Entrepreneur	40	12.8
	Civil Servant	44	14.1
	Trader	40	12.8

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In terms of age, majority of the respondents fall within the age of 23-42 years constituting 78 percent of the total respondents. This part of the population constitutes a major part of the active population who purchase and use OTC drugs either for self and or for relatives.

The result also showed that diploma and degree holders were the major buyers of OTC drugs indicating a self-medication attitude probably because of their level of education which enables them to read and interpret the branding elements as well as information on the drug leaflet which facilitates their purchase decisions. In terms of occupation, the result reflects an almost average buying behavior of OTC drug among all the categories of occupation.

Results of Hypotheses Testing

H₀₁: Country of origin brand name will not significantly influence consumers' preference in the purchase between European and Asian drugs in Nigeria.

Table 3: Group Statistics of Independent Sample t-Test of Effect of Country of Origin Brand Name on Consumer Purchase of Drugs.

Country of Origin	N	Mean	Std. Deviation	Std. Error Mean
European	146	3.589	1.28477	0.10633
Asian	166	3.6627	1.19876	0.09304

Table 3.2: Result of Independent Sample t-Test of Effect of Country of Origin Brand Name on Consumers' Purchase of Drugs.

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.134	0.288	-0.52	310	0.601	-0.07361	0.14066	-0.350	0.20316
Equal variances not assumed			-0.52	298.34	0.603	-0.07361	0.14129	-0.352	0.20444

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Table 3.1 above shows the result of the group statistics indicating the mean and standard deviation values. The mean score shows that the drugs imported from the Asian countries resonate more in the minds of the consumers than drugs imported from the European countries with the mean value of 3.6627 and 3.5890 respectively.

On the other hand, Table 3.2 shows that there is no statistical significant difference in the effect of country of origin brand name on consumers' purchase of drugs between European and Asian countries as examined in this study ($t = -.523$, $p > 0.05$).

H₀₂: Package branding will not significantly influence consumers' preference in the purchase between European and Asian drugs in Nigeria.

Table 4.1 shows the result of mean and standard deviation in terms of the group statistics. The table indicates that the mean score of the perception of Asian package branding is higher than the European packages. The result may further imply that the consumers are more familiar with the packages from Asian countries than the European countries. This is indicated by the low standard deviation among the group in the Asian category of 0.91. Table 4.2 shows that there is no significant difference in the effect of package branding in the purchase of drugs between the European and Asian countries as examined in this study ($t = -.994$, $p > 0.05$).

Table 4.1: Group Statistics of Independent Sample t-Test of Effect of Package Branding on Consumers' Purchase of Drugs.

Country of origin	N	Mean	Std. Deviation	Std. Error Mean
European	143	3.4965	1.24964	0.1045
Asian	169	3.6213	0.90555	0.06966

Table 4.2: Independent Sample t-Test of Effect of Package Branding on Consumers' Purchase of Drugs

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	21.63	0	-1.02	310	0.309	-0.1248	0.12236	-0.366	0.11596
Equal variances not assumed			-0.994	253.861	0.321	-0.1248	0.12559	-0.372	0.12253

H₀₃: Ingredient branding will not significantly influence consumers' preference in the purchase between European and Asian drugs in Nigeria.

Table 5.1: Group Statistics of Independent Sample t-Test of Effect of Ingredient Branding Effect on Consumer Purchase of Drugs.

Country of origin	N	Mean	Std. Deviation	Std. Error Mean
European	163	3.9755	1.26662	0.09921
Asian	149	3.953	0.91781	0.07519

Table 5.2: Independent Sample t-Test of Effect of Ingredient Branding on Consumer Purchase of Drugs.

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	9.163	0.003	0.178	310	0.859	0.02244	0.12624	-0.226	0.27084
Equal variances not assumed			0.18	295.012	0.857	0.02244	0.12448	-0.223	0.26743

Table 5.1 shows the result of group statistics and standard deviation. The result indicates that European drugs scored marginally higher than the Asian drugs in terms of the influence of ingredients of drugs on consumers' purchase. Furthermore, Table 5.2 shows the result of the independent sample t-test. The result indicates that there is no significant difference in ingredient branding on consumer purchase of drugs between the European and Asian countries as examined in this study ($t = .180, p > 0.05$).

Discussions of Findings

This study revealed that, in terms of the effect of country of origin (COO) brand name, there is no significant difference in consumers' purchase between European and Asian drugs. This result is partially in agreement with the findings of Agrawal and Kamakura (1999) that country of origin is only one extrinsic cue among many extrinsic and intrinsic cues consumers consider in their purchase decision as other information sought by the consumers would further dilute the country of origin effect in the marketplace. However, Granzin and Olsen (1998) opine that the image associated with country of origin brand name plays a significant role in consumers' purchase of products. In terms of basic drugs like analgesics, antibiotics, antimalarial, and multivitamins which were the focus of this study, consumers may not see any special difference in their efficacy based on the country of origin. Moreover, the importation of drugs from China and India seems to be largely available and affordable in Nigeria and

the price difference is usually small that consumers may choose to buy any of the European or Asian drug that is available and affordable.

The effect of package branding did not also statistically significantly influence the preference in the purchase of drugs between European and Asian drugs in South-Western Nigeria. Although Kotler and Keller (2007) posit that brand elements have very significant role in the package appearance and are critical to shaping the market offerings, this study however revealed that the elements may not make any statistical significant difference in consumer preference of purchase between European and Asian drugs in the marketplace.

The effect of ingredient branding did not also indicate any statistical significant difference in consumer preference of purchase between European and Asian drugs in the marketplace. Ingredient branding in terms of drugs emphasizes on the standard for drug administration that can lead to improved clinical outcomes (Klastersky, 1986). One may imply that institutional requirements to sustain quality standards by the National Agency for Food, Drug, Administration and Control (NAFDAC) to reduce the production and trafficking of counterfeit drugs (Garuba, Kohler & Anna, 2009) may have created a standardized market for imported drugs that the consumers will rather emphasize NAFDAC number and will less differentiate the drugs based on the three branding elements evaluated in this study.

The study however revealed that the consumers do evaluate the branding elements in a typical drug such that ingredient branding is rated highest, followed by the country of origin (COO), and lastly the branding of package.

CONCLUSION AND RECOMMENDATIONS

The study evaluated the effects of three branding elements (country of origin brand name, package branding, and ingredient branding) on the purchase of over-the-counter (OTC) drugs between selected Asian and European countries in South-Western Nigeria. The study seeks to investigate the perception of these three branding elements by buyers as the basis of preference for purchase of OTC drugs between the two continents. This study has revealed salient strategic and policy implications factors for the marketing and regulation of drugs based on the objectives of the study. The findings of the study suggest that standardization strategy may be prevalent in terms of drug branding since the findings from this study indicate that is no significant difference in consumer perception of the branding elements implying a close competition among the selected countries.

The results imply that the selected branding elements in this study do not significantly influence the basis of preference for purchase of imported OTC drugs between European and Asian brands but are however strong determinants of consumers'

purchase decision as indicated in the mean score rating of the individual branding elements. Over the years consumers have come to be more familiar and embraced the Asian brands which have created a kind of relationship that has nearly closed the gap in brand perception between the two major producers. This can render any perceived difference between the two continents insignificant.

Branding is useful for recognition, information and identification since consumers have high preference for branded drugs than generic drugs. It is therefore recommended that marketers of drugs comply with standards set by the regulating institutions for drug manufacture and administration as competitors would endeavor to meet up with expected standards and thus render the effect of branding as a differentiation strategy among competitors void. It is also recommended that pharmaceutical companies operating in international markets recognize branding elements such as the country of origin brand name, package branding, and ingredient branding employed by competitors as consumers rate them reasonably high in their purchase decision.

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