FORCED CONSUMPTION OF SOME ESSENTIAL CONSUMER BRANDS AMONGST RURAL DWELLERS IN AFRICA: THE NIGERIAN EXPERIENCE

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Abstract

This study investigates post-purchase behaviour of consumers of brands of aerosol mosquito insecticides in Idah, Nigeria. One hundred heads of households were purposively sampled through self-administered questionnaire. The result shows that though respondents’ value expectations were not met from previous consumption, they nevertheless engaged in repeat purchases of the brands. This forced consumption (FCS) is facilitated by weak regulatory structures, counterfeiting, illiteracy and poverty and criticality of products to consumers’ survival against malarial rampage in Nigeria. Study recommends restructuring and strengthening of regulatory agencies and product monitoring by brand owners in the country. Further research is indicated.

Key words: Malaria, mosquito insecticides, forced consumption, consumer values, rural dwellers

Introduction

Consumption of counterfeit versions of popular brands of aerosol mosquito insecticides became prevalent since 2009 when these products were massively imported into Nigeria from China. In 2011, there was a mass outcry against increasing counterfeiting of these brands all over the country, (Euromonitor International, 2011). According to reports, the booming global trade in counterfeit goods is shifting to pesticides and medicine with serious health and safety implications (CNN 2012; Hargreaves, 2012).

In Nigeria, it is estimated that 55% of all imported products are counterfeit causes manufacturing and Government revenue losses of up to 15 billion Naira per annum (Iba, et al 2010). Among the many consumer products being counterfeited are all popular brands of aerosol insecticides marketed in the country. These brands have been household names in the control of mosquito population especially in malaria-endemic rural communities in Nigeria. The rainy season that ensues in late March and ends in November of every year facilitates heightened breeding of anophels responsible for transmission of species of malaria parasites that cause malarial fever among the vulnerable groups in the country. Devoid of access to quality curative healthcare, Nigerian consumers engage in preventive measures by using available brands of the product to control mosquito population. Brands such as Raid, Rambo, Mobil, Killit, Zappo, Mortein, Have-a-Dream and Baygon were effective in controlling mosquito rampage in the area. However, since 2010, there has been wide spread expression of consumer discontent over these products’ performance in the country (Nairaland, 2011). This is attributed to product counterfeiting and faking in the nation.

A closer observation shows that fake versions contain chemicals other than tetramethrin, deltamethrin, or deltamethrin reputed to be effective in controlling household insect populations. Indications are that the mosquito goes into coma when sprayed upon and revive after some times. It is also indicated that mosquitoes are becoming increasingly resistant to insecticides in the country (Njanji, 2009). These challenges could cause a significant derailment of the global fight against malaria in the region. Economically, it could weaken the nations bid for food security since 3/4 of half of Nigeria’s population living in the rural areas are farmers.

Under normal consumption scenario, consumers shift to other brands of a particular product or to substitutes if their value expectations are not met. In the case of the rural dwellers in Idah, with a survival need, are their value expectations of these brands being met? If no, what was their consumption attitude in the face of needs critical to their survival? This study was designed to...
address this information gap. The study investigates consumption of brands of aerosol mosquito insecticides in Idah, a rural setting in Nigeria. It has two specific objectives: (1) determine whether consumers’ value expectations for aerosol mosquito insecticides in Idah were met within the past twelve months and also determine consumers’ repeat purchase of aerosol mosquito insecticides brands after initial product usage. Two hypotheses were postulated to form the platform for data gathering:

\[ Ho1: \text{Consumers’ value expectations for aerosol mosquito insecticides in Idah were met within the past twelve months;} \]

\[ Ho2: \text{Consumers of aerosol mosquito insecticides did not engage in repeat purchase of the products after their initial product purchases.} \]

This study is organized into four parts. First a review of empirical and theoretical literature was done followed by methods adopted in the study. The third section discusses findings of the study. In the final part, conclusions are made while study implications and future direction for the study of forced consumption are suggested.

**Literature Review**

**Counterfeiting, Counterfeits and Consequences**

Consumer decision process as it relates to products has been a subject of much interest in world of competition fuelled by counterfeiting. Counterfeiting is a process of reproducing another version of the original which are in most cases done illegally. In aesthetics, counterfeits look like the genuine version but far from the original in terms of quality and value delivery. A counterfeit is merchandise, that though appearing like the genuine one is an illegal duplication of the real one (Ha & Lennon, 2006). They are similar to but not identical with and are made of cheaper materials and often sold at prices lower than that of the genuine ones (Calasibetta & Tortora, 2003). They are reproductions of the genuine. Counterfeits are generally of low quality and therefore fail to meet consumer value expectations.

Counterfeiting is reputed to have negative economic, social, security and health impacts on countries. Counterfeiting aids smuggling of illicit products (Amy, 2008), eliminates jobs, (Fighting counterfeiting, 2007), leads to loss of government tax revenues (Kelleher, 2006) and aids terrorism. Investigations show that the bombing of the World Trade Centre was funded by proceeds from counterfeit fashion goods, (Henry, 2003). Other than this, sale and consumption of health related products is capable of causing not only economic losses but loss of lives also.

Counterfeiting has become a global phenomenon translating into enormous business since the advent of globalization (Eisend, & Schuchert, 2008). Globally, counterfeiting is worth 600 billion US dollars on annual basis (Nanda, 2007; Dimet, 2006). Research has shown that 70% of counterfeits traded in the United States originate from China, Korea, and Taiwan, (Nellis, 2003). Because of its significance, a lot of attention have been drawn to various aspects of counterfeiting in the literature: Counterfeiting in luxury goods, (Seung-Hee., & Boonghee, 2010; Wiedman, et al, 2012; Gabrielli, et al 2012); impacts of counterfeits on original brands, (Camuri, 2009); purchase intention for counterfeits, (Shih-I, 2011). Despite this ever increasing interest on the subject in the developed world, not much attention has been paid to the problem in many under-developed countries of Africa though there are thriving networks of counterfeiting in African countries of which Nigeria is one.

**Consumption, Value, and Models of Consumer Behaviour**

Consumption is the use of a brand by the final user. It is the act of using something up, (Microsoft Encarta). Consumers engage in purchase and consumption of products/brands because of their value expectation, (Redmond, 2009; Cheng & Fang, 2008). Customers are value maximizers (Kotler and Keller, 2012). This means then that a basic driver of customer choice is value. Value is the importance a customer attaches to a product in terms of expected consumption outcome. It is
also defined as individual choice preference and tastes (Kaze, 2010). A series of activities accompany the consumer’s decision to buy a brand. Attempts have been made by scholars to represent this choice process visibly through what is known as consumer behavior models. Among these are those of EKB (1973), Nicosia (1976) and Howard-Sheth (1969) models. The Howard-Sheth model shall constitute the basis of our discussion here as indicated in figure 1 below. The greater interest of the paper is in the post-purchase behavior of the consumer and this is where we take our bearing from in this model. A look at the outputs section shows purchase giving rise to satisfaction. Satisfaction and dissatisfaction are two possible outcomes of consumption. However, the Howard-Sheth model does not represent the choice behaviour of a dissatisfied consumer. The model indicates that a consumer moves from purchase→ satisfaction → brand comprehension→ confidence → intention→purchase again. The other possibility of a dissatisfied consumer is not captured by the model.

![The Howard-Sheth Model of Consumer Behaviour](image)


From extant literature, a dissatisfied consumer has options such as asking for repair, replacement or refund of money. Others may switch to substitutes or stop buying from the particular marketer or shop (Ralph and Stephen 1979; Reginald). Looking at the Howard-Sheth model below, the dissatisfied customer and his behaviour is not captured. In this proposal, from purchase box, the consumer moves dissatisfaction→ brand comprehension→ loss of confidence→ intention to purchase→ purchase. Ordinarily, the consumer is supposed to demonstrate switch behaviour but does not because of an inhibitor: - the criticality of the products to his survival. This study therefore
is a probe into possibility of a consumer patronizing a brand that does not meet his value expectation.

Materials and Methods
This study was a descriptive survey of consumers’ perception of and attitude to aerosol mosquito insecticide brands in Nigeria. Structured Questionnaire copies were initially administered on two hundred heads of households in the area. Out of this number, one hundred and sixty-nine of one hundred and eighty-seven returned were found usable. Eighty-eight of this number (those whose value expectations for the brands were not met from previous consumptions) was further surveyed with another questionnaire to determine their post-purchase behaviour after their discontent. Usable data were analyzed with descriptive statistics and hypotheses tested with the Chi-square test of significance.

Results and Discussions
This section deals with data presentation and test of the two hypotheses postulated for the study. Out of the one hundred questionnaire copies administered to respondents, eighty-eight were found usable. The hypotheses were tested using the Chi-square test of significance.

Consumers’ Value Expectations for Aerosol Mosquito Insecticides
Respondents were asked to indicate whether their value expectations were met with the various brands of aerosol sprays they had used in the past one year. The hypothesis and question are replicated and consumers’ responses and the chi-square analysis are presented below.

Ho1: Consumers’ value expectations for aerosol mosquito sprays in Nigeria were met within the past twelve months;

Q. Did the aerosol mosquito insecticide purchased and used in your household in the past twelve months meet your value expectations?
(a) Yes (b) No (c) not sure 33 46 9

Table 1: Consumers’ Value Expectations for Aerosol Mosquito Insecticides

<table>
<thead>
<tr>
<th>Consumers’ Expectations</th>
<th>Observed</th>
<th>Expected</th>
<th>X² Cal</th>
<th>X² Critical</th>
<th>DF</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>64</td>
<td>56.3</td>
<td>24.02</td>
<td>5.99</td>
<td>2</td>
<td>Significant</td>
</tr>
<tr>
<td>No</td>
<td>88</td>
<td>56.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Sure</td>
<td>17</td>
<td>56.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researchers

The chi-square result in table 1 above shows X²cal=24.02>X²crit 5.99. The null hypothesis is rejected. This means a value gap between consumer value expectation and value perception exists. Consumers don’t part with their money except they have needs. Consumer’s purchase of a product or service is based on the expectation that the item purchased will fill his need. Consumer product marketers are not always dubious but are sometimes unwaried and not mindful of the need to monitor their products in the market. Apart from counterfeiting and adulteration which is the case with the brands under study, consumer tastes and preference do change over time. Marketers who are worth their salt should, as a matter of policy, routinely engage customer attitude tracking to avoid consumer value erosion.

Repeat purchase of the products after initial products’ failure to value expectations.

Ho2: Consumers of aerosol mosquito insecticides did not engage in repeat purchase of the products when they knew through previous use the product brands were not likely to meet their value expectations. Data collected here were used to test hypothesis two of this

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study as shown below.

Q Did you still buy the product after your initial disappointment?
(a) Yes 49
(b) No 35
(c) not sure 4

Table 2: Consumers’ repeat purchase of aerosol mosquito insecticides after dissatisfaction from previous consumptions

<table>
<thead>
<tr>
<th>Repeat Purchase</th>
<th>Observed</th>
<th>Expected</th>
<th>$X^2$ Cal</th>
<th>$X^2$ Critical</th>
<th>DF</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>49</td>
<td>29.3</td>
<td>36.16</td>
<td>5.99</td>
<td>2</td>
<td>Significant</td>
</tr>
<tr>
<td>No</td>
<td>35</td>
<td>29.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Sure</td>
<td>4</td>
<td>29.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researchers

Table two reveals that $X^2$cal=36.16>$X^2$ crit 5.99 thereby leading to rejection of the hypothesis. This is to say that majority of respondents (56%) still purchased aerosol mosquito sprays even after observing product failures in previous consumptions. In a rational situation, this is rarely witnessed. Many response options are open to a dissatisfied consumer. According to Ralph and Stephen (1979), dissatisfied consumers demonstrate complaint behaviours such as asking for repair, replacement or refund of money. Others refused to buy the product, the brand or stopped buying from the shop. But in the situation of forced consumption syndrome, the consumer could unwillingly purchase a product service if such item is critical to survival like the case of the brands under study. It also a fact that consumer make purchase decisions within uncontrollable environmental variables. These could be part of the factors that account for this consumption which we termed forced consumption. A further probing into why respondents still purchased the products when they were in doubt as to their efficacies showed that they were constrained as many of them said it was because there were no alternatives than the counterfeited ones.

Conclusion
Repeat purchase of a brand is a function of consumer value perception. Consumption of products and services depend on the attitude the consumer has towards the product among other factors (Leon, 1990). Attitude is an antecedent of the likely purchase outcomes of a consumer or a customer (Argyriou and Melewar, 2011). The consumer is a rational being especially when it comes to making purchase choices, (Richarme, 2005). To every general rule however, there are exceptions. This is the case of this consumption scenario.

From the results of the study, it is clear that it is a product value expectation and perception gap amongst consumers of mosquito aerosol brands in Nigeria. The descriptive data show that 44 (50%) of respondents indicated that they suffered an average of 5 malaria fever attacks in their household within the past 12 months. Furthermore, majority of respondents (56%) indicated that the brands consumed proved to be ineffective against mosquitoes in the area. This is corroborated by Njanji (2009).

Despite the foregoing position, empirical data show that despite the fact that these brands failed to meet consumer value expectation, 56% of respondents still engaged in repeat purchase of the product. The data was used to test the first hypothesis. The chi-square test of significance yielded a significant $X^2$ Cal =36.16 and $X^2$ Crit=5.99. This finding contradicts those of Ralph and Stephen (1979) and Kjell and Johan (1980). What is known is that a dissatisfied customer has several options such as returning the product for refund or replacement. He may also report to appropriate agency for redress or refuse to return to that brand any more. The case of
repeat purchase of a product a customer is dissatisfied with, which we call forced consumption syndrome (FCS) is un-researched in consumer behaviour literature.

The Concept of Forced Consumption syndrome
Forced consumption is an un-researched un-appreciated consumption phenomenon though it has been there for quite sometimes. Emphasis has been laid on economic rationality while ignoring existence of this phenomenon probably because it has all the while appertained to the minority of consumers in every civilization. Every consumer, especially at one time or the other had bought products he was more than 50% sure was going to be a failure. Choice is a function of availability of alternatives and other factors. In monopolistic scenario, the customer is left with no or few choice alternatives. Such choice may still fill his need. The case identified in this study is different from that of monopoly because choice alternatives were many. For example there were 8 different brands of aerosol insecticides in the market where this study was conducted, yet, consumers indicated dissatisfaction with product performances. This perception cuts across all brands in the market in Nigeria. Certain factors account for FCS in Nigeria. Some of them are discussed below:-

Factors that support Forced Consumption syndrome
Consumer activism, ethical obligations and legal restrictions are critical to consumers’ getting value for their moneys. Competition is another facilitator of customer satisfaction or compensation in cases of product failure. Marketers in developed nations won’t even allow their customers to suffer any form of dissatisfaction because the cost implication is always heavy on them. In Nigeria, this is not the case. The factors that facilitate forced consumption in the country include, but are not limited to the followings:

1. Weak regulatory structures
A number of agencies in the country are entrusted with the duty of regulating manufacture and marketing of household chemicals in Nigeria. Three of them are Standard Organization of Nigeria (SON), Consumer Protection Council (CPC), and National Agency for Foods, Drugs Administration and Control (NAFDAC). Existence of these agencies has not curtailed the rampant practice of marketing counterfeit insecticides in the country.

2. Corruption endemism in the country
Nigeria is a nation blessed with abundance but has not gotten it right yet mainly because of corruption which successive administrations have tried to stamp out but without success. The SON awarded manufacturers of these aerosol brands in the country National Industrial Standards (NIS) even as the accusation of product counterfeiting was going on in 2011(see appendix ii).

3. Illiteracy and poverty
These two go together. It is easy for a literate well-fed consumer to fight for redress of breach of his right where they exist. The generality of Nigerian population are poor even though a substantial portion can read and write. These are the main reasons why marketers of counterfeit aerosol insecticides are having a field day and why forced consumption abounds in the country especially in rural areas.

4. Lack of better alternatives or substitutes
One identifiable thing in a free market economy is competition. Where this exists, customer switching is a common experience. But where there are no better substitutes as in the case of mosquito aerosol brands in Nigeria, the customer is compelled to engage in repeat purchase of a dissatisfying product or brand.
5. Criticality of product to consumers’ survival (essential products)

From the study, the following has been established among consumers of aerosol mosquito sprays in Idah, Nigeria. Rate of malarial fever attacks on the respondents is significant; respondents’ value expectations for aerosol mosquito sprays have not been filled by the consumption of the items thus making them to perceive the products as ineffective and finally, despite the apparent product failure they still purchased them since they could not do without them in the face of rampaging malarial fever occurrences in the area.

Implications of the study

The findings of this research have a number of implications for government, marketers and consumers of counterfeit products in Nigeria. Government has a duty to protect the consumer from sharp practices through the various regulatory frameworks in the country. SON, NAFDAC and CPC should be restructured and strengthened to deliver on their mandates. Stiffer penalties should be spelt out for breach of consumer rights in the country.

The marketers of these brands are equally implicated. They are the legal owners of the insecticide brands that are being counterfeited. This phenomenon may have a negative long-run effect on their brand image. For one, the loss of business is palpable. The manufacturers owe it a duty therefore to engage in regular customer and brand tracking exercises. The fight against counterfeiting of their brands should be a collaborative effort between them and the relevant government agencies in the country. For the consumers, it is their duty to complain. The CPC has a website and various channels of communication. The social media networks are good protest platforms in Nigeria as in other countries of the world.

Further Research

The present study has a number of limitations that will necessitate further studies. The result of the study cannot be generalizable because of the research universe and sample size. It is recommended that the study be replicated using a different research population and other products critical to consumer survival. The research could be tried out in another economic environment where regulatory agencies of government are effective and poverty is not an inhibitor of consumer activism. Furthermore, studies could be undertaken using a different data analysis tool.

References


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Appendix I
Nigerian Mark Of Quality Endorsement (nis) - Insecticide Companies. by learnworld(m): 9:53am On Feb 07, 2011
I wonder how Insecticide Companies get their Nigerian Mark of Quality endorsement from NIS as all of them carry this Mark of Quality; they are just a waste of hard earned money. The traditional mosquito coil is far better and I think I will stock my apartment with some rather than waste N550, N250 (ZAPPO, have you heard about it?) If you shake it, it sounds like when you put water in a can) N500 for big Baygon, nonsense.

I have been on a mosquito hunt for years and I have tried virtually all insecticides in the market, there are none I can boast of. If you know of any, please, let me know its name. These companies should spend their money on researches and come up with a very good, effective and human friendly products instead of spending the money on adverts telling people how effective their products are. Perhaps, I didn't get the original of these products.

KillIT used to be very effective before and it kills all household insect pests with a very fast know down, but suddenly it lost its effectiveness and the mosquitoes in my house would just fly away as I run after them spraying almost half of the content of KILLIT. RAMBO, MORTIN, BAYGON, MOBIL, ZAPPO, RAID, HAVE A DREAM - a Chinese made, all of them. One can never have a peaceful night rest without this mosquitoes assumed to be died humming and alive, perhaps they resurrected to suck my blood. N350 down the drain and absolutely nothing I can do, just like GSM networks suck my money for a test message not delivered.

I see this Nigerian Mark of Quality (NIS) on lots of products, does it means that NIS has rigorously test all the products that carry this sign? Or these companies just labeled their products NIS certified? I’m talking about all the insecticides in the market.
Re: Nigerian Mark Of Quality Endorsement (nis) - Insecticide Companies. by paperless1: 12:47pm On Oct 17, 2011
Give Oando Insecticide. From my experience, it works best
Re: Nigerian Mark Of Quality Endorsement (nis) - Insecticide Companies. by ifyalways(f): 10:19pm On Oct 17, 2011
Invest in treated nets. The other day, we got 2 free ones courtesy of BRF.

Keep your home and environs clean. Dustbin out and well covered, bathroom tiles dry and clean, same for your kitchen. You’d experience little or no mosquito if you’re in a clean environment.