Product Label Data and Consumer Post Patronage Behaviour of Beverages in Port Harcourt Rivers State of Nigeria

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Abstract: It is assumed that the degree of success or failure on the part of any business organization depends to a greater extent, on its ability to provide sufficient and relevant information on how relevant product use could yield benefit to consumers. The general aim of this paper was to determine how label data influences consumer patronage of customer loyalty for beverages in Port Harcourt. Descriptive survey research design was adopted by administering 270 questionnaires to consumers of three categories (early majority, late majority, and laggard) of food drink. Analysis of variance (ANOVA) was used to analyze data collected through statistical program for social sciences (SPSS). The findings were that health benefit information and NAFDAC endorsement significantly influences customer recommendations made among others that consumers should look out for the means that could reduce health risk and that labels should remain the solution of reassurance for the consumers to make a purchase decision and that consumers should try to apply an assessment technique to verify the presence of the different elements of information that food labels provides in terms of nutritional and ingredient information before making purchases. The implication of this study was that product label data has much effect on consumers buying decision at the point of purchase and post patronage.

Keywords: Product Label data, Post Patronage, Customer Loyalty, Health Benefit Information and NAFDAC

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I. Introduction

The development of international trade and progressive opening of frontiers have uncovered both producers and consumers to a wide variety of products and brands of divers’ origins. Such a situation has increased the choice opportunities offered to consumers and equally exposed them to an ever- growing number of product information. Thus, Product information is often described as product use information or product label data. Aaron, Mela and Evans (2004) observed that labels are one of the most important features of product packaging designed to communicate message/information.

Laforet 2011; Vazquez, Bruce and Studd, (2004) added that,

...firms spend more money on packaging than on advertising, and packaging is often the most distinguished marketing effort in that, it contains a label that holds necessary information about the product attributes that consumer consider before purchase'. (p.23).

Therefore, when consumers choose among competing product brand probably relying on information placed on the product label, they are faced with products quality and performance uncertainty. The decision to buy is usually based on a set of characteristics or attributes that the consumer considers important. Consumers often use these attributes stated in the label to determine which goods produced can satisfy their needs; and as society becomes more conscious of civilization, consumers become more and more attentive, sensitive and aware of the importance of product information in a bid to ascertain food attributes as well as determining what they stand to gain in the course of using the product before purchase, (Laforet, 2011). The increase in unsubstantiated and/or inappropriate product in some countries has increased the level of uncertainty or doubt in consumers during purchase decisions making. Vranesevic and Stancec (2003) said that, consumers access product quality according to how they value information content that accompany the product as well as the characteristic of the product they purchased. Generally, consumer consciousness regarding what they buy originates as a result of health disease related problem associated with what they eat and drink. In recent times, Trijp and Vanderlans (2007) argued that disease such as Type II diabetes, cancers, and heart diseases are caused by some food we eat. Indeed, within this situation of risky consumption caused by the variety of food products available to the market through business activities of several producing firms. Consequently, governments’ regulatory bodies and consumers are looking for means by which risks associated with purchase decision over
food items we buy and consume could be drastically minimized where outright eradication is not feasible. Chieffel (2005:532) opined that: 

...this is why producers and marketers of packaged foods and beverages intensify promotion of their products through communication or detailed exposure on their products especially consumables, by sticking bigger labels on their products'.

This label usually contains all product use information which consumers access in the course of forming purchase decisions. Wells, Farley and Armstrong (2007) noted that: 

'label which is one of the forms of obtaining product use information is an important marketing tool which goes beyond the mere identification of a product, to try to be a warrant of its quality for a consumer. Product use information are information that describe use characteristics of the product such as price, taste, and nutritional value for the product, or non use characteristics such as the environmental impact or moral/ethical element surrounding the product manufacturing process'. (p.679)

Also Kotler, (2003) held that, ‘product use information describe who made the product, where the product was made, when it was made, what it contains, how it is to be used and how it should be used safely’. The emphasis on labeling should be on creating competitive market for quality attributes such as food safety and process attributes and providing reasonable consumer protection. Thus, consumers often use the described product attributes as contained in product use information to determine which product can satisfy their needs.

Marketing literature has dealt with the question of product labeling from several angles: signaling modes, label sponsoring, quality level related to label, consumer’s perception of quality signals etc. The label’s use and role represents an interesting point in the studies dealing with the proliferation of these quality’s signals, because the consumer perceives them as an evaluation criterion of the product (Wansink, 2003). Indeed, within a context of fierce competition and with more and more demanding consumers, the identity of a product has become a fundamental success factor in market – this identity which is charted by the label makes the consumer’s choice easier as it is an important evaluation criterion for the consumer. Nonetheless, Joop de Boeer, (2003) stated that:

...the impact of the label on the purchase decision depends on the way the consumer perceived this signal of quality, on his understanding and the degree of his confidence in the label’. Therefore, an efficient labeling strategy can convince the consumer of the differences between labeled products and the others, while allowing him to memorize the label and trust it. Lando and Labiner-Wolf (2006) said that:

...many labels have failed to fulfill their roles for several reasons: either the consumers are not knowledgeable enough about the information provided on labels to make internal decisions about the content of the product or the products attributes and aspect which are covered by the label are not among the consumer’s interest (P.159).

A higher percentage of food drink firms do not know the very label format that is easily understood by the consumers, despite their drive for patronage in the market place. Patronage is the act of a consumer buying and or consuming a product brand. Patronage is one of the outcome of consumer decision making process which is influenced by information available to the consumer and as well could lead to post patronage behavior of customer loyalty. So consumer’s ability to understand and accept information content in the label has a significant role with regards to patronage of beverage products. To aid consumers for acceptability of information content in a product brand label for patronage, government regulatory body becomes invoked. For instance in Nigeria NAFDAC registration number is usually part of information content of product brand label which serves as endorsement evidence for consumption to consumers. This is why this study attempts to find out the answer to the question “What relevance is product information and NAFDAC endorsement to patronage behavior of customer loyalty in the field market?”

Hence, the objective of this study are:

i. To determine the influence of health benefit information on brand loyalty of consumers of packaged fruit drink.

ii. To determine the influence of NAFDAC endorsement evidence on brand loyalty of fruits drinks.

II. Review of Related Literature

2.1 Product label

Label data as a means of educating actual and potential consumers undergoing the purchasing decision making process is very relevant that it cannot be put aside in any consumer oriented economy. Therefore, the degree of success or failure on the part of any business organization depends to a greater extent on its ability to reach out to its customers and this could be attained through the use of adequate and sufficient educational effort of firms in providing sufficient and relevant information on how relevant product use could yield benefit
to consumers. In a climate in which the prevalence of diet nutrition, and health related disease is increasing, it is important that product information provided on food labels be appropriate and understandable to the consumer and that it impact food choice behaviours. Aaron, Mela and Evans (2004) said the product information is an important vehicle that food information can be used to communicate essential information about nutritional value, sugar content and health benefits. Laforet (2011). Potentially, this represents a valuable tool to help consumers make informed decisions about their diet and lifestyle.

Wilson and Bahna, (2005) conducted a study on “the influence of food labels on South African consumers’ purchasing behavior”. The purpose of the study was to explore a sample of food labels on their purchasing behavior. They use the focus group discussion techniques. The result showed that consumers read food labels to access the nutritional value, personal benefits, product quality and that consumers are in some cases motivated by food labels to purchase a product, but may also have a lesser influence where they are untroubled by the label information. They observed that the findings will give food manufacturers an idea of what consumers are looking for in food labels and to make sure that the truth about the products is communicated. Nabil, Jeldi, and Imed Zaïem (2010) conducted a study “the impact of label perception on the consumers’ purchase intention: an application on food products. The purpose was to provide an overall view of signals of quality, and investigate the different aspect of the consumer’s perception of labeled foodstuff. They used exploratory factorial analysis. The result showed that the higher the perceived risk and the product implication are, the stronger the impact of the label perception on consumers, purchase intention. They observed that, perception of labels and its impacts on the intention to buy vary significantly according to gender, age, and educational level of the consumer.

In the same vein, Josephine (2009) conducted a study on consumer attitudes towards nutrition information on food labels. The study objective was to provide appropriate and understandable nutrition information to the consumer and its impact on food choice behaviour. They recommended that regional and contextual factors which may influence consumer responses to nutrition information be considered when developing nutrition information strategies. Other previous work on product information/labels and consumer behaviour in Nigeria include Onyejiuwa (2000), Oko, and Eboh, (2013) who employed Spearman’s Rank. The study observed a positive and significant relationship between product information and consumer behaviour.

2.2 Nutritional Value Information (Health Benefit Information)

Another important issue related to use of nutrition information is whether reading nutritional information with all the advantages and disadvantages of the different formats, affect purchasing behaviour or do other factors (e.g. taste) dominate the decision process, Vazquez, Bruce and Studd (2003) reports that, in the 1999 Diet and Health survey, one-third of consumers said, they change their decision to buy a product because of the information on the nutritional labels. The same authors testified that they change their purchasing behaviour due to nutritional labels. Similarly, Grunert and Wills (2007), Zhang and Wang, (2010) found that, nutrient information affect food choice. The most common reason cited for use of information was the avoidance of negative nutrients. On his point, Wansink (2003) found that nutritional information affect brand choice. In other studies, results suggest that labeling of food product with respect to their nutritional characteristics along with information campaign to educate consumers; can significantly affect consumer behaviour (Wimmer and Stiles, 2001; Inman, Winer and Ferraro, 2009; Vani, Babu and Panchanatham, 2010).

Overall, it appears that nutritional information use affects purchasing behaviour because it influences valuations and perception of the product. LaFrance, (2004) reported that, in the 1990 FM (Food Marketing Institute) Trends Survey, 73% of the samples said that health claims influence their purchase decision, even though only 8% considered health claims very believable. Health claims in front of the packages also create more favourable judgments about the product. Dhar, Chavas and Gould, (2003) said because these claims also lead to truncate information search when a product features a health or content claim, respondent view the product as healthier and more likely to purchase it irrespective of their information search behaviour. Health benefit information is intended to be a market based means to internalize costs and to increase public participation as well as raise awareness of health environmental problems (Ulrich, Campana, and Malkewitz, 2010).

2.3 Regulatory Endorsement

For safety and welfare of consumers, government of every nation have established regulatory bodies to make policies, regulations and enforce such regulations for the interest of the general public. In the United state of America, The Food and Drug Administration (FDA) is established, whose approval is required before such products as drugs, foods pesticide products with toxic chemicals are offered to the markets. While in Nigeria, National Agency for Food and Drug Administration Control (NAFDAC) is established by decree 19 of 1999 as amended. The agency is empowered to regulate and control the importation, exportation, manufacturing, advertisement, distribution, sales and use of food, drug, cosmetics, medical devices, packages, water, and
NAFDAC safeguard lives and ensure healthy consumption of consumers is through its regulation on packaging of food of which label is one of the packaging instruments. The regulation provide among others as it concerns packaging to include:

i. No packaged food may be described falsely;

ii. The label of all packaged food shall bear information relating to the name or nature of the food, the list of ingredients, the net contents, the name and addresses of the manufacturer, packer, distributor, importer, or vendor and the trademark, if any, the country of origin and that these shall be prominently displayed so as to be readily legible by the consumer under normal conditions of purchase and sales.

iii. The date of manufacture and expiry as well as the batch number shall be displayed legibly and where the food has been irradiated or frozen, this shall be stated and the nature of the irradiation or freezing specified.

Therefore the nutritional information value or health benefit content of a label is endorsed by NAFDAC. The endorsement is usually represented by NAFDAC registration Number in every food product brand label. This endorsement implies that the information content of a product label is in line with required standard for a product. Hence NAFDAC endorsement aims at testifying and removing doubt in consumers during purchase decision making.

2.4 Customer Patronage

Bear (2003) defined patronage as how individuals choose a product among competing products. He opined that, product choice and patronage patterns are based on consumer’s perceptions, image, and attitude formed from experiences, information and need. Furthermore, patronage behaviour involves a decision process related to what consumer buy, how they buy and what they buy (Kotler, 2003). This decision process is often initiated by patronage motives, which determines why consumers buy a particular product amongst competing ones (LaFrance, 2004). On this basis, we define post patronage as the regular purchasing of goods and services by a potential buyer from a particular seller as a way of demonstrating an intention to keep the product/service above those on competition. As stated by Laforet (2011), the patronage decision process involves three basic components: product attributes, consumer’s characteristic and choice context. Preference for context product attributes differ by consumer and these preferences are reflected in product choice. Some of these attributes are product price and health related information, conveyed company’s reputation, purchasing convenience, merchandize quality, services offered (Dicks, 2007, Nayga, 2006).

Consumer characteristics influences purchase intentions at each stage in the decision process and choice involves how the consumer decides which particular product should be bought. Interestingly, Lando and Labiner-Wolf (2006) stated that, purchase intentions are influenced by product characteristic (e.g. quality, packaging, taste, nutrition, price and situational behaviour and attitudinal factors (e.g. special diet status, diet health awareness, organic buyers, income, and working status).

2.5 Customer Loyalty

One of the post patronage behavior is customer loyalty. Oliver (1997) defined loyalty as deeply held commitment to re-buy or re-patronize the preferred product consistently in the future. Customer loyalty is consists of two aspects – behavioural and attitudinal (Fitzgibbon and White, 2005, Yi and La, 2004). The behavioral aspect is demonstrated by repetitive purchases of the same brand and the recommendation of the brand to others. While the attitudinal aspect which is the internal affect and perception component of the customer loyalty. Customers do exhibit repeat purchase from various stages of product adaptation.

2.6 Product Adoption

Kotler (2003) defined product adoption as an individual’s decision to become a regular user of a product, and in which the consumer adoption process is latter followed by customer loyalty. In the consumer adoption process, Roger (1961) in Kotler (2003) classified product adapter into innovators, early adapters, early majority, late majority and laggard. This classification is based on the point or the stage in which the consumer joined the consumption of the product brand. In Adirika, Ebue and Nnolim (2001) innovators are the first set of people to purchase a product and who are risk takers. The early adapters are the next to start using the new product. The early majority are people who validate the new product by making them acceptable part of the middle class symbol. Late majority are those people who adopt the product when majority have tried it. While the laggards are the last to try a new product.

It is an obvious fact that a marketer is not just only interested in attracting those various classes of product adapters for a try purchase but goes further to develop strategies to encourage customers loyalty. Product use information (label) has been identified to play major roles when it comes to attracting these various classes of product adapters, but does it role extend to attracting customer loyalty?
III. Conceptual Framework and Research Hypotheses

Having attempted to examine the nature of the variables of this study, it becomes obvious to conceptualize a framework which explains the circumstances that affect customer loyalty for beverage product in order to understand the importance of product use information (Product label). It is assumed in this study that because of the characteristics of Innovators and Early Adapters, They are always interested and ahead of trying new product brand, the tendency of their brand loyalty is always at minimal level, hence this conceptualize framework captures only Early Majority, Late Majority and Laggards.

![Fig. I: The Framework Relating Product Label Data on Customer Loyalty](source: Egele, Ikechi & Ozo, (2017) Conceptual Framework)

To provide a clear implication from relationship testing of the variables, the research hypotheses were developed based on the conceptual framework as:

**H₀₁**: There is no significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers of the health benefit information influences on brand loyalty of consumers of packaged fruit drinks.

**H₀₂**: There is no significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers on the NAFDAC endorsement evidence influences on brand loyalty of consumers of packaged fruit drinks.

IV. Research Methodology

The descriptive survey research design was adopted in this study through administering two hundred and seventy questionnaires to consumers of beverage products consisting three categories of product adapters (Early Majority, Late Majority and Laggards) in Port Harcourt city Nigeria. Before the questionnaire was used to collect data, a pilot survey was conducted to determine whether the questions in the questionnaire were good or not. The initial questionnaire was given to thirty people to complete, and this helped to reveal the questions that were vague and difficult to comprehend and answer. The people who participated in the pilot survey were not included in the actual survey because, including them, would have introduced some bias in their responses since they had seen the questions previously, and had time to ponder over the questions and develop some preconceptions. Thus, only people who had not previously seen the questionnaire participated in the final survey. The data collected was analyzed using a one-way Analysis of Variance (ANOVA) through the application of Statistical Program for Social Scientists (SPSS) version 21.

V. Results and Discussion

A total of 252 out of 270 respondents completed the questionnaires and returned them. This represents 93.3% of the respondents, which is large enough for the purposes of this study. Some of the questions were not answered, and these were captured and analyzed in SPSS as missing responses.
Table 1 below represents the ages of the respondents. They show that 17 percent of the respondents are aged between ten and twenty years, 59 percent are aged between twenty one and thirty years, 28.2 percent are aged between thirty-one, and forty years and 5.1 percent are aged between forty one and sixty years. This indicates that the preponderance of the respondents are young people in the age group twenty one to thirty years.

Table 1: Age of the Respondents

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-20 years</td>
<td>43</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>21-30 years</td>
<td>154</td>
<td>61%</td>
<td>61%</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40 years</td>
<td>42</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>41-60 years</td>
<td>13</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>252</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>


The qualifications of the respondents are represented by Table 2. All the 252 questionnaires were completed, and there were no missing responses. The results show that 5 percent of the respondents had Senior School Certificate in Education/General Certificate in Education Ordinary level. Those who possess Advance level certificates had 13%. Those who had diplomas, degrees and higher degrees were 17 percent, 40 percent and 25 percent respectively. The results show that the majority of the respondents hold either Degree certificates or a higher degree certificate which means that they are highly qualified.

Table 2: Qualifications of the Respondents

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSCE/GCE</td>
<td>13</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>A/level certificates</td>
<td>32</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Diploma</td>
<td>43</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Degree Certificate</td>
<td>101</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Higher Degree</td>
<td>63</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>252</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>


The next sets of questions were Yes and No questions. One of the main objectives of the study was to determine the influence of health benefit information on brand loyalty of consumers of packaged fruit drink Port Harcourt, Nigeria. The results that relate to this objective show that a resounding 91.7 percent of the respondents are of the impression that health benefit information influenced brand loyalty of consumers of packaged fruit drink in Port Harcourt.

Table 3: Does health benefit information influence brand loyalty of consumers of packaged fruit drink?

<table>
<thead>
<tr>
<th>Health benefit information</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>231</td>
<td>91.7%</td>
<td>91.7%</td>
</tr>
<tr>
<td>Valid</td>
<td>21</td>
<td>8.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Total</td>
<td>252</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>


Table 4 summarizes the responses about whether the NAFDAC endorsement evidence influences brand loyalty of fruits drinks in Port Harcourt, Nigeria. The results showed that the majority of the respondents (89.3 percent) are of the notion that NAFDAC endorsement evidence highly influences, and the other 10.7 percent have an opposing view.

Table 4: Does the NAFDAC endorsement evidence influences brand loyalty of fruits drinks?

<table>
<thead>
<tr>
<th>NAFDAC endorsement evidence</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>225</td>
<td>89.3%</td>
<td>89.3%</td>
</tr>
<tr>
<td>Valid</td>
<td>27</td>
<td>10.7%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Total</td>
<td>252</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>


Test of Hypotheses

H0: There is no significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers on the health benefit information influences on brand loyalty of consumers of packaged fruit drinks.

H1: There is significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers on the health benefit information influences on brand loyalty of consumers of packaged fruit drinks.
Table 5: Anova Summary of the responses of early majority, late majority and laggard consumers on the health benefit information influences on brand loyalty of consumers of packaged fruit drinks.

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F-cal</th>
<th>F-crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>56.036</td>
<td>2</td>
<td>28.018</td>
<td>221.847</td>
<td>3.020</td>
</tr>
<tr>
<td>Within Groups</td>
<td>31.447</td>
<td>249</td>
<td>0.126</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>87.483</td>
<td>251</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Table 5 shows that the calculated f-value is 221.847 while the critical f-value is 3.020 at 0.05 level of significance. Since the calculated f-value (221.847) is greater than the critical f-value (3.0290) at 0.05 level of significance, the null hypothesis that: “There is no significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers on the health benefit information influences on brand loyalty of consumers of packaged fruit drinks.” is rejected. This means that the alternate hypothesis is accepted. The result is that the responses of early majority consumers, late majority consumers and laggard consumers on the extent of franchisor’s standard influence on the health benefit information influences on brand loyalty of consumers of packaged fruit drinks significantly differ. When the mean responses were subjected to Post Hoc Test, the result is as presented in Table 2 below:

Table 6: Post Hoc Test on Mean Responses on the Influence of health benefit information on brand loyalty of consumers of packaged fruit drinks.

<table>
<thead>
<tr>
<th>(I) Product adopters</th>
<th>(J) Product adopters</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LMC</td>
<td>-1.0942</td>
<td>.0514</td>
<td>.000</td>
<td>-1.0240</td>
</tr>
<tr>
<td></td>
<td>LC</td>
<td>-1.1049</td>
<td>.06345</td>
<td>.000</td>
<td>-1.3512</td>
</tr>
<tr>
<td></td>
<td>EMC</td>
<td>0.8974</td>
<td>.0514</td>
<td>.000</td>
<td>0.7708</td>
</tr>
<tr>
<td></td>
<td>LMC</td>
<td>0.29752</td>
<td>.05893</td>
<td>.000</td>
<td>-0.4426</td>
</tr>
<tr>
<td></td>
<td>LC</td>
<td>1.19494</td>
<td>.06346</td>
<td>.000</td>
<td>1.0387</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.

EMC= Early Majority Consumers; LMC= Late Majority Consumers; LC: Laggard Consumers.

Table 6 above showed that there are significant differences in the mean responses of the early majority consumers, late majority consumers and laggard consumers of the health benefit information influence on brand loyalty of consumers of packaged fruit drinks in Rivers State of Nigeria.

Ho2: There is no significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers on the NAFDAC endorsement evidence influences on brand loyalty of consumers of packaged fruit drinks.

H12: There is significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers on the NAFDAC endorsement evidence influences on brand loyalty of consumers of packaged fruit drinks.

Table 7: Anova Summary of the Responses on the NAFDAC endorsement evidence on brand loyalty of consumers of packaged fruit drinks.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F-cal</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.444</td>
<td>2</td>
<td>0.222</td>
<td>0.574</td>
<td>0.656</td>
</tr>
<tr>
<td>Within Groups</td>
<td>96.268</td>
<td>249</td>
<td>0.387</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td><strong>81.112</strong></td>
<td>251</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Table 19 shows that the calculated f-value is 0.574 while the critical f-value is 0.686 at 0.05 level of significance. Since the calculated f-value (0.574) is less than the critical f-value (0.656) at 0.05 level of significance, the null hypothesis that “There is no significant difference in the mean response of early majority consumers, late majority consumers and laggard consumers on the NAFDAC endorsement evidence influences on brand loyalty of consumers of packaged fruit drinks” is accepted. The alternate hypothesis is rejected. The result is that the mean response of the three categories of product adopters on the influence of NAFDAC endorsement evidence on brand loyalty of consumers of packaged fruit drinks does not significantly differ. This reveals that the three categories of the product adopters agree that NAFDAC endorsement evidence significantly influence brand loyalty of consumers of packaged fruit drinks. When the mean responses were subjected to Post Hoc Test, the result is as presented in Table 8 below:
VI. Conclusion and Recommendations

From the responses of product adopters: early majority consumers, late majority consumers and laggard consumers it is believed that the predominance of the respondents are young people in the age group of twenty one to thirty years and possibly with the majority of the respondents hold either Degree certificates or a higher degree certificates which means that they are highly qualified to know the benefits of the product label information. Sequel to the results of the responses, it is therefore concluded in this study that health benefit information and NAFDAC endorsement evidence influences brand loyalty of consumers of packaged fruit drinks in Port Harcourt, Nigeria. The results of our study conforms to the works of LaFrance (2004); Grunert and Wills (2007); Cheftel (2005) and Trijp et al, (2007) has proven that the higher the perceived risk and the product implication are, the stronger the impact of the label perception on the consumer’s purchase intention. The implication of this study was that product label data has much effect on consumers buying decision at the point of purchase rather than the point of consumption. Thus, the paper has contributed to the body of knowledge, academics and organizational practices in Nigeria.

It is therefore recommended that:

i. Labels should remain the solution of reassurance for the consumers and help consumers to take a purchase decision.

ii. Consumers should try to apply an assessment technique to verify the presence of the different elements of information that food labels provides in terms of nutritional and ingredient information before making purchases.

iii. Government regulatory agencies should endeavor to devise means of eradicating the existence of fake and adulterated products for consumers’ protections.

iv. The health benefits information and NAFDAC endorsement evidence should be a vivid motivating factor to making purchases by consumers as it were presumed.

v. NAFDAC should strictly regulate at intervals rules and laws for the product label data.

vi. The label data should be made more conspicuous for the consumers to see before making purchases.

References


Table 8: Post Hoc Test on Mean Responses on the NAFDAC endorsement evidence on brand loyalty of consumers of packaged fruit drinks.

<table>
<thead>
<tr>
<th>(J) Product adopters</th>
<th>(I) Product adopters</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Lower Bound</th>
<th>95% Confidence Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC</td>
<td>LMC</td>
<td>0.89740</td>
<td>0.05140</td>
<td>.000</td>
<td>.7708</td>
<td>1.0240</td>
</tr>
<tr>
<td>LC</td>
<td>EMC</td>
<td>-1.19494*</td>
<td>0.06346</td>
<td>.000</td>
<td>-1.3512</td>
<td>-1.0387</td>
</tr>
<tr>
<td>LMC</td>
<td>LC</td>
<td>0.29752</td>
<td>0.05714</td>
<td>.000</td>
<td>.3272</td>
<td>1.7948</td>
</tr>
<tr>
<td>LC</td>
<td></td>
<td>2.00</td>
<td>-1.19494</td>
<td>.000</td>
<td>.6968</td>
<td>2.679</td>
</tr>
</tbody>
</table>


* The mean difference is significant at the 0.05 level and it is positive.

EMC= Early Majority Consumers, LMC=, Late Majority Consumers; LC: Laggard Consumers.

DOI: 10.9790/487X-1911013846 www.iosrjournals.org 45 | Page


