Variables Affecting Marketing Performance of Value Added Milk Product among Dealers in Abia State Nigeria

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Abstract: This study examined the variables affecting marketing performance of value added milk products among dealers in Abia State Nigeria. Data was collected through a random sampling technique with the use of well-structured questionnaire to elicit information from 60 value-added milk dealers from Aba and 30 from Umuahia to have a total of 90 respondents. Simple descriptive statistics and inferential statistics were employed in the data analysis. The result shows that taste contributed more to the sales of vita-milk than other milk products. Vita-milk wholesalers incurred the highest marketing cost followed by viju-milk wholesalers. In summary, the result holds that all the products are profitable and it can be concluded that value-added milk products wholesale marketing is a profitable enterprise. Advertising, price of close substitutes, and size diversification of the product were major factors affecting volume of sales and consumption of the value-added milk products in Abia state. It was recommended that producers of these products do well in improving the outlook of their products such as the tastes, packaging/labeling and advertising so as to increase the buy-back behaviour of the consumers and as such increase market share, profit and sales’ volume.

Key words: Variables, marketing performance, value added, milk-products

1. INTRODUCTION

Various dairy producers have made efforts to support values added to dairy products, often implicitly assuming that the enterprises would be profitable and that the transition from commodity producer to processor and distributor add value and affects the market share of dairy products (Bill, 2003). In an attempt to maintain or increase the profitability of dairy firms or wholesalers, in light of the challenges, value added processing can be a better option (Sombo, 2010). Dairymen have become more serious about value added strategy for a variety of reasons. There are a number of ways to improve income including lowered cost, higher milk quality, expand to lower cost and value-added (Ferreira, 2010). This approach of either getting more in the market or making more sales has been described as excellent entrepreneurial driven economic activities (Jeheneil, 2003).

Distribution and sales participation has become an increasing carrier option for many young men and women in Nigeria. The economic recess and lack of employment seem to contribute to the rising number of people’s participation in the distribution channel enterprises as a means of earning income for their families. Value added to milk products minimizes wastage and improves quality of a commodity which realizes better prices (Kedere, 2006). Technology plays a central role in value addition process. However, most milk producers use low level
technologies that hinder their products from competing effectively with large scale manufacturers. The dairy sector in Nigeria provides many opportunities for youths to operate micro enterprise (Soni, 2009). This is because milk is part of farm produce that generates cash on regular basis and it is one of the foods consumed by almost all Nigerians of all ages in large quantities (Staol et al., 1981).

Milk, in its fresh and natural form, is just a simple product and raw material. Although fresh milk can be consumed directly by humans, not many people can enjoy the privilege except those who live close to a dairy farm. To extend milk shelf life and quality, milk is usually processed into other products such as powdered milk, pasteurized milk, ice cream, yoghurt, infant formula and cheese. Marketing which anticipate the consumers’ needs and providing goods and services that meet the identified need at a profit forms the integral part of milk producers’ objective as they try to process their produce to suit the wish of their customers.

Milk products which are largely produced at the Northern part of Nigeria passed through a lot of processes before becoming the product the consumers wants. The wholesalers will therefore try to access various values added to the milk to know how and what triggered their customers. The factors certainly will affect the sales and profit performance of the milk product. Therefore, this work tried to know the variables that affect these processed milk products among the dealers of milk products within the study area.

**Statement of the problem:** Many producers of milk products have failed to carry a detailed marketing research before embarking on the addition of value to their milk products even when they do they relegate some important factors that can attract or entice their customers. These variables are the form of the form, colour and taste of the milk products as these factors may as well increase the shelf life of perishability of the products. Capturing it at the right time includes transporting the product to places where it can earn more income, or storing it and selling when there is high demand. As identified earlier that technology plays central role in value addition process most milk producers or enterprises use low level technologies that hinder their products from competing effectively with other related beverages and the inabilities of the distributors or wholesalers to acknowledge these factors endanger their firms’ growth and performance.

Adding value for agricultural product is a frequently discussed strategies including dairy farmers. However, there is limited evidence about whether this strategy results in improved profitability compared to operating a single farm business or selling the product raw. Modern dairying is declining in Nigeria and marketing and production of milk products witnessed a lots of challenges such as unsanitary methods of milk handling breakdown of processing plants, competition between itinerant milk collectors and official milk collectors, faulty pricing and management policies, and lack of economic incentives from the government also hamper the expansion and efficient distribution of Nigeria’s milk industries.

**Objectives of the study:** The broad objective of the study is to determine variables affecting marketing performance of value added milk product among dealers in Abia State Nigeria. The specific objectives are to:

i) determine the sales’ volume of the different value-added milk products;

ii) factors affecting the sales’ volume and consumption of the value-added milk products in Abia state with respect to advertising, price, close substitutes etc.
cost and returns of value-added milk wholesale marketers in Abia state;

Research questions: In order to have viable solution to the identified problems in value added milk products, the following questions were asked?

i) What is the sales’ volume of the different value-added milk products?
ii) Are there factors affecting the sales’ volume and consumption of the value-added milk products in Abia state with respect to advertising, price, close substitutes?
iii) What are the associated cost and returns of value-added milk wholesale marketers in Abia state;

Research hypotheses: The hypothesis of the study is stated in a null (Ho) form.

H₁: There is no significant difference between the sales volume of the different value-added milk products

H₂: There is no significant difference between the variables affecting the sales volume and consumption of value added milk products

2. LITERATURE REVIEW

Concept of value added milk product

Value chain or value added to a product is an innovation that enhances or improves an existing product or introduces new products or new product uses (Fleming, 2005). The emerging trend for processed agricultural products in the global markets create opportunities for small scale industries that handle agri-base products. Value added to a raw product is done by taking it to, at least, the next stage of production (Anderson, 2000). This approach may be interesting for some farmers who want to diversify their business using a value added strategy. This strategy implies a return to producers that exceeds what they can hope for in the market place for standardized or bulk commodities (Streeter, 2003). Milk products in Nigeria are largely bought by expatriates, as packaged cheese is traditionally not consumed by Nigerians nor is there much interest. Nevertheless, with an increased presence of expatriates, due to the growing construction and oil industry, as well as the fast increase in modern retail/wholesale channels, there is growth of milk products and current value terms (Ebenezer, 2012). Some values added to milk are fragmented category, with no one brand yet having a steady presence or share. Packaged cheese remains restricted to modern retail channels, with brands which enter the market not always lasting long, partly due to the lack of strong consumer interest, although this is improving as modern wholesalers improve the visibility of milk products amongst middle class Nigerians. Over the forecast period, growth is likely to remain steady, although showing no change in constant value as the average unit price will increase below the overall rate of inflation in the economy. With continued west emission, growth in income, and fast development of modern wholesalers channels, the categories will grow stronger than it did over the review period. In particular, the fast growth of modern wholesalers chains will be the main factor spurring this performance as these channels make the products more visible to a mid-class that is demanding more western style products (Nathaniel, 2013). Value added to milk products could be value added by the wholesalers either through repackaging or distributional pattern. Enebeli, (2005) opined that marketing activities enhances the value of a product. In his assertion, the main reason why sales
and profits of firms depreciate is that marketers of milk products do not carry market research to know what they can do outside what the producers/manufacturers have done in order to enhance the quality/performance of the milk products as that will positively increase their sales and profit performance.

**Marketing of milk products**
Marketing of milk products involves a large number of individuals, including the pastoralists, processors, milk product distributors, wholesalers and retailers. The marketing systems follow the production pattern, which distinguishes between traditional producers, who operate mainly in the rural or semi urban markets and the reconstituted milk product producers and milk product importers who operate in the urban markets (John, 2002).

Femi (2010) opined that there are various kinds of milk products in Nigeria today both locally made and imported ones. He observed that values added to milk product has played major role in marketing the product. Many distributors and wholesalers are more successful to their counterpart due to their own additional value added to the product outside the ones the manufacturers/producers do.

The fundamental objectives of most businesses are survival, profit and growth. Marketing activities contribute directly to achieve each of these objectives. It is concerned with activities vital to business organization such as assisting the want and satisfaction of present and potential customers and pricing policies developing distributional strategies which add value to the product and communicate same with present and potential customers and to anybody in milk product business. In a study conducted by Kemi (2011), shows that a mean milk yield of 8 per day per household was produced out of which four (4) litres were sold for processing and addition of values sold to markets. He also observed that several ingredients and other packaging styles has gone a long way to influence the sales of wholesalers and conclude that most wholesalers who have varieties of milk product in their stores do better than the others who have limited brands.

**Factors that affect sales of milk product**
Sales are integral part of marketing activities as the volume of sales tells how effective marketing unit of a firm/organization is. It is true that higher sales do not necessarily translate to higher profit but one thing it indicates is market shares (number of customers) (Ojobo, 2010).

The level of consumption of milk is the result of many interrelated circumstances in the market. Some of these may be under the control of those individuals or groups who handle or own the product. Others are independent of individual control or influence of a group. They may be categorized as direct activities on behalf of fluid milk sales such as advertising, merchandizing, product availability, publicity etc. These are controlled, in general, by someone in the industry.

The public image of milk is also affected by either favourable or infavourable publicity. The image of milk is often helped or hurt by medical reports and diet recommendations of doctors and others outside the milk industry. Jerry (2013), opined that during processing of dairy products, and therefore, producers should consider the health implications of the ingredients they use as that can make or mar the total performance of the product. Sales activities in belief of products which are related to fluid milk, either in competition (soft drinks, fruit drinks, milk substitute or complementary products (instant breakfast). These factors are independent of
control but can be assisted or counteracted by the fluid milk industry.

Changes in the economic or competitive environment of the market such as government programs, kind and level of employment and income conditions, nature of the consumer make up of the market and competitive activities of handlers and retailers. Good marketing takes advantage of such changes in so far as possible (Anyasi, 2007). Changes in market size as affected by population and transient movements in the market. These are beyond control of the dairy industry but are necessary as guides to market planning.

Several factors can affect milk products or value added to milk products. These factors were identified by Jerry (2013) as milk sanitary regulations, unethical diary practices, inter-market milk movement shift, witholding action by producers and milk containers. Other variables that affect the sales or performance of value added milk products are the physical and financial capital of the wholesaler or the distributor (Ebere, 2009). Exercise of assigning monetary value to milk product is another factor that can extensively affect the market share of milk products. Having right method of pricing their milk product is challenging as Samson (2010) suggest that cost-oriented pricing should be the major approach to set price for milk product. In his opinion, he said that since milk product on its own has significant contributions in the economic well being of the society and the general health of the country, that a very vibrant and skillful pricing strategy, distribution, promotion and innovation in the process of the addition of values to milk product will go a long way to enhance sales or depreciate sales.

**Variables that affect the profitability of milk products**

Every business or firm aim is to make profit. The essence of profitability is a firm’s revenue. Cost revenue depending upon price and quantity of the good sold (Emeka, 2011). The degree of competition a firm faces is important. If a firm has monopoly power than it has little competition, therefore demand will be more inelastic. This enables the firm to increase profits by increasing the price.

Price is a factor that affects most products profitability especially agricultural products. However, government regulation may prevent monopolies abusing their power like regulating the limit upon which firms can price their product like gas and electricity firm. This also when introduce in other sector poses challenges to firms on how to price their products. This is because consumers would only buy from the cheapest firms. Market contestability is how easy it is for new firms to enter the market. If entry is easy then the firms will always face threat of competition, even if it is just “hit and run competition” this will reduce profit (Sopuruchi, 2014).

The strength of demand is very important in determination of profit (Amaa, 2013). Demand will be high if the product is fashionable like some milk that has the baptism of some medical professionals who recommend the product together with soft drink (Peak milk). This will increase the demand of the product as well as the profitability of the firm.

The state of the economy also affects milk product. An increase in the economic growth, is likely to increase profit of most milk producers. When the economic situation is erratic certainly the milk industries suffers a lot. This is caused by the consumer behavior that is always rational in thir consumption pattern which most often is cost oriented (Osunu, 2001).

Promotion and advertising campaign can increase demand of milk product and make it inelastic, however, the increased revenue will need to cover the cost of advertising. Substitute is another factor that affects profitability of wholesalers of milk product. If the value to a milk
product is done technically with a high quality and a moderate price, the demand of the product certainly will be high as it will increase profitability (James, 2012).

3. METHODOLOGY
Research methods
This work employed a random research design in its selection of its sample due to the nature of the research. The study area, sources of data, method of data analysis, samples size and sample techniques and model specifications were discussed. These are the various research techniques adopted in the course of the study.

Study area
The study was carried out in Abia State. Abia is one of the five states that make up the South East geopolitical zones in Nigeria and it is located between longitude 04°45' and 06°17' North and latitude 07°01' and 08°10' East. The state is bounded by Imo state at the Western border, Ebonyi and Enugu state at the North, Cross Rivers and AkwaIbom states at the East and Rivers at the South. The population stood about 2, 883,99 persons with a relatively high density of 580 persons per square kilometer (NPC, 2007) Abia state is divided into administrative blocks called local government which are 17 in number. Abia state has two major towns, Aba and Umuahia. There are distributors of various kinds of beverages in Umuahia and Aba metropolis and these towns have dealers of value added milk products. The state which has Aba and Umuahia as their major town has commercial centre with famous market such as Ahia Ubani, OrieUgba Market, Ariaria market, New market, Cemetery market etc. The state has overwhelming economic important within the South East and by extension Nigeria.

Sources of data
The source used to get data for this research was gotten through primary source. Structured questionnaire were used to collect data while other information were gotten from edited articles, academic journals, textbooks etc.

Sampling techniques
This study consists of selected wholesalers of value added milk products in Abia state particularly Umuahia and Aba. A random sampling technique was used to select milk wholesalers in Abia state. Value added milk product ranging from yoghurt, cowbell, peak milk, Yogo,viju milk, vita milk etc was randomly selected within Aba and Umuahia metropolis. 60 respondents were selected from Aba while another 30 were selected from Umuahia making it total of 90.

Analysis of data
Descriptive statistics and multiple regressions were used to analyze the data obtained. Descriptive statistics such as table, frequency, and percentage used to analyze objectives 1, while objective 2 was analyzed using multiple regression. Objective 3 was analyzed using cost and returns.

Model specification
Model for analyzing the marketing performance of the manufacturing enterprises with respect to profit is thus stated:
Profit = TR - TC ................................................................. (1)

Where

TR = Total Revenue
TC = Total Cost
TC = TFC + TVC

Where

TFC = Total Fixed Cost
TVC = Total Variable Cost

TR = P (Q)

The model used to determine variables that affect sales volume of value added milk among wholesalers is given in implicit form as:

SV = f (X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9) .................................................. (3.2)

SV = Sales volume (Volume of sales made in a month in naira)

X_1 = Advertising (Yes=1, otherwise=0)
X_2 = Price of product (₦)
X_3 = Price of close substitutes (₦)
X_4 = Packaging and labeling (Yes=1, 0=otherwise)
X_5 = Size diversification (number of products in various sizes)
X_6 = Taste (Tasty 1, otherwise 0)
X_7 = Public image (1=yes, 0=otherwise)

4. DATA PRESENTATIONS, RESULTS AND DISCUSSIONS

The sex distribution of the value-added milk wholesalers is presented in Table 1.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>Female</td>
<td>64</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>
The sex distribution of the value-added milk wholesalers shows that majority (60%) of them were females, while the rest (40%) were males. This result implies that the value-added milk wholesale was dominated by females. Marketing at every level is usually seen as an occupation for women. Marketing activities may require less stress when compared to farming and this may explain why females are more favourably disposed to marketing activities.

**Level of education**

The distribution of the respondents by level of education is presented in Table 2.

**Table 2. Distribution of respondents according to level of education**

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No formal education</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Primary education</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Secondary education</td>
<td>50</td>
<td>56</td>
</tr>
<tr>
<td>Tertiary education</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source: Field Survey, 2018**

The level of education of the value-added milk wholesalers shows that 11%, 11%, 56% and 22% of the respondents had: no formal, primary, secondary and tertiary education respectively. This finding implies that majority (56%) of the entrepreneurs had secondary education and as such could read and write. Improved education level brings about positive changes in the knowledge, attitude and skills through research and extension. The implication is that these respondents are better positioned to take advantage of new technique and innovation that could improve their marketing skills and efficiency.

**Sales volume of different value-added milk products**

The sales’ volume of the value-added milk products (calculated in proportion to the total sales by the wholesalers) is shown in Figure 1. The proportionate sales’ volume (in %) and the various value-added milk products are represented in the y and x-axes respectively.
Source: Field survey, 2018

Figure 1. Sales volume of the different value-added milk products

The result shows that as expected, viju-milk received the highest proportion of sales (36%). It is the milk-product with the highest volume of sales and in extension, the most consumed. It is jointly consumed by both sexes and people of all ages (children and adults). This is unlike vita-milk that has the lowest sales’ volume. It is usually consumed by the well-to-do class because of its cost. Ice-cream was well sold among the wholesalers suggesting that its consumption will be reasonably high.

Perceived reasons for differences in sales volume of the value-added milk products
Value-added milk wholesalers responded to the various questions asked by the researcher based on the perceived reasons why differences in sales’ volume exist for the products.

Table 3. Reasons for differences in sales volume of the milk products

<table>
<thead>
<tr>
<th>Qualities</th>
<th>Ice-cream</th>
<th>Yoghurt</th>
<th>Viju-milk</th>
<th>Vita-milk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fre %</td>
<td>Fre %</td>
<td>Fre %</td>
<td>Fre %</td>
</tr>
<tr>
<td>Taste</td>
<td>70 23 q.</td>
<td>75 23 q.</td>
<td>80 24 q.</td>
<td>70 26 q.</td>
</tr>
<tr>
<td>Quality</td>
<td>65 21 q.</td>
<td>60 19 q.</td>
<td>70 21 q.</td>
<td>60 22 q.</td>
</tr>
<tr>
<td>Advertising</td>
<td>75 25 q.</td>
<td>69 21 q.</td>
<td>65 20 q.</td>
<td>50 18 q.</td>
</tr>
<tr>
<td>Packaging/labeling</td>
<td>58 18 q.</td>
<td>67 22 q.</td>
<td>60 18 q.</td>
<td>50 18 q.</td>
</tr>
<tr>
<td>Price</td>
<td>40 13 q.</td>
<td>50 15 q.</td>
<td>55 17 q.</td>
<td>45 16 q.</td>
</tr>
<tr>
<td>Total</td>
<td>308 10 q</td>
<td>321 100 q</td>
<td>33 100 q</td>
<td>27 10 q</td>
</tr>
</tbody>
</table>

Source: Field survey, 2018

With multiple responses, the result shows that the various constructs influenced the level of purchase and consumption of the value-added milk products. The result shows that taste contributed more to the sales of vita-milk more than other products. This implies that Vita-milk is the sweetest of the milk products and would have significantly influenced its purchase over others. Quality of the product was another determining factor. According to the result, quality was almost tied across the whole products though yoghurt was seen to be the least (19%). Given the hard economic situation, consumers may not place more premiums on quality since it would entail spending higher, thus, quality may not play a significant role in determining the quantity of sales. The result further showed that 25% of the perceived sales were as a result of advertising by Viju-milk. This milk product is the most advertised and would have played a significant role in it being the most sold product. The least is vita-milk which is rarely advertised. Packaging and labeling are among the strongest buy-back strategies marketing firms adopt to increase their sales. It played a vital role in promoting the sales of ice-cream above other value-added milk products.
Table 4. Regression estimates for factors affecting the sales volume and consumption of value-added milk products in Abia state

<table>
<thead>
<tr>
<th>Variables</th>
<th>Wholesalers</th>
<th>Retailers</th>
<th>Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>t-ratios</td>
<td>Coeff.</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-6.543</td>
<td>-1.352***</td>
<td>-6.92</td>
</tr>
<tr>
<td>X1 (Advertising)</td>
<td>1.543</td>
<td>3.642***</td>
<td>2.321</td>
</tr>
<tr>
<td>X2 (Price in naira)</td>
<td>-0.251</td>
<td>-2.511**</td>
<td>1.342</td>
</tr>
<tr>
<td>X3 (Close substitutes)</td>
<td>-1.321</td>
<td>-1.870</td>
<td>-2.23</td>
</tr>
<tr>
<td>X4 (Packaging/labeling)</td>
<td>-3.110</td>
<td>-2.901**</td>
<td>2.112</td>
</tr>
<tr>
<td>X5 (Size diversification)</td>
<td>1.821</td>
<td>4.312**</td>
<td>1.43</td>
</tr>
<tr>
<td>X6 (Tasty,1=Yes,0=No)</td>
<td>0.91</td>
<td>2.60**</td>
<td>-0.231</td>
</tr>
<tr>
<td>X7 (Public image,1=Y,0=N)</td>
<td>-2.124</td>
<td>2.981**</td>
<td>0.132</td>
</tr>
<tr>
<td>R² = 0.840</td>
<td></td>
<td>R² = 0.692</td>
<td>R² = 0.722</td>
</tr>
<tr>
<td>Adj. R² = 0.70</td>
<td></td>
<td>Adj.R² = 0.65</td>
<td>Adj.R² = 0.66</td>
</tr>
</tbody>
</table>

F-ratio=7.4*** F-ratio=13*** F-ratio=13.4***


*** Significant at 1%, ** Significant at 5%, * Significant at 10%.

The multiple regression model gives a model $R^2$ of 0.84, 0.69 and 0.722. This implies that while 84% and 69% total variation in the volume of sales of the milk value-added products by wholesalers and retailers respectively is caused by changes in the independent variables included in the model. For the consumers, 72% of total variation in the quantity of these products consumed by people is explained by changes in the independent variables included in the model. The F-ratio was statistically significant at 1% level of probability for all regressions implying a high goodness of fit of the regression line.

The coefficient of advertising was positively signed across the three categories (wholesalers, retailers and consumers) which implies that as more advertising was carried out to promote the commodities, sales’ volume was increased among wholesalers and retailers while quantity consumed was also increased among consumers. Advertising is one of the promotional strategies to enhance buy back behaviour, increase market share and overall productivity. In addition, a 1% and 5% increase in the level of advertising will increase wholesalers’ and retailers’ volume of sales by 1.543% and 2.321% respectively while a 1% increase in advertising will increase the consumption of the milk value-added products by 1.02%. These findings conform to a priori expectations. The coefficient of price for negatively related to the volume of sales for only the wholesalers at 5% level of significance. This indicates that the higher the price of these products, the lower sales’ volume to be obtained. An increase in the price will force consumers to resort to substitutes and thereby reducing the sales’ volume of the wholesalers. However, retailers and consumers had no significant relationship with the variable (price).

Close substitutes had a very strong impact on the volume of sales and consumption of these milk value added products. The result was negative for all categories at 10%, 5% and 1% respectively. This implies that with the availability of close substitutes to these products, a slightest change in price, taste, supply etc. of these will have a sharp effect on the volume of sales by wholesalers and retailers as well as consumption by the consumers. This result shows that milk products are not necessities and as such people can so without them; they are not staple foods. Consumers are less-likely to continue their usage with an increase in price. In addition, 10% and 5% increase in the level of competition from close substitutes will induce a 1.321% an 2.23% decrease in the volume of sales by these wholesalers and retailers respectively while a 1% increase in competition from close substitutes will decrease consumption by 2.81%.
Packaging and labeling are very strong promotional tools used by marketers to attract the attention of buyers. This variable was positively signed for wholesalers and consumers but had no significant relationship with retailers’ sales’ volume. When firms package and adequately label their products, they make them attractive and as such, people who had no intention for purchasing are forced into impulse buying. A 5% and 1% increase in the improvement of packaging and labeling will improve sales’ volume and consumption of wholesalers and consumers by 3.11% and 1.94% respectively. This result conforms to a priori expectation.

The coefficient of the variable size diversification showed a positive and significant relationship across the three categories of actors in the marketing and consumption chain of the products at 1%, 5% and 10% levels of significance. This result suggests that with an increase in the number of sizes the product is presented, the higher the sales’ volume and consequently consumption. For example, ice-cream manufacturers produce in many forms and sizes taking into consideration all categories of consumers such as children and adults. In addition, there would be a 1.821% and 1.43% increase in the sales’ volume of the products with a 1% and 5% increase in products’ size differentiation while consumption will increase by 1.23% when a 10% improvement on the sizes of food is consumed.

The coefficient of taste showed a positive relationship with the sales’ volume of retailers and wholesalers at 5% and 10% levels of significance respectively while it was 5% for consumers. Buyers and consumers are always looking for ways to maximize utility from consumed products and with an improvement in taste of the products, there is bound to be an increased consumption and sales’ volume. Children have very strong drives for sweet food items and as such, these milk products are always on the demand because of their sweetening tastes and this finding agrees with a priori expectation.

Public image coefficient had a positive relationship on the sales’ volume of wholesalers and retailers as well as the quantity consumed by consumers. The perception of a product as either of high quality and nutritional value affects the volume bought.

**Cost and returns of value-added milk wholesale marketers in Abia state**

The cost and returns of marketing value-added milk products in Abia state is presented in Table 4.

| Table 5. Cost and returns of value-added milk wholesale marketers in Abia state |
|------------------|-----------------|-----------------|-----------------|
| **Cost items (₦)** | **Ice-cream** | **Yoghurt** | **Viju-milk** |
| **Production materials** | 10,000 | 8,000 | - |
| **Cost of purchase** | - | - | 15,000 |
| **Transportation** | 4,500 | 3,000 | 3,000 |
| **Rent** | 3,000 | 3,000 | 2,500 |
| **Taxes/market charges** | 500 | 500 | 1,000 |
| **Other costs** | 3,000 | 3,500 | 3,000 |
| **Total cost (TC)** | 21,000 | 18,000 | 24,500 |
| **Total Return from sales** | 65,000 | 51,000 | 75,000 |
The result shows that vita-milk wholesalers incurred the highest cost of marketing (31,000) followed by viju-milk wholesalers. The least was among yoghurt wholesalers. This product is the least expensive in production and may account for the low cost attached to it. On the side of total returns from sales, viju-milk and vita-milk were tied at 75,000 while the least was yoghurt (51,000).

5. CONCLUSION
Based on the major findings of this study, the value-added milk dealers were majorly females with modest educational attainment, middle-aged and of moderate household sizes. The result showed that viju-milk received the highest proportion of sales. Taste, quality and advertising were the strongest perceived reasons for differences in the sales’ volume of the value-added milk products. In terms of profit or net returns, viju-milk was the most profitable while yoghurt was the least profitable (33,000). The cost and returns result holds that all the products were profitable suggesting that value-added milk products wholesale marketing is a profitable enterprise. Advertising, price of close substitutes, size diversification of the product were major factors affecting volume of sales and consumption of the value-added milk products in Abia state.

6. RECOMMENDATIONS
Based on the findings and summary of the study, the following recommendations were made

i. Dealers of milk products should go for milk products with better taste since it influences their sales
ii. Advertising should be embark upon from time to time since it influences the three performance parameters used in the study
iii. Milk products with various sizes should be more in store since it has positive influence on sales
iv. Producers of these products do well in improving the outlook of their products such as, packaging/labeling and advertising as well the taste of their products so as to increase the buy-back behaviour of the consumers and as such increase market share, profit and sales’ volume.

References
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