

Value-Added Strategies and Consumer's Preference For Locally Produced Rice In Nigeria

Peter A. Olannye
olannyeap@gmail.com

And

Godslove Yengizifa

Department of Business Administration and Marketing
Faculty of Management Sciences
Delta State University
Asaba Campus

Abstract

Value-added strategies were discovered as the tools or the engine that drives consumer's preference for local rice. The general objective was to determine the effect of value added strategies on consumer's preference for locally produced rice in Nigeria. The study population was made up of rice consumers in Bayelsa, Delta and Rivers states. Krejcie & Morgan statistical table was used to ascertain the sample size of 384 respondents and they were selected using multi-stage sampling method. The statistical tools used include; simple percentage, mean, frequency and multiple regression analysis. The findings showed that all variables examined such as form value-added strategy, brand value-added strategy, and place value-added strategy were significant and positive factors that affect consumer's preference for rice production in Nigeria. And that the effect is strongest with form value added strategy, followed by place value added strategy, and brand value added strategy respectively. The study concluded that any rice production company that embarked on post-harvest technologies and activities (value-added strategies) could create consumer's preference for local rice. The study therefore recommends among other things; that local rice production in Nigeria should strive to improve in the areas such as protein coating, de-stoning, de-strigaring, whitening, branding, packaging, labeling, storage, and transportation in order to create consumers' preferences. Moreover, local rice production in commercial quantity is not only one man's effort and resources to embark upon in order to survive in the long run; rather it is a business of partnerships and conglomeration. Therefore government, private companies and funder agencies should support handicap rice production businesses in Nigeria to go into value addition creation so that consumers would shift to prefer local rice products, which in turn will command premium price as well as growth and development in our national economy (GDP).

Keywords: value added strategy, form value added strategy, brand value added strategy, place value added strategy, and consumer's preference.

1. Introduction

Naturally, production of agricultural products for global commercial purpose requires high technology for proper preservation. After the primary stage of harvest of agricultural product such as rice, if additional value is not added to rice production, it will not command the desired attention of consumers; because a rational consumer will constantly desire a product with the highest quality to maximize his or her satisfaction. Everyday observations tell producers that consumers differ widely in their preferences: some like rice, others despise it; some like local rice, others avoid it; some want a good package and label of local rice, others do not worry about it; and so on. Given such diversity in preferences about goods, how should we incorporate the effect they have on consumer choices? How consumers' preferences for products and brands arise from the combination of many different factors. Some factors come from features of the product itself (e.g., quality, brand, price, availability, etc), while other factors are attributes of consumers such as goals, attitudes, discretionary income, etc (Venkatraman, Clithero, Fitzsimons, and Huettel,

2012). The global food market has triggered concern about food quality, standards, and preference and advanced countries are implementing high safety and quality standards to alleviate consumers' health and environmental concerns, often at the expense of low quality products from importing countries (Mergenthaler, Weinberger & Qaim, 2009). This poses new challenges for producers in developing countries, such as Nigeria to adapt to these emerging standards to ensure high food quality standards, first for domestic consumers and second for the export market.

In the present competitive business environment, the trend towards increasing value added strategies in rice production presents challenges to local rice companies in Nigeria. To be able to survive and be profitable in local rice production in Nigeria, companies appear to have pursued rice value added initiative which is seen as a strategic reaction to the improved competition in local rice production sector and the rapid commoditization of its products (Coltrain, Barton & Boland, 2000). Therefore, value added strategy is a portfolio of agricultural practices that allow farmers to bring into line with consumers' preferences for agricultural or food products with form, space, time, identity and quality characteristics that are not present in predictably produced raw agricultural commodities (Agricultural Marketing Resource Center AMRC, 2015). In other words, it is finding out what consumers want, when they want it, and where they want it – then make it and provide it to them (Food & Agricultural Products Center FAPC, 2016). An alternative solution to be involved in adding value to agricultural commodities is a portfolio approach to off-farm investment. Instead of selling raw commodities to final consumers, the farmers can process their products—such as, paddy into polished rice (Sporleder 2003). The concept of value-added strategy is a marketing phenomenon to achieve various objectives. These includes; to gain improved understanding of how consumers buy a product and how to help the marketing process get a competitive edge, to provide quality products, to provide quality packaging and branding, to make products available and affordable, which would lead to consumer preference, thereby contributing to national economic growth and development. Value added strategies could be used interchangeably with 'value added agriculture', 'agribusinesses' or 'marketing of agricultural products'. The general objective of the study was to examine the effect of value-added strategies on consumer's preference for local rice in Nigeria. The specific objectives are to:

- i. Examine the effect of form value added strategy on consumer's preference for locally produced rice in Nigeria.
- ii. Determine the effect of brand value added strategy on consumer's preference for locally produced rice in Nigeria.
- iii. Ascertain the effect of place value added strategy on consumer's preference for locally produced rice in Nigeria.

2. The Problem

In the market at home, a greater number of consumers still prefer to patronize foreign rice, because locally produced rice lacks the application of post-harvest technologies. All things being equal consumers will always prefer quality rice that has the greatest anticipated value to maximize his or her satisfaction. In 2016, the policies and programmes of President Buhari laid ban on

importation of foreign rice with the intention to promote local rice production, thereby limited consumers to locally produced rice in Nigeria. Though consumers tried to pattern their taste so as to cope with the new offer by that time, but the supply could not meet out with the demand therefore caused increase in prices of foreign rice in the nation. Governments at all levels having recognized the need and potential in this sector decided to indicate serious interest and attention to its growth and sustenance through programs and policies implementation. Nevertheless, the current leadership of states government on their own capacity also introduces rice production schemes to support the national economic growth and development campaign, but none has come to full maturity by 2017. If the issue of value added strategies in local rice production is not properly addressed at the right time, it will not only cause dissatisfaction, but will shift demand and consumption to alternate products in Nigeria. Value added strategies have been discovered as the engine that can drive consumer's preference for locally produced rice in Nigeria. This remains a problem yet to be addressed.

3. Theoretical Consideration

3.1 Concept of Value-added Strategy

The U.S. Department of Agriculture USDA (2002), applied the concept 'value-added' to agriculture, demonstrating that value-added agriculture occurs each time a modify in the physical state or form of an agricultural product or the acceptance of a production process or handling process leads to an enhancement in the customer base for the product and a greater section the consumer's expenditure spent on the product accruing to the producer. According to Food & Agricultural Products Center FAPC (2016), Value-added is the process of taking a raw commodity and changing its form to produce a high quality end product. It has to do with finding out what consumers want, when they want it, and where they want it – then make it and provide it to them (FAPC, 2016). Coltrain et al., (2000), defines adding value as “the process to economically add value to a product by transforming its current place, time and form characteristics to characteristics more preferred in the marketplace.” The definite source of value is the consumer who pays for agricultural or food products in the marketplace (Kilkenny and Schluter, 2001). Value-added agriculture could only be achieved when farmers are able to supply the market with products moving form, space, time, quality, functionality, and personality characteristics for which consumers are eager to pay a premium over raw basic commodities without these characteristics (Amanor-Boadu, 2007). In a bid to provide a simple clear support of the concept, Nakamoto (2004), has noted that value is usually created by concentrating on the benefits associated with the agribusiness product or service that arise from quality, functionality, form, place, time and ease of possession, hence a product must have some of these qualities to generate additional value. Looking more closely into rice production by Akpokodje, Lançon and Erenstein, (2001), value addition in rice production seeks a careful exploration into all the activities, processes or strategies of operation carried out in the production, processing, packaging and distribution of rice which contribute to the maximization of profit or utility derived from rice.

4. Consumer Preference

Consumer preference is a general term applied to all facets of marketing products and services. This is used primarily to mean an option that has the greatest anticipated value among a number of options. The goal of the exploration of consumer behavior is to notice patterns of consumers' attitudes in their decision to buy or to ignore a product (Matsatsinis and Samaras, 2000). Consumers' preferences for products and brands arise from the group of different factors. Some factors come from features of the product itself (e.g., price, durability, etc), while other factors are consumers' attributes (e.g., goals, attitudes, income, etc), (Venkatraman et al., 2012). Over the years, local rice production in Nigeria has received enormous research attention. For instance, Akpokodje et al., (2001), assess the major supply and demand trends in rice and find that lowland rain-fed rice systems have a higher profitability than upland rice. Erenstein, Lancon, Akande, Titiola, Akpokodje and Ogundele (2003) argue that locally produced rice has the potential to meet food (especially rice) demand of consumers in Nigeria if efficient production practices are employed. Erenstein et al (2003), also find that the price of imported rice, which is a function of world market price, import duties, transport costs, and a quality premium, puts a cap on the price of local produce. Individual differences such as education, income, etc can affect the purchasing behaviour and, at same time, the preferences for different kinds of information (Drichoutis, Lazaridis, Nayga, and Rodolfo, 2005a). Consumers gave plenty of attention to diets, and the message that appear on the package label such as, nutritional and health claims (Baltas, 2001).

As a response to consumers demand for healthier and nutritious goods, producers should highlight these claims on the front label of their packages because packaging attributes could persuade consumers to buy the product, and sensory attributes will confirm if they like it (Munrray and Delahunty, 2000). Ernst and Woods (2011), suggest that the current increase in demand for local foods is as a result of food safety and health concerns, and labeling food as locally grown provides an excellent market opportunity for local producers. Manning and Reece (2007), suggests that customers perceive product's value based on its benefits which, in turn, is influenced by the product's performance, features, quality, warranties, packaging and labeling. Perhaps if the quality of local rice is improved it will increase demand. Consumer choice is generally guided by taste, price, convenience, variety, quality, etc (Tetteh, Sidney, and Stanislaus, 2011).

5. Form value-added strategy and consumer's preference

Nakamoto (2004), states that form value added strategy has to do with Conversion of raw materials into finished or semi-finished products and maintenance of product quality. Some functions involve in paddy/rice processing are; pre-cleaning, husking, paddy separation, de-stoning, whitening, polishing, sifting, length grading, blending, weighing and bagging (Akpokodje et al., 2001). Creating form value occurs with actual perceived value to a customer for an advanced product or services, the purpose is to generate something that has value, new product, improved product characteristics, services, brand name or distinctive customer experiences may create additional value for farm products (Brees et al., 2010). The argument is supported by Sporleder, (2003) that an alternative solution to be involved in adding form value to agricultural commodities is a portfolio approach to off-farm investment. Instead of selling raw commodities to final

consumers, the farmers can process their products—such as, paddy into polished rice (Sporleder 2003). According to Diako, Sakyi-Dawson, Bediako-Amoa, Saalia, and Manful (2010), the reasons consumers did not patronize locally produced rice are; poor post-harvest handling, non-availability, and the generally perceived poor quality.

Industrial processing of paddy leads to product which is ready to be consumed by consumers and the processed rice offers sufficient guarantees for preservation, and was adapted to consumers' demands in the areas of taste, nutritional value and ease of use (Akpokodje et al., 2001). In the words of Ekeleme, Kamara, Omoigui, Tegbaru, Mshelia, and Onyibe (2008), quality maintenance in locally produced rice was grouping of the control measures often refer to the integrated striga control approach which is more effective from the point of harvesting to the final consumer. According to (WealthResult.com, 2017), polished rice is supposed to be coated with protein material to become covered rice like the imported rice but we do not bother about this in Nigeria. What local rice producers in Nigeria take to the market is the polished rice. It is very vital that extra care must be taken not to pollute the rice with stones, sand or any irrelevant material at any stage of processing. This is where the difference lies amongst different brands of rice (WealthResult.com, 2017). Rice production that passes through these processes would offer good quality for consumers to prefer. Even though consumers are price sensitive, they still prefer quality and willing to pay premium price for improved quality rice (Abubakar, Rezai, Shamsudin and Mohamed, 2015).

Ho₁ There is significant relationship between form value-added strategy and consumer's preference for locally produced rice in Nigeria.

6. Brand value-added strategy and consumer's preference

Nakamoto (2004), brand value-addition has to do with providing brand name, packaging and labeling, communicating, to inform, to persuade and to educate consumers on products usage. Branding is the process of identifying a product or a service with a name, a sign, symbol or design or the combination of them which is intended to differentiate the product of one seller those of competitors (Nebo, 2000). A good brand name must possess certain features that will make it serve the purpose for which it is intended (Sanusi, 2000). Examples; It should be easy to spell, pronounce, recognize and remembered. It should suggest something about the product's benefits. It should be attractive, (ie) having no bearing with any other brand in the market. It should not carry poor meaning in foreign countries and languages. It should suggest the product or service category, it should suggest the product quality (Sanusi, 2000). Nebo (2000) states that branding makes it more easier for the consumer to trace a product to the maker so that a repeat purchase could be made if satisfied, or return and avoid the product, or tell others not to buy it, or seek redress if not satisfied. Bowbrick (1992) acknowledged that a brand is a label attached to products from a specific manufacturer, distributor, country of origin, or retailer with the aim being to "convey information on, or influence the consumer about; the quality, reliability, social status, value for money or safety of a purchase. However, as any vigilant consumer would have noticed, there is still a wide range food product that remains unbranded (Bowbrick, 1992). As for packaging and labeling as part of branding, Kotler and Armstrong, (2012) states that packaging is a marketing tool used to reflect

the brand hence a company uses packaging to sell the product inside, colours, fonts, descriptions and logo are designed to drive consumers to buy the product. A label is the portion of a product that conveys verbal message about the product or the seller (Olannye, 2013). There are three types of labels according to (Olannye, 2013); Brand label mention the brand applied to the product or package, example; LUX (enriched with protein), LUX (enriched with vitamin E). Grade Label identifies the quality, class or grade of the product with a letter, number or word such as A,B,C,..... OR 1,2,3..... example, 504SL, 504GL, 504SR. Descriptive Label gives objective message about the use, construction, ingredients, care, performance, methods of disposal, usage and other features of the product (Olannye, 2013). Label serves as a first line of consumer awareness and is vital to capitalize on the efficacy of the product hence keep consumers inform, the description of the product help customers makes an informed decision (Caswell & Padberg, 1999). Packaging has not only the practical function of protecting the product, but it also has the elementary function of disclosing the package's contents (Vieira, Alcantara & Tonelli, 2014).

In the aspect of promotion and advertisement as part of brand, Jobber (2007), states that promotion is the means of communication between the seller and buyer. Kotler, (2000), noted that three elements of promotion which include advertising, sales promotion and public relation, are often said to use mass selling because they are used with groups of potential buyers. Through identifying brands, transmission of information in respect to price, quantity and quality, and providing information regarding ingredients and directions, product packaging now plays a significant role in product promotion (Silayoi and Speece, 2007). Packaging is also a source to provide information about ingredients to the customers and instructions to use the product, for which there are some legal requirements hence consumers make concluding choice on the basis of these information for instance there are some products unsuitable for diabetics patients because of having high calories (Rundh, 2013), hence, instructions on packaging can save diabetic patients on contrary. Dobson and Yadav (2012), also support the study that consumers have become increasingly reliant on packaging carrying a variety of forms of information on labels. Estiri, Hasangholipour, Yazdani, Nejad and Rayej (2010), posit that informational packaging elements are critical factors in the consumer decision-making process solely because they communicate specific messages and relay certain information about the product, the manufacturer and to the consumers. Informational elements such as nutritional information and food label are increasingly becoming important in influencing consumers' purchase behavior (Silayoi and Speece, 2004). Product labels are sources of information designed to attract consumers' attention, to communicate a message that will motivate consumption (Ares and Deliza, 2010). The importance of informational packaging has been necessitated by the increased consumers' education, health consciousness and the need to communicate unique potent messages about the actual product, production process, material compositions, and expected nutritional gains among others, in fact, many consumers feel that it is important to consider information on the package in order to compare the quality and value (Mutsikiwa, Marumbwa and Mudondo, 2013).

HO₂ There is significant relationship between brand value-added strategy and consumer's preference for locally produced rice in Nigeria.

7. Place Value-added Strategy and Consumer's Preference

Nakamoto (2004), states that place value-addition has to do with having products at a desired place and providing assortment. Hence, some marketing functions are; Storage, scheduling, transportation, aggregation, disaggregation, door-to-door delivery, mail order, convenience stores, and truck.. Food supply chain is defined as a set of inter-reliant companies that work intimately together to manage the flow of goods and services along the value-added chain of agricultural and food products, in order to comprehend better-quality customer value at the lowest possible costs (Folkerts, 1997). The maintenance and development of relationships, networks and interactions in agricultural chains with different stakeholders or actors is as important value as the attraction of relationships, networks and interactions (Lindgreen, Hingley, and Trienekers, 2008). Martínéz-Ruiz et al (2010), suggested that once a location is nearer to the home then costs and time spent are likely to be reduced. According to Reilly (1931), who developed Reilly law of retail gravitation which proposes that people are drawn to larger shopping thus larger cities, tend to magnetize more customers because of location. This is further supported by Craig et al (1984) who use the central place theory to explain how people living far away are engrossed to larger stores which are centrally located. Looking at supply chain as place value-added strategy in Imolehin and Wada (2000), states that actors in local rice supply chain could be grouped into three groups namely government, broker or trader, assemblers and transporters, retailers, wholesalers, millers, and farmers who walk together as a group to bring locally produced rice to the door post of the final consumers. Another function of place element is the provision of assorted brands; Akpokodje et al (2001), stated that making quality rice available for consumers through all distribution channels with assorted brands for consumer choice determine consumer preference.

HO₃ There is significant relationship between place value-added strategy and consumer's preference for locally produced rice in Nigeria.

8. The Theoretical Framework

The theoretical background that was used in this study is relevant to the following theories of value-added strategy and consumer's preference.

8.1 Theory of Production (Arthur, 1923)

Theory of production was propounded by Williams Arthur in the year 1923. The theory centered on efforts made by man to create (make) something or object of desire that is an act of making goods to satisfy human wants. Abedi (2005), stated that production also involves provision of services and transportation of goods from one place to another brought about by the effective combination of factors of production. Factors of production involve the application of professional skills to combine inputs that will generate the quality of output that yields maximum profit. The inputs used in the production process are called factors of production which include; land, labour, capital and entrepreneur (Arthur, 2009). Factors of production in local rice marketing are inputs or

resources that are manipulated by local rice producers to achieve economic outputs in form of local rice seed and income from the marketing of the products. Land is everything in the universe that is not created by human beings. It includes more than the mere surface of the earth. In the opinion of Arthur and Steven (2003), land is naturally occurring resources such as water, air, soil, mineral, floral that are used in the creation of economic products. Essang and Olayide (1994) reported that land aids production in that it is on it that firms and factories are built. Land in this context is a gift of nature consisting of rice crop, soil, light, air, water bodies and other natural resources which support and provide suitable environment for production and marketing of local rice to the hand of the final consumers in good marketing condition.

Labour in the opinion of Harrey (1998), labour is the actual effort or activity both physical and mental made by human beings in carrying out some work. In the submission of Arthur and Steven (2003), labour is human efforts used in production which include technical and marketing expertise. Therefore, in the context of this study, local rice producers and employees provide labour to carry out all activities in local rice industries from plantation to consumption. Capital in economics is the human made goods or means of production which are used in the production of other goods. Arthur and Steven (2003) reported that capital in business includes tools, equipment, machines and buildings use in production and distribution. They reported further human capital is acquired through years of education and training whether formal or on-the-job. Brain (2007) viewed human capital as skills and knowledge embodied in the ability to perform labour so as to produce economic value. High level of human capital facilitates rate of technology adoption in production and consequently development in any economy. Therefore, skills, technology and knowledge were required by local rice farmers to produce quality local rice for consumers' preference in Nigeria. An entrepreneur according to Peter (2009) is a person who has possession of an enterprise or venture and assumes significant accountability for the inherent risks and the outcome. In the context of the study, entrepreneurs are local rice farmers and marketers who engage in day-to-day combination and management of other required resources (land, labour and capital) for processing and marketing of local rice in Nigeria.

8.2 Rational Choice Theory: (Homans, 1961)

Homans, (1961), set out a basic framework of exchange theory, which he grounded in assumptions drawn from behaviourist psychology. Rational choice theory is an economic principle that states that individuals always make prudent and logical decisions. These decisions offer people with the more advantage. Rational choice theory assumes that all people try to aggressively maximize their advantage in any situation and therefore constantly try to minimize their losses. In rational choice theories, individuals are seen as motivated by the wants that express their 'preferences'. They act within specific, given constraints and on the basis of the information that they have about the conditions under which they are acting. As it is not possible for individuals to achieve all of the various things that they want, they make choices in relation to both their goals and the means for attaining these goals. Rational individuals choose the alternative that is likely to give them the greatest satisfaction (Heath 1976). In the cause of the study, consumers, choose to prefer particular brand of rice based on limited resources in order to maximize total satisfaction.

9. The Methodology

The cross-sectional survey research method was adopted. The study covered 3 communities in the states capitals of Bayelsa, Delta and Rivers States in Nigeria, with a total population of 1,041,934 rice consumers according to 2006 National Census of Federal Republic of Nigeria Gazzete (2007), Out of which the total the sample size of 384 were determined by Krejcie and Morgan table (1970), and it involved multi-stage sampling technique. The research instrument was a 16 item validated structured questionnaire. All the items were adequately assessed on a five-point balanced likert scale. Ranging from 1 Strongly Disagree to 5 Strongly Agree. The Cronbach Alpha (α) was used to determine the mean reliability coefficient for the dimensions of value-added strategy. Test-Retest Reliability test method was employed and the Cronbach Alpha Index technique was used to estimate the reliability of the questionnaire. Favourable reliable scores were obtained from all the items of dimensions of value added strategy since all coefficient values were above 0.6, which exceeded the common threshold recommended by Malthra (2004).

10. Measurement of Results instrument

Consumer preference was measured using three constructs (form value added strategy, brand value added strategy and place value added strategy) and these three dimensions were addressed in 12 items, form value added strategy was measured by 4 items, brand value added strategy 4 items and place value added strategy 4 items. Then consumer preference was measured by 4 items. In order to validate the research instrument, the test-retest method was employed to establish the internal consistency. This involved repeated administration of the same questionnaire. Thus the same questionnaire was administered twice to same respondents at interval of three weeks. The reliability was established by assessing the internal consistency of the items representing each construct, using cronbach alpha index. Favourable reliable scores were obtained from all the items since all alpha co-efficient values were above 0.06. Thus exceeding the minimum benchmark of cronbach alpha value (0.06) recommended by Malhotra (2004). Table 1 below depicts the reliability test result.

Table 1: Reliability test for all items in the Questionnaire

Items	Alpha (α)value
Form value added strategy	0.767
Brand value added strategy	0.759
Place value added strategy	0.723
Consumer Preferences	0.758

Source: SPSS Version 21 output computed from Research Data 2017

Table 2: Correlation Matrix among the Dimensions of Value Added Strategy and Consumer Preference

	Formvalue added strategy	Brand value added strategy	Placevalue added strategy	Consumer Preference
Form value added strategy	1			
Brandvalue added strategy	.436**	1		
Place value added strategy	.410**	.479**	1	
Consumer Preference	.571**	.433**	.263**	1

**** Correlation is significant at the 0.01 level (2 tailed).**

The correlation analysis as shown in table 1 reported that form value added strategy exhibited positive and significant correlation with brand value added strategy ($r = .437^{**}$, $P < .01$). Also the result showed that there is a positive correlation between form value added strategy and place value added strategy ($r = .410^{**}$ $P < .01$). Similarly, form value added strategy was positively correlated with consumer preference ($r = .571^{**}$ $P < .01$). Brand value added strategy exhibited positive and significant correlation with place value added strategy ($r = .479^{**}$ $P < .01$). Brand value added strategy has significant positive relationship with consumer preference ($r = .433^{**}$ $P < .01$). Finally, there is a positive correlation between place value added strategy and consumer preference ($r = .263^{**}$ $P < .01$).

Table 3: Multi Regression Analysis for Dimensions of Value Added Strategy and Consumer Preference

Coefficients_a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.037	1.130		2.688	.008
	Form value added strategy	.472	.055	.461	8.623	.000
	Brand value added strategy	.236	.058	.227	4.094	.000
	Place value added strategy	.292	.057	.289	4.616	.000

a. Dependent Variable: Consumer preference

Table 4: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.633 ^a	.401	.392	1.6811

.a Predictor: (constant) Form Value Added Strategy Brand Value Added Strategy Place Value Added Strategy

.b Dependent variable: Consumer Preference

11. Discussion

The study is focused on the effects of value added strategies on consumer preference for locally produced rice in Nigeria. The results of the correlation analysis involving all indicators of value added strategy exhibited positive correlation coefficient values among the variables. This is indicative that they are appropriate dimensions of value added strategy. The results from the multiple regression analysis recorded the effect of value added strategy on consumer preference. The findings showed that form value added strategy is found to have significance positive relationship with consumer preference ($\beta = .461$, $P < 0.01$). The result provided support for H_{O1} test result ($r = .000 < .005$) which indicated that there is statistically significant positive relationship between form value added strategy and consumer preference. This is evidence in Akpokodje et al., (2001) that form value-addition in the industrial processing of paddy leads to a product which is ready to be consumed by consumers. It supported the findings of Abubakar et al., (2015) that showed a possible internal substitution and increase demand for higher quality rice, even though consumers are price sensitive, they still prefer quality and are willing to pay for improved quality of local rice. This implies that form value added strategy is a significant factor to create consumer preference for locally produced rice.

The findings also showed that brand value added strategy is found to have significance positive relationship with consumer preference ($\beta = .227$, $P < 0.01$). The result provided support for H_{O2} test result ($r = .000 < .005$) which indicated that there is statistically significant positive relationship between brand value added strategy and consumer preference. This is evidence in Wells et al (2007), that consumer attitude towards nutrition information illustrates that nutrient information given on the packaging should be appropriate as it affect consumer food choices, because consumers base their decision on such information given on packaging due to their diet and lifestyle. It was also supports the findings of Estiri et al., (2010) that informational packaging elements are critical factors in the consumer decision-making process solely because they communicate specific messages and relay certain information about the product, the manufacturer and to the consumers. This implies that brand value-added strategy has significant

effect on consumer preference for locally produced rice. Furthermore, the result of the regression analysis revealed that place value added strategy has positive effect on consumer preference ($\beta = .289$, $P < 0.01$). This finding is consistent with the result of H_0_3 test ($t = .000 < .005$) which indicated that place value added strategy has statistically significant relationship with consumer preference. This is in agreement with study of Opeyemi, Adedeyi, Komolafe, Arotiba, and Ifabiyi. (2015), declared ‘that the overall preferences of local or imported rice were its availability all around and quality’. This implies that place value-added strategy has significant factor to create consumers’ preferences for locally produced rice.

12. Conclusion

On a generally note, the study concluded that value-added strategy and its post-harvest technological activities are the tools or the engine room that create consumer preference for local rice. Specifically, form value added strategy significant effect on local rice production. This has to do with the quality features of local rice such as protein coating, cleanliness (whitening) or the level of de-striga in local rice which consumers would prefer to other brands in the market. Another feature is de-stoning; this has to do with the percentage of stone free. If a local rice production could achieve this goal, it will determine consumer preference. Hulling, milling and polishing also contributed to quality of local rice. In fact, quality is a vital factor that determines consumer preference for local rice if all these factors are considered in local rice production, it will put local rice in good and quality condition for consumers preferences at any point in time.

The study also concluded that brand value-added strategy enhanced consumer preference for local rice, and this was seen in branding, packaging and labeling, communicating, informing and provision of users’ guide. It is a nature in human beings to always identify with anything of good name and success. In Prov.22:1 ‘a good name is to be chosen rather than great riches’. If a company’s name is successful it could be used as goodwill intangible asset in accounting, because this is defined as the probability that customers will continue to patronize old business even when there is change in ownership. Product name that is very easy to pronounce with positive cultural attachment also affects consumer preference. Again, the study concluded that place value-added strategy positively affects consumer preference by the features of storage, scheduling, transportation, aggregation, disaggregation, door-to-door delivery, mail order, convenience stores and trucks. To crown it all, it has to do with all the functions that contributed to the availability of local rice in the market for the final consumers. Provision of storage facilities like warehouses, departmental stores, supermarkets, retail outlets, mobile vans and equipments in all geographical locations of the targeted market will ensure safety of local rice until it get into the possession of the final consumers. Hence value added strategy is a significant factor to gain consumer preference for locally produced rice.

13. Recommendations

In accordance with the review of the findings and conclusion reached, the study made the following recommendations

Local rice production should strive to improve into production of quality local rice. Because of consumers that prefer features such as; (a) protein coated local rice gives good taste protein to the body, (b) stone free local rice is healthy for the body and (c) whitening local rice is free from dirt.

Production of local rice cannot be successful without the effect of branding, packaging and labeling. Therefore, local rice producers should be involved in agribusiness because consumers prefer features such as (a) branding gives good name to local rice, (b) packaging provides safe preservation, (c) labeling provides all information about the producer and gives guide line for local rice usage

Local rice production should embrace the effect of storage and transportation. These storage and transportation facilities such as company's warehouses, departmental stores retail outlets and mobile vans which provide good storage and preservation of local rice for consumer preference.

Government, funder agents, private investors and companies should also go into local rice production in Nigeria. Because (a) one man entrepreneurship does not have financial muscles and resources to be successful, (b) it will help to produce to produce local rice in very large quantity to meet the anticipated demand of 12.8 million tons in 2018 and beyond, (c) government involvement will enable every state in Nigeria to go into local rice production of its capacity; which in return will boast the GDP of Nigeria. Government should support with infrastructures of access roads and constant power supply.

References

Abubakar, Y., Rezai, G., Shamsudin, M. and Mohamed, Z. (2015). *Consumers' Demand for Quality Attributes of Imported Rice in University Putra Malaysia*, Department of Agribusiness and Information Systems, Faculty of Agriculture, 43400 Selangor, Malaysia.

Agricultural Marketing Resource Center. (2015). "USDA Value Added Ag Definition." http://www.agmrc.org/business_development/getting_prepared/valueadded_agriculture/articles/usda-value-added-ag-definition.

Akpokodje, G, F. Lançon and O. Erenstein, (2001). Nigeria's rice economy: *State of the art. Paper presented at the NISER/WARDA Nigerian Rice Economy Stakeholders Workshop, Ibadan, 8-9 November 2001*

Amanor-Boadu, V. (2007). Sense making, entrepreneurship and agricultural value-added businesses." Paper presented at 2007 AAEA Annual Meeting, Portland, OR.

- Ares, G. and Deliza, R. (2010). Studying the influence of package shape and colour on consumer expectations of milk desserts using word association and conjoint analysis. *Food Quality and Preference*, 21(8), 930-937.
- Arthur, S and Steven, M.S (2003) *Economic Principles in Action*. New Jersey: Pearson Prentice Hall.
- Baltas, G. (2001). "Nutrition labeling: issues and policies." *European Journal of Marketing* 35(5/6): 708-21
- Bowbrick, P. (1992). *The economics of quality, grades and brands*. Routledge Publishers
- Brain, K. (2007) *Human Capital*. London: OECD Insight Publishing Company.
- Brees, M., Parcell, J. and Giddens, N. (2010). "Capturing vs. Creating Value." MU Agricultural Guide, University of Missouri Cooperative Extension.
- Caswell, J.A. and Padberg, D.I. (1999). Towards a more comprehensive theory of food labels. *American journal of Agricultural Economics*. 74: 460-468.
- Coltrain, D., Barton, D. and Boland, M. (2000). "Value added: Opportunities and Strategies." Arthur Capper Cooperative Center, Department of Agricultural Economics, Kansas State University.
- Dantas, M. I. S., Nakajima, V., Rosa, D. D., Andrade, F. O., Canzian, C., & Martino, H. S. D. (2011). Guava Jam packaging determinant attributes in consumer buying decision. *Food Science and Technology (Campinas)*, 31(3), 567-570.
- Diako, C., Sakyi-Dawson, E., Bediako-Amoa, B., Saalia, F. K. and Manful, J. T. (2010). Consumer perceptions, knowledge and preferences for aromatic rice types in Ghana. *Nature and Science*, 8(12):12-19.
- Dobson, P., and Yadav, A. (2012). *Packaging in a Market Economy: The Economic and Commercial Role of Packaging Communication*. University of East Anglia, Norwich Business School.
- Drichoutis, A.C., Lazaridis, P., and Nayga, jr. Rodolfo, M. (2005a). Nutrition knowledge and consumer use of nutritional food labels. *European Review of Agricultural Economics*, 32(1): 93-118.
- Ekeleme, F., Kamara, A.Y., Omoigui, L.O., Tegbaru, A., Mshelia, J. and Onyibe, J.E. (2008). Guide to Rice Production in Borno State, Nigeria.

- Erenstein O., Lancon F., Akande S. O., Titilola S. O., Akpokodje G., and Ogundele, O. O. (2003), Rice Production in Nigeria: A survey project report – *The Nigerian Rice Economy in a competitive world. Constraints, opportunities and strategies choices.* Abidjan WARDA.
- Ernst, M. and Woods, T. (2011). “*Adding Value to Plant Production-An Overview.*” Cooperative Extension Service, College of Agriculture, University of Kentucky.
- Essang, S. M and Olayide, S. O (1994). *Intermediate Economics Analysis.* Ibadan: Aromolaran Publishers Company Ltd.
- Estiri, M., Hasangholipour, T., Yazdani, H., Nejad, H., & Rayej, H. (2010). Food Products Consumer Behaviors: The Role of Packaging Elements. *Journal of Applied Sciences*, 10(7), 535-543.
- Farh, L. J. (2007). Survey Instrument development in OB/HRM research. ACMR Guangzhou workshop.
- Folkerts, H. and Koehorst, H. (1998). “Challenges in International Food Supply Chains: vertical co-ordination in the European agribusiness and food industries”, *British Food Journal*, Vol. 100 NO. 8, pp. 385-388
- Ge, X., Brigden, N., and Häubl, G. (2015). The Preference-Signaling Effect of Search. *Journal of Consumer Psychology*, 25(2), 245-256. <http://dx.doi.org/10.1016/j.jcps.2014.09.003>
- Harrey, J. (1998). *Modern Economics.* New York: Macmillan Publishers.
- Hasan, S. A., and khan, M. Z.(2009). The Impact of Packaging Characteristics on Consumer Brand Preference. *South Asian Journal of Management Sciences*, 1-10
- Heath, A. (1976). *Rational choice and social exchange.* Cambridge: Cambridge University Press.
- Imolehin E. and Wada, A. C. (2000), Meeting the Rice Production and Consumption Demand of Nigeria with Improved Technology. *International Rice Commission Newsletter. Vol. 49.*
- Kilkenny, M., and G.E. Schluter. 2001. “Value Added Agriculture Policies Across the 50 States.” *Rural America* 16(1):12-18.
- Kotler, P (2000), *Marketing Management*, Prentice-Hall, Upper Saddle River, New Jersey.
- Krejcie, R.V. and Morgan, D.W. (1970). *Determining Sample Size for Research Activities.* In Hill, R. (1998). “What Sample Size is ‘Enough’ in Internet Survey Research”? *Interpersonal Computing and Technology: An electronic Journal for the 21st Century.* Available at: <http://www.emoderators.com/ipct-j/1998/n3-4/hill.html>

- Lindgreen, A., Hingley, M., Trienekers, J. (2008), “Relationships, networks and interactions in food and agriculture business to business marketing and purchasing”. *British Food Journal*, Vol. 110 No. 4/5, pp. 346 - 360
- Manning and Reece (2007), implication of the consumer perception and preferences for franchise versus independent hardware store
- Matsatsinis, N. F., and Samaras, A. P. (2000). Brand Choice Model Selection Based on Consumers’ Multicriteria Preferences and Experts’ Knowledge. *Computers & Operations Research*, 27(7-8), 689-707. [http://dx.doi.org/10.1016/S0305-0548\(99\)00114-8](http://dx.doi.org/10.1016/S0305-0548(99)00114-8)
- Munrray, J.M., and C.M. Delahunty. 2000. “Mapping consumer preference for sensory and packaging attributes of cheddar cheese.” *Food Quality and Preferences* 5(11): 419-435.
- Mutsikiwa, M., Marumbwa, J., & Mudondo, D. C. (2013) . The Impact of Informational Package Elements on Consumer Purchase Behavior of Breakfast Cereal Products: The Case of University Students in Masvingo, Zimbabwe. *European Journal of Business and Management*, 5(8), 55-63.
- Nakamoto S.T.(2004). *Agric Economics and Marketing of Perishable Products*. University of Hawaii at Manoa. USA.
- Nebo O. N. (2000). *Principles of Modern Marketing*: Enugu, Precious and Queen Nigeria Limited.
- Olannye, P.A. (2013); *Marketing Principles Management*: Most Virtue Publishers Benin.
- Opeyemi G., Adedeyi S.O. Komolafe S.E Arotiba K and Ifabiyi J.O. (2015). Analysis of consumer’ preference in patronizing locally produced and imported Rice in Nigeria State. *Nigeria Journal of Agriculture, food and Environment II (3): 38-43*.
- Panwar, J. S. (2004). "*Beyond Consumer Marketing: Sectoral Marketing and Emerging Trends*", Tejeshwar singh for response books, typeset in 10 pt, New Delhi.
- Peter, M. (2009). Entrepreneur. Retrieved March 28, 2009 from <http://www.en.wikipedia.org/wiki/>
- Rogelberg, R. Fisher, G., Maynard, C., Haleb, O. & Horvath, M. (2010). Attitude towards survey: Development of a measure and its relationship to respondent behavior. *Organizational Behavior Method 4 (1) 3-25*.
- Rundh, B. (2013). Linking Packaging to Marketing: how packaging is influencing the marketing strategy. *British Food Journal*, 115(11), pp.1547-63.

Silayoi, P. and Speece, M. (2007), The importance of packaging attributes: a conjoint analysis approach, *European Journal of Marketing*, 41 (11/12), 1495-1517.

Sporleder, T. (2003). “Managerial Economics of Vertically Coordinated Agricultural Firms.” *American Journal of Agricultural Economics* 74(5).

Tetteh, B. A., Sidney, N. A. and Stanislaus, A. A. (2011). Consumer preferences for rice quality characteristics and the effects on price in the Tamale Metropolis, Northern Region, Ghana, *International Journal of Agricultural Science*, 1(2):67-74

USDA (United States, Department of Agriculture. Farm Security and Rural Investment Act of 2002), Title VI, Section 6401. A. 2a, May 1, 2002.

Venkatraman, V., Clithero, J. A., Fitzsimons, G. J., & Huettel, S. A. (2012). New Scanner Data for Brand Marketers: How Neuroscience Can Help Better Understand Differences in Brand Preferences. *Journal of Consumer Psychology*, 22(1), 143-153. <http://dx.doi.org/10.1016/j.jcps.2011.11.008>