

Towards Designing Attractive Packages for Processed Plantain Chips in Ghana: the Consumers Prospective

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Abstract

Packaging has a crucial role to attract consumer, force them to choose the product and act as a brand communication vehicle. Growth centres for packaging are shifting, with Africa destined to surpass India and China as its population grows, says World Packaging Organization (WPO) President Tom Schneider.

Africa has the most arable land suited to farming of any continent, meaning that with the right packaging and supply chain knowledge, and achieving population forecasts for 2050, African countries should be able to export across the globe.

The point of focus is how to identify the elements of a package design that affect consumer's perceptions about products and brand such as plantain chips.

In this study, data was collected through questionnaires that covered areas such general perception on packaging features specific to plantain chips packages which included size, labelling, colour, shape, material, price, and environmental degradation. The research seeks to identify the ideal features of a package for plantain chips processed in Ghana from the viewpoints of its consumers. This is to enable packaging designers incorporate these features in their designs with the view of creating cost effective packages for plantain chips in Ghana.

The research findings identified size, labelling, colour, shape, material, price, and environmental degradation effects as key features manufacturers and packaging designers are to take into consideration in creating packaging designs for plantain chips.

Key words: *Packaging, Plantain chips, Design, Processing*

Introduction

The manufacturing industry places a vital role in the economic, social, and physical development of any country. It serves as the engine of growth of any economy. Its contribution cannot therefore be underestimated. The purpose of the manufacturing industry to the largest extend produces goods that meet and or exceed the needs of the customers.

In Ghana, manufacturing is an important contributor of its gross domestic product (GDP). About 25000 firms are registered of which it provides employments for an estimated workforce of over 250,000 people. More than 80% of them are small size enterprises with less than 50 employees some of these manufacturing firms help reduce post-harvest loses in Ghana's agricultural sector by processing this agricultural produce. Plantain chips are one of these products processed in Ghana by small scale enterprises. They are prepared by frying round slices of unripen or slightly ripened plantain pulp in vegetable oil. The plantain chips prepared in this way and packed in plastic sachets or in hermetic aluminium sachets to stay crispy and conserve all their quality for more than 4 months at room temperature and away from light according to J. Tchang et. al (1999).

J. Tchang Tchang et. al (1999) explained that the production and marketing of plantain chips in Africa (Cameroon, Nigeria, Ghana, and Côte d'Ivoire) is principally a feminine activity, which has greatly developed these past years. They are generally eaten as snack food. These industrial or semi-industrial units use various equipment making it possible to mechanise certain activities in the production chain.

Food and industrial goods imports into Africa make up a significant share of the packaging market in the region. Rising demand for packaged foods, a need to keep costs down and investments in food processing are propelling the growth of packaging in the region.

Packaging has been identified as one of the major reasons for the failure of locally manufactured goods such as plantain chips to compete favourably with imported ones on both the domestic and international markets. This was contained in a statement read by the then Minister of Trade and Industry, Ms Hannah Tetteh, at the opening of a four-day regional packaging training programme organized by the International Trade Centre (ITC) and the Institute of Packaging Ghana (IOPG) with sponsorship from the European Union (EU) in 2013.

Chaudhary (2014) in his paper 'The Role of Packaging in Consumer's Perception of Product Quality' said in the ever-increasing competition of today's world market the requirement for effective product promotion is crucial, and the product packaging has return to play a lot of vital role as a complete communication vehicle. He quoted Panwar(2004) as saying that today, just about all goods that square measure factory-made or processed need some packaging in some part of their production or distribution; Packaging choices square measure to be thought-about in early selling plans as associate integral part of the entire selling strategy. He also quoted Schoell (1985) as having said that Packaging is a vital integrative side of the merchandise and infrequently a vital think about the success or failure of a given product. He concluded by citing (Berkowitz et al, 1989) haven said that the packaging part of a product refers to any instrumentation within which it is offered for sale and on that information is communicated

Packaging should therefore be consistent with the product's advertising, valuation and distribution. Corporations typically contemplate many completely different package styles for a new product. To pick out the most effective package, corporations typically check varied styles to search out the one that stands up best under traditional use, best for dealers to handle and receives the foremost favourable consumer's response (Lu et al, 2007).

However, in Ghana, most of the times, the views of consumers are not normally considered before the creation of packages for products. The decision basically falls in the hands of the manufacturers who decides how a package should look or appear or best for dealers to handle. Currently, most plantain chips are packaged in transparent film closed with staple pins without any inscription on them with the view that they are reducing packaging cost and hence the overall production cost is reduced. Pienaar (2015) however, is of the view that there is probably no other area of packaging less understood than cost. Although many organizations calculate the cost of the package material itself as the total cost, the true cost is, in reality, the total cost of the entire packaging system involved. A simple replacement of one component of a packaging material for a less expensive one may not be a true reduction, and vice-versa. The question to be asked is, "How will the change affect the entire packaging system, and ultimately increase (or decrease) sales and/or profits?" (Pienaar, 2015).

Obeesi (2004) in her Phd thesis, emphasized that every developing country such as Ghana should put in place policies and programmes to ensure that home grown products conquer the local market. The multiple effects of such a move cannot be over emphasized. She added that the revenue from production stays in the country, the tax-net is widened which means more taxed revenue for development projects. It is worth acknowledging, however, the fact that most Made-in Ghana products have not succeeded in conquering the local market, let alone the international market. Nevertheless, the common reasons given for the low patronage of Made-in-Ghana products is that, they are just not attractive (i.e., do not appeal to the consumers' aesthetic senses) according to Obeesi (2004). Hence, local consumers have a perception that the packaging of Made-in-Ghana products does very little to promote the products.

It is therefore important that the views of the customers should be taken into consideration when designing these packages. This research in the nutshell seeks to identify the ideal features of a package for plantain chips processed in Ghana from the view points of the consumers. This is to enable packaging designers incorporate these features in their designs with the view of creating cost effective packages for plantain chips in Ghana.

Literature review

Definition of packaging

Packaging has been defined by numerous writers probably because of its perceived numerous functions. Soroka (1996) described packaging as a coordinated system of preparing goods for transport,

distribution, storage, sale, and use. He went further to state that, it is a complex, dynamic, scientific, artistic, and controversial business function, which in its most fundamental form contains, protects/preserves, provides convenience, and informs/sells, within acceptable environmental constraints. William and Weilbercher (1979) defined packaging as, 'A broadcast commercial opportunity offered for sale at a particular time for a particular price'. Hanlon (1971) also attempted to define packaging as: 'In its more familiar forms, it is the box on the grocers' shelf and the wrapper on a candy bar. It can also be the crate around a machine or a bulk container for chemicals. It is an art and sciences...'- Hanlon (1971). Paine (1961) defined packaging as a means of ensuring the safe delivery of a product to the ultimate consumer in sound condition at the minimum overall cost.

Functions of packaging

From the above definition of packaging provided by the various researchers, it is clear that packages have various functions. (Adducci & Keller, 2008, p.13) summarized them by categorizing them into five reasons for packaging. They listed them as physiological, safety, belonging, esteem, and self-actualization.

They explained the physiological to mean the package contains all parts and documentation of use of product including ingredients, recipes and other fundamentals pieces. They went further to explain safety to mean the package protects the product as well as reduce theft or loses. Belonging is defined as the package presents the brand and product in a way that connects with a larger community with like-minded individuals making connection in between individual and community. Esteem is explained to mean the package delivers the confidence, competence and achievement of the brand and connects with the consumer through highly emotional methods while self-actualization is expressed to mean the package turns benefits to emotional rewards surrounding the brand and the experience of having the brand in a consumer's life.

Features of packages

Pankratz(2012) listed 5 features that one's product packaging must have to create a positive experience with the consumer.

Creativity and uniqueness

One must be creative and unique with one's packaging. He explained that if one drives down the road and see a brown cow, and then another brown cow, and then more brown cows, one quits paying attention to the brown cows. But then one sees a purple cow and it captures one's attention. One should therefore not be afraid to be different.

Good use of imagery

Good imagery is priceless in packaging. According to Pankratz(2012), People love to look at pictures that help relate themselves to the product. Selecting the right images to connect with the consumer is one of the most important elements in good product packaging.

Product visibility

Pankratz (2012) also pointed out that when possible, it is always a good idea to reveal some of the product to the consumer. Consumers feel more comfortable with their purchase if they can see at least some of the product.

Keep it clean

Some products do not need ten bullet points to describe the product. Using imagery over text is preferred for most packages. Use colours that contrast against your competitors. Adding more text on a package is not always better. Try to use words that reach into the emotions of the consumer. Unique fonts are a good way to enhance branding. Ensure that the font is legible and easy to read.

Easy to open

Pankratz(2012) advised that as manufacturers, we need to find that definitive balancing point between secure packaging and easy-to-open packaging. The consumer's experience is not as pleasant

if they cannot easily open the packaging. There are new and innovative ways to have both security and easy opening features in the packaging. Ensure that your product is easy to open.

Materials for packaging

Materials Food packaging uses many different types of materials. Often several materials are combined to create food packaging; this method normally exploits each of the material's functional or aesthetic characteristics (Marsh & Bugusu, 2007). How these two materials are combined helps to determine things like shelf life, product protection, and the packages insulation properties. Finding the ideal material or combination of materials helps to maintain product quality and freshness during storage, distribution, and consumption (Fellows & Axtell, 2002). Materials commonly used in food packaging include but are not limited to the following (Marsh & Bugusu, 2007)

1. Glass
2. Metals (aluminum, foils, laminates, tinplate, and tin-free steel)
3. Plastics
4. Paper and paperboards

Methodology

A closed ended questionnaire was administered amongst 100 individuals. The researcher asked the participants demographic details about age, and gender. 52% of the respondents were female while 48% were males. Almost all the respondents were young. The questionnaire was tested to determine its validity and reliability. It was finally modified before it was administered. The participants answered the questions pertaining to packaging elements and features and its influence on their mindset when purchasing plantain chips. A simple random sampling was used where all respondents have an equal chance of been chosen with a quantitative data analysis used to analyse the data.

Research findings

Packaging as a necessary part of a product

Respondents unreservedly agree that packaging is indeed a necessary part of a product. It is clear from their responses that every product should be packaged in any form.

Packaging helps in identifying the product

All respondents again agreed that packaging helps identify products. It is clear from their response that packaging help promote products. It is therefore clear that customers prefer packaged products to those that are not packaged.

Misleading packages

63% of the respondents are however of the view that some packages are sometimes misleading. Misleading packages can rather discourage customers from consuming such products in the near future.

Selection of products based on the advice of friends or family or based on their ages

76% of the respondents are of the view that they do not select products based on the advice from family and friends. 80% of these respondents are also of the view that neither will they select products based on their age.

General view on packages of products

73% of the respondents do not like the packages of local products generally. The packages did not satisfy their taste. This clearly indicates one of the reasons for the low patronize of locally produced products in Ghana.

Colourful packages for plantain chips

80% of the respondents are of the view that colourful packages for plantain chips matter to them and are likely to attract them to purchase those products as compared to those products packaged in non colourful packages.

Attractive shapes and adequate size

About 67% of the respondents prefer the packages of their plantain chips having attractive shape. However, it was not clear what type of shapes these packages should take. Other research could be done to ascertain the type of shapes customers prefer. They are also of the view that it has adequate size.

Labelling

90% of the respondents are of the view that labelling plays a key role when put on packages of plantain chips. It gives customers the composition or ingredients of the plantain chips of which are consuming. It also provides other key details such as date of expiry and manufacture which help customer determine whether a product could be consumed.

Modification of packages

83% of the respondents however are of the view that the packages of plantain chips should be modified from time to time to reflect the needs of customers.

Other uses of packages for plantain chips

88% of the respondents are of the view that they do not prefer using packages of plantain chips as containers at a later time. They desire to dispose them off after use immediately. It is therefore unwise to design packages with the notion that customers could prefer using them as containers at a later time.

Material is transparent

87% of the respondents are of the view that they prefer the packaging of the material for plantain chips been transparent. It makes them been able to see the actual products been sold. It is therefore important to consider the transparency nature of the material when designing packages for plantain chips.

Properly sealed and easily opened

76% of the respondents are of the view that they prefer the packages of plantain chips been properly sealed. Properly sealed products prevent the contamination of products in the package by impurities. However, 75% of the respondents desire their packages are easily opened any time they desire to consume plantain chips.

Environmental degradation

80% of the respondents are concern with environmental degradation when purchasing packaged plantain chips. Sometimes they find it difficult identifying places to dispose of the empty packages after consuming the products. This sometimes makes come customers stay away from consuming such products at certain times and places.

Price

89% of the respondents take into consideration the price of the product before purchasing a particular brand of plantain chips. It is therefore key when designing packages for plantain chips, to take into consideration the price at which the product will be sold as against the vital features incorporated on the package. Expensive features incorporated on packages are likely to increase the price of the commodity.

Conclusion

It is clear in the research that customers prefer products that are packaged. From the research, Ghanaians generally are not satisfied with the packages of locally produced products. It is therefore important that manufacturers and package designers listen to the voice of their customers and create packages that are cost effective.

It is shown in the research that customers of plantain chips will prefer that plantain chips are packaged with transparent material and labelled. They also prefer the package being colourful with attractive shape. It is their desire that the design of the package is modified from time to time. It should also be

properly sealed and easily opened. Generally, they dislike packages designed with the mindset that those packages could be used at a later time as containers. However, they will also take into consideration the price of the product and the effects of the package on the environment before purchasing any brand so in designing packaging products, designers consider using material that less expensive because expensive packaging products affects the price of the commodity on the market. If all these concerns are considered during package designing, designers are likely to produce cost effective packages for plantain chips.

All things been equal, it is anticipated that packages designed to suit the needs of the customers are likely to attract them to consume such products.

As more plantain chips are consumed, many more will be employed in both upstream and downstream of the supply chain. It could lead to an increase in revenue to the country as a whole from the payment of taxes by these organizations and individuals.

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