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Strategies for Improving Consumer Utilization of Labels on Processed Food Products in Aba Metropolis, Abia State

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Abstract

This study focused on strategies for improving consumer utilization of labels on processed foods in Aba Metropolis, Abia State. Specifically, it determined strategies to be adopted by: consumers themselves; manufacturers; and distributors/traders. The study utilized descriptive survey research design. Population was made up of three groups: consumers, manufacturers and distributors processed foods products in the area of study. A multistage technique was used to select a sample of 260 respondents (comprising 120 consumers, 45 manufacturers, 95 distributors) who participated in the study. Questionnaire was used for data collection. Mean and standard deviation were used to analyse data. Findings include: eight each of consumers-related strategies with mean ($\overline{X}$) scores of 2.61-3.14; manufactures related strategies with mean ($\overline{X}$) scores 2.87-3.17; and distributors related strategies with mean ($\overline{X}$) scores of 3.02-3.15. These strategies which could be adopted by consumers, manufactures and distributors, include, among others, consumers to form the habit of reading labels processed foods, manufactures to include manufacturing date on processed foods, and distributors are to display the price tag on the processed foods. Five recommendations were made. These include that regulatory authorities (like NAFDAC) should monitor and ensure that manufacturers fulfil their responsibilities of raising consumers' awareness on the utilization of information on food labels such as ingredients, manufacture/expiration date, NAFDAC and Batch numbers.

Keywords: Consumer, Labels, Processed, Foods, Utilization, Manufacturers, Distributors

Introduction

Over the years, emphases have been made on nutrition or food behaviours by nutritionists in order to promote a sustainable healthy living. Healthy food behaviours include the roles consumers play regarding what they eat at any time. For example, the consumption of organic foods, exercising and positively changing one's lifestyle could help reduce high prevalence of avoidable nutritional diseases (such as diabetes, hypertension, obesity, etc.). However, Affram and Darkwa (2015) stated that globalization has ushered in a new convenient eating pattern due to the busy work schedule and a sedentary lifestyle which has increased the influx

and patronage of foreign processed packaged foods (like corn beef, noodles, tinned fishes, etc.) that now inundate the Nigerian market. In view of this, Themba and Tanjo (2013) reiterate that an important way to get consumers become aware and educated on the reading and using food labels (otherwise nutritional information) would enhance their ability to make healthy food choices. Internationally, food labelling has effectively achieved healthier consumer consumption behaviour and product development which transcends into improved health outcomes and the subsequent reduction in medications (Susannah, 2019).

Petrovici, Fearne, Nayga and Drolias (2012) stated that food labels are vital tools that should be used by food industries or manufacturers including distributors and traders to provide the specific ingredients, antioxidants, nutritional values, nutritional risks, manufacturing and expiration dates. Alongside communicating dietary information enticing consumers towards processed foods, it is primarily expected to protect the consumer from avoidable nutritional problems arising from lack of nutrition information. In view of this, researchers reiterate that understanding the ingredients and lifespan of processed foods is significant for preventing the consumption of contaminated, poisoned, expired or spoilt foods, which would induce nutritional diseases (like obesity, diabetes, hypertension, diarrhoea, dysentery, etc.) and its attendant economic drain on the populace. Fortin, 2017; Igodo, 2019; Lanlord, 2019; Obodo, 2018).Alemu (2014) emphasized that processed foods are sourced from agricultural products that have undergone changes into other forms of foods that are parboiled, spiced, and packaged with certain preservatives or additives. These changes make processed foods easy to prepare and less time to be consumed.

The methods of food processing could lead to the destruction of those harmful pathogens including enabling food industries or manufacturers to provide consumers with a greater variety of foods whether alien to the region or even in and out-of-season (Alemu, 2014).This prompted Asouzu (2017a) assertion that the intake of local and natural foods suffices as an effective prescription against nutritional diseases like hypertension, obesity, diabetes, etc. Incidentally, since food processing is linked to the removal of certain nutrients, vitamins and fiber present in the food, this accounts for the criticisms against processed foods for promoting over-nutrition and obesity inducing oils, containing too much sugar and salt, too little fiber, and otherwise being unhealthy (Avag and Uchi, 2016). Kempen, Bosman, Bouwer, Klein and Van Der Merwe (2011) stated that properly utilizing food labels involve five steps of information processing via: exposure, senses stimulation, information processing, relevant information grasping consumers' attention and relating relevant information to a specific consumer purchase need (i.e. health, nutritional, and satisfaction). In addition, Washi (2012) argues that consumers choice of

processed or pre-packaged foods is sequel to their preferences and understanding of special diet or nutrition for satisfaction and tackling health problems and diseases (like obesity, diabetics, cardiovascular diseases, several cancers/tumours, etc.).

Non-compliance to nutritional labelling could be attributed to manufacturers dishonesty or deceit in the way they use these labels to short change consumers (Thomas, 2011). This scenario inclines manufacturers or food industries intent to deliberately use health claims that are misleading and in some cases downright false. Despite what the label may imply, some of these products are not healthy. This makes it hard for consumers to choose healthy options without a thorough inspection of the ingredients list (Tessema, Kasshun and Haile, 2014). Reyes, Garmendia, Olivares, Aqueveque, Zacarías and Corvalán (2019) noted that front labels are often used to lure people into buying pre-packaged foods. However, some of these labels are highly misleading and contrary to consumers purchase intention. In view of this, Nestle (2017) stressed that the promotion of awareness of consumers can improve their nutritional information, education, and attitudes towards tenaciously or steadfastly utilizing labels on processed foods.

Food labels are inscriptions on processed foods that consumers are expected to read and evaluate in order to be better informed on their dietary choice and purchase intention. However, nutritional illiteracy alongside lower educational or awareness levels, undermines consumers interest or enthusiasm on reading food labels contents. This puts the health of consumers in danger since processed foods may be subject to expiration and adulterations (Okojie and Isah, 2014). In Aba metropolis for example, the high patronage of processed foods by the inhabitants of this area observed by this researcher prompted the need for this study. More so, the lack of information on food labels which can undermine consumer utilization of labels on processed foods has been identified as a major denial of consumer rights. Manufacturers, distributors and dealers have been found to falter in this regards as many of the fail in their primary responsibilities to the consumer by providing information on their products (Igodo, 2019). This is owing to the fact that many consumers do not understand what constitute food labels, and as such they reject the ensuing message (Wodts, 2010). In cases, where consumers report understanding most of the information on nutrition labels; they report finding the information confusing and difficult to understand based on what they ascribe as the "technical terms" used in such food labels. Unfortunately, consumers (male and female) with higher education and incomes that are nutritionally illiterate also are easily confused on the ratio of salt and sodium; energy and calories; sugar and carbohydrate; saturated fat and polyunsaturated fat that is healthy for intake. Thus, unhealthy diets among populations are a leading cause of avoidable illness and premature death in developing countries, including Aba in Abia State in South-eastern Nigeria.

Previous studies, by Washi (2012) and Igodo (2019) centred on the awareness of food labelling among groceries consumers for healthy living. However, focuses were centralized on consumers' roles to protect themselves from food dangers, thereby drawing attention to the need for strategies that should be adopted by both manufacturers and distributors/dealers/traders, as well as to improve consumer awareness of food labels. It is against this backdrop that the researcher deemed it necessary to embark on an independent study to examine strategies to be adopted for improving consumer utilization of labels on processed foods in Aba metropolis, Abia State.

Purpose of the Study

The main purpose of this study was to involve strategies for improving consumer utilization of labels on processed foods in Aba Metropolis. Specifically, the study determined strategies to be adopted by the following groups for improving consumer utilization of labels on processed foods:

1. consumers themselves;
2. manufacturers of the processed food products.
3. distributors/dealers/traders

Research Questions

The study was guided by the following research questions:

What are the strategies to be adopted for improving consumer utilization of labels on processed foods by each of the following groups:

1. consumers themselves?
2. manufactures?
3. distributors/dealers/traders?

Methodology

Research Design: This study adopted a survey design.

***Area of the study*:** The study was carried out in Aba metropolis of Abia State, South East Nigeria. The area has an estimated population of 2,277, 300 (National Bureau of Statistics, 2018) and comprising Osisioma Ngwa LGA with 906, 146; Aba North with 672, 803 and Aba South with 698, 351). The area is characterised by numerous commercial activities. Many inhabitants of this area have average education, and are engaged in buying and selling. Processed foods abound in this area.

***Population of the study*:** The population was made up of three groups: consumers, manufacturers and distributors of processed food products in the area. The consumers patronize processed foods. They depend largely on those foods r mostly for breakfast and lunch since many of them have limited time for preparing foods at home before going out daily.

There were 83 local food manufacturers within this area at the time of the study based on the report of Aba Food Operators Association (2020). The responsibilities of this group include but not limited to the production of different food products such as *Tummy tummy, Indomie, Golden Pasta, Chikki, Filla, Biggi* etc. Also, 100 food distributors in the area (Aba Food Operators Association (2020) completed the population for the study. This group was included because it is responsible for making these foods reach the final consumers or retailers. Sometimes,

distributors are alleged to be responsible for lack of information.

***Sample for the study*:** A sample size of 260 respondents (comprising 120 consumers, 45 manufacturers, 95 distributors) participated in the study. The study adopted a five phase multistage sampling technique. Firstly, purposive sampling technique was used in the selection of all the three Local Government Areas (vis Aba North, Aba South, and OsisiomaNgwa) in Aba metropolis. In the second phase, random sampling technique was used in the selection of 120 consumers from the three Local Government Areas (LGAs) in Aba metropolis, Abia State. Thirdly, 45 manufacturers (staff) were randomly selected 9 each from the 5companies or outlets in the study area. Fourthly, the non-proportionate random sampling technique was used in the selection of 95 distributors from the 3 Local Government Areas in Aba North. These processes provided opportunities for all stakeholders to participate in the study.

***Instrument for Data collection*:** Questionnaire was used for data collection. It was developed through literature review based on the specific objectives of the study. The instrument had a 4 point scale of "Strongly Agree" (SA, 4), "Agree" (A, 3), "Disagree" (D, 2), and "Strongly Disagree" (SD, 1). It consisted of two sections. Section A elicited the demographics of the respondents (i.e. consumers, manufacturers, distributors, and traders or dealers), while Section B comprised eight items each on the variables of consumers, manufacturers, and distributors/traders/dealers. The questionnaire was validated three experts in nutrition. The reliability or (internal consistency) of the questionnaire was determined using Cronbach Alpha (r) method. A reliability coefficient of 0.708 was obtained..

***Data Collection Method*:** A total of 260 copies of the questionnaire were distributed by hand to the respondents. Only 229 copies were validly retrieved and used for the analysis. This represents 99.7 percent return rate.

***Analysis Techniques*:** The collected data was scored, tabulated, coded, and analyzed using mean and standard deviation to answer the research questions. A criterion mean cut off of 2.5 was used. Any item with a mean rating of 2.50 and above was rated as "agreed", while any item with a mean rating of less than 2.50 was rated as "disagreed".

Results

Strategies to be adopted for improving consumer utilization of labels on processed foods by consumers themselves.

Table 1: Mean Responses and Standard Deviation on strategies to be adopted for improving consumer utilization of labels on processed foods by consumers

S/N	Strategies to be adopted by consumers	N = 229 Mean	SD	Decision
1	to form the habit of always reading labels rather than relying mainly on the price tag on the processed foods	2.96	.98	#
2	to read carefully the ingredients used in producing the processed foods they want to buy	2.86	.88	#
3	to know how to use batch number to ascertain the authenticity of any product	2.99	.83	#
4	consumers to read fliers from manufacturers and distributors on the importance of labels on processed foods	2.88	.76	#
5	to confirm that NAFDAC number is written on the labels of processed foods	3.14	1.06	#
6	to check the manufacture date written on processed foods before buying the product	3.07	1.10	#
7	to read to know how to dispose the containers of processed foods to avoid adulteration and food poisoning	2.61	.99	#
8	to read and ensuring that the expiry date on processed foods is still valid before purchasing such product	3.06	.92	#
	Grand Mean	**2.95**	**0.94**	#

*# (Agree) = ≥ 2.50 while * (Disagree) = < 2.50.*

Table 1 shows the mean rating and standard deviation on the strategies to be adopted by consumers for improving utilization of labels on processed foods Aba metropolis, Abia State include to: confirm that NAFDAC number is written on the labels of processed foods ($\overline{X}$=3.14), check the manufacture date written on processed foods before buying the product ($\overline{X}$ =3.07), read and ensure that the expiry date on processed foods is still valid before purchasing such product ($\overline{X}$ =3.06), know how to use Batch number to ascertain the authenticity of any product ($\overline{X}$ =2.99), form the habit of always reading labels rather than relying mainly on the price tag on the processed foods ($\overline{X}$ =2.96), read fliers from manufacturers and distributors on the importance of labels on processed foods ($\overline{X}$ =2.88), read carefully the ingredients used in producing the processed foods they want to buy ($\overline{X}$ =2.86), while the least was read to know how to dispose the containers of processed foods to avoid adulteration and food poisoning ($\overline{X}$ =2.61). Furthermore the grand mean score of 2.95 indicates therefore, the strategies to be adopted by consumers for improving utilization of labels on processed foods Aba metropolis, Abia State.

Strategies to be adopted for improving consumer utilization of labels on processed foods by manufacturers

Table 2: Mean Responses and Standard Deviation on strategies to be adopted for improving consumer utilization of labels on processed foods by manufacturers

S/N	Strategies to be adopted by manufacturers are to:	N = 229		Decision
		Mean	SD	
1	include manufacturing date on processed foods	2.97	1.04	#
2	specify the expiration date on processed food	2.92	.92	#
3	specify the ingredients used in producing the processed foods	3.17	.81	#
4	indicate the registered name of the manufacturing company on the processed foods	2.94	.96	#
5	specify the nutrient contents derived from the products	2.91	.93	#
6	indicate the NAFDAC and batch number and approval on products	2.87	.86	#
7	include information on how to store the products	3.00	.96	
8	specify information on how to dispose the left-over of the processed foods	2.93	.77	#
Grand Mean		**2.96**	**0.91**	#

*# (Agree) = ≥ 2.50 while * (Disagree) = < 2.50.*

Table 2 shows the mean rating and standard deviation on the strategies to be adopted by manufacturers for improving utilization of labels on processed foods Aba metropolis, Abia State include to: specify the ingredients used in producing the processed foods ($\overline{X}$=3.17), include information on how to store the products ($\overline{X}$ =3.00), include manufacturing date on processed foods ($\overline{X}$ =2.97), indicate the registered name of the manufacturing company on the processed foods ($\overline{X}$ =2.94), specify information on how to dispose the left-over of the processed foods ($\overline{X}$=2.93), specify the expiration date on processed food ($\overline{X}$ =2.92), specify the nutrient contents derived from the products ($\overline{X}$ =2.91), while the least was to indicate the NAFDAC and Batch number and approval on products ($\overline{X}$=2.87). Furthermore the grand mean score of 2.96 indicates therefore, the strategies to be adopted by manufacturers for improving utilization of labels on processed foods Aba metropolis, Abia State.

Strategies to be adopted for Improving Consumer Utilization of Labels on Processed Foods by Distributors/Dealers/Traders.

Table 3: Mean Responses and Standard Deviation on strategies to be adopted for improving consumer utilization of labels on processed foods by distributors/ dealers/ traders

S/N	Strategies to be adopted by distributors/traders/dealer are to:	N = 229 Mean	SD	Decision
1	display the price tag on the processed foods	3.07	.82	#
2	ask consumers to check the expiry date of the products before purchase	3.06	.91	#
3	give consumers fliers on the benefits of reading labels on variety of processed foods	3.15	.85	#
4	encourage consumers to check the manufacture date of the products before buying	3.08	.94	#
5	advise consumers that food labels help them know the ingredients, calories, and health benefits of the processed food	3.02	.97	#
6	encourage consumers to dial the product batch number in their phones to determine the product's originality	3.09	.94	#
7	stack the products with the branded product logo	3.10	.88	#
8	encourage consumers to read the NAFDAC number showing the approval of the product	3.04	.95	#
Grand Mean		**3.08**	**0.91**	#

*# (Agree) = ≥ 2.50 while * (Disagree) = < 2.50.*

Table 3 shows the mean rating and standard deviation on the strategies to be adopted by distributors/traders/dealers for improving utilization of labels on processed foods Aba metropolis, Abia State include to: give consumers fliers on the benefits of reading labels on variety of processed foods ($\overline{X}$=3.15), stack the products with the branded product logo ($\overline{X}$=3.10), encourage consumers to dial the product Batch number in their phones to determine the product's originality ($\overline{X}$ =3.09), encourage consumers to check the manufacture date of the products before buying ($\overline{X}$=3.08), display the price tag on the processed foods ($\overline{X}$=3.07), asking consumers to check the expiry date of the products before purchase ($\overline{X}$=3.06), encourage consumers to read the NAFDAC number showing the approval of the product ($\overline{X}$=3.04), while the least was to advise consumers that food labels help them know the ingredients, calories, and health benefits of the processed food ($\overline{X}$=3.02). Furthermore the grand mean score of 3.08 indicates therefore, the strategies to be adopted by distributors/traders/ dealers for improving utilization of labels on processed foods Aba metropolis, Abia State.

Discussion of the Findings

The result in Table 1 revealed a grand mean score of 2.95, which indicated that the strategies to be adopted by consumers for improving utilization of labels on processed foods Aba metropolis, Abia State include:

confirming that NAFDAC number should be written on the labels of processed foods, checking the manufacture date written on processed foods before buying the product, reading and ensuring that the expiry date on processed foods is still valid before purchasing such product, knowing how to use Batch number to ascertain the authenticity of any product, forming the habit of always reading labels rather than relying mainly on the price tag on the processed foods, consumers reading fliers from manufacturers and distributors on the importance of labels on processed foods, reading carefully the ingredients used in producing the processed foods they want to buy, and reading to know how to dispose the containers of processed foods to avoid adulteration and food poisoning.

These findings are in agreement with previous studies. For example, Darkwa (2014) noted that consumers' awareness, knowledge, understanding and usage of information (like manufacture, expiration, ingredients, Batch number) placed in food labels would enhance their consumers purchasing decisions of healthy, nutritious, and safe foods or products. In line with this, Okojie and Isah (2014) suggested that encouraging consumers to read ingredient information, identify brand logos, and method of disposing used containers and products is a way of enhancing consumers nutritional literacy. Hence, Hiths (2012) assertion that consumers need to develop interest and ability to effectively and patiently read information (like manufacture and expiry) contained in processed foods they consume would help prevent food-related problems that emanate from the consumption of inappropriate, spoilt and poisoned or contaminated processed foods. These findings aligns with the researcher's position that consumers promoting the utilization of labels or tags in processed foods would help them developing the consciousness of always reading and becoming aware of important information (like ingredients, nutritional content, manufacture and expiry dates, NAFDAC number and Batch number) they need to know before purchasing processing foods that are healthy, safe and free from causing any complication and inducing any dietary ailments.

The result in Table 2 revealed a grand mean score of 2.96, which indicated the strategies to be adopted by manufacturers for improving utilization of labels on processed foods Aba metropolis, Abia State include to: specify the ingredients used in producing the processed foods, include of information on how to store the products, include of manufacturing date on processed foods, indicate the registered name of the manufacturing company on the processed foods, specify information on how to dispose the left-over of the processed foods, specifying the expiration date on processed food, specify the nutrient contents derived from the products, and indicate the NAFDAC and Batch number and approval on products. These findings are consistent with the views of Habu (2015) which noted that manufacturers are major determinants of food safety for consumers, and therefore should be active in the

promotion of label utilization. In view of this, manufacturers should be responsible for the welfare of consumers through the provision of adequate information (like production date, ingredients, expiration date, and NAFDAC number) on food products. Jegede (2017) and Obodo (2018) added that manufacturers utilize food labels as a strategy of drawing the attention of consumers to imbibe the practice of always reading and effectively utilizing the information contained in the food labels. Also, Petrovici *et al*. (2012) stated that food industries, producers or manufacturers embark on the provision of comprehensive nutrition information, tag or label on processed foods as important tools used for communicating dietary information to consumers. Hence, manufacturers should primarily be responsible to encourage the utilization of food labels as a deliberate way of promoting consumers nutritional awareness in the society (Okojie and Isah, 2014; Lanlord, 2019; Igodo, 2019). Deductively, manufacturers need to constantly create consumer awareness on usage of processed foods labels through fliers instructing or educating consumers that the reading of tags or information (like ingredients, NAFDAC number, and manufacture/expiry dates) rather than the hitherto price tag on processed foods is an effective strategy that would help consumers purchase safe, healthy and genuine food products.

The result in Table 3 revealed a grand mean score of 3.08, which indicated the strategies to be adopted by distributors/traders/dealers for improving utilization of labels on processed foods Aba metropolis, Abia State include to: give consumers fliers on the benefits of reading labels on variety of processed foods, stack the products with the branded product logo, encouraging consumers to dial the product batch number in their phones to determine the product's originality, encourage consumers to check the manufacture date of the products before buying, display the price tag on the processed foods, ask consumers to check the expiry date of the products before purchase, encourage consumers to read the NAFDAC number showing the approval of the product, and advise consumers that food labels help them know the ingredients, calories, and health benefits of the processed food. These findings are in tandem with the reports of Danilola, Omotesho and Animashaun (2019) that the quest for showing that safe, healthy or wholesome, authentic or genuine food products are marketed underscores distributors or traders encouraging consumers towards emphasis and interest on reading information (like manufacture date, expiry date, Batch number, NAFDAC number, ingredients, target population, etc.) stated or contained on food labels to form their purchase decision of processed foods. In view of this, Opoku (2017) reported that local distributors, wholesalers and retailers owe the consumer some explanations on the safety of a product. Therefore, Okojie and Isah (2014) and Igodo (2019) added that a responsible dealer will inform a customer on the importance of checking for safe information on the tag or label on every processed food products is

indeed vital to ensure the purchase and consumption of safe, authentic and healthy food.

Conclusion

This study has revealed strategies to be adopted by consumers, manufacturers, and distributors/traders/dealers towards the utilization of labels, tags or information (like manufacture date, expiry date, NAFDAC number, ingredients, disposal technique, and Batch number) as a strategy for raising awareness of the purchase and consumption of safe, healthy and genuine processed food in Aba metropolis, Abia State. This will enable manufacturers and distributors to embark on the production and distribution of fliers in order to help consumers understand the importance of reading carefully information stated on labels prior to the purchasing of processed foods in the marketplace, stalls or shops.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Consumers should be encouraged by relevant agencies such as the mass media and religious organizations through sensitization and enlightenment programmes to develop interest or form the habit of always reading and using information like manufacture and expiry date, ingredients and NAFDAC number (rather than emphasizing on the price tag) to inspire their decision of buying and consuming processed foods.
2. Regulatory authorities (like NAFDAC) should monitor and ensure that manufacturers fulfil their responsibility or obligation of raising consumers' awareness on the utilization of information on food labels (like ingredients, manufacture/expiration date, NAFDAC and Batch number) prior to their purchase of food products.
3. Distributors, traders or dealers should be encouraged to provide consumers with fliers containing the information on the benefits of reading labels on variety of processed foods towards the purchase and consumption of safe, healthy and genuine foods or products.
4. Food industries or manufacturers should indicate the type of processes foods they undergo on labels in order to enhance the proper nutrition of patients with special dietary advice and/or avoidance of certain type of food (like frying).
5. Enlightenment programmes, jingles, adverts about food labels should be carried out by governmental and non-governmental agencies in order to spread the benefits of using information on food labels.

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