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Assessing Baby Food Labelling Compliance with the Food and Drug Authority Standards in Ghana

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ABSTRACT

The literature is silent about labelling compliance by manufacturers of baby food as required by the Food and Drugs Law, 1992, and specified by the Ghana Food and Drug Authority (FDA), as compared to other facets such as consumer attitude and knowledge about food labelling, factors that influence consumers on food labelling. This study evaluated the degree to which infant food manufacturers in Ghana adhere to the requirements set forth by the FDA on food labelling. The study used a quantitative approach, where a checklist was used to gather data from 104 baby food products in various channels such as stall/shops, supermarkets, and malls in Kumasi. With SPSS software, the data were analysed using frequencies and percentages as well as the chi-square test. The study found that more foreign companies were involved in the manufacturing of baby food products in the Ghanaian market as compared to the local manufacturers. Baby food manufacturers highly comply with the FDA standards regarding food labelling. Also, there was a significant difference between foreign baby food producing companies and their compliance level with FDA standards and that of local baby food producing companies and their compliance level with FDA standards in Ghana. More foreign companies comply highly with food labelling. Therefore, monitoring and inspection team of the FDA should intensify their monitoring and inspection activities, especially, among the locally baby food producers. Moreover, the FDA, in collaboration with the association in charge of baby food producers, should organise annual meetings to sensitize the

companies about the essence of food labelling and its effect on the consumer.

Keywords
Baby Food Products
Food and Drug Authority
Food Labelling Compliance
Manufacture

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Introduction

The food industry claims that food safety is its top priority, and that this goal cannot be compromised. This is done to protect consumer health. Some of the commitments that the food industry has made to ensure the safety of food include the reformulation of goods with lower levels of salt, fat, and sugar; the implementation of appropriate portion size management in packaging; and the provision of the necessary labelling information on food products.

Since Stanton R. Avery, in the 1930s, developed the world's first self-adhesive labels and turned them into a profitable business, labelling has become obligatory for all consumer products that are packed. The purpose of labelling is to ensure that customers have access to comprehensive information regarding the contents and composition of a product, to assist them in making the appropriate decision, and to offer protection for their health and interests. The term "labelling" refers to any written, printed, or graphic material that is displayed near the food or is included on the packaging that is accompanied by the food to promote the sale or disposal of the food. As stated by Davies and Smith [1], a label is the only means by which consumers are able to make responsible food choices. Lin et al. [2] and Dimara and Skuras [3] suggest that labels act as an informational tool for consumers, offering insights into food products and dietary choices. Additionally, the presence of a label is a crucial aspect of consumer protection. Cowburn and Stockley [4] argue that consumers have the right to be informed about the nutritional content of the products they buy, just as they have the right to know the origin of the product and whether it is safe for consumption. Recent times have seen a significant uptick in the momentum that research into labelling and consumer choices has gained. According to the findings of a study conducted by Glanz and colleagues [5], customers are expressing an increasing number of times that they require knowledge in order to make reasonable decisions when shopping for food. Allen et al. [6] discovered that the majority of consumers do not comprehend the nutrition labels on snack foods to the extent that they are able to make educated decisions regarding their diets. This was discovered through a study that examined patients' comprehension and utilization of snack and package nutrition labels. Moreover, a study in Malawi by Kasapila and Shawa [7] found that about 73.8% of customers

do not comprehend the numerical information and vocabulary that is utilized in labelling and packaging.

In each and every nation, the formats of labelling have been specified by both guidelines and legislation. The Codex Alimentarius Standards [8] serve as the foundation for the labelling requirements that are in place in Ghana. Products are required to have "appropriate information to ensure that adequate and accessible information is available to the next person in the food chain to enable them to handle, store, process, prepare, and display the product safely and correctly, as well as a lot or batch number available for easy identification and recall if necessary" [9]. This standard was developed by Ababio et al. It is a violation of Ghana's Food Law (PNDC L 305B) [10] to offer for sale food that is not of the proper nature, substance, or quality. This is a violation of the law.

Within the food industry, baby food is a sector that is experiencing rapid expansion. The global market for infant food was predicted to be worth $35 billion by Nielsen in the year 2015. The big picture reveals that there are significant disparities between countries and areas. The very vulnerable consumers of the segments, in addition to the mediatization of food scandals that have been spreading over the past few decades, leave their mark on the confidence of customers. In the case of infant foods, both customers and authorities, and consequently the firms, handle the production and marketing procedures with a high level of sensitivity in order to ensure that they are safe and appropriate. Product labels are one of these tools because they offer consumers sufficient information about the product they sell.

An official decree issued by the government of Ghana outlines the general guidelines that govern the labelling of food goods. Foods that are designed for newborns and young children are referred to as special foods, and the Food and Drug Administration (FDA) is the regulatory body that oversees the manufacture and marketing conditions of these foods (with subsequent changes). An infant is defined as a child who is younger than twelve months old, while a young child is defined as a child who is between the ages of one and three years old. According to Government Decree and FDA regulations, labels on food products for infants and young children must include the following: the product name, ingredient list, quantity of specific ingredients, net weight of the packaged food, shelf-life, storage and usage conditions, name and address of the producer or distributor, place of origin, instructions for use (where applicable), production batch number, the appropriate age group for the child, presence or absence of gluten (for products intended for infants under six months), energy content, protein, fat, and carbohydrate content, as well as mineral and vitamin content [11]. A lot or batch number must also be provided to facilitate easy identification and recall if necessary. Additionally, products should include sufficient information to ensure that the next person in the food chain can handle, store, process, prepare, and display the product safely and correctly.

Despite these regulations and the benefits of proper labeling, the shelves of both small and large stores and supermarkets are often filled with unwholesome products, including expired, unlabeled, poorly labeled, uncertified, or products labeled in languages other than English (the official language of Ghana). The Ghana Standards Board (GSB) frequently confiscates such products and publicly destroys or burns them almost every week. In other countries, the processing method that is utilized, such as irradiation, is also a requirement.

Notwithstanding the importance of reading and understanding product labels to avoid potential health risks, it is commonly believed in Ghana that most consumers (i) do not read labels, and (ii) even among those who do, many struggle to comprehend the information provided on them. This is primarily due to a number of factors. Regarding the selection and application of information at the product level, the question that needs to be posed is whether or not Ghanaian consumers read labels and comprehend what they are saying when they do so. Does the fact that manufacturers of infant food fail to properly label their products allow them to take advantage of the infirmities of consumers? This study aimed to determine the extent to which manufacturers of infant food comply with regulations concerning the labelling of their goods.

Labelling, which is a legal necessity, has been the subject of discussion over the years regarding ways in which it could be modified to better fulfil the needs of consumers. It is a violation of Ghana's Food Law (PNDC L 305B) [10] to offer for sale food that is not of the proper nature, substance, or quality. This is a violation of the law. Labelling that contains incorrect information is frowned upon on a global scale since it has the potential to have a detrimental impact on the customer and, in some instances, even result in the death of the consumer. In spite of the stringent restrictions already in place, the Ghanaian food industry has been confronted with a number of instances of food fraud in recent years. There are two administrative agencies and a cooperation system in Ghana that deal with fraudulent acts in the agri-food chain. These bodies are the Ghana Food and Drugs Board and the Food and Drug Authority. In 2016, the majority of occurrences of food fraud were associated with mislabelling, primarily due to the label not complying with the requirements addressing the content of the food. There has been no attempt made in Ghana to address this particular matter in the same manner as the European Union has. Inadequate management and unscrupulous practices, along with a lack of care for the labelling of infant food, are to blame for this situation.

On the other hand, failure to comply with these general laws in Ghana can result in the temporary or permanent restriction of the importation, distribution, sale, and use of any product, as well as a fine of GH¢ 20,000 [10]. Despite the implications and risk of food safety issues involved in non-compliance with food labelling according to the Food Law in Ghana, some producers or companies continue to default based on the fact that most consumers do

not read, and among those who do read are mostly interested in the price, quantity, nutritional information, and taste [12]-[15]. The literature is silent about the labelling compliance by producers or manufacturers of baby food as required by the Food and Drugs Law, 1992, and specified by the Ghana Food and Drug Authority (FDA), as compared to other facets such as consumer attitude and knowledge about food labelling, factors that influence consumers on food labelling. In view of this, the study evaluated the degree to which infant food producers or manufacturers in Ghana adhere to the requirements set forth by the Food and Drug Administration (FDA) on food labelling.

Research Methods

A. Research Design and Approach

The study adopted a quantitative research approach, considering the strengths of this methodology. This design is particularly suitable when applying principles of statistical inference to generalize findings to a broader population [16]. Specifically, the quantitative research technique was employed because it involves the systematic empirical investigation of observable phenomena using mathematical, statistical, or conceptual techniques to establish relationships between variables. The quantitative approach was deemed appropriate as it enables the collection of data from a large number of baby food products available on the market to evaluate their compliance with FDA standards.

According to Creswell [17], a research design refers to a set of assumptions and principles that outline the procedures and methods for collecting and analyzing data. Creswell [17] emphasized that the chosen research design provides a framework for determining which methods and assumptions to apply during data collection and analysis. This study utilized a descriptive research design. As highlighted by Cheruiyot [18], a descriptive study involves gathering data to address questions about the current state of the subject under investigation. This research design was selected because it facilitates the identification of appropriate answers to the research question concerning the compliance of baby food producers in Ghana with food labeling regulations.

B. Study Area

Kumasi, the capital of Ashanti Region, serves as a vital commercial hub for the regional economy and functions as a key transport and logistics center for international distribution. Its strategic location enables it to cater to neighboring landlocked countries such as Burkina Faso, Mali, and Niger. Situated in the transitional forest zone, Kumasi is approximately 270 kilometers north of Accra, the national capital. Geographically, it lies between Latitude 6.35°N and 6.40°S and Longitude 1.30°W and 1.30°E, with an elevation ranging from 250 to 300 meters above sea level. The city is home to one of West Africa's largest markets, famously

known as the "Central Market" [19]. This bustling market attracts a wide range of traders and consumers, making it a significant economic center in the region.

Kumasi is also a major hub for baby food production and distribution. Numerous baby food manufacturers and producers supply their products to various stalls and shops within the market, ensuring a steady flow of goods to meet consumer demand. The city's central role in commerce and logistics makes it a critical point for the distribution of essential products, including baby food, across the region and beyond.

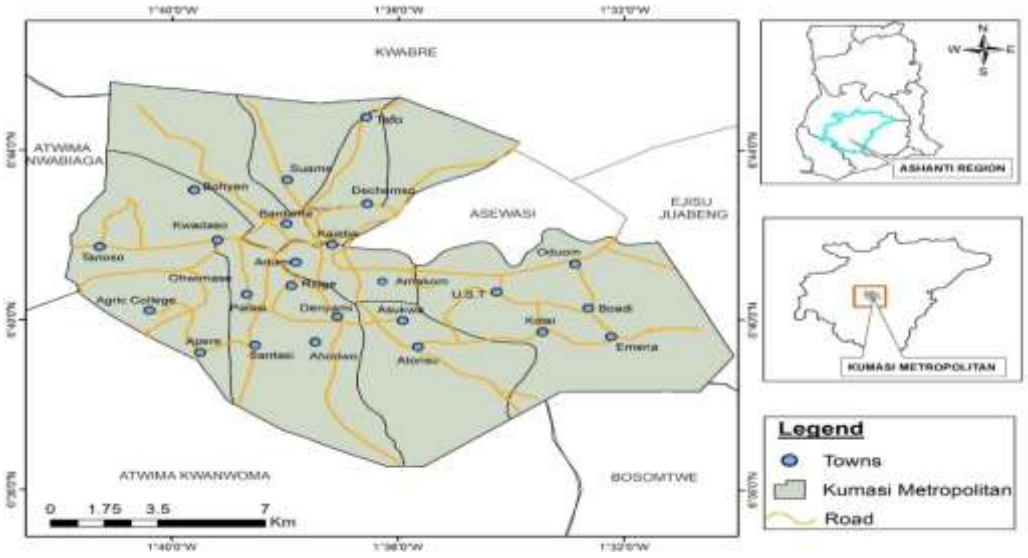

Fig 1. Map of Kumasi Metropolis

C. Population and Sample

The general population of this study comprises baby food producers or manufacturers in Ghana. This includes both locally produced and foreign baby food producers or manufacturers who sell their products to the people of Ghana. Based on a preliminary survey conducted in Kumasi, there are more than one hundred baby food products on the market in Ghana. Accidental sampling technique was adopted in selecting various baby food at the Kejetia market in Kumasi. Due to the nature of data collection, time period, and logistics for the survey, only 150 baby food products that the researchers came into contact with at the Kejetia market were considered for the study.

D. Data Collection Instruments and Procedure

The main data collection instrument used for the data collection was an observational checklist. This permitted the researchers to observe, examine, and check the various elements or content of food labels of various baby food producers or manufacturers against the FDA standards. The checklist was prepared based on the FDA standards as well as the objectives of the study. The first approach to the data collection process was based on obtaining permission to carry out the research from the authorities of the Kejetia market as well as the Kumasi Metropolitan Assembly. Afterwards, the various stalls/shops that sell baby foods were

identified, and informed consent was sought from the owners or caretakers of them. The researchers sanitized their hands before and after handling a food product for hygienic purposes. In instances where a particular baby food product is found more than once, only one of such products was observed. When the same food product was found in another stall/shop, it was ignored since it had already been observed, assessed, and checked against the FDA standards.

E. Data Processing and Analysis

The data analysis took two main forms. The collected data was processed to facilitate meaningful interpretation. To achieve this, the responses were coded and entered into the Statistical Package for the Social Sciences (SPSS version 25.0) for analysis. Both descriptive and inferential statistical techniques were employed to analyze the data, and the results were presented using tables and figures for clarity. Frequencies and percentages were utilized to summarize and describe the data, providing an overview of the key findings. Additionally, the Chi-square test was applied to examine and compare differences among baby food producers or manufacturers in terms of their compliance with baby food labeling regulations. This statistical approach allowed for a deeper understanding of the variations in compliance levels across different producers.

Results

This study aimed to assess the compliance level of baby food labelling with the FDA standards in Ghana. The study employed a quantitative approach where a checklist was used to gather data from 104 baby food products in various channels such as stall/shops, supermarkets, and malls in Kumasi. The data were analysed using frequencies and percentages as well as the chi-square test. The results are presented in tables and figures based on the research objectives (compliance level of food labelling by baby food producers and comparison of the compliance level of food labelling between baby food producers in Ghana and foreign or international producers)

Table 1. Channel for baby food products

Channel	Frequency	Percent
Supermarket	36	34.6
Stall/shop	49	47.1
Mall	19	18.3
Total	104	100

Table 1 shows that three channels for baby food products were involved in this study. These included supermarkets, stall/shop and malls in Kumasi. Out of these channels, 49 baby food products were assessed at the stall/shops, followed by 36 baby food products found in the supermarkets, and 19 baby food products were found at the mall in Kumasi.

Data were also gathered on the various baby food producing companies both in Ghana and foreign and the result is presented in Table 2. This was assessed through the number of baby food products they distribute on the market for sale.

Table 2. Baby food producing companies

Company	Number of baby food products	Percent
Cynical parent	1	0.96
Dori's mixed	2	1.92
Dr Annie's company	9	8.65
Ella's kitchen	5	4.81
Gerber organic banana	1	0.96
Happy Baby Company	15	14.42
Kraft Heinz Company	8	7.69
Nestle Company	45	43.27
Palates in Training	5	4.81
Pascual company	3	2.88
Promasidor company	4	3.85
Vinolia company	6	5.77
Total	104	100

Out of the 104 companies, Nestle has about 45 different baby food products on the Ghanaian market. This was followed by Happy Baby Company, which has eight (8) different baby food products for sale, and Dr. Annie's company has 9 baby food products, while the companies that produce the least number of baby food products include Cynical Parent and Gerber Organic Banana.

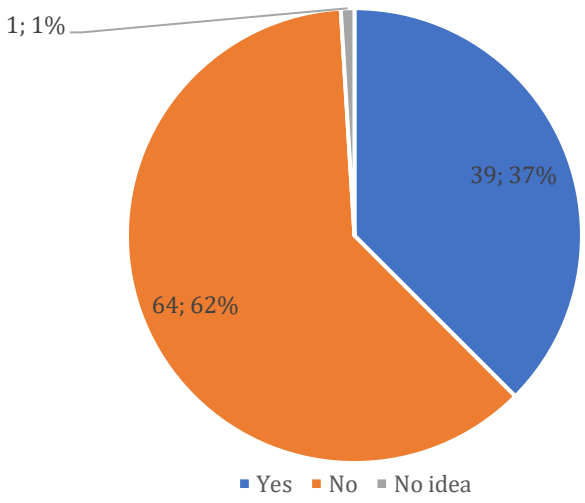

Fig. 1. Whether Baby food products are new or old on the market

Figure 1 shows that about 62 percent of the baby food products are old on the market, while about 37 percent were new on the market. This shows that most of the baby food products involved in the study were old and have been on the market for a long time. Therefore,

it was expected that the majority of these companies would comply with the FDA standards regarding food labelling since they have been in production for a long time.

F. Compliance level

Objective one sought to examine the compliance level of baby food producing companies with the FDA standards of Ghana. Data were gathered on the various food label elements of the various baby food products in the various shops/stall, supermarkets, and malls in Kumasi, and the results are presented in Table 3.

Table 3. Compliance of baby food producing companies with FDA standards

Label	Frequency	Percent
List of ingredients		
Present	102	98.1
Absent	2	1.9
Total	104	100.0
Ingredient proportion or units		
Present	86	82.7
Absent	18	17.3
Total	104	100.0
Proportion or units arranged in decreasing order		
Yes	10	9.6
No	94	90.4
Total	104	100.0
Hypersensitivity declaration of ingredients (gluten (cereals), egg, fish, milk)		
Yes	13	12.5
No	91	87.5
Total	104	100.0
Net content		
Present	102	98.1
Absent	2	1.9
Total	104	100.0
Net content in SI units		
Present	83	79.8
Absent	21	20.2
Total	104	100.0
Name and address of manufacturer		
Present	103	99.0
Absent	1	1.0
Total	104	100.0
Country of origin		
Present	104	100.0
Absent	0	0.0
Total	104	100
Lot number/batch number		
Present	104	100.0
Absent	0	0.0
Total	104	100.0
Best before, use by, or expiry date.		
Present	103	99.0
Absent	1	1.0
Total	104	100.0
Special storage conditions		

Label	Frequency	Percent
Present	102	98.1
Absent	2	1.9
Total	104	100.0
Applicable instructions for use		
Present	80	76.9
Absent	24	23.1
Total	104	100.0
Label language in English		
Present	97	93.3
Absent	7	6.7
Total	104	100.0

Table 3 shows that almost all the baby food producing companies, both in Ghana and internationally, somehow comply with the FDA standards on food labelling. Also, all the baby food producing companies (both local and foreign) highly comply with the following food label elements or items: "country of origin", "lot number/batch number, and "best before/expiry." Thus, all the companies indicated these elements or items on their baby food products.

Moreover, almost all the baby food producing companies both in Ghana and internationally highly comply with the FDA standards about "list of ingredients" (98.1%), "net content" (98.1%), "special storage conditions"(98.1%), and "label language in English" (93.3%). On the other hand, the elements or items that were poorly complied with included "properties arranged in descending order" and "Hypersensitivity declaration of ingredients (gluten (cereals), egg, fish, milk)". Thus, about 94 percent of the baby food producing companies do not indicate the properties in descending order on their products, and also 91 (87.5%) of the baby food producing companies do not indicate the hypersensitivity declaration of ingredients on their products. This helps the consumer to be aware of the properties as well as the hypersensitivity ingredients in the product.

Table 4. Other labelling issues

	Frequency	Percent
Label's design makes it difficult to read.		
Yes	13	12.5
No	91	87.5
Total	104	100
Space for labelling is limited or small.		
Yes	12	11.5
No	92	88.5
Total	104	100.0
Labels are not easily separable from the container.		
Yes	36	34.6
No	68	65.4
Total	104	100.0
Labels are prominent		
Yes	80	76.9
No	24	23.1
Total	104	100.0

Table 4 shows that the majority (87.5%) of the baby food products assessed at the Kejetia market have nice designs that permit visibility and an aesthetic view. Thus, it was very easy to see and read the label. Regarding space, Table 4 shows that only about 12 percent of the baby food products assessed required additional space for proper labelling. Thus, majority of the baby food products have enough space for labelling that makes reading and visibility of label easily.

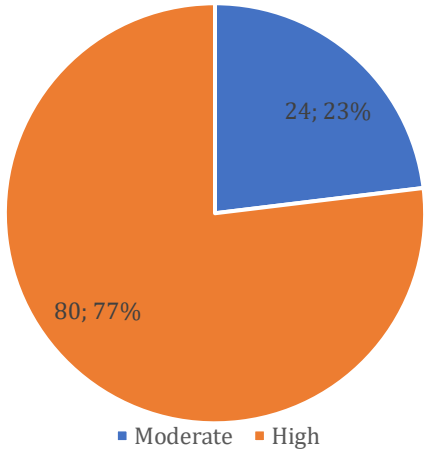

Fig. 2. Compliance level of the Respondents

In general, the overall compliance level of the various companies (local or foreign) was assessed. Fifteen (15) label items were checked on each baby food product, and therefore, the index for compliance level was categorized into three (low = 1-5 items correctly, moderate= 6-10 items correctly, and high = 11-15 items correctly) based on the total number of label items that were correctly in place on the baby food product. Out of this, Figure 3 shows that about 23 percent of the baby food products moderately comply with the FDA standards in Ghana, while about 77 percent of the baby food products highly comply with the FDA standards in Ghana. This implies that the majority of the baby food products sold in Kumasi are in compliance with the FDA standards.

G. Compliance level between Ghanaian and Foreign companies

Objective two was to examine the differences between local and foreign baby food producing companies and their level of compliance with FDA standards in Ghana. Data were gathered from both companies' products, and the results are shown in Tables 5 and 6.

Table 5. Compliance Level between Ghana and Foreign baby food producing or manufacturing companies

Location	Moderate	High	Total
Foreign	13(54.2%)	66(82.5%))	79
Ghana	11(45.8%)	14(17.5%))	25
Total	24(100%))	80(100%))	104

Table 5 shows that out of the 79 foreign baby food companies involved in this study, 13 of them moderately comply with the FDA standards while 66 of them highly comply with the FDA standards in Ghana. On the other hand, out of the 25 local baby food companies, 11 of them moderately comply with FDA standards in Ghana, while 14 of them highly comply with FDA standards in Ghana.

Comparatively, there is a difference between foreign baby food producing companies and their compliance level with FDA standards and that of local baby food producing companies and their compliance level with FDA standards in Ghana. Foreign companies comply with food labelling as ordered by the FDA standards as compared to the locally produced companies. However, whether it was statistically significant or not, the Chi-square test was used to examine these differences, and the result is presented in Table 6.

Table 6. Difference between Local and foreign baby food producing companies regarding food labelling compliance

Location	Chi-square value	df	Sig.
Ghana Foreign	8.116	1	0.004

The Pearson Chi-Square test was conducted to compare the differences between local and foreign baby food companies and their compliance level with the FDA standards in Ghana. The result ($\chi^2(1) = 8.116$, $p < .0005$) in Table 6 shows that there was a statistically significant difference between local and foreign baby food producing companies and their compliance level. Foreign companies comply more with the FDA standards compared to local baby food producing companies. Therefore, the study failed to accept the null hypothesis, which stated that there is no significant difference in the compliance level between local and foreign baby food producing companies.

Discussions

A. Channel for baby food products

Out of these channels, 49 baby food products were assessed at the stall/shops, followed by 36 baby food products found in the supermarkets, and 19 baby food products were found at the mall in Kumasi. According to a study conducted by Johnson et al. [20], infant food purchased from local kiosks or shops is frequently perceived by consumers as being fresher and more wholesome in comparison to mass-produced alternatives available in supermarkets. Nevertheless, issues pertaining to hygiene and expiration dates were frequently mentioned in these particular contexts [21]. Moreover, in contrast with supermarkets, the assortment of baby food products in smaller stores may be more restricted, potentially influencing consumer satisfaction and selection [22].

B. Compliance of baby food producing companies with FDA standards

Almost all the baby food producing companies, both in Ghana and internationally, somehow comply with the FDA standards on food labelling. Also, all the baby food producing companies (both local and foreign) highly comply with the following food label elements or items: "country of origin", "lot number/batch number, and "best before/expiry." Moreover, almost all the baby food producing companies both in Ghana and internationally highly comply with the FDA standards about "list of ingredients" (98.1%), "net content" (98.1%), "special storage conditions" (98.1%), and "label language in English" (93.3%). Research conducted by Osei et al. [23] lends credence to the conclusion that the majority of infant food manufacturers in Ghana adhere to the requirements set forth by the FDA on food labelling. Through their research, they investigated the labelling procedures of food companies in Ghana and discovered that there was a high degree of compliance with legal standards. This was particularly true with regard to crucial labelling aspects such as the country of origin, the lot number, and the best before/expiration date.

On the other hand, the elements or items that were poorly complied with included "properties arranged in descending order" and "Hypersensitivity declaration of ingredients (gluten (cereals), egg, fish, milk)". Thus, about 94 percent of the baby food producing companies do not indicate the properties in descending order on their products, and also 91 (87.5%) of the baby food producing companies do not indicate the hypersensitivity declaration of ingredients on their products. Some potential areas for improvement in labelling processes are highlighted by the poor compliance rates for attributes that are placed in descending order and the hypersensitivity disclosure of components. In order to minimize bad reactions and guarantee that products are safe, studies conducted by Smith and Brown [24] highlight the significance of using ingredient descriptions that are both clear and accurate. This is especially important for consumers who have allergies or certain dietary restrictions. The high compliance rates for elements such as the list of ingredients, net content, special storage conditions, and label language in English are consistent with findings from similar studies in other contexts [25]. Consumers rely heavily on these labelling elements to make informed decisions about the safety, quality, and suitability of baby food products for their infants.

Furthermore, the majority (87.5%) of the baby food products assessed at the Kejetia market have nice designs that permit visibility and an aesthetic view. Regarding space, only about 12 percent of the baby food products assessed required additional space for proper labelling. The majority of baby food products having nice designs that permit easy visibility and aesthetic view aligns with research on packaging aesthetics and consumer preferences [26]. However, the finding that only a small percentage of products require additional space for proper labelling underscores the importance of optimizing packaging design to

accommodate essential labelling information without compromising visual appeal or shelf space utilization.

C. General Compliance level of the baby food products

The compliance level of baby food products with FDA standards in Ghana presents an intriguing subject for discussion, particularly when segmented into foreign and local manufacturers. The findings indicate that approximately 23% of baby food products in general moderately comply with FDA standards, while 77% highly comply. This suggests that most baby food products sold in Kumasi adhere to FDA requirements, ensuring consumer safety and product quality.

D. Compliance Level between Ghana and Foreign baby food producing or manufacturing companies

The data reveals that of the 79 foreign companies, 66 (83.5%) demonstrate high compliance with FDA standards, while 13 (16.5%) show moderate compliance. In contrast, the local baby food industry has 14 companies (56%) with high compliance and 11 companies (44%) with moderate compliance. This disparity suggests that foreign companies outperform local manufacturers in maintaining regulatory standards. Such differences may be attributed to resource availability, technological advancements, and the global pressure on foreign firms to maintain international standards.

There was a statistically significant difference between local and foreign baby food producing companies and their compliance level. Foreign companies comply with the FDA standards more than local baby food producing companies. Therefore, the study failed to accept the null hypothesis, which stated that there is no significant difference in the compliance level between local and foreign baby food producing companies. Research by Jones et al. [27] conducted a comparative analysis of regulatory compliance among multinational corporations (MNCs) and local firms operating in developing countries. Their findings revealed that MNCs generally exhibit higher levels of compliance with local regulations, including food safety and labelling standards, due to their greater resources, expertise, and global reputational concerns. This supports the observed difference in compliance levels between foreign and local baby food producing companies in Ghana.

Some studies have shown that foreign companies are often better resourced and more likely to adopt advanced manufacturing practices. For instance, Foreign firms operating in developing countries often leverage their access to superior technology and global expertise to comply with local and international standards. This aligns with findings from the Ghana FDA's annual report, which highlights the relatively higher compliance rate of imported goods compared to locally produced goods in the food and beverage sector.

On the other hand, local companies face challenges such as limited access to advanced technology, funding constraints, and less exposure to international best practices. Local food manufacturers in Ghana often struggle with capacity-building issues, impacting their ability to consistently meet regulatory standards.

Conclusion

The descriptive survey using a quantitative approach was appropriately conducted with the guidance of the research objectives. There were more foreign companies involved in the manufacturing of baby food products in the Ghanaian market as compared to the local manufacturers. Baby food manufacturers highly comply with the FDA standards regarding food labelling despite few ones that moderately comply with that. Label elements or items that were highly complied with by the baby food companies included: "country of origin", "lot number/batch number, and "best before/expiry." On the other hand, label elements or item that was least comply by the baby food companies included; included "properties arranged in descending order" and "Hypersensitivity declaration of ingredients (gluten (cereals), egg, fish, milk)". Comparatively, there was a significant difference between foreign baby food producing companies and their compliance level with FDA standards and that of local baby food producing companies and their compliance level with FDA standards in Ghana. More foreign companies highly comply with food labelling as ordered by the FDA standards as compared to the locally produced companies.

Recommendations

Based on the findings and conclusions of the study, the following suggestions are put forward for consideration: the monitoring and inspection team of the FDA should intensify their monitoring and inspection activities, especially among the local baby food producers. Thus, there is a need for stricter enforcement mechanisms by the FDA to ensure that all baby food products, regardless of origin, meet the required standards. Also, the FDA, in collaboration with the association in charge of baby food producers, should organise quarterly meetings or workshops to sensitize the companies about the essence of food labelling and its effect on the consumer, especially about the "properties arranged in descending order" and "Hypersensitivity declaration of ingredients (gluten (cereals), egg, fish, milk)" that were highly neglected by these companies. Moreover, channel owners or caretakers should be educated and trained on how to inspect and check the various food label elements on the various baby food products on the market.

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