UNIVERSITY OF CAPE COAST

EFFECTS OF LABELLING ATTRIBUTES OF PACKAGED PRODUCTS ON CONSUMER'S CHOICE IN THE CAPE COAST METROPOLIS

BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature……………………Date……………………....

Name: Emmanuel Odartei Lamptey

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature……………..……… Date:…..………………….

Name: Mr. Kwamena Minta Nyarku

ABSTRACT

The purpose of the study was to assess the effects of labelling attributes of market products on consumer's choice in the Cape Coast Metropolis. Data were collected from 123 consumers and shopkeepers/shop owners in the Cape Coast Metropolis. Presentation and analysis of the study's data were done using percentages and frequencies which were discussed descriptively. Chi-square tests were also used to test the association between consumers' demographic characteristics and consumers' choice regarding mandatory labelling attribute of packaged products. Using mixed method, both descriptive survey and exploratory research designs were employed in the study. The study used non-probability (purposive and convenience) sampling techniques in selecting the study's respondents. Questionnaire, interview schedule and observational checklist were the main instruments used to collect the data. The study among other things found that a significant number of the consumers usually go ahead and buy packaged products even if the mandatory labelling attributes they expect are not found on them. It was further found that consumers in the Cape Coast Metropolis pay critical attention to product's expiry date before they buy. Though, illiteracy was found to be the major factor that accounts for some consumers' lack of familiarity with mandatory labelling attributes of packaged products. Based on these findings, it was recommended that regulatory bodies such as Food and Drug Authority (FDA) and Ghana Standard Authority (GSA) should include in their advocacy efforts to the general public, the importance of paying attention to labels especially when buying packaged products.

iii

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May God bless richly bless you all.

DEDICATION

To my mother, Mrs. Gloria Lamptey.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

DIG   Daily Intake Guides

FDA   Food and Drug Authority

GSA   Ghana Standard Authority

HSR   Health Star Rating

LED   Light-Emitting Diodes

MTL   Multiple Traffic light Labels

OLS   Ordinary Least Square

SPSS   Statistical Package for Social Sciences

UCC   University of Cape Coast

WARN   Recommendations/warnings

CHAPTER ONE

INTRODUCTION

Background to the Study

Globally, packaging is acknowledged to be the most effective instrument that informs consumers in terms of whatever information producers wish to communicate about a product to potential buyers (McEachern & Warnaby, 2008). People's perception about packaged products at this stage is quite high due to competition among producers. It has compelled the need to constantly decode any information perceived to be a requirement in satisfying the need of a rational consumers or which has bearing on consumers buying decisions. According to Kumar and Kapoor (2015), effect of food labels on consumers' purchase decision, which is a fast-growing phenomenon in the global food market, has been given insufficient attention in recent times. In a competitive global market environment, the general belief is that the packaged food industry can use an effective communicable label as an important attribute for product differentiation (Kumar & Kapoor, 2017). The self-serving initiatives of packaging has limited the aid of sales persons in buyers' decision process (Kuvykaite, Dovaliiene & Navickiene, 2009). This has increased the challenge of proving products, worthy of being purchased by consumers, producers and marketers. With users calling for more and more knowledge on what they consume, food label elements in packaging such as ingredients, place of origin, expiry date, nutrition facts etc. has added value to information search in the consumer buying decision.

1

Recent international studies including Gaia, Bianchi, Croce and Ceretti (2016) have highlighted some variables that influence consumer's approach to food labels, the degree of comprehension and the frequency of reading. Of great importance are, first of all, socio-demographic factors like education level and socio-economic status, age, gender, individual interest and knowledge in nutrition, as well as health-consciousness (Cecchini & Warin, 2016; Chen, Jahns, Gittelsohn & Wang, 2012; Hess, Visschers & Siegrist, 2012). These studies also indicate that sometimes, food choice is merely a matter of taste or brand. Thus, all information reported may be totally irrelevant because the label is ignored (Gaia et al., 2016).

According to Kotler (1999), packaging, which involves the activities of designing and producing containers for packaged products, is been used by salesmen who attach the labels to products as part of their marketing strategy. These salesmen talk less but they are always able to attract and arouse consumers' attention in purchases, from the small chocolate bar on the shelf to the light-emitting diodes (LED) televisions at the sales stand. This makes packaging a vital tool in marketing and also important in creating competitive advantage in the marketing industry (Rundh, 2009). Packaging has many advantages like protecting the content of the product, attracting consumers, providing information about the product etc.

Food label, which is an essential means through which consumers get to know what the food is made of, what it contains, and other facts allows them to make decisions based on all the necessary information about healthy and hygienic

nature of food product (Latiff, Rezai, Mohammad-Z & Mohammad, 2016). At this stage uncertainty in the food domain is high because the product cannot be consumed before purchase which creates a cognitive dissonance after a choice has been made. This has paved way for the need of various vital information which are printed on labels. Labelling is a powerful quality tool and a direct aid to consumers in making purchase decisions because they can convey important information on the search attributes of the products (Dimara & Skuras, 2005). This allows consumers to best evaluate food products and to make well informed choices (Lagerkvist, 2013).

In today's market, detailed and well-informed food labels have become an indispensable part of consumption scenario (Singla, 2010). Majority of studies have demonstrated distinct interest from consumers in obtaining such information (Realini, Furnols, Sanvdoc, Montosi, Oliver & Guerrero, 2013; Imami, Chan-Halbrendt, Zhang & Zhllima, 2011). With all these findings, product information is well said to play a vital role in the purchase decision of consumers (Dimara & Skuras, 2005). Generally, food purchases are regarded as routine purchase decisions which require low involvement and limited external search for information. However, contrary to other purchases, consumers often have to choose several items within a very short period of time during food purchasing excursions. Consumers who are more involved in a food purchasing task for whatever reason, become more involved in the selection of suitable products and subsequently evaluate packaged food products more carefully, paying more

3

attention to label information to reduce uncertainty and to increase product credibility (Silayoi & Speece, 2004).

According to the European Food Information Council, apart from the mandatory nutrition labelling trend, the standardisation of front-of-pack labels is another global market trend (Loubser, 2018). Countries, such as Thailand, have already introduced mandatory front-of-pack labels, while others, including. Australia, New Zealand and the USA, are considering mandatory labels and product standardisation of all packaged products that are sold on the market. Currently, front-of-pack labels are not mandatory or standardized in South Africa.

The McKinsey Global Institute's (2016) latest research into Africa's economic health pinpoints a rise in consumer spending on packaged products to 2.1 trillion USD by 2025 (at real 2015 prices). The research findings also project that, groups of consumers who will drive much of Africa's consumption growth between now and 2025 include those earning more than 50,000 USD a year in South Africa and North Africa (Loubser, 2018). The rest of consumers in the same bracket include Nigerian consumers in all income brackets, middle-income consumers in East, Central and West Africa including Ghana. Coincidentally, recent figures released by StatsSA show a marginal increase in South Africa's manufacturing production − up by 1.5 percent in August 2017 compared to August 2016.

These findings from McKinsey (2016) and StatsSA (2017) are underscored by recently announced investments in the South African packaging market. These include AB InBev's investment in two new lines for filling

4

returnable glass bottles. Mpact Group's recently commissioned liquid packaging recycling plant; and Golden Era's partnering with a Nigerian beverage can manufacturer to build a large-scale plant. These moves are driven by heightened demand for consumer products resulting from burgeoning individual incomes, an expanding population of youthful consumers and growing domestic economies – particularly those in East and West Africa

In Ghana, product information has become a regulatory bill, which demands from all producers to give some vital information on their produce, both locally produced and imported ones (Food & Drugs Act, 1992). In respect to packaging of foods, food labelling has become a core element in the packaging of beverages ranging from alcoholic to non-alcoholic. The mandatory labelling for packaged foods includes namely: the name of the food, list of ingredients, processing aids and carry-over of food additives, net contents and drained weight, and the name and address of producer. The Food and Drugs Authority (2016) include others like, the country of origin, lot/batch number, date marking and storage instructions.

The Freeport zone and trade liberalisation policies in Ghana have also put locally manufactured goods in a stressful competition with the imported Western goods in the local market (Ismaila, 2010). The attractiveness of the packages of the foreign products coupled with their affordable prices has been attracting more patronage in the local market suffocating the marketing of locally manufactured and branded goods to yield poor sales (UNCTAD/WTO, 2007).

According to Food and Drugs Authority's Annual report of 2016, the authority conducted an inspection of three hundred and sixty-seven (367) imported fresh package fruits and vegetables. This resulted in the department detaining consignments of one thousand, two hundred and sixty-three (1,263) products, because their manufacturers failed to comply with the mandatory requirements of packaged products imported to Ghana. According to the report, all detentions were referred to the appropriate divisions/regional offices for further action. In the end, the department supervised eleven (11) safe disposal of several products and consignments which were deemed unwholesome (FDA, 2016). The Food and Drugs Authority took these steps to ensure that consumers were safe in purchasing any product of their choice on the Ghanaian market.

Statement of the Problem

The problem of poor packaging or sub-standard packaging of locally produced and packaged consumer products still persist. (Ismaila, 2010). These, among others, put the local Ghanaian manufacturers' packaged products in a *hit-or-miss enterprise* and a strong market competition with imported packaged products on the local and international markets (Ismaila, 2010). According to Wyrwa and Barska (2017), earliest considerations and research on packaging primarily focused on general packaging characteristics. For instance, Fernqvist, Olsson and Spendrup (2015) focused on issues related to consumer expectations towards particular packaging features and packaging information values. The latest (Karnal, Machiels, Orth, & Mai, 2016; Lindh, Olsson & Williams, 2016) research area consists of communication aspects of packaging and, in particular,

6

of the use of packaging for symbolic communication and the role of packaging in shaping consumers' buying behaviours.

Another research area (Rundh, 2013) integrates packaging with marketing and its importance for brand management: packaging as a brand identifier and a brand image creator. Further, in their study, Karnal, Machiels, Orth and Mai (2016) focused on variables associated with packaging and its active role in marketing communication of a company. Other studies (Wikström, Williams, Verghese & Clune, 2014; Van Rompay, de Vries, Bontekoe & Tanja-Dijkstra, 2012; Grundey, 2010; Ampuero & Vila, 2006) focus on the use of packaging in advertising and sales promotions in shaping consumers' behaviour.

The existing literature on food labels in Ghana has also focused on one or two of the following: consumers" awareness, knowledge, understanding and usage of food labels (Azila-Gbettor, Kwodjo-Avorgah & Adigbo, 2013; Darkwa, 2014; Ababio, Adio & Amoah, 2012; Osei-Mensah, Lawer & Aidoo, 2012), but offers only limited studies on a combination of these and how they affect consumers purchasing decisions in relation to health. The operationalization of the various variables used by researchers in assessing product labelling and consumers' choice captures consumers' choice to mean the type or alternative product consumers would opt for if the expected labelling are not captured on a product.

Prior studies (Ababio, Adio & Amoah, 2012; Osei-Mensah, Lawer & Aidoo, 2012) emphasize consumers' choice for only food products. For instance, previous studies (Ismaila, 2010; Tarabella & Burchi, 2015; Annunziata &

Vecchio, 2012; Dimara & Skuras, 2005) also limited the analysis to food nutritional labelling and its impact on consumer choice. Obviously, the focus of most prior studies conducted in the area of product labelling are always on food and beverages, living out other packaged products that have mandatory labelling attributes.

It is against this background that this study sought to bridge the gap by assessing the effects of mandatory labelling attributes of packaged products on consumer's choice in the Cape Coast Metropolis. Thus, this study sought to operationalize packaged product to cover not only food and beverages, but also, other packaged products such as drugs, electrical gadgets and even packaged clothing. This is likely to broaden the scope of the analysis regarding packaged products and consumers' choice.

Purpose of the Study

The purpose of the study was to assess the effects of mandatory labelling attributes of market products on consumer's choice in the Cape Coast Metropolis.

Specific Objectives

In order to achieve the main objective, the following specific objectives were considered to;

1. examine the various mandatory labelling attributes on packaged products.

2. assess consumers' knowledge of mandatory labelling attributes on packaged products.

3. examine how mandatory labelling attributes on packaged products affect consumers' choice of product.

8

4. determine the factors that trigger the consumers' eagerness or failure to read mandatory labelling on packaged products before buying.

5. examine the association between consumers' demographic characteristics (sex, educational background, marital status and employment status) and consumer's choice for packaged products with mandatory labelling attributes.

Research Question

In order to address the objective, the following research questions were posed.

1. What are the various mandatory labelling attributes on market products?

2. What is the consumers' knowledge of mandatory labelling attributes on market products?

3. How do mandatory labelling attributes on market products affect consumers' choice of product?

4. What factors trigger the consumers' eagerness or failure to read mandatory labelling on market products before buying?

Research Hypothesis

In order to ascertain whether there is significant association between some of the consumer's demographic characteristics (sex, educational background marital status and employment status) and consumer's choice for products with mandatory labelling attributes, a testable hypothesis was stated to that effect.

9

H₁: There is positive significant association between consumers' demographic characteristics (sex, educational background, marital status and employment status) and consumers' choice for products with mandatory labelling attributes.

Significance of the Study

First and foremost it is expected that based on the findings of the study, stakeholder agencies such as Ghana Standard Authority and Food and Drug Authority would develop the best strategy to ensure that laws regarding mandatory labelling attribute are adhered to by manufacturers in Ghana. The significance of the study can also be viewed from its contribution to theory or knowledge.

Thus the significance of the study can be observed from how its findings empirically supports the assumptions underlying the theories reviewed in this study. By reviewing the practices and consumers' knowledge on mandatory labelling on market products, the findings will help consumers to be particular about reading product labels before purchasing them to prevent buying harmful, inferior or imitated products. The study will also help manufactures to know the kind of information consumers expect to find on a packaged product before purchase.

More importantly, the findings of this study will provide policy directions for the Government of Ghana, through Ministry of Trade and Industry, to ensure that goods imported into Ghana have requisite mandatory labelling attributes that meet international standard. More importantly, the findings and the recommendations made in this study would help other researchers by serving as a

reference material in the future studies. The study will also provide firsthand information for marketers, producers, distributers, students and other scholars who have interest to build upon this research to broaden its scope of analysis.

Limitations of the Study

Although the study recognised that fact that there were many shops in the Cape Coast Metropolis, where respondents with similar characteristics of interest may be selected for the study, due to time and financial constraints, the study was limited to only ten (10) shops. More so, there are a number of product manufacturers in Ghana, but the study focused on only customers/consumers and shop owner in the Cape Coast Metropolis, leaving out the manufacturers who are supposed to comply with mandatory labelling of their products. These limitations may restrict the scope of the analysis.

Organisation of the Study

In terms of structure, the study was organised into five chapters. Chapter one provides an introduction to the study. It covers the study's background, the statement of the problem, the objectives and the research questions of the study. Other aspects of the introductory chapter are the scope of the study, the significance of the study, the limitations and the operational definition of terms. Chapter two reviews the theoretical and empirical literature relevant to the study. Chapter three devoted to the research methodology. Chapter four deals with data collection, analysis and discussion of the results. Chapter five being the final chapter summarises the key findings, and presents the conclusions and recommendations as well as suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The focus of this chapter of the study was to review relevant literature within the scope of the study's objectives. The review of the related literature for this study was to provide both theoretical and empirical foundation for the research, and to also help in determining the direction of the study. The chapter is divided into three main sections. The first section reviews theoretical underpinnings of the study and their relevance to the study. The second, reviews empirical literature of the study, while the third section focus of the presentation and discussion of conceptual framework of the study.

Theoretical Review –underpinning theories

Three key theoretical underpinnings reviewed in this study include: Cognitive Learning theory, Maslow's theory of Needs and theory of Consumer Bahaviour. In order to broaden the scope of the literature review, some empirical models were also highlighted. Among them include: Stimulus Response Model, Model of Human Behaviour and Marshallian Economic Model.

First and foremost, Cognitive Learning theory was considered as part of the theories underpinnings of the study because the cognitive theory stresses the importance of learner motivation and individual needs as well as recognising the fact that the individual has control over what is learnt. In addition, cognitive theory identifies feedback as a vital aspect of learning (Dartey-Baah &

12

Amponsah-Tawiah, 2011). In this regard, the cognitive theory would serve as a learning mechanism that is likely to motivate consumers to be abreast with the nature of products they buy, with respect to labelling attributes.

In addition, the hierarchy of needs theory provides theoretical basis for this study because as pointed out by Ward and Lasen (2009), Maslow (1954) thought of his model as a naturally progressive method of prioritising human needs later it became clear other fields of research could use this approach to better address consumer needs. The affection for Maslow by marketers is quickly explained since it offers a deterministic approach in an otherwise non-deterministic marketplace. In other words, consumer needs are analysed, categorised and prioritised in a prescriptive manner since the same individuals are also consumers (Ward & Lasen, 2009). Thus, the theory of Maslow (1954) takes into account some important moments which commercial organizations offering products to potential different target audiences have to comply with. Product supply should correspond to the nature of consumers, their needs and preferences.

The use of consumer behaviour in assessing buying of packaged products is critical because the theory serves as a guide which provides the direction of product design and policy measures aimed at motivating the behaviour consumer choice with respect to product purchases (Antonides, 2017). However, Antonides (2017) is of the view that consumer behaviour research is different from economic analysis, which is usually derived from a set of assumptions and leads to a normative framework of consumer decision making (Antonides, 2017).

The Cognitive Learning Theory

Learning can be said to be a relatively permanent change in behaviour that occurs as a result of reinforced practices which is in the environment in which we find our self's. There are two types of learning theories which is the *cognitive-response* theory of learning. This theory views learning from a perspective of mental process of memory, thinking, and the rational application these memorised knowledge to a practical problem-solving ability (Torrington, Hall & Taylor, 2005). On the other hand, is the *stimulus-response* theory of learning, which treats learning as a trial and error process. Various cues or stimulus triggers the consumer's need or want, which in turns up to creates a drive to respond. If the response reduces or compensates the drive, then satisfaction occurs, and the response is rewarded or reinforced. This develops a repeat behaviour on consequent responses which brings about learning (Mezirow, 1991; King, 2002).

According to the behavioral theorists, learning takes place in response to events, happenings in a person's external environment. The approach defines learning in terms of an association between stimulus and response, where the stimulus is an external object/person/situation that a person senses and perceives and response is the behavior of the person that occurs in reaction to the object, person and situation. In this case the reaction is to the listed food labelling attributes (King, 2002).

The learning theory, according to Hackley (2005) was formed based on an experiment that took place in the digestion process of a dog that was experimented after series of tests. Tolman (1948), explained that a person learning is a complex mental exercise which takes place as a result of a conscious and

14

deliberate processing of information and storage activity that takes place within consumers, this was propounded after his series of experiments on rats.

The cognitive theory discusses that learning is as a result of consumer thinking, and its emphasis is on the role of mental process rather repetition and rewards associated with the corresponding stimuli. Acebron and Dopico (2000) proposed that individual habits and past experience on the consumer affects his purchase decision, this is applicable because there is some amount of mental exercise from past experience which creates a point of reference for future purchase. The significance of cognitive learning theory to this study is that it provides the necessary information consumers need with regards to mandatory labelling attributes on packaged products.

Maslow's Theory (hierarchy) of Needs

Maslow's (1954) hierarchy of needs which is a motivational theory in psychology argues that human beings need to meet their basic needs after which they can climb up the pyramid to meet higher needs. This means that as one is satisfied with this lower need, he can then climb the pyramid to meet higher needs, and that one cannot interchange the levels of need. The hierarchy of needs theory is one of the most well adopted theories in the study of human motivation and behavior, and also among the first theories which seeks to describe the human behavior toward satisfying the different human needs (Kreitneret et al., 1999). The theory assumes that human needs drives a person's behavior until it has been met or satisfied (Steerset et al., 1996).

15

Thus, need satisfaction being the main motivation for a certain behaviour which includes the response to various food label attributes and the satisfaction it provides to each of Maslow's (1954) human needs. Research has propounded that brands fulfil esteem needs (Coulter & Price, 2008).

Maslow proposed that personal needs are arranged in a hierarchical order explaining that once one of these needs has been satisfied it will no longer be a factor to motivate certain human behaviour which will then be a basics for another higher need to be satisfied (Hilgert & Leonard, 1995). People move from the bottom to the top of the need hierarchy through an active cycle of deprivation, domination, gratification and activation according to the theory (Steers et al. 1996). When a person feels a need is not satisfied in one of the hierarchy levels, all his effort will be directed or focused on that need, for example, if the person needs to satisfy his safety and security needs, he will temporarily ignore satisfying his higher order needs (Escalas & Bettman, 2005).

However, once he has met this need, the higher need will be activated and he will try to satisfy it and continue with meeting the listed hierarchy of needs on after the other as propounded by Maslow (1954). He categorises the basic human needs into five levels in a hierarchy order namely physiological needs, safety needs, social needs, esteem needs and self-actualisation needs, which can be illustrated in Figure 1.

Figure 1: **Maslow hierarchy of needs**

Adopted from Harper and Row (1970)

Maslow's (1954) hierarchy of needs theory has been considered and the most famous among all the content-based theories. Maslow's famous theory of motivation assumes that people are motivated to satisfy five main levels of motivation, which categorized as physiological needs, safety needs, social needs, self-esteem needs and self-actualisation needs. Although many researchers have recognized the significance of Maslow's theory in organizations, Mullins (1996) identifies some difficulties in relating the theory to workplace situation. Thus, people do not satisfy their needs just through work situation, but other area of life as well.

Contributing to content-based motivation theories, Alderfer (1972) argues conversely with his Existence, Relatedness and Growth theory that more than a need could be satisfied at the same time and that a lower order need not be

17

satisfied prior to a higher order need. It is however important Maslow's (1954) theory of needs reviewed in this study provides theoretical bases to compare consumers' needs to the products they purchase which may also be influenced by how such products are packaged and labelled. The Maslow's (1954) theory further shows that at least each dimension of theory of five needs contributes to the meaning of consumers' choice, although each alone is not able to address fully the concept consumer's decision with regards to the choice of a product in its entirety.

Theory of Consumer Behaviour

This theory explains how the consumer purchases a product and the various steps and processes they go through. Schiffman and Kanuk (2000), defined consumer behaviour to be the behaviour consumer's display when searching, purchasing, using, evaluating, and disposing a product, services and ideas. Engel, Blackwel and Miniard (1990) stated that those actions directly involved in obtaining, consuming, and disposing of products and services, including the decision processes that precedes and follow these actions. Mullen and Johnson (2013) explain consumer behaviour as the decision maker or behaviour of the consumer in the market placed of goods and services. The key assumption is that all consumers would want to utilize small resources (income) to maximize the greater satisfaction. On the contrary, the theory of human behaviour stands out the mental exercise that take place in the way one behaves, this talks about why we eat, sleep, make choices, and our reactions to stimuli from our environment.

18

This reaffirms the belief that consumers are content if the desired aspiration is equivalent to the commodities performance (Balabanis & Diamantopoulos, 2008).

The relevance of consumer behaviour theory to the study is acknowledged in Hoyer and Maclinis's (2008) observation that consumer behaviour reflects the totality of customer's decision with respect to consumption, acquisition and disposal of products, service, tasks, people, ideas and experience by units of decision making. In this regard, it is assumed that the behaviour of consumer towards the reading of a particular packaged product may have the tendency to influence his/her decision. This reinforces the fact that the manner in which consumers purchase a product is very important to marketers because it is important to know how a product features are being viewed by a consumer (Hoyer & Maclinis, 2008).

The Stimulus Response Model

This model was based on a research which prolong experiment based on how digestion took place in dogs conducted by a scientist called Pavlov (Kotler, 2007). While doing this, Pavlov noticed that the dogs started salivating before they were brought food to eat. This did not end the experiment but continued to measure the amount of saliva that was produces during the feeding process. The stimulus response model which is also called black box model explains the characteristics of buyer and their decision-making process which helps the buyer to decide upon his response. Internal and external factors have been represented in the model as buyer characteristics and environmental stimuli respectively.

19

These factors together influence the decision process and buyer response from the identification of problem till the post evaluation of the decision each step is very critical for the buyer which directly affects the marketing strategies.

The environment and marketing stimuli enters and form the consumer's consciousness which exhibit's some purchase characteristics (Kotler, 2007). According to Belch and Belch (2001), the stimulus repetition provides reinforcement and help consumers not to forget. This creates and build a brand image for a product and creates a positive position in the minds of the consumers. The direction this stimulus model gives to the study is that the characteristics of individual consumer which cannot be predicted should also be factored into the equation of product labelling and consumers' choice. The processes of stimulus response are presented in Figure 2.
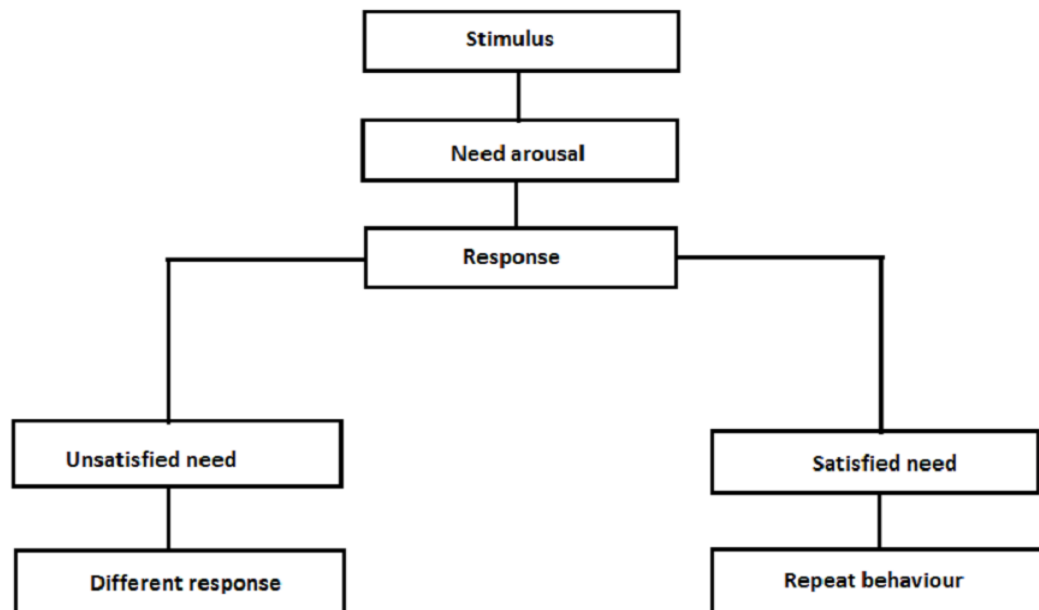
Figure 2: The stimulus response model of purchase behaviour

Source: Adopted from Belch and Belch (2001)

20

Marshallian Economic Model

The Marshallian economic model argues that consumers will spend their income on products that will offers maximum satisfaction, relative to their taste and prices of goods. The roots of the Marshallian theory can be calculated back to the time of Adam Smith and Jeremy Bentham (Runyon & Stewart, 1987). With the doctrine of economic growth propounded by Adam Smith, self-interest is the main motivator of all the actions taken by man.

Bentham (1952) viewed man as carefully calculating and evaluating his expected pains and pleasures of every contemplated decisions he makes. The theoretical work of Alfred Marshall aimed at realism, was founded in his method to examine the effect of change when a single variable is changed. A practical example is when price is changed and all other variables are held constant based on simplified assumptions.

In finding out greater reality, Marshall (1920) discussed the consequences of the provisional assumptions and modified his assumptions in subsequent works. Marshall's (1920) assumptions and method have been worked on and has advanced to the modern utility theory. This theory proposes that the economic man (consumer) maximises his utility by carefully calculating and evaluating the after consequences of any purchase (Runyon & Stewart, 1987). Relating this model to behavioral science, Kotler (1979) viewed this model from a different perspective. His view was that the model was tautological which therefore made it neither true or false, and not informative enough because it depicts the buyer as behaving in his best interest. Another point Kotler (1979) made was the model being normative rather than descriptive.

21

A third view was that economic factors should be included in any comprehensive description of buying behaviour, since economic factors operate, to a greater or lesser extent, in all markets (Runyon & Stewart, 1987).

Conceptualisation and operationalisation of Consumers' choice and packaged products

Consumers' choice in this study has been conceptualised and operationalised from two different perspectives. The first side takes into account whether or not by their own choice, consumers would go ahead and buy a packaged product which does not have the expected mandatory labelling attributes. The second perspective looks at which mandatory labelling attributes consumers pay attention to in buying their preferred type of packaged product.

Furthermore, packaged products were also operationalized to cover staple foods sold in supermarkets and petty shops that have labelling attributes. Among the key packaged products that were considered include: cereal and grain products, groceries, canned food, Non-alcoholic beverages, edible oils, canned drinks, paper drinks, bottled drinks, candy and confectionery. Other packaged products that were included in the study include all packaged drugs sold at drug stores and pharmacies, electrical gadgets and cosmetics.

This conceptualisation and operationalisation were informed by the theory of consumer behaviour, which according to Hoyer and Maclinis (2008), reflects the totality of customer's decision with respect to consumption, acquisition and disposal of products, service, tasks, people, ideas and experience by units of decision making.

This is supported by prior studies (Finkelstein, Strombotne, Chan & Krieger, 2011; Elbel, Kersh, Brescoll & Dixon, 2009; Elbel, Kersh, Brescoll & Dixon, 2009) on whether product labelling influences consumer purchasing decisions, several studies show it can encourage lower-calorie purchases at full-service chain restaurants, coffee shops, and in cafeteria settings.

Food Labelling

Food labelling contains information provided by food businesses about their products. It covers all food that is sold to the consumer directly as well as food sold to cafés, restaurants and other catering establishments etc. It is controlled by law so it is accurate, not misleading and safe; it plays some major importance since it, educates the consumer about the food they buy, helps consumers to make informed choices, helps consumers to store and use the food safely.

A food label, which is one of the essential mediums through which consumers get to know what the food contains, allows them to take proper decisions based on all the necessary information about healthy and hygienic nature of food product (Latiff et al., 2016). Understanding how labelling information affects consumers' food choices and whether consumers value these information are particularly pertinent questions in a country where products are packaged with lot of information. With high levels of uncertainty from producers, this gives mandatory labelling the power to fill this void of information provision from producers by correcting asymmetric information and transforming an experience-good or a credence-good characteristic into search-good

23

characteristics (Caswell & Mojduszka, 1996). Food labels are important by playing the role of disseminating important nutritional information to consumers (Singla, 2010).

With other reasons taking into consideration, the main intention for labelling food is to transfer information from the producer to the consumer (Van Boxsteal, Devlieghere, Berkvens, Vermeulen & Uyttendaele, 2014).

Figure 3: Canned Tuna with mandatory labelling attribute
Source: The Straits Times (2013

According to Grunert and wills (2007), Consumers' general understanding of the relationship between food consumption and health, and interest in providing nutritional information on food labels is needed, and that consumers like the idea of simplified front of pack information. Mandatory nutrition labels have been broadly adopted and are present at the point of purchase as well as when food is prepared or consumed (Feunekes, Gortemaker, Willems, Lion & Van Den Kommer, 2008).

24

THE EXPIRY DATE
This is the "use by" or "best used before" date. It gives the date by which the food should be consumed. Sometimes, there is a "sell by" date on the package instead of the expiry date.

PRODUCT NAME
This is usually found beside the brand name. It tells you what the food is.

INGREDIENT LIST
Do not be fooled into thinking that a food product is healthy if you spot a healthy ingredient such as whole wheat in the ingredient list. Take a look at how high the ingredient is placed in the list. The ingredients are listed in order of quantity, from most to least. Look out for healthy ingredients to see if they are placed at the top of the list and if ingredients that may pose health risks when consumed in excessive amounts are placed much further down the list.
When buying any food, check that sugar (or its alternative forms) are listed much further down the ingredients list.
If the ingredient list is very long, this may mean there is a lot of preservatives in the food product. Generally, the fewer ingredients used, the better.

NUTRITION INFORMATION PANEL
This panel shows the nutrients found, either in one serving or in 100g or 100ml of the food.
Always look for the nutritional values of one serving and how many servings there are altogether in the packaged product.
A more objective way of comparing products and picking healthier choices is to look at the "per 100g" column, rather than the "per serving" column. This is because the serving size for one product may differ from that of another.
Some products may appear healthier (that is, lower in calories or fat) because they have a smaller serving size. But this smaller serving size may not be satisfying and people are likely to go for a second or even a third helping. The calories, fat, sugar and, sometimes, sodium intakes then will add up.

USAGE INSTRUCTIONS
These are the instructions for storing or using the product.

MANUFACTURER'S DETAILS
Every label includes the name and address of the manufacturer, importer or distributor.

NET WEIGHT
This gives the actual weight of the food, excluding the packaging. For canned food packed in liquid, the net weight is the weight of the drained food.

Sources: Health Promotion Board; Ms Wong Siew Li, a senior dietitian at Tan Tock Seng Hospital; Ms Lynette Goh, a senior dietitian at the National Healthcare Group Polyclinics

ST GRAPHICS: QUEK HONG S

Figure 4: Tetra pack showing mandatory labelling attributes
Source: The Straits Times (2013)

Mandatory labelling attributes of packaged products

According to Susannah (2011), nutrition labelling refers to any labels on packaged food delivering nutrition information, including front-of-pack messaging and nutrition information panels positioned on the side or rear of packaged food. The Ghana Food and Drugs Board (FDB) (2006) describe it as the primary point of contact between the producer and the purchaser and forms a vital part of producers" marketing plans. Food labels are generally acknowledged to have an important role in communicating product related information to

25

consumers and are considered to have the potential to influence food choice and dietary behaviour (Mackison Wrieden & Anderson, 2010).

In addition, consumers' use of food labels particularly refers to their reading, interpretation and evaluation of the information on food labels. Looking at the importance of detailed information on packaging in India, the government declared nutrient content mandatory for almost all pre-packaged foods in addition to product name, manufacturer's name and address, the amount of product, ingredients and date of expiry (Vemula Gavaravarapu, Mendu, Mathur & Avula, 2014). Basically, the costs involved and also the benefits derived from labelling are likely to depend upon the type of attributes to be considered by the consumer (Caswell & Mojduszka, 1996; Fernqvist & Ekelund, 2014). As Golan, Kuchler, Mitchell, Greene and Jessup (2000) noted, mandatory labelling can be an appropriate policy tool when consumer preferences differ, information is clear and concise, information on product use enhances safety, costs and benefits of consumption are borne by the consumer, and when no political consensus on regulation exists.

Mandatory labelling is called to fill the void of information provision mainly by correcting asymmetric information or by correcting externality problems. In Ghana the mandatory labelling elements are, the name of the food, List of ingredients, Processing aids and carry-over of food additives, Net contents and drained weight, Name and address of producer, Country of origin, Lot/batch number, Date marking and storage instructions and Instructions for use (Food and drugs Act, 1992).

26

Figure 5: Packaged drug showing mandatory labelling attributes

Source: The Straits Times (2013)

Article 63(3) of the European Commission's guidelines on the packaging information of medical product directive provides that, "Where the medicinal product is not intended to be delivered directly to the patient, or where there are severe problems in respect of the availability of the medicinal product, the competent authorities may, subject to measures they consider necessary to safeguard human health, grant an exemption to the obligation that certain particulars should appear on the labelling and in the package leaflet (European Commission, 2016).

Generally, in terms of specificity, the following requirements are prescribed by Ghana's Food and Drug Authority (FDA) (2013) for pre-packaged food. These are in line with international standards and requirements regarding packaged products, especially edible products:

27

Name of product; Net weight/Net volume or Drained Weight for solid in liquid medium; List of ingredients; Date of manufacture; Expiry Date/Best Before Date; Batch or lot number; Country of Origin; Name and complete address of manufacturer/agent. In addition, labels of locally manufactured food shall have in addition: the premises location address; directions for use, if any, any instructions for storage/handling, labelling shall be in English and labelling shall be legible and shall be of indelible ink.

Golan, Kuchler, Mitchell, Greene and Jessup (2000) noted that mandatory labelling can be an appropriate policy tool when consumer preferences differ, information is clear and concise, information on product use enhances safety, costs and benefits of consumption are borne by the consumer, and when no political consensus on regulation exists. Mandatory labelling is called to fill the void of information provision mainly by correcting asymmetric information or by correcting externality problems. The benefits arising from mandatory labelling can be product reformulation, product innovation, and changed consumer behavior. Mandatory labelling could improve food products if producers reformulate their products to avoid having to make unfavorable disclosures (Aldrich, 1999).

According to existing literature, product labelling acts as a medium that carries information about a product (Katarzyna, Pantil-Kuncewicz & Mieczkowska, 2010). For instance, packaged food labels provide nutrition labelling, standardized serving sizes, information on saturated fat, trans- fat, cholesterol, dietary fiber and other major nutrients in reference values and health

claims (Mackison, Wrieden & Anderson, 2010). Hieke and Taylor (2012) also define nutrition labelling as all forms of information disclosure on a product, ranging from mere nutrition fact panels to daily reference values, recommendations, health claims and disclaimers.

Consumer Knowledge and packaged products labelling

The information, which is placed on the packaging, must not only fulfil the requirement of compliance with other messages, but also include the content required by law (Popescu, Pîrvulescu & Iosim, 2015). According to Bialkova and van Trijp (2010), consumers' knowledge with labels is important factor for label use. This view is in tandem with Miller, Gibson and Applegate's (2010) position that knowledge predicts motivation, and that consumers' knowledge on mandatory product labelling could inform their choice of product to be bought on the market.

Although the study results of Orquin (2014) yielded no relationship between consumer knowledge and usage of food labels, other studies (Zaidi & Muhammad, 2012; Miller, 2014) have shown that knowledge possessed by the consumer has an evident impact on the product choice and comparisons on the basis of health consciousness of most consumers. On their part, Javeed, Mokhtar, bin Lebai Othman and Khan (2017) opine that having previous knowledge enables consumers to focus on the important cues given in the form of information and ignore other marketing stimuli which do not indicate the salient features of perceived qualities of the food product.

Consumer Choice and packaged products

When the product consumption choices of consumers affect the welfare of others, and these welfare effects are not priced, then consumers may consume more or less than is socially optimal (Madhavapeddy & DasGupta, 2015). For instance, Genna (2016) is of the view that that consumers are interested in making informed decisions about the product they purchase. Consumers turn over product package to look for specific sustainable information and to consider the product performance more and manufacturer reputation as crucial elements in the purchasing product decision (Ottman, 2011).

Consumer's choice range is evaluated based on potential cost and benefits, as well as different features in the same product but from other brands (Martin and Schouten, 2012). Nguyen (2017) writes that consumers rank products based on their own criteria and then, generally, the final decision will address on the most preferred product. Colour is an essential component of packaging because consumers expect certain type of colours for particular products (Keller, 2013).

Consumers often prefer authentic and original design over a corporate design of well-known brands (Gibbs, 2015). Solomon (2013) argues that marketers can influence consumers in their behaviour and also in how consumers use the products or services marketers sell. This finding is contrary to the Diet and Health Survey conducted by Derby and Levy (2001) as cited in Madhavapeddy and DasGupta (2015), which found one-third of consumers changed their decision to buy a product because of the information on the nutrition label. However, the finding is consistent with Hawkes' (2004) study which found that nutrient information does affect consumers' food choice.

30

Brand familiarity as an external influence leads consumer to make spontaneous food product decisions (Singla, 2010).

Factors influencing consumers' decisions to read (or not read) product labels

Lightning Labels (2016) highlights the importance of sellers including specific information on products, especially food labelling, paying specific mind to nutrition and ingredients. But to better understand what details are most critical to include, it would be helpful to gain a clearer picture of what is motivating individuals to read that portion of packaging. For instance, among some of the most common reasons consumers look at the nutrition facts labels include: when they are looking for something in particular, such as fiber; when they want to verify a certain health claim printed on the package; when they recently started dieting; and when they are checking to make sure the item does not contain a specific amount of something, such as sugar (Lightning Labels, 2016).

Lightning Labels (2016) however observes that there are some occasions where shoppers do not read this part of the label, such as when they are already familiar with the product or they are only concerned with the list of ingredients. More so, some of the most critical occasions in which consumers read the ingredients list are when they have a certain food allergy or health issue or are considering a new product brand. Thus, consumers' reasons for not doing so are similar to those cited for the nutrition facts label. Hess, Yanes, Jourdan and Edelstein (2005) however postulated that a higher educational level creates reading consciousness and also leads to greater understanding of nutritional

principles, which tends to improve consumers' ability to comprehend nutritional information on food labels.

Relationship between consumers' demographic characteristics and packaged products choice

Sex differentials are cited to be one of the major consumer demographic characteristics that influence consumers' decision in purchasing products. For instance, Barletta (2003) observed that the purchase decision process of women differs from the purchase decision process of a men because they have a very different set of priorities, preferences and attitudes, and they also respond differently to marketing media, messages and visuals. Noel (2009) also agrees that men and women respond differently to marketing stimuli. Specifically, Huddleston and Minahan (2011) maintain that women are more optimistic about purchasing of package product than men. Barletta (2003) even claims that women are the world's most powerful consumers and that they form the core of the market of many companies. Gellynck, Verbeke and Vermeire (2006) also observed that responsiveness of consumers to information about food labelling attributes was significantly associated with their level of education.

Osei-Mensah, Lawer and Aidoo (2012) on the other hand observed that consumers in lower paid jobs paid more attention to special price offers, and thus respectively paid less attention to food labelling directly. Osei-Mensah, Lawer and Aidoo (2012) further found in their study a significant association between consumers' marital status and their choice regarding the reading of product (food) labels. Based on their findings, Osei-Mensah, Lawer and Aidoo (2012) conclude

32

that both males and female consumers; whether married or not, have high education or not earning income or not, were more interested in expiry date on the product label.

Packaging Laws in Ghana

Food and Drugs Authority's General Requirements for labelling and packaging of products

According to the Food and Drugs Authority's (2013) requirements for labelling and packaging of products the following guidelines are made in pursuance of Section 148 of the Public Health Act 2012, (Act 851):

- Labelling shall be informative and accurate.

- Product labels shall be printed. The print shall be in a clear font and legible. The print shall be indelible and not fade when exposed to sunlight.

- The product name, package or label shall not bear close resemblance to a previously registered product.

- If the original label is in a local or foreign language, the product information shall be in English or a translation thereof.

The information on a label shall include, but not be limited to, the following:

- Name of Product (Brand and Generic names)
- Net weight, Net volume or Drained Weight for solid in liquid medium e.g. mackerel in tomato sauce

- List of ingredients (specific names of ingredients and/or E-numbers)

- Date of manufacture

33

- Expiry Date, Best Before Date or Use by Date (Not required for solid sugar)

- Batch or lot number

- Country of Origin

- Name and complete address of manufacturer/agent

- Labels of locally manufactured food shall have in addition the premises location address

- Directions for use, if any

- Any instructions for storage/handling

- Labelling shall be in English

- Labelling shall be legible and shall be of indelible ink.

Food and Drug Authority's post-market surveillance and regionals activities

Food and Drug Authority (FDA) account in their 2016 annual report that the authority undertook post-market surveillance to ensure that expired drugs and food products, unregistered drugs and food, as well as unwholesome food, which were sold to innocent consumers, were taken off from the shops.

Analysis of the post-market surveillance reveals that consumers' complaints regarding the products they bought on the market reduced by 40 percent (i.e. from 45 to 18). On the other hand, the results of FDA's regional activities comparing 2016 figures with 2015 ones show that FDA's educational campaigns for consumers' on safety of food and drugs saw a significant (34.4%) decline across

the ten regions of Ghana. Thus the educational campaign reduced from 122 in 2015 to 80 in 2016 (Food and Drug Authority, 2016).

This development defeats the Food and Drug Authority's (2016) own the key objective that was set to increase public education to safeguard public health and safety through media interviews during the year (2015-2016) under review.

Performance and challenges in Ghana's packaging industry

After a thorough investigation of challenges facing Ghana's packaging industry, Ismaila (2010) commended the performance of the local packaging sector in recent years. It is worth noting that in his earlier observation, Clements-Hunt (2008) drew the attention of the packaging industry players to the International Trade Centre's 2007 report which reported that Ghana attained an annual steady growth of about 17% of packaging material imports from the year 2000-2005. This indicated that more and more packaging materials were being used, leading to the improvement in the local product packaging.

However, Ismaila (2010), found in his study several challenges facing the packaging industry in Ghana, which his study's respondents in the industry identified. Among those challenges include: inadequate packaging machinery and lack of different types of packaging materials, misuse and high dependency on preformed containers, poor market or customer research culture, manufacturers' poor attitude towards improvement on quality and capacity building activities, financial constraints and low business capitals. These were said to have been compelling local manufacturers to spend less on packaging.

According to Ismaila (2010), if product packaging in Ghana fails in this way, buyers may feel reluctant in patronising the product, whereas consumers may find it unsafe to use.

Empirical Review

Regarding quality attributes, the literature highlights some extrinsic and intrinsic cues affecting label usage, including: price, ingredients, certifications, product freshness, and expiry date (Botonaki & Mattas, 2010; Tsakiridou Boutsouki, Zotos & Mattas, 2008). Examining food labelling from a healthy life attitudes perspective, studies (Nayga, 1996; Weaver & Finke, 2003) found a positive link that existed between consumers using information on food labels and a high perception about diet's healthfulness. Further findings came up with a positive relationship that existed between food knowledge and label use (Miller, Gibson & Applegate, 2010; Kim, Nayga Jr, & Capps, 2000).

However, Grunert Fernández-Celemín and Wills (2010) showed that the use of labelled information is mainly related to an interest in healthy eating, whereas the understanding of it is connected to consumer food knowledge. Other studies focused the comparison between male and female consumers regarding shopping and purchases. For instance, Noel (2009) found that men and women respond differently to marketing stimuli.

Huddleston and Minahan (2011) also found in their studies that women are more positive about shopping than men and actually two of three women enjoy shopping. Coley and Burgess (2003) agree that women in general do the shopping voluntarily even in case of buying products for daily use, where the

purchase is not connected with a strong buying experience. In addition, the relationship between food label use and consumers' attitudes toward food safety concerns is significant and positive (Kennedy et al., 2008; Bernues et al., 2003).

Research conducted by Adamowicz and Swait (2011) suggested that not all consumers consult information on food when purchasing. Solomon (2013) has also observed that marketers can influence consumers in their behaviour and also, in how consumers use the products or services marketers sell. On his part, Kotler (2015) was convinced, that from these factors, the cultural factors exert the deepest and broadest influence on consumer behaviour. As Kotler (2007) notes that exaggerated package size with less product content is a tool of how to influence the consumers to buy the product, it can be argued that, consumers will be more attracted by a bigger size product in comparison with a smaller one.

In his projection however, Lupus (2017) predicts a few top trends for products packaging in 2017 that can attract the consumers' attention and distinguish the product. Into these trends belong simple, bold and clear packaging that will elevate the product by its minimalism. With all these findings, observations and suggestions from previous studies, it is obvious that labelling attribute on consumer choice regarding packaged products has not really been researched into conclusively, and thus created a gap for this research.

Similar to the work of Araya, Elberg, Noton and Schwartz (2018), Bollinger, Leslie and Sorensen (2011) estimate the effect of a mandatory nutrition labelling policy on purchase decisions of consumers in the actual market. Bollinger et al. (2011) use transaction data from Starbucks to study the

37

consequences of a law first implemented in New York City, which mandated the posting of calories on menus in chain restaurants. Bollinger et al. (2011) further estimate the impact of the law by comparing the behavior of New York customers with those of other cities (Boston and Philadelphia) not affected by the regulation. The findings of Bollinger et al. (2011) revealed that mandatory calorie posting causes average calories to decrease by 6 percent. In addition, their survey results show that consumers' knowledge of calories did not significantly improve because of posting, but consumers do report greater sensitivity to calories when making purchase decisions (Araya, Elberg, Noton & Schwartz, 2018).

Kiesel and Villas-Boas (2013) also study consumer responses to the provision of nutritional information in real market environments. Thus, they conducted a supermarket-level field experiment in which they manipulate the information content of nutritional shelf labels in one product category (microwave popcorn) across five treatment stores. Their study's results suggest that consumer purchases are affected by information costs. Implemented low calorie and no trans fats labels increase sales. In contrast, implemented low fat labels decrease sales, suggesting that consumer response is also influenced by consumers' taste perceptions. A combination of these claims into one label treatment increases information costs and does not affect sales significantly (Kiesel & Villas-Boas, 2013).

Recent data shows that during 2013, almost 27% of the new packaged food products launched in Europe had some sort of clean label (Ingredion, 2014).

38

Despite the increasing market shift toward clean label food products and a large number of different studies (Busken, 2013; Joppen, 2006; Varela & Fiszman, 2013) have investigated goods carrying clean label. When it comes to food, some researchers (Varela & Fiszman, 2013; Busken, 2013) have suggested, based on their research findings, that consumers might be either motivated by attaining something, as for example health and well-being, or avoiding something, as for example risk of disease, a distinction that has been applied to nutrition and health claims (van Kleef, van Trijp, & Luning, 2005). The study of Chalamon and Nabec (2016) has also been suggested that different goals can help explain different strategies in reading nutrition information.

Multiple experimental studies (Pettigrew, Talati, Miller, Dixon, Kelly & Ball, 2017; Grunert &Wills, 2007; Arrua, Machin, Curutchet, Martinez, Antunez, Alcaire, Gimenez & Ares, 2017) have described the comparative effects of different labelling systems on consumer preferences and the ability to correctly identify healthy and unhealthy food items. However, there are relatively few data to define effects of food labels on food purchasing behaviour in the real world and the findings are mixed (Rahkovsky, Lin, Lin & Lee, 2013; Sacks, Rayner & Swinburn, 2009; Sutherland, Kaley & Fischer, 2010).

The few comparably robust data describing the effects of different types of front-of-pack labelling on consumer behaviour, with most prior research done in experimental settings or using non-randomised designs (Volkova & Ni Mhurchu, 2015; Cecchini & Warin, 2016). The findings of these trials are aligned with the existing experimental evidence base relating to the Health Star Rating (HSR), and

39

front-of-pack labelling more broadly, and in particular with the data from the recently reported sister trial to this project done in New Zealand (Maubach, Hoek & Mather, 2014)

In addition, as part of their studies on consumers' use and understanding of food label information and effect on their purchasing decision in Ghana Osei-Mensah, Lawer and Aidoo (2012) used a trial design with a primary non-inferiority objective and showed with confidence that the selection of Health Star Rating (HSR) was an appropriate policy decision for Ghana. This was relative to what pertains in Australia as indicated in the prior studies (Siegrist, Leins-Hess & Keller, 2015; Van Herpen, Hieke & van Trijp, 2014; Maubach, Hoek & Mather, 2014) in the context of strong industry opposition to the Multiple Traffic light Labels (MTL) and evidence suggesting Daily Intake Guides (DIG) to be inferior.

While the Health Star Rating (HSR) was not shown to result in healthier food purchases as indicated on their labels, foods having active ingredients inscriptions were clearly preferred by consumers, with comparable findings in the parallel New Zealand study. For countries without a front-of-pack labelling system, our data suggest that the HSR is an appropriate choice, but a case could also be made for recommendations/warnings (WARN) or MTL, or for the integration of elements of the WARN and MTL formats into an updated HSR system (Neal, Crino, Dunford, Gao, Greenland, Li & Webster, 2017). As part of the recent studies on consumers' use and understanding of food label information and its effect on their purchasing decisions in Kumasi, Ghana, Osei-Mensah, Lawer and Aidoo (2012) highlighted the need for consumers to read and critically

examine food labels before purchasing. This was followed by repeated instances where non-certified, expired or fake products were sold to the public, according to Ghana's Food and Drugs Board which was telecasted by Ghana Broadcasting Cooperation in 2012.

Gaps and lessons learnt from the underpinning theories and empirical studies

There is undeniable fact that irrespective of the gaps identified in the various theories reviewed, some key lessons could be learnt to shape this and future studies. To begin with, it has been established that human needs cannot be arranged in either ascending or descending order as espoused by Abraham Maslow (1954) in his theory of needs. However, the theory at least provides an insight into the fact that when a person feels a need is not satisfied in one of the hierarchy levels, all his effort will be directed or focused on that need (Escalas & Bettman, 2005).

Stimulus response model also postulates that although characteristics of consumers and their decision-making process would help them to decide upon their response, the environment and marketing stimuli can also influence consumer's consciousness which shows some purchase characteristics (Kotler, 2007). The gap in the concept of stimulus response is that it fails to take into consideration the forces of demand and supply which largely affect consumers' decision in the competitive market. In addressing the flaws in the model of stimulus response, the theory of consumer behaviour, as observed by Runyon and

41

Stewart (1987) proposes that the economic man maximises his utility by carefully calculating and evaluating the after consequences of any purchase.

However, the theory's assumption that all consumers would want to minimize their purchasing cost in order to maximize the greater satisfaction cannot always be correct due to scarcity. Balabanis and Diamantopoulos (2008) for instance found that it is rather the mental exercise that take place in the way one's behaviour that determines the individual's action. Thus, way humans behave in taking certain actions reflects the belief that consumers are content if the desired aspiration is equivalent to the commodities performance. In examining cognitive learning theory, Acebron and Dopico (2000) concluded that individual habits and past experience on the consumer affects his purchase decision, this is applicable because there is some amount of mental exercise from past experience which creates a point of reference for future purchase.

All in all, it is evident that although theories provide divergent views in addressing most subjects, the lessons lesson can be learnt from the underpinning theories reviewed in this study. The cue taken from the literature review is the recognition of cognitive learning theory, theory of consumer behaviour and Maslow's (1954) theory of needs as important theories that can give policy direction to manufacturers and all stakeholders of Ghanaian market. Thus, these theories can predict consumers' actions and choices in the Ghanaian market in order to ensure efficient functioning of the economy.

The empirical review provides an insight into the kind of relationship that exist among the key variables used in assessing product labels and consumers'

decision at the market. For instance, some empirical studies identified positive link existing between consumers using information on product labels and a high perception about health concerns. On the contrary, other findings, as reviewed from the prior studies, came up with both positive and negative relationship that existed between products, especially food knowledge and label use. The gap identified was the magnitude or degree of relationship that exists between the product labels and consumers' decision. This calls for a robust analytical tool that would show not only the kind of association that exist among the key variables, but also the magnitude of change existing among such variables.

Sex distribution was also identified as one of the key factors that affects consumers' choice regarding product purchases. Particularly, the available data found that men and women respond differently to marketing stimuli. On the other hand, some empirical study found that women are more positive about the products they buy than men, and more so, more women are likely to engage in regular purchases that their male counterparts. The key lesson drawn from these findings is that stakeholders in the packaged product industry consumers will be more attracted by a bigger size product in comparison with a smaller one.

Comparatively, whereas prior studies reviewed showed that most of the new packaged food products launched in Europe had some sort of clean label, the consumers in the Ghanaian market only perceived packaging laws as an appropriate policy decision for Ghana without having knowledge about labelling attributes. However, observations and suggestions from previous studies, show

43

that labelling attribute on consumer choice regarding packaged products has not really been researched into decisively, and thus created a gap for this research.

Conceptual Framework

Figure 6 presents conceptual framework of the study. The basis of the conceptual framework is that it has been constructed to comprise variables, concepts and indicators which enhance the research instrument design for data collection of this study. The conceptual framework is therefore guided by lessons learnt in theoretical and empirical reviews.
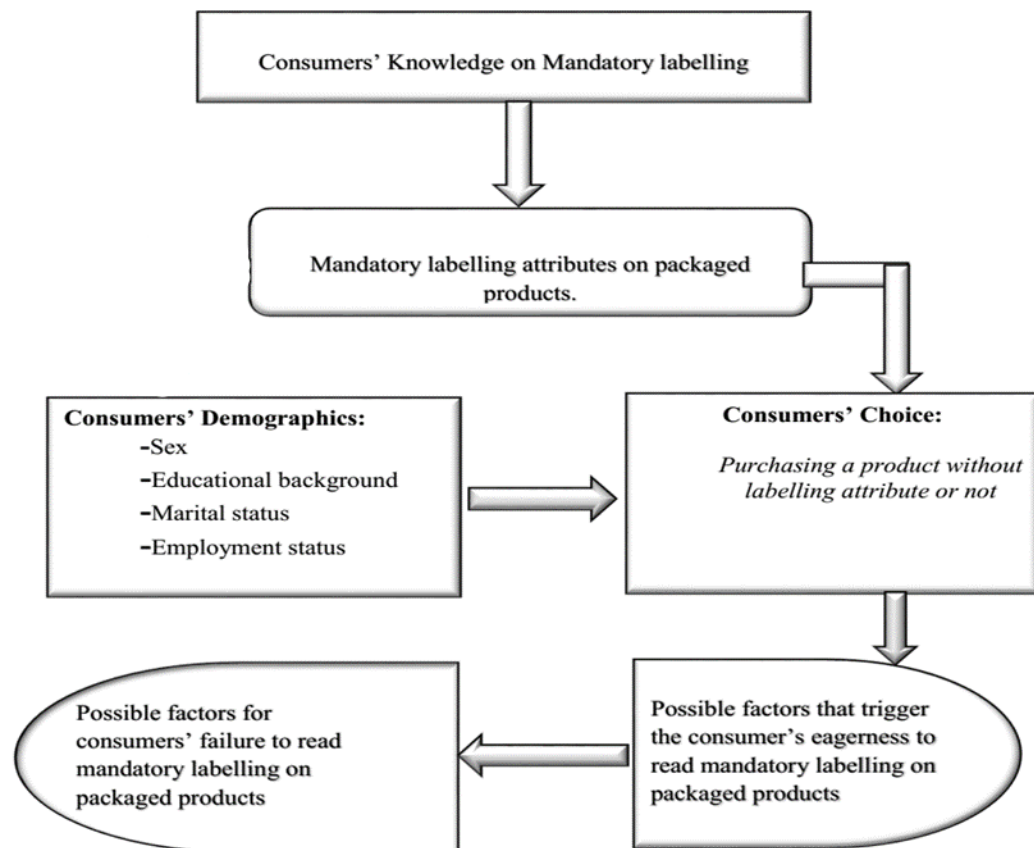
Figure 6: Conceptual Framework for mandatory Labelling and Consumer Choice

Source: Author's construct, 2017

44

The conceptual framework was constructed based on the study's hypothesis set to examine whether there is significant association between consumer's demographic characteristics (sex, educational background, marital status and employment status) and consumer's choice for packaged products with mandatory labelling attributes. This hypothesis is consistent with Hess, Visschers and Siegrist (2012) who hypothesized in their study that a consumers' demographic characteristics such as higher educational level, sex and marital status lead to greater understanding of nutritional principles, which tends to improve consumers' ability to comprehend nutritional information on food labels.

The conceptual framework provides interconnection that exist among the key variables and concepts which the objectives of the study seek to address in assessing the effects of mandatory labelling attributes of packaged products on consumers' choice in the Cape Coast Metropolis. The assumption is that there is a direct relationship between consumers' demographics and the choice they make with regards to whether or not consumers purchase products with no labelling attributes. This assumption is in line with of Huddleston and Minahan (2011) who found in their studies that women are more positive about shopping than men and actually two of three women enjoy shopping compared to men who rarely shop on regular basis.

The main variables and concepts employed in the conceptual analysis include: consumer's demographic characteristics (sex, educational background, marital status and employment status), consumer knowledge, mandatory labelling attributes and consumers' choice.

45

The key assumption underlining the conceptual framework is that is that consumer's knowledge on the essence of mandatory labelling attributes of a given packaged product could be a possible factor that would or would not influence his/her desire to read the labelling on such product. In addition, whether or not a particular consumer reads the product label would also have the tendency to influence his/her choice, in terms of buying the product or not. However, consumers' choice is also linked to their demographic characteristics such as sex, educational background, marital status and employment status.

The theoretical basis for this assumption could be linked to the cognitive learning theory which according to Acebron and Dopico (2000), maintains that learning is as a result of consumer thinking, and its emphasis is on the role of mental process rather repetition and rewards associated with the corresponding stimuli. The assumption is therefore in line with Martin and Schouten (2012) who identified that consumer's choice range is evaluated based on potential cost and benefits, as well as different features in the same product but from other brands.

Summary

In a nutshell, the study employed some key theories underpinning the study in the literature discussion. Notable among these theories include Cognitive Learning theory, theory of Human Behaviour, Maslow's theory of Needs, theory of Consumer Bahaviour. From both the theoretical and empirical literature gathered for the study, it was gathered that individuals make choices based on their needs and knowledge. The conceptual framework developed for the study also shows some interconnection among the key concepts and variables the

46

47

study's objective highlights. The conceptual framework presents mandatory labelling attributes, consumers' knowledge on mandatory labelling attributes, consumers' choice and factors that influence consumers to ignore or pay attention to mandatory labelling attributes of products.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter discusses the research methods employed to address the overall objective of the research. The chapter begins with the research design adopted for the study, followed by description of the study area and discussion of background characteristics of the target population which was investigated. The chapter further highlights discussion of sampling procedures used in the study, data collection instruments, data collection procedures and ethical considerations of the study. The last section concerns data processing and analysis.

Research Paradigms

The study adopted both qualitative and quantitative research paradigms in the data collection process and the analysis. The qualitative research approach employed in this study reflects interpretivists philosophical assumption that researchers seek understanding of the world in which they live and work (Creswell, 2014). Thus, individuals develop subjective meanings of their experiences—meanings directed toward certain objects or things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas (Creswell, 2014). The goal of the research is to rely as much as possible on the participants' views of the situation being studied. The questions become broad and general so that the

48

participants can construct the meaning of a situation, typically forged in discussions or interactions with other persons (Mertens, 2010; Creswell, 2014)

The more open-ended the questioning, the better, as the researcher listens carefully to what people say or do in their life settings. Often these subjective meanings are negotiated socially and historically (Lincoln & colleagues, 2011; Mertens, 2010). The approach adopted in this study is consistent with the assumption underlining the qualitative research paradigm. The intent of qualitative research, as observed by Locke, Spirduso and Silverman (2013), is to understand a particular social situation, event, role, group, or interaction in natural settings, where human behaviour and events occur. In this case, an observational checklist was used to collect data at Cape Coast Melcom supermarket in order to ascertain the observable behaviours of the respondents (buyers).

In quantitative studies, Creswell (2014) posits that researchers use quantitative research questions and hypotheses, and sometimes objectives, to shape and specifically focus the purpose of the study. Quantitative research questions inquire about the relationships among variables that the researcher seeks to know. This view falls within the purview of the positivists' philosophy. Positivists hold a deterministic philosophy in which causes determine effects or outcomes. Thus, the problems studied by positivists reflect the need to identify and assess the causes that influence outcomes, such as found in experiments (Lincoln & colleagues, 2011).

It is also reductionistic in that the intent is to reduce the ideas into a small, discrete set to test, such as the variables that comprise hypotheses and research

questions (Creswell, 2014). The knowledge that develops through a positivist lens is based on careful observation and measurement of the objective reality that exists "out there" in the world. Thus, developing numeric measures of observations and studying the behaviour of individuals becomes paramount for a positivist. Finally, there are laws or theories that govern the world, and these need to be tested or verified and refined so that we can understand the world (Creswell, 2014).

In this regard, a quantitative approach was employed in gathering the data used in the study, while chi-square, frequencies and percentages were employed to analyse the data results descriptively. In gathering the data however, questionnaires, interview schedule and observational checklist were used as the main tools that were designed with the purposes of comparing and establishing association among the key variables used in the study.

Overall, there is a clear-cut distinction between qualitative studies and quantitative studies. For instance, the interpretation in qualitative research means that the researcher draws meaning from the findings of data analysis. This meaning may result in lessons learned, information to compare with the literature, or personal experiences. On the other hand, the interpretation in quantitative research means that the researcher draws conclusions from the results for the research questions, hypotheses, and the larger meaning of the study (Creswell, 2014).

50

Research Design

The study adopted descriptive and exploratory survey designs. The exploratory research design was employed in order to gain deeper understanding of the reality on the ground with regards to the effect product labels have on consumers' purchasing decision in the Cape Coast Metropolis. This approach was taken into consideration because according to Lynn University Library (2016), exploratory design is useful in gaining background information on a particular topic as well as generating new ideas and assumptions, development of tentative theories or hypotheses. In this case, the exploratory design was used to assess the effects of mandatory labelling attributes of packaged products on consumer's choice in the Cape Coast Metropolis.

More so, in order to engage in comprehensive analysis in achieving the study's objectives, mixed method was employed in the data collection and the discussions of the data results. Both qualitative and quantitative approaches were fused in the study's design. In this regard, the study adopted descriptive survey due to the peculiar features of the study's target population. Gravetter and Forzano (2006 p. 137) indicated that "a descriptive survey typically involves measuring a variable or a set of variables as they exist naturally."

Qualitative approach was employed in gathering the data used in the study. This was done by using interview schedule, and questionnaires were also issued to some key informants during the data collection period. In addition, non-participatory observation was employed by the researcher to assess customers/consumers' attitude towards reading of product labels at shops.

51

Therefore, using frequencies and percentages, the study employed descriptive approach in analysing the data results.

More so, chi-square analysis was included in the results and discussion to examine the association among some selected variables used in the study. The validity of the research design hinges on the fact that it was organised within appropriate framework and methodology. Moreover, the adoption of a mixed methods provided the study with an opportunity to triangulate and analyse the study's results in both quantitative and qualitative manner. However, due to time constraint, the study's design was structured in a manner that favoured the researcher to complete the study within the time scheduled.

Study Area

According to Ghana Statistical Service' (2014) District Analytical Report, Cape Coast Metropolis is bounded to the South by the Gulf of Guinea, to the West by the Komenda Edina Eguafo Abrem Municipality (at Iture bridge), to the East by the Abura Asebu Kwamankese District, and to the North by the Twifu Heman Lower Denkyira District. It is located on longitude 1° 15ˈW and latitude 5°06ˈN. It occupies an Area of approximately 122 square kilometres, with the farthest point at Brabedze located about 17 kilometres from Cape Coast, the Central Regional capital.

In terms of education, Ghana Statistical Service (2014) reports in the 2010 population and Census District Analytical Report that Cape Coast is endowed with many schools across the length and breadth of the Metropolis, ranging from basic to tertiary institutions.

52

These schools attract people from all over the country and the West Africa Sub region, who pursue various levels of academic and professional education. Of the population 11 years and above, about 90.0 percent are literate and 10.0 percent are non-literate. The proportion of literate males is higher (94.1 %) than that of females (85.6%). About seven out of ten people (67.2%) indicated they could speak and write both English and Ghanaian languages.

Justification for the Study Area

Cape Coast Metropolis was considered the most appropriate for this study because the area has a larger market where different categories of consumers engage in buying and selling of package products. Thus, the study area is noted for various forms of economic activities, which include trading in assorted food and drink, pharmaceutical products, staple food and several other goods and services. The boost of economic activities is due to the widespread of well-endowed senior high schools and the existence of University of Cape Coast, Cape Coast Technical University, and a nursing training school (Ghana Statistical Service, 2014).

Moro so, the choice of Cape Coast Metropolis as an appropriate study area for this study was informed by its tourism and socio-economic history, and how these have tended to shape trading activities in the metropolis. For these reasons, carrying out a study to assess how labelling attributes of packaged products influence consumers' choice in the Cape Coast Metropolis is not out of place.

Population

In general, as reported by the Ghana Statistical Service (2014), the population of the Cape Coast Metropolis, according to the 2010 Population and Housing Census, is 169,894 representing 7.7 percent of the Central Region's total population. However, the target population of the study were buyers of some selected shops and supermarkets in the Cape Coast Metropolis in the Central Region of Ghana. In all, the study targeted a population of 340 which forms part of the general estimated population of 169,894.

The study targeted only 340 participants because of the approach that was adopted for the study's data collection. Thus, most of the respondents who were conveniently sampled for the study were unwilling to participate in the study because they were asked to respondent to the research questions as at the time they were buying from shops. The details of the study's sample distributions by specific shops/supermarkets in some part of Cape Coast are presented in Table 1.

Table 1: Sample and Sampling Techniques

Selected Shops/Supermarkets	Target Population	Sample Size	Percent	Sampling Technique
Selected shops at UCC Science market (provision & Drug stores/ Pharmacy)	90	30	24.4	Convenient
Selected shops at Abura market/Kakumdo (provision & Drug stores/Pharmacy)	80	23	18.7	Convenient
Selected shops at Kotokoraba/Kingsway (provision & Drug stores/ Pharmacy)	100	40	32.5	Convenient
Key informants (managers/shopkeepers)	20	10	8.1	Purposive
Observation at supermarket	50	20	16.3	Convenient
Total	**340**	**n =123**	**100.0**	-

Source: Field survey (2017)

Sampling Procedure

The multi-staged sampling method was used for this study. First and foremost, the convenient sampling method was used to select three suburbs in Cape Coast, that is, UCC, Abura-Kakumdo, Kotobura-Kingsways. These suburbs were chosen because they are the key market centres in Cape Coast, hence populous with shops.

From these three areas, ten shops were also conveniently selected. The selection of these shops was based on their size, the variety in the products sold and willingness of shop owners to permit data collection. From these shops, the first one hundred and thirteen (113) customers whom the researcher met and were

55

willing to participate in the study were accidently selected. The researcher presumes, based on literature, that the sample of 113 would ensure representativeness in the study (Fraenkel and Wallen, 2000).

Convenience sampling technique also known as accidental or availability sampling is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in a study (Saunders, Lewis & Thornhill, 2009). The convenient sampling technique was used because new shops tend to constantly pop up in Cape Coast, hence making it difficult to identify and categorize all of them to create a sample frame for the study.

Purposive or judgmental sampling is a non-probability sampling technique where the primary consideration for selecting respondents is based on who the researcher deems capable of providing the best information to achieve the objectives of the study. For each of the shops selected, the shop keeper or owner was administered with an instrument. Shopkeepers/ shop owners were included in ensure diverse views and prevent bias in the study.

The most predominant characteristics of the respondents in the study area is the fact that majority of them speak and understand two common languages, which is English and Fante. In this case, the respondents selected for the study were treated as homogenous, since they have some common traits in terms of local and English dialects.

Data Collection Instruments

Three different tools were used to gather data for the study. The three instruments used for the data collection include: interview schedule, observational checklist, and questionnaires, which were issued to some key informants (managers/shopkeepers) during the data collection period. Most of the respondents were interviewed using interview schedule. This technique was considered the most appropriate because most of the respondents were accidentally sampled and interviewed during their shopping in some selected shops/stores.

Additionally, questionnaires were given to shopkeepers/managers who were classified as key informants. Questionnaires were considered most appropriate for the key informants because they preferred questionnaire to interview due to their busy schedules. Questions that were asked on the interview schedule were based on the specific objectives of the study sought to achieve. Both the interview schedule and questionnaire were divided into five sections to address the five specific objectives of the study.

Section A focused on the background characteristics of respondents. Questions that were asked in section B examined consumers' knowledge on mandatory labelling attributes on packaged product.

In section C, questions that relate to consumers' general description on the mandatory labelling attributes on packaged product were posed, while section D highlights questions relating to factors that trigger the consumer's eagerness or failure to read mandatory labelling. The last section focused on how mandatory labelling on packaged products affect consumer's choice of product. However,

using observational checklist, non-participatory observation was employed by the researcher to assess customers/consumers' attitude towards reading of product labels at shops.

Data Collection Procedure

The study's data were collected from primary sources only. Thus, primary data were collected using an interview schedule, questionnaire and observational checklist, which were used to gather data from shopkeepers/managers and consumers/customer from some selected shops in the Cape Coast Metropolis. Interview schedule was adopted to gather data from consumers/customer because most of them were accidentally sampled and interviewed during their shopping. On the other hand, due to time constraint questionnaires, instead of interview, were also issued to shopkeepers/managers who were treated as key informants to provide the needed information that was relevant to the study. Thus, the shopkeepers/managers whose shops were sampled were included in the study with the purpose of gathering data that reflect the views of both buyers and sellers.

The entire data collection was carried out within a period of 12 day, excluding Sundays. Specifically, the field data collection was conducted from 12th May to 25th May, 2017. The exercise took place from 10:00am to 4:00pm each day. The major challenge the researcher encountered on the field during the data collection process was the targeted participants' unwillingness to participate in the study. This challenge was however overcome when the researcher consulted the shopkeepers to speak to their customers on the rationale behind the study.

58

Another challenge that was faced on the field was the long distance the researcher had to travel before the needed data were collected. This extended the number of days that were projected to complete the data collection from 7 days to 12 days.

In order not to avoid time overruns, the researcher employed five (5) field assistants to help cover all the 123 respondents in all the ten shops sampled for the study. In most cases, the interviews were conducted in the local language, which were mostly Fante but those who were more conversant with the English or Asante Twi language were also interviewed in those languages. The field assistants were selected in such a way that they were conversant with the three main languages (Fante, English and Asante Twi) that were used to collect the needed data.

Ethical Considerations

The research methods employed in this study were subjected to rigorous ethical considerations. Thus, the researcher made sure that the research methodology of the study did not violate any of the research ethics.

Respondents who participated in the study were briefed on the objectives of the study and their consent sought. Under no circumstances was any respondent forced to participate in the study. More so, strict confidentiality of the information the respondents provided was assured them. In addition, all protocols, with respect to the entry of communities where the study's data were collected were observed accordingly.

Reliability

Reliability was ensured in this study by employing appropriate research methods. Thus, the researcher used field notes where responses to the questions on the interview schedule were documented to check whether there was corroboration between the study's findings and the information provided by the respondents. Hence, as observed by Flick (2009), the quality of responses and documented data becomes a central basis for assessing reliability and that of succeeding interpretation. Reliability was also guaranteed by checking concretely the structure of the study's questionnaires. The relevance of the reliability is that it ensured consistency in the study's results. Furthermore, in ensuring reliability in this study, the data collection transcripts used were double-checked to ensure that they do not contain obvious errors and mistakes made during transcription. In addition, codes developed by the individual research team member were cross-checked to determine the level of consistency of coding. These were ensured to minimize some possible errors in the data analysis.

Validity

The strength and accuracy of research methodology, which form the basis of this study, were ensured by validity. Welman, Kruger and Mitchell (2005), defined validity as the extent to which the research findings accurately represent what is really happening in the situation. The researcher therefore validated the study by seeking feedback on the responses and presentations in the field. Thus, the process of guaranteeing validity in this study served as an attempt to "act sensitively in the field" (Flick, 2009: 390). In this regard, the accuracy of

60

the findings was checked by employing appropriate procedures such as data editing and cleaning before the final data analysis was done. This ensured precision of the facts that were gathered from the field. More so, in validating the study's method, mixed methods were adopted, where the issuance of questionnaires was done, and interviews were conducted to identify convergence responses among multiple and different sources of data to form themes or categories in a study. Therefore, based on the study's objectives the validity which is relevant to the results of this study was clearly defined in order to reflect the multiple ways of establishing representativeness of the study's findings.

Data processing and Analysis

First and foremost, the data was obtained in the form of responses from respondents, and were coded and processed, using Statistical Package for Social Sciences (SPSS) software version 21. The coding helped the researcher to remove items, which were not completed.

The coding also enabled numbers to be assigned to the various responses to the items of the questionnaires and interview schedule.

The data obtained and processed was based on the objectives and the conceptual framework of the study. Both qualitative and quantitative approaches were employed in the data analysis. The qualitative data were well structured and analysed with respect to the research questions of the study. Thus, the data that were gathered from the interview were transcribed and grouped according to the objectives of the study.

The transcribed data were also coded and analysed using SPSS. On the other hand, the quantitative data were analysed using mainly charts, graphs and tables that showed the frequency distribution and their corresponding percentages of the relevant variables captured in the data results. Where necessary, cross tabulations were used to compare how paired variables related.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter focuses on the results and discussion of primary data obtained from the field. The main aim was to analyse and discuss the data collected to provide an insight into the understanding of the effects of mandatory labelling attributes of market products on consumer's choice in the Cape Coast Metropolis. As such, the chapter is divided into two main sections, with the first analysis on the demographic data of the study's respondents, the second section discusses the data results gathered from the respondents.

Demographic data of respondents (consumers)

Discussion of the demographic data of respondents is important, because having a fair idea of the distribution of the respondents' sex, age, educational level and employment status provides the needed information about the categories of people who were involved and contributed to the success of the study. As presented in Table 2, the main demographic data considered include: respondents' sex, age, educational background, marital status and employment status. Although 113 consumers and 10 shopkeepers were sampled for the study, some of the research questions were not answered by the respondents. This led to *"no response"* in some instances which reduced the expected sample size. In some cases too multiples of answers were given by the respondents, leading to *"multiple responses"* which have been indicated by an asterisk (*).

63

Table 2: Demographic Characteristics of Respondents

Sex Respondents (Consumers)	Frequency	Percent
Male	63	67.7
Female	30	32.3
Total	**93**	**100.0**

Sex of Shopkeepers/owners	Frequency	Percent
Male	4	40.0
Female	6	60.0
Total	**10**	**100.0**

Average age of Respondents	Minimum	Maximum	Mean	Std. Dev.
Consumers' (N=91)	16	56	27.12	8.55
Shopkeepers' (N=10)	18	33	24.00	4.78

Consumers' Educational Background	Frequency	Percent
Basic education	9	7.7
Secondary education	26	28.0
Tertiary education	56	60.2
No formal education	2	2.2
Total	**93**	**100.0**

Shopkeepers' Educational Background	Frequency	Percent
Basic education	0	0.0
Secondary education	3	30.0
Tertiary education	6	60.0
No formal education	1	10.0
Total	**10**	**100.0**

Consumers' Marital Status	Frequency	Percent
Single	70	75.3
Married	16	17.2
Widower/widow	2	2.2
Divorced/separated	5	5.4
Total	**93**	**100.0**

Consumers' Employment Status	Frequency	Percent
Employed	36	39.1
Self-employed	11	12.0
Unemployed	43	46.7
Retired	2	2.2
Total	**92**	**100.0**

Source: Field survey (2017)

As shown in Table 2, the results indicate that 93 responses were gathered with regards to the sex of the study's respondents (consumers). Out of the 93 consumers sampled from the various shops, 63, representing 67.7 percent were male, while 30, representing 32.3 percent were female. This finding is inconsistent with Barletta's (2003) claims that women are the world's most powerful consumers and that they form the core of the market of many companies. On the other hand, 10 shopkeepers were sampled and treated as key informants for the study. Out of the 10, it was gathered that the majority (60%) were female, while the remaining 40 percent were male. As shown in Appendix D Table E, the age of the consumers sampled for this study has a minimum of 16 years and maximum of 66 years with mean of approximately 27 years and standard deviation of 8.55 years (N=91; Mean = 27.34; SD= 9.38). On the other hand, the age of the shopkeepers/shop owners sampled for this study has a minimum of 18 years and maximum of 33 years with mean of 24 years and standard deviation of 4.78 years (N=10; Mean = 24.00; SD= 4.78).

With regards to consumers' educational background, the results show that the majority (60.2%) had tertiary education, followed by secondary education (28.0%), with only 2.2 percent having no formal education. The educational background of the shopkeepers followed similar trend as that of the consumers. Thus, the majority (60.0%) were found to have obtained tertiary education, followed by secondary education (30.0%), with one person (10.0%) having no formal education. Furthermore, both marital and employment status of the consumers were taken into consideration in the data analysis.

65

As exhibited in Table 2, out of 93 responses gathered from the consumers, the majority (75.3%) were not married, while 17.2 percent were married. The rest of the consumers were divorced/separated (5.4%) and widower/widow (2.2%). With respect to the consumers' employment status, the results show that most (46.7%) were unemployed, while 39.1 were employed. The rest of them were self-employed (12.0%) and retired (2.2%).

Chi-square analysis based on demographic characteristics and consumers' choice

Chi-square analysis was employed to examine the association between some of the consumer's demographic characteristics (sex, educational background, marital status and employment status) and consumer's choice for products with mandatory labelling attributes. The data results showed that there was insignificant association between sex and choice of consumers with regards to the type packaged product consumers pay critical attention to their mandatory labelling attributes (χ^2=2.3; df=3; p-value>0.05). This is contrary to the study of Osei-Mensah, Lawer and Aidoo (2012), whose chi-square analysis found significant association between consumers' sex and the use of food label information before a product purchased. The cross-tabulation (see Appendix E, Table A) showed that whereas more females (48.3%) than males (39.3%) pay critical attention mandatory labelling attributes on drugs, more males (50.8%) than females (48.3%) were particular about the mandatory labelling attributes on food and beverages. This finding is inconsistent with Mintel'(2006) survey which reports that women read food labels more than men but this difference is much less when women are compared with men who live by themselves.

66

However, the finding supports Barletta's (2003) observation that the purchase decision process of women differs from the purchase decision process of a men because they have a very different set of priorities, preferences and attitudes, and they also respond differently to marketing media, messages and visuals.

There was also insignificant association between consumers' educational and choice of consumers with regards to the type packaged product consumers pay critical attention to their mandatory labelling attributes (χ^2=7.22; df=9; p-value>0.05). This finding is different from Gellynck, Verbeke and Vermeire (2006) who found that responsiveness of consumers to information about food labelling attributes was significantly associated with education. The cross tabulation shows that consumers who had tertiary education qualification place equal (47.3%) importance on mandatory labelling of drugs and food and beverages, while those with basic and secondary education pay critical attention to food and beverages labelling than drugs labelling. However, all the consumers with no formal education pay critical attention to mandatory labelling on only food and beverages. This finding is in contrasts with the finding of a study by Newman-Ford, Lloyd and Thomas (2009) which found that gender had only minor impacts upon educational achievement.

The study further entailed an examination of a possible association between marital status and choice of consumers with regards to the type packaged product consumers pay critical attention to their mandatory labelling attributes. The analysis revealed insignificant association between marital status and choice

67

of consumers with regards to the type packaged product consumers pay critical attention to their mandatory labelling attributes (χ^2=5.64; df=9; p-value>0.05).

This observation is inconsistent with the study of Osei-Mensah, Lawer and Aidoo (2012) whose chi-square results show a significant association between consumers' marital status and their choice regarding the reading of product (food) labels. The cross-tabulation however revealed that whereas consumers who are not married pay critical attention to mandatory labelling on food and beverages (52.2%) than drugs (37.7%), consumers who are married place premium on mandatory labelling of drugs (53.3%) than food and beverages (46.7%).

Furthermore, association between employment status and choice of consumers with regards to the type packaged product consumers pay critical attention to their mandatory labelling attributes was examined. The results show insignificant association between employment status and choice of consumers with regards to the type packaged product consumers pay critical attention to their mandatory labelling attributes (χ^2=9.55; df=9; p-value>0.05). This finding is inconsistent with the study finding of MORI (2010), as cited in the study of Osei-Mensah, Lawer and Aidoo (2012), that consumers in lower paid jobs paid more attention to special price offers, and thus respectively paid less attention to food labelling directly.

It is however evident from the cross tabulation that whereas the employed, self-employed and unemployed consumers placed premium on mandatory labelling of food and beverages, all the consumers who were on retirement paid critical attention to only mandatory labelling on drugs.

This observation supports Post, Mainous, Diaz, Matheson and Everett' (2010) view that food label use may be even more important for older adults because of their higher risk of diet-related chronic diseases.

Consumers' familiarity with mandatory labelling attributes of the packaged products

According to Bialkova and van Trijp (2010), consumers' familiarity with labels is important factor for label use. In order to assess consumers' knowledge of mandatory labelling attributes on packaged products, question regarding whether or not they were familiar with mandatory labelling attributes of the packaged products was posed. The data results showed that the larger majority (85.9%) of the consumers claimed that they were familiar with mandatory labelling attributes of the packaged products, while 14 percent revealed that they had no clue about mandatory labelling attributes of the packaged products. Table 3 present the various mandatory labelling attributes of the packaged products which the consumers who claimed to have knowledge on them were asked to identify.

Table 3: Familiarity with Manufacturing and expiry date

Consumers' Familiarity	Frequency	Percent
Manufacturing and expiry date	91	14.4
Brand name	80	12.6
Company address	43	6.8
Net weight/size	50	7.9
Batch Identifier/Lot Mark or Batch Code	42	6.6
Direction for use	73	11.5
Precautions	64	10.1
Company name and logo	63	9.9
Composition/active ingredients	71	11.2
Place of origin	57	9.0
Total	**634***	**100.0**

Source: Field survey (2017)   *634: Multiple responses exist

In order to confirm consumers' familiarity with the various mandatory labelling attributes of packaged products, those who claimed they had knowledge on the mandatory labelling attributes of the packaged products were given the opportunity to identify them. Out of the 634 multiple responses recorded, the consumers' familiarity was found to be highest with Manufacturing and expiry date (14.4%), followed by brand name (12.6%), direction for use (11.5%) and composition/active ingredients (11.2%) respectively.

The results show that the mandatory labelling attribute of packaged products that very few (6.6%) consumers are aware of was found to be the batch identifier/lot mark or batch code. These findings suggest that consumers in the Cape Coast Metropolis are more interested in checking the expiry date and manufacturing dates of packaged products that any other mandatory labelling attribute. This finding is not different from the study of Osei-Mensah, Lawer and Aidoo (2012), who found that both males and female consumers; whether married or not, have high education or not earning income or not, were more interested in expiry date on the product label. This is confirmed by Sabbe, Verbeke and Van (2009) who found in their study that expiry date is commonly used by consumers as an indication of freshness, shelf life and food safety across a range of foods.

However, a question was posed to probe further if the consumers take the pain to read packaged product labels before buying them. It was gathered that out of the 90 consumers who responded to this question, 57.8 percent maintained that "yes" they take their time to read packaged product labels before buying them, while a very significant number (42.2%) of consumers revealed that they do not read packaged product labels before buying them. This finding shows that a very significant numbers of consumers risk their health, since they do not take the pain to read packaged product labels before buying them. This is consistent with Helfer and Shultz' (2014) observation that sometimes, food choice is merely a matter of taste or brand and in this case, all information reported on products may be totally irrelevant because the label is ignored.

71

The reasons given by consumers who read and those who do not read packaged product labels are presented in Table 4.

Table 4: Reasons for reading packaged product labels or not

Reasons	Frequency	Percent
To avoid fake products	3	3.8
To protect my health	17	21.8
Not to consume expiry products	13	16.7
To check product quality	13	16.7
To differentiate products	11	14.1
Not interested in the label but the product	21	26.9
Total	**78**	**100.0**

Source: Field survey (2017)

As shown in Table 4, out of the 78 responses gathered from the consumers, 57 of those who claimed that they read the labels of every packaged product they buy gave varied reasons. The major reason was to protect their health (21.8%), followed by not to consume expiry products (16.7%) and to check the product quality (16.7%).

Only 3.8 percent gave the reason that they read packaged product labels to avoid buying fake products. This is in line with the study of Prathiraja and Ariyawardana (2003) that some consumers look at food label because of health consciousness. This further confirms Osei-Mensah, Lawer and Aidoo's (2012) study which shows that aging-consumers, especially are more interested in their health and well-being.

72

The highest percentage (26.9%) of the consumers who confirmed that they do not take time to read packaged product labels gave the reason that their concern is to go to the market and buy what they wanted and therefore, they were not interested in reading the labels. This finding is an indication that many consumers in the Cape Coast Metropolis are at risk of consuming expired or harmful products without their knowledge, since a larger percentage them are not interested in reading the label of the products they buy on the market. This supports Nguyen- Hoai's (2017) view that preference and purchasing intention are not totally consistently accurate and trustworthy to predicting purchase behaviour of consumers.

The respondents' (consumers) motivation for paying rapt attention to mandatory labelling on the packaged product was also examined. This was done to ascertain the key factors that encourage or prompt consumers in the Cape Cost Metropolis to pay rapt attention to mandatory labelling on the packaged product. This was considered because information on consumers' motivation for reading mandatory labelling on the packaged product would underpin the analysis on how buyers react towards mandatory labelling on the packaged product. Table 5 presents the respondent's motivation for paying rapt attention to mandatory labelling on the packaged product they buy.

Table 5: Consumers' motivation to pay rapt attention to product labelling.

Motivation	Frequency	Percent
Health concerns	51	52.6
Product content	24	24.7
To avoid fake product	11	11.3
I am just used to it	11	11.3
Total	**97**	**100.0**

Source: Field survey (2017)

With regards to the consumers' motivation for paying rapt attention to mandatory labelling on the packaged product they buy, 97 responses were gathered. Out of the 97 responses, the majority (52.6%) maintained that they were motivation to pay rapt attention to mandatory labelling on the packaged product they buy because of their health concerns. This was followed by the fact that some would want to have a fair knowledge on content of the product they buy (24.7%), with the least percentages being to avoid fake products (11.3%) and that consumers were used to the reading of packaged product labels.

These findings imply that majority of consumer in the Cape Coast Metropolis who read packaged product labels because of their health concerns. This finding is in line with the Diet and Health Survey conducted by Derby and Levy (2001) as cited in Madhavapeddy and DasGupta (2015), which found one-third of consumers changed their decision to buy a product because of the health information on the nutrition label.

However, the finding is inconsistent with Hawkes' (2004) study which found that health information does affect consumers' food choice. In contrast, these findings are different from the study of Acebron and Dopico (2000), who based on cognitive learning theory, maintained that individual habits and past experience on the consumer rather affect their purchase decision, and this is applicable to consumer' purchase choice because there is some amount of mental exercise from past experience which creates a point of reference for future purchase.

Whether or not the consumers go ahead and buy packaged products when the mandatory labelling attributes they expect are not found on them

A question was posed to determine whether or not the consumers go ahead and buy packaged products when the mandatory labelling attributes they expect are not found on them. This was done to ascertain if the consumers do not go ahead and buy packaged products when the mandatory labelling attributes they expect are not found on them, which is generally considered as the best option. In responding to the question, 92 responses were solicited. Out of the 92 responses, the larger majority (87.0%) confirmed that "no", they would not go ahead and buy packaged products if the mandatory labelling attributes they expect are not found on them, while a significant number (13.0%) of the consumers responded otherwise. These findings are in tandem with Miller, Gibson and Applegate's (2010) position that knowledge predicts motivation, and that consumers' knowledge on mandatory product labelling could inform their choice of product to be bought on the market.

However, the finding is contrary to Maslow's (1954) theory of needs which presupposes that product supply usually corresponds to the nature of consumers' needs and preferences.

Opportunity was given to the respondents (consumers) to give reason(s) to their choice of whether or not they go ahead and buy packaged products when the mandatory labelling attributes they expect are not found on them. The reasons given by the consumers with regards to buying a product with mandatory labelling attribute or not are presented in Table 6.

Table 6: Reason for buying products with mandatory labelling or not

Reasons	Frequency	Percent
To avoid fake products	10	11.6
To protect my health	35	40.7
Not to consume expiry products	17	19.8
To buy product quality	8	9.3
To differentiate products	5	5.8
Always in a hurry	11	12.8
Total	**86**	**100.0**

Source: Field survey (2017)

In assessing the consumers' reasons, 86 responses were gathered. The results show that a little over 40 percent of the consumers do not buy packaged products which do not have the expected mandatory labelling attribute because they want to protect their health. Other reasons include: not to consume expiry products (19.8%), to avoid fake products (11.6%).

However, as shown in Table 6, the 11 consumers (12.8%) who claimed that they go ahead and buy packaged products without having the expected mandatory labelling attribute gave the reason that they do so because they are always in a hurry, and are not interested in the product labels. These findings suggest that although most of the consumers who buy packaged products have knowledge on the need to avoid products which do not have the expected mandatory labelling attribute, a significant number of consumers underestimate such knowledge.

This observation overrules Genna's (2016) view that packaged product labelling plays a pivotal role in encouraging healthier food choices by enabling consumers to make informed decisions. Table 7 presents the type of packaged products consumers pay critical attention to its mandatory labelling attributes, when buying.

Table 7: Type of packaged products consumers pay attention to

Type of packaged products	Frequency	Percent
Food and beverages	45	45.0
Drugs	48	48.0
Clothing	4	4.0
Machines/Gadgets	3	3.0
Total	***100**	**100.0**

Source: Field survey (2017)   *Multiple responses exist

Out of 100 multiple responses gathered, the data results show that type of packaged products most (48.0%) of consumers pay critical attention to their

mandatory labelling attributes when buying are drugs followed by food and beverages (45.0%). However, the type of packaged products the least percentage (3.0%) of consumers pay critical attention to their mandatory labelling attributes when buying are machines/gadgets.

These finding indicate that most consumers are very critical in reading the mandatory labelling attribute when buying drugs and food and beverages. This observation on the part of consumers, coincides with U.S Department of Health and Human Service's (2014) recommendation to products user, especially, over-the-counter medicines consumers, that, "before you use any medicine, you should always read the label".

In order to ascertain consumers' commitment towards mandatory labelling attributes of packaged products, a question was posed to assess the occasions consumers read mandatory labelling on the packaged products they buy on the market. The responses gathered are presented in Table 8.

Table 8: Frequency of consumers' attempt to read packaged products

Occasions/frequency	Frequency	Percent
Always	24	26.1
Occasionally	29	31.5
Most often	31	33.7
Not at all	8	8.7
Total	**92**	**100.0**

Source: Field Data, 2018

Responses regarding the frequency of consumers' attempt to read mandatory labelling on the packaged products they buy on the market indicate that the highest percentage (33.7%) of consumers read mandatory labelling on the packaged products they buy most often, followed by those who read them occasionally (31.5%). In addition, 26.1 percent of the consumers claimed that they read mandatory labelling on the packaged products they buy always. However, as shown in Table 8, the least (8.7%), but quite significant number of consumers, do not read mandatory labelling on the packaged products they buy at all.

These findings portray that at least most of the consumers in the Cape Coast Metropolis are aware of the need to read mandatory labelling attributes on the packaged products they buy on the market This aspect of the finding is contrary to the findings from Mintel (2006), which suggest that approximately half of food consumers from UK read the labels on initial purchases, "always". However, the finding is consistent with the study of Osei-Mensah, Lawer and Aidoo (2012) indicated that majority of Ghanaian consumers use label information occasionally on initial purchase. The consciousness of consumers in reading product label is consistent with Belch and Belch's (2001) observation that the stimulus repetition provides reinforcement and help consumers not to forget. This creates and build a brand image for a product and creates a positive position in the minds of the consumers.

Table 9: Consumers' rating of their knowledge on product labels

Rating of knowledge Level	Excellent f	(%)	V. good f	(%)	Good f	(%)	Poor f	(%)	V. Poor f	(%)	No idea f	(%)	Total f	(%)
Knowledge about Manufacturer	32	36.8	33	37.9	17	19.5	1	1.1	2	2.3	2	2.3	87	100.0
Knowledge about expiry date	47	51.6	24	26.4	14	15.4	2	2.2	2	2.2	2	2.2	91	100.0
Knowledge about brand name	35	40.7	28	32.6	17	19.8	0	0.0	1	1.2	5	5.8	86	100.0
Knowledge about company address	10	13.0	17	22.1	19	24.7	8	10.4	4	5.2	19	24.7	77	100.0
Knowledge about Net weight/size	17	21.0	24	29.6	19	23.5	6	7.4	4	4.9	11	13.6	81	100.0
Knowledge about Direction for use	30	36.1	22	26.5	18	21.7	2	2.4	3	3.6	8	9.6	83	100.0
Knowledge about Precautions	24	29.6	21	25.9	19	23.5	4	4.9	3	3.7	10	12.3	81	100.0
Knowledge about Composition/active ingredients	23	27.7	26	31.3	21	25.3	1	1.2	5	6.0	7	8.4	83	100.0
Knowledge about Company name/logo	21	24.7	16	18.8	20	23.5	8	9.4	4	4.7	16	18.8	85	100.0
knowledge about Batch/Lot Mark	8	10.1	15	19.0	20	25.3	7	8.9	7	8.9	22	27.8	79	100.0

Source: Field survey (2017)

The results in Table 9 relate how consumers rate their knowledge level on the various mandatory labelling attributes on packaged products. It is therefore observed from Table 9 that out of the 87 responses gathered, the highest percentage (37.9%) of the consumers rated their knowledge level about the name of manufacturers as "very good", followed by "excellent" (38.8%). However, whereas the least percentage (1.1%) of the consumers rated their knowledge level about the name of manufacturers "poor", 2.3 percent of the consumers had no knowledge about the name of manufacturers.

With respect to expiry date, a little over 51 percent (51.6%) of the consumers rated their knowledge level about it as "excellent", followed by "very good", while the least percentage (2.2%) rated expiry date as "poor" and "very poor" respectively. However, 2.2 percent of the consumers had no knowledge about packaged product's expiry data. The results further show that out of the 83 responses gathered, the consumers' knowledge about direction for using a product constituted thirty (36.1%) as well as knowledge about composition/active ingredients knowledge (27.7%) were rated "excellent".

On knowledge about net weight/size of a packaged product thirty (36.1%) rated it "excellent", while a little higher than 3 percent it "very poor". Although most consumers showed higher level of knowledge about the various mandatory labelling attributes of packaged products, the results seem to suggest that significant number of consumers had no knowledge about some of the mandatory labelling attributes of packaged products.

81

For instance, whereas 27.8 percent of the consumers had no idea about batch/lot mark, 24.7 percent of the consumers had no knowledge about company address indicated on packaged products. This confirms Miller and Cassady' (2012) position that by spending more time looking at the label does not provide any evidence that it is well understood as well. Theoretically, this finding further supports the cognitive-response theory of learning which according to Torrington, Hall and Taylor (2005), views learning from a perspective of mental process of memory, thinking, and the rational application of these memorised knowledge to a practical problem-solving ability. The findings also confirm the links exhibited in the conceptual framework, which highlights consumers' knowledge of mandatory labelling attributes on packaged products and the factor that affect consumers' choice relative to mandatory labelling. These findings are different from Nguyen-Hoai (2017) who writes that consumers are likely to choose products based on specific criteria which influence their final decision for the choice of a product.

Table 10: Consumers' description of packaged product labels

Description	Excellent f	(%)	V. good f	(%)	Good f	(%)	Poor f	(%)	V. Poor f	(%)	Total f	(%)
Description of Manufacturing and expiry date	38	41.8	31	34.1	16	17.6	4	4.4	2	2.2	91	100.0
Description of brand name	34	40.0	25	29.4	21	24.7	3	3.5	2	2.4	85	100.0
Description of Company address	12	15.8	24	31.6	23	30.3	15	19.7	2	2.6	76	100.0
Description of Net weight/size	11	14.5	25	32.9	29	38.2	9	11.8	2	2.6	76	100.0
Description of Direction for use	19	24.1	21	26.6	26	32.9	9	11.4	4	5.1	79	100.0
Description of Precautions	15	19.2	19	24.4	29	37.2	11	14.1	4	5.1	78	100.0
Description of Composition/active ingredients	16	19.8	26	32.1	26	32.1	9	11.1	3	4.0	75	100.0
Description of Company name and logo	23	30.7	23	30.7	16	21.3	10	13.3	3	4.0	75	100.0
Description of Batch Identifier/Lot Mark or Batch Code	15	20.8	14	19.4	19	26.4	16	22.2	8	11.1	72	100.0

Source: Field survey (2017)

With respect to consumers' description of mandatory labelling attributes of packaged product sold on the Ghanaian market in general, the various mandatory labelling attributes of packaged products were described from "excellent" to "very poor". For instance, on manufacturing and expiry date, a little over 41 percent of the consumers described them as "excellent", followed by "very good" (34.1%), while the least percentage (2.2%) described manufacturing and expiry date on packaged product sold on the Ghanaian market as "very poor". The results further show that out of the 79 responses gathered, the consumers' description for direction for using a product as "good" constituted the highest percentage (32.9%), while the least percentage (5.1%) described it as "very bad". On consumers' description of net weight/size of a packaged product 38.2 percent of the consumers described it as "good", while a little higher than 11 percent described it "poor". These findings emphasize Food Standards Agency's (2007) survey report, cited in Keogh (2017), which presents that consumers find visual or descriptive information better than numerical, so front-of-pack labelling may be better understood.

The implication of these findings is that greater percentage of consumers in the Cape Coast Metropolis appreciate the fact that mandatory labelling attributes of packaged product sold on the Ghanaian market in general are good. However, significant number of consumers believe that the mandatory labelling attributes of packaged products sold on Ghanaian market in general are "poor".

For instance, whereas 22.2 percent of the consumers described Batch Identifier/Lot Mark or Batch Code on packaged products as "poor", a little over 14 percent of the consumers also described Precautions for using a product indicated on packaged products as "poor". This aspect of the finding is consistent with the University of Sheffield's (2012) survey from the general public which shows consumers' lack of communication and understanding about some mandatory labelling and labelling requirements on packaged (food) products. This is an indication that perhaps the Ghana's Food and Drug Authority and Ghana Standard Authority have not done enough to ensure that manufacturers of packaged products sold on Ghanaian market comply with the laws and regulations governing product packaging.

In order to assess the kind of mandatory labelling attributes which consumers place a premium on when buying a product on the market, the consumers who were sampled to take part in the study were asked to rank the various mandatory labelling attributes in order of importance. Table 11 presents how the consumers ranked the various mandatory labelling attributes.

Table 11: Ranking of mandatory labelling attributes by consumers

Ranking	First		Second		Third		Fourth		Fifth		Total
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)	f
Packaging	11	18.6	21	35.6	9	15.3	10	16.9	8	13.6	59	100.0
Expiry Date	71	80.7	12	13.6	2	2.3	2	2.3	1	1.1	88	100.0
Place of Origin	1	2.3	11	25.0	14	31.8	11	25.0	7	15.9	44	100.0
Brand Name	9	15.5	19	32.8	9	15.5	10	17.2	11	19.0	58	100.0
Name of Manufacturer	1	1.8	12	21.4	12	21.4	14	25.0	17	30.4	56	100.0
Net Weight/Size	1	2.4	7	16.7	17	16.7	11	26.2	16	38.1	42	100.0
Direction for use	4	6.2	13	20.0	19	28.8	13	19.7	19	28.8	66	100.0
Composition/Active Ingredients	6	9.1	9	13.6	19	28.8	13	19.7	19	28.8	66	100.0

Source: Field survey (2017)

Table 11 presents consumers' ranking of importance of the various mandatory attributes of packaged products sold on the market. It is observed from Table 11 that out of 88 responses, the larger majority (80.7%) of consumers ranked expiry date on packaged products as their number one (first) mandatory labelling attributes they pay attention to, while only one consumer, constituting 1.1 percent ranked it as his/her fifth labelling attribute he/she consider. With respect to the nature of the packaging itself, 35.6 percent ranked it as second, while 13.6 percent ranked it as their fifth labelling attribute. On ranking of place of origin of packaged products, 25 percent, considered it as their second, while a little over 15 percent ranked it fifth. It is evident from Table 11 that apart from the expiry date on packaged products which majority of consumers were found to be critical of, serious attention is not given to other mandatory labelling attribute of

86

packaged products which are also equally important. For instance, whereas 28.8 percent of consumers rated direction for using a product as their fifth most important mandatory labelling attribute, only 6.2 rated it as first. These findings of the study imply that most of the consumers in the Cape Metropolis are only interested in checking expiry date of packaged products as against other mandatory labelling attributes. This is in line with the findings of Nguyen-Hoai (2017) which reveals that consumers rank products based on their own criteria and then, generally, the final decision will address on the most preferred product.

Analysis and discussion of results gathered from shopkeepers/shop owners

Shopkeepers/owners' agreement/disagreement with consumers' familiarity with mandatory labelling attributes

According to Alba and Hutchinson (2000), the two components of the knowledge are familiarity and expertise. In this regard, the views of shopkeepers/owners were sought regarding consumers' familiarity with mandatory labelling attributes on packaged products. This was done to engage in comparative analysis with the views of both consumers and sellers. In this regard, question regarding whether or not in the view of shopkeepers/owners, consumers who buy from their shop are familiar with mandatory labelling attributes of the packaged products was posed. Ten shopkeepers/owners were sampled to participate in the study. The data results showed that out of the 10 responses, 60 percent of the shopkeepers/owners maintained that consumers were familiar with mandatory labelling attributes of the packaged products, while 40 percent claimed that consumers who buy from them were not familiar with mandatory labelling

87

attributes of the packaged products. These findings point out to the fact that the number of consumers who are not familiar with the mandatory labelling attributes of the packaged products is huge, and the health implication of this development could be unpleasant. This finding supports Pillai, Brusco, Goldsmith and Hofacker's (2015) observation that when the consumer is in shopping environment, he/she utilizes the prior knowledge possessed to make perceptions about the products and purchase decisions.

The shopkeepers/owners were asked further to give in their estimation of the size or number of consumers' familiarity with mandatory labelling attribute of the packaged products people buy from their shops. The results are presented in Table 12.

Table 12: Size of consumers who are familiar with products labelling

Size/number of consumers	Frequency	Percent
Very few of them	1	14.3
Few of them	4	57.1
Most of them	1	14.3
All of them	1	14.3
Total	**7**	**100.0**

Source: Field survey (2017)

As shown in Table 12, out of the 7 responses gathered, the majority (57.1%) of shopkeepers/owner believed that few of the consumers who buy from their shop are familiarity with mandatory labelling attributes of packaged products, while three shopkeepers/owner, with each representing 14.5 percent

88

selected very few of them, most of them and all of them respectively. These findings indicate that among those who buy packaged product, few of them are familiar with mandatory labelling attributes of packaged products. This finding is contrary to Paul and Datta (2014) who found in their study that few consumers are not familiar with product labels or are not interested in making healthy product choices despite their level of knowledge.

Table 13 present the various mandatory labelling attributes of the packaged products which according to the shopkeeper/owners' consumers are familiar with.

Table 13: Consumers' familiarity with specific mandatory labelling

Shopkeeper/owners views	Frequency	Percent
Manufacturing and expiry date	9	25.0
Brand name	7	19.4
Company address	1	2.8
Net weight/size	2	5.6
Batch Identifier/Lot Mark or Batch Code	1	2.8
Direction for use	4	11.1
Precautions	3	8.3
Company name and logo	1	2.8
Composition/active ingredients	3	8.3
Place of origin	5	13.9
Total	***36**	**100.0**

Source: Field survey (2017)   *Multiple response exist

Out of the 36 multiple responses recorded, the shop owners/shopkeepers were of the view that consumers' familiarity with Manufacturing and expiry date (25.0%), followed by brand name (19.4%), place of origin (13.9%) and direction for use (11.1%) respectively. However, the results show that the mandatory labelling attribute of packaged products which very few (2.8%) consumers are familiar with include: company address, batch identifier/lot mark or batch code. and company name and logo. This finding is inconsistent with Mirghotbi and Pourvali's (2013) study finding which revealed that that only a few consumers pay attention to the expiry date on food products.

Table 14 presents the shop owners/shopkeepers' view on the reasons for consumers' lack of familiarity with mandatory labelling attributes of the packaged product.

Table 14: Reasons for lack of familiarity with mandatory labelling

Reason	Frequency	Percent
Illiteracy	4	57.1
Lack of reading interest	2	28.6
Trust in the product	1	14.3
Total	**7**	**100.0**

Source: Field survey (2017)

With regards to the reasons for consumers' lack of familiarity with mandatory labelling attributes of the packaged products, seven responses were gathered. As shown in Table 14, the various reasons given by shop owners/shopkeepers regarding consumers' lack of familiarity with mandatory

labelling attributes of the packaged products include: illiteracy (57.1%), lack of reading interest (28.6%), and the trust consumers have in some specific products (14.3%).

This observation implies that illiteracy is the major factor that accounts for consumers' lack of familiarity with mandatory labelling attributes of the packaged products. This observation supports Basarir and Sherif's (2012) survey which reports that the rate of checking food labels increased with education in a sample of United Arab Emirate consumers. The reason, according to Cowburn and Stockley (2005), might be that people with lower education have difficulty understanding the nutrition labels.

Factors that prompt consumers to pay attention to mandatory labelling on the packaged product

Per their experience, the shop owners/shopkeepers were asked to give their view on the key factors that prompt consumers to pay attention to mandatory labelling on the packaged product. Out of the seven responses gathered, the larger majority (87.5%) of the shop owners/shopkeepers were of the view that the major factor that draw consumers' attention to mandatory labelling on the packaged product was their health concerns, while only one person (12.5%) was of the view that consumers are pay attention to the product labels in order to check the product content. As confirmed by both consumers and shopkeepers, this finding is an indicative that the ultimate aim of consumers for giving attention to mandatory labelling on the packaged product mainly because of their health.

91

This finding agrees with Ares, Giménez, Vidal, Zhou, Krystallis, Tsalis and Guerrero's (2016) observation that well knowledgeable consumers apply the food label information more for their healthy decision. However, Basarir and Sherif' (2012) study found that it was the older people who seemed to pay more attention to their health and did more label readings. Post, Mainous, Diaz, Matheson and Everett (2010) also concluded that older consumer use food labels because of higher health risks.

In order to elicit a balanced response a question was posed to the shop owners/shopkeepers to in their view, indicate the possible factor(s) that could cause consumer not to pay attention to mandatory labelling on packaged products. Results gathered from the shop owners/shopkeepers are exhibited in Table 15.

Table 15: Reasons for consumers' lack of interest in products labels

Possible factor(s)	Frequency	Percent
Cannot read	4	40.0
Trust for the product	2	20.0
Bad reading habit	2	20.0
Hurries/not want to waste time	2	20.0
Total	**10**	**100.0**

Source: Field survey (2017)

Out of the 10 responses, the results show that the key factor that could cause most consumers not to pay attention to mandatory labelling on packaged products was the fact that they cannot read (40.0%).

The rest were found to be due to the trust of the product (20%), bad reading habit (20.0%) and hurries/not want to waste time (20.0%).

These findings suggest that majority of consumers can read from packaged product labels, but they fail to do so because of the trust they have in the product, bad reading habit and hurries. This finding supports Viviane and Laurence's (2013) observation that education is known to influence use of food labels through better information processing. Mandal (2010) also adds that consumers with higher education were more likely to use food label information. However, this study's finding is contrary to Mirghotbi and Pourvali (2013) study which found no association between degree of knowledge of product labelling attribute such as date marking and educational level of consumers who purchased food products.

Whether or not consumers still go ahead and buy packaged products from shop owners/shopkeepers' shop when the mandatory labelling attributes consumers expect are not found on them

According to Susannah (2011), product labels are perceived to influence the consumer choice. In this regard, specific question regarding whether or not consumers still go ahead and buy packaged products from shop owners/shopkeepers' shop when the mandatory labelling attributes consumers expect are not found on them was posed to elicit the views of shop owners/shopkeeper. In this regard, nine (9) 'yes' or 'no' responses were gathered. Out of the 9 responses, 66.7 percent maintained that, 'no', consumers do not go ahead and buy packaged products from the shop when the mandatory labelling attributes they expect are not found on them, while the remaining 33.3 percent of

the shop owners/shopkeepers asserted that consumers still go ahead and buy packaged products from their shop when the mandatory labelling attributes consumers expect are not found on them. This observation is also consistent with the study of Antonides (2017) who maintains that the use of consumer behaviour in assessing buying of packaged products is critical because the theory serves as a guide which provides the direction of product design and policy measures aimed at motivating the behaviour consumer choice with respect to product purchases.

Shop owners/shopkeepers were given the opportunity to give reason(s) why consumers still go ahead and buy packaged product when the mandatory labelling attributes they expect are not found on them. The reasons are shown in Table 16.

Table 16: Reason why consumers buy product with no mandatory labelling

Reason	Frequency	Percent
Illiteracy	3	50.0
Manufacturer/Brand loyalty	1	16.7
Scarcity of the product	2	33.3
Total	**6**	**100.0**

Source: Field survey (2017)

As exhibited in Table 16, main reason why consumers still go ahead and buy packaged product when the mandatory labelling attributes they expect are not found on them was identified by half (50.0%) of the shop owners/shopkeepers to be illiteracy, followed by scarcity of the product (33.3%), with the least (16.7%)

being manufacturer/brand's loyalty. These findings is an indication that illiteracy endanger consumers in the Cape Coast Metropolis to buy the packaged products they are not supposed to buy.

These findings are in support with Affram and Darkwa (2015) who maintain that education as an internal influencer, is vital for reading, understanding and using of food label information before the product choice is made.

The shop owner/shopkeepers were probed further to indicate the mandatory inscription/labels consumers who buy from their shops pay rapt attention to. Table 17 presents shop owner/shopkeepers' observations/responses.

Table 17: What consumers pay attention to on packaged products

Shop owner/shopkeepers' view	Frequency	Percent
Beauty of the Packaging	3	33.3
Brand name	2	22.2
Expiry date	3	33.3
Place of origin	1	11.1
Total	**9**	**100.0**

Source: Field survey (2017)

As exhibited in Table 17, nine responses were gathered from the shop owner/shopkeepers regarding the mandatory label/inscription consumers pay rapt attention to when buying a packaged product. It is observed that most (33.3%) of the consumers who buy from the shop owner/shopkeepers respectively pay attention to the beauty of packaged product and expiry dates.

95

On the other hand, whereas 22.2 percent of the consumers pay attention to the brand name, the least percentage (11.1%) of the consumers focus on place of origin of the packaged products.

These observations suggest that most of consumers in the Cape Coast Metropolis are enticed by beauty of packaging of the packaged products they buy as against the other important mandatory labelling attributes. This finding may explain the reason why Keller (2013) believes that colour is an essential component of packaging because consumers expect certain type of colours for particular products. However, contrary to Gibbs (2015) consumers often prefer authentic and original design over a corporate design of well-known brands.

Table 18: Observation of consumers' attitude towards mandatory labelling

Observation	Observed		Not observed		Total	
	f	*(%)*	*f*	*(%)*	*f*	*(%)*
Spending enough time to read product label	4	20.0	16	80.0	20	100.0
Taking a quick glance on product label	8	40.0	12	60.0	20	100.0
Not looking at the product label at all	8	40.0	12	60.0	20	100.0

Source: Field survey (2017)

Zhang and Seo (2015) have noted that in recent trend for examining food label usage, observation through eye tracking is widely being used nowadays in research. On their part, Bergstrom, Schall and Andrew (2014) believe that the eye tracking (observation) method helps researcher to understand consumers' visual

attention. For these reasons, Table 12 presents the results gathered from the participatory observation conducted at two supermarkets in Cape Coast.

The purpose of conducting this observational study was to ascertain whether or not consumers in the Cape Coast Metropolis spend enough time to read mandatory product labelling attributes or consumers take a quick glance on the label or they do not look at the product labelling at all.

This assessment was made by using observational checklist. The observational assessment target was based on two responses; *'observed'*, showing that specific action with regards to reading, taking a glance or not looking at the product label at all by the consumer was observed when buying a packaged product. On other hand, *'not observed'*, indicates that reading, taking a glance or not looking at the product label at all by the consumer was not observed while buying a packaged product.

In this regard, 20 consumers were closely observed without their knowledge. The data results show that out of the 20 consumers observed, 16 of them (80.0%) did not spend enough time to read the label of the products they bought at the supermarket, while only four (20.0%) spent enough time to read the label of the products they bought. This observation may perhaps concur with Kim and Kim's (2009) explanation to their finding that the reason for consumers not checking the label was either being both "bothersome" or "not noticed". The observational results also showed that whereas the majority (60.0%) of the consumers did not take a glance at the product label, the remaining 40 percent did so by just taking a glance at the label.

97

It was further observed that out of the 20 consumers observed, eight, representing 40 percent did not look at the product label at all. This observation is contrary to Genna's (2016) claim that consumers are interested in making informed decisions about the product they purchase.

These findings generally suggest that a lot of consumers in the Cape Coast Metropolis underestimate the importance of paying attention to mandatory labelling attributes on packaged products. This supports Ollberding, Wolf and Contento's (2010) observation that while labels are not used to the same degree by everyone, it might be due less to a lack of interest and more to a lack of understanding of how a product's ingredients affect health.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter, which is the last chapter of the study, focuses on the summary of the study, the conclusions drawn from the findings and recommendations made for policy implication. The final section of the chapter looks at the areas for further research, which highlights the alternative approach that could be used by other researchers to investigate future problems relating to mandatory labelling and its associated issues.

Summary

The study sought to assess the effects of labelling attributes of packaged products on consumer's choice in the Cape Coast Metropolis. It was therefore recognized that the main objective would be achieved by achieving some specific objectives. The specific objectives of the study were: to assess consumers' knowledge of mandatory labelling attributes on packaged products; to describe the various mandatory labelling attributes on packaged products; to examine how mandatory labelling attributes on packaged products affect consumers' choice of product; to determine the factors that trigger the consumers' eagerness or failure to read mandatory labelling on packaged products before buying; and to examine the association between consumers' demographic characteristics (sex, educational background, marital status and employment status) and consumer's choice for packaged products with mandatory labelling attributes.

Appropriate literature was reviewed to build a foundation for the study. Thus, the literature overview about mandatory labelling and product packaging was carried out accordingly. Theoretical underpinning such as cognitive learning theory and consumer behaviour served as basis for the elaboration of practical part of the study, which could ensure better understanding of the issues connected with the effect of mandatory labelling attributes on consumers' choice.

In order to achieve the study's set objectives, a sample of 123, comprising consumers, managers/shopkeepers (key informants) was selected from provision and Drug stores/Pharmacy shops at UCC Science market, Abura/Kakumdo and Kotokoraba/Kingsway. In addition, observational checklist was used to observe consumers' reaction towards reading of packaged product labels at Melcom supermarket at Kingsway and Sonturk Supermarket at Abura. Purposive and convenient sampling approaches were used to obtain the sample. A mixed research design was chosen for the study with quantitative being the dominant approach. Data were collected through the use of interview schedule, questionnaires and observational checklist. The analysis of data was done using the Statistical Product and Service Solution (SPSS) software version 21. Data were presented by the use of percentages and frequencies, and in some cases, descriptive and chi-square analysis were used since the study rendered itself to mixed methods.

Key Findings

Based on the study's specific objectives, the study revealed the following key findings:

To assess consumers' knowledge of mandatory labelling attributes on packaged products.

Majority of the consumers in the Cape Coast Metropolis are aware of the need to read mandatory labelling attributes on the packaged products they buy on the market. The findings point out to the fact that although minority, the number of consumers who are not familiar with the mandatory labelling attributes of the packaged products is huge, and the health implication of this development could be unpleasant.

Majority of consumers' knowledge level about manufacturing and expiry date, as well as direction for using a product was found to be excellent. However, most of the consumers ranked expiry date on packaged products as their number one (first) mandatory labelling attributes they pay attention to when buying a product on the market.

A significant number of consumers in the Cape Coast Metropolis had no knowledge about some of the mandatory labelling attributes of packaged products such as Net weight/size, active ingredients, and batch Identifier/Lot Mark or Batch Code.

Although most of the consumers who buy packaged products have knowledge on the need to avoid packaged products which do not have the expected mandatory labelling attribute, a significant number of consumers

underestimate such knowledge, and fail to take the reading of packaged product labels seriously.

To describe the various mandatory labelling attributes on packaged products.

The highest percentage of the consumers described manufacturing and expiry date on packaged products as "excellent". However, significant number of consumers believe that the other mandatory labelling attributes of packaged products such as batch Identifier/Lot Mark or Batch Code and precautions for using a product sold on Ghanaian market in general are "poor".

The other mandatory labelling attribute which were described by the second higher percentage of consumers as "very poor" were direction for using packaged products and precautionary inscriptions.

To examine how mandatory labelling attributes on packaged products affect consumers' choice of product.

Although the majority of consumers confirmed that they would not go ahead and buy packaged products if the mandatory labelling attributes they expect are not found on them, a significant number (13.0%) of the consumers responded maintained that they usually go ahead and buy packaged products if the mandatory labelling attributes they expect are not found on them.

The findings indicate that most consumers are very critical in reading the mandatory labelling attribute when buying drugs and food and beverages than other packaged products. In addition, many consumers in the Cape Coast Metropolis are at risk of consuming expired or harmful products without their

102

knowledge, since a larger percentage of them are not interested in reading the label of the products they buy on the market.

To determine the factors that trigger the consumers' eagerness or failure to read mandatory labelling on packaged products before buying.

Majority of consumer in the Cape Coast Metropolis read packaged product labels because of their health concerns. Thus, the ultimate aim of consumers for giving attention to mandatory labelling on the packaged product mainly because of their health.

Most of consumers can read from packaged product labels, but they fail to do so because of the trust they have in the product, bad reading habit and hurries. Thus, a lot of consumers in the Cape Coast Metropolis underestimate the importance of paying attention to mandatory labelling attributes on packaged products. Illiteracy was however found as the major factor that accounts for consumers' lack of familiarity with mandatory labelling attributes of the packaged products.

To examine the association between consumers' demographic characteristics and consumers' choice for packaged products with mandatory labelling attributes.

Using chi-square analysis, the study found insignificant association between all the demographic characteristics (sex, educational background, marital status and employment status) and choice of consumers with regards to the type packaged product consumers pay critical attention to their mandatory labelling attributes.

103

However, using cross tabulation, some relationships were established with regards to the relationship between demographic characteristic and consumers' choice vis-à-vis the type packaged product consumers pay attention to.

It was found that whereas more females than males pay critical attention to mandatory labelling attributes on drugs, more males than females were particular about the mandatory labelling attributes on food and beverages.

Consumers who had tertiary education qualification place equal importance on mandatory labelling on drugs and food and beverages, while those with basic and secondary education pay critical attention to food and beverages labelling than drugs labelling.

Consumers who are not married pay critical attention to mandatory labelling on food and beverages than drugs, while consumers who are married place premium on mandatory labelling of drugs than food and beverages.

It was evident from the findings that whereas the employed, self-employed and unemployed consumers placed premium on mandatory labelling of food and beverages, all the consumers who were on retirement paid critical attention to only mandatory labelling on drugs.

Conclusions

The awareness consumers in the Cape Coast Metropolis about the need to read mandatory labelling attributes on the packaged products they buy on the market is higher. It can however be concluded that, although minority, the number of consumers who are not familiar with the mandatory labelling attributes of the packaged products is huge, and the health implication of this development could

be unpleasant. The level of consumers' knowledge about manufacturing and expiry date, as well as direction for using a product is encouraging.

It was not surprising that consumers in the Cape Coast Metropolis ranked expiry date on packaged products as their number one (first) mandatory labelling attributes they pay attention to when buying a product on the market. On the bases of this, awareness of food label information among consumers is being created, thereby making consumers more conscious of how the information about mandatory labelling attributes of the packaged products they consume is taken seriously.

Conclusion can also be drawn that the highest number of the consumers see manufacturing and expiry date on packaged products as "excellent". However, significant number of consumers believe that the other mandatory labelling attributes of packaged products such as batch Identifier/Lot Mark or Batch Code, direction for using packaged products and precautions for using a product sold on Ghanaian market in general are "poor". This suggests that all manufacturers should be made aware of the need to comply with Ghana's laws regarding product packaging and labelling The implication of this development is that when manufacturers become responsible in providing mandatory labelling attributes as required by law, it will go a long way to facilitate the work Food and Drug Authority (FDA) and Ghana Standard Authority (GSA), if they become aware that consumers are well-informed about mandatory labelling and are also interested in ensuring that such information are provided on packaged product.

The study further concludes that although the majority of consumers confirmed that they would not go ahead and buy packaged products if the mandatory labelling attributes they expect are not found on them, a significant number of the consumers in the Cape Coast Metropolis maintained that they usually go ahead and buy packaged products if the mandatory labelling attributes they expect are not found on them. This implies that consumers in the Cape Coast Metropolis are at risk of consuming expired or harmful products without their knowledge, since a larger percentage of them are not interested in reading the label of the products they buy on the market. However, the rest of the consumers who take mandatory labelling seriously are very critical in reading packaged product labels when buying drugs and food and beverages than other packaged products. This action of some consumers will compel the producers of packaged products to provide the needed information of the labels of their products to meet consumers' expectations.

In terms of the factors that trigger the consumers' eagerness or failure to read mandatory labelling on packaged products before buying, the study concludes that consumer in the Cape Coast Metropolis read packaged product labels because of their health concerns. Thus, the ultimate aim of consumers for giving attention to mandatory labelling on the packaged product mainly because of their health. On the other hand, most of consumers can read from packaged product labels, but they are not interested to do so because of the trust they have in the product as well as bad reading habit and hurries.

106

Thus, a lot of consumers in the Cape Coast Metropolis underestimate the importance of paying attention to mandatory labelling attributes on packaged products. However, illiteracy is the major factor that accounts for consumers' lack of familiarity with mandatory labelling attributes of the packaged products.

Lastly, based on the final specific objective, the study concludes that the choice of consumers with regards to the type of packaged product labelling attributes consumers pay critical attention to is not significantly associated with demographic characteristics (sex, educational background, marital status and employment status) of consumers. This implies that the null hypothesis that there is no significant association between consumers' demographic characteristics (sex, educational background, marital status and employment status) and consumers' choice for products with mandatory labelling attributes should be considered. The implication of this deduction is that having a fair idea of the association that exist between demographic characteristics of consumers and consumers' choice regarding the type of packaged product labelling attributes consumers pay critical attention to, specific policy framework regarding packaged product labelling and consumers' responsiveness and choice should be a priority for all the regulatory authorities and agencies in Ghana.

Recommendations

Based on the findings of the study, the following recommendations are made to policy makers, manufacturers and stakeholder agencies/authorities such as FDA and GSA who are responsible for packaged product regulation in Ghana for policy implication:

107

The regulatory bodies such as Food and Drug Authority (FDA) and Ghana Standard Authority (GSA) should, as a matter of urgency, provide the necessary information to the general public on the importance of paying attention to packaged products labels. This form of education could be done in schools, market places, churches and in the media (both print and electronic).

Laws governing the labelling of packaged product in Ghana should be reviewed in such a way that manufacturers would add education on mandatory labels to their advertisement so that consumers will have a fair knowledge about the product they buy on the market. This is crucial because a significant number of consumers who took part in this study demonstrated that they had no knowledge about most of the mandatory labelling attributes on the products they buy.

Adequate resources should be provided by the Government of Ghana to FDA and GSA to ensure that legislative requirements regarding product packaging are fully implemented.

Regular survey should be conducted by Food and Drug Authority (FDA) and Ghana Standard Authority (GSA) at the various market places in Ghana, especially in Central Region, to examine how the various mandatory labelling attribute are indicated on products sold on the market. After detecting that some manufacturers do not comply with the set-rules governing product packaging, such manufacturers should be traced and penalized accordingly to deter others from doing same.

Consumers should constantly be cautioned by all the regulatory authorities and agencies, as well as civil society groups about the fact that the price, scarcity and the trust of a particular product should not be the basis for avoiding the checking or reading of packaged product labels. More so, consumers should be made aware that their focus regarding mandatory labelling of packaged products should not be on drugs and food and beverages alone, but any other products that have been labelled.

Ghana Education Service, the Ministry of Education, Ministry of Health together with FDA and GSA should come out with new ideas and strategies to incorporate the teaching of product identification through mandatory labelling attributes in the basic and secondary school curricula. This recommendation comes in the wake of a situation found in this study that consumers with basic and secondary schools education had no idea about most of the mandatory labelling attribute on packaged products.

FDA and GSA should make it mandatory for manufacturers to design and structure their products' labelling attributes to suit all categories of consumers in Ghanaian market. For instance, educational level of all potential consumers should be taken into consideration which product labels are made. This is so because it was found that consumers with tertiary education qualification place equal importance on mandatory labelling on drugs and food and beverages, while those with basic and secondary education pay critical attention to food and beverages labelling than drugs labelling.

109

Suggestions for future Research

The study suggests the use of robust multiple regression (OLS) analysis as an alternative approach which should be employed in future research to investigate problems related to consumers' purchasing choice and product labelling. Such studies should be conducted on cross regional and district basis to examine the effects mandatory labelling on consumers purchasing choices. This will enhance the validity of the results obtained from this study. It is further suggested that broad operationalisation should be done in future studies to incorporate more variables that will widen the studies' results and discussion. This is crucial because this study focused on few variables in the analysis. On the other hand, sample size of future studies should be increased, since this study considered only 123 respondents, and such sample size might not be representative of the larger population of the Cape Coast Metropolis within which the study was conducted.

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APPENDIX A: INTERVIEW SCHEDULE FOR CONSUMERS

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

TOPIC: EFFECTS OF LABELLING ATTRIBUTES OF PACKAGED PRODUCTS ON CONSUMERS' CHOICE IN THE CAPE COAST METROPOLIS

INTERVIEW SCHEDULE

The purpose of this interview is to collect data for an academic exercise only. Your honest answers/responses to each of the questions would be very essential and useful for this study. You are therefore guaranteed for the maintenance of your privacy and confidentiality

RESPONDENT'S CONSENT SOUGHT: SIGNED

I understand that, the information collected is going to be used and not disclosed, while keeping my identity confidential, between the researcher and the agencies responsible for the safety, effectiveness, and conduct of the research; and that the researcher may use and share my information for scientific purposes related to this and other associated studies.

Respondent's Signature……………………… Date……………………

Interview Date	Place of interview	Start Time	Time End
_____ / _____ / **2017**	…………………	_____ : _____	_____ : _____

Please, answer the question by ticking [√] in the appropriate box or by writing in the space provided.

SECTION A: DEMOGRAPHICS

	Male	Female
1. Sex		

	Your age in years
2. Please how old are you?	I am……………….........................years old.

3. What is your highest level of education?	
a) Basic school	
b) Secondary education	
c) Tertiary education	
d) No formal education	

4. Marital Status	
a) Single	
b) Married	
c) Widower/widow	
d) Divorced or separated	

5. What is your employment status?	
a) Employed	
b) Self-employed	
c) Unemployed	
d) Retired	

SECTION B: CONSUMERS' KNOWLEDGE OF MANDATORY LABELLING ATTRIBUTES ON PACKAGED PRODUCTS.

6. Are you familiar with mandatory labelling attributes of the packaged products you buy on the market? a. Yes [ ] b. No [ ]

Manufacturing and expiry date	[ ]	Direction for use	[ ]
Brand name	[ ]	Precautions	[ ]
Company address	[ ]	Company name and logo	[ ]
Net weight/size	[ ]		
Composition/active ingredients	[ ]		
Batch Identifier/Lot Mark or Batch Code	[ ]	Place of origin	[ ]

7. Which of the following mandatory labelling attributes are you familiar with? You can tick [√] more than one, depending on your familiarity with each of them.

134

SECTION C: DESCRIPTION OF THE GENERAL MANDATORY PRODUCTS LABELLING BY MANUFACTURERS IN GHANA

8. What is your level of knowledge on how the following mandatory labelling are indicated on packaged products? Please tick [√] from *Excellent* to *No idea*						
	Excellent	Very good	Good	Poor	Very poor	No idea
a. Manufacturer						
b. Expiry date						
c. Brand name						
d. Company address						
e.Net weight/size						
f. Direction for use						
g. Precautions						
h. Composition/active ingredients						
i. Company name and logo						
j. Batch Identifier/Lot Mark or Batch Code						

9. How do you describe the general mandatory products labelling by manufacturers in Ghana?					
	Excellent	Very good	Good	Poor	Very poor
a) Manufacturing and expiry date					
b) Brand name					
c) Company address					
d) Net weight/size					
e) Direction for use					
f) Precautions					
g) Composition/active ingredients					
h) Company name and logo					
i) Batch Identifier/Lot Mark or Batch Code					

SECTION D: FACTORS THAT TRIGGER THE CONSUMER'S EAGERNESS OR FAILURE TO READ MANDATORY LABELLING ON PACKAGED PRODUCTS BEFORE BUYING.

10. Do you take the pain to read packaged product labels before buying? a. Yes [ ] b. No [ ]

11. Please give reason(s) to your answer to question six
    (6)……………….....................…………………………………………
    …………………………………………………….…………………………
    ………………………………………………………………………..

12. What usually prompts you to pay attention to mandatory labelling on the packaged product you buy on the market? a. Health concerns [ ] b. Product content [ ] c. To avoid fake product [ ] d. I am just used to it [ ]

13. What possible factor do you think could cause you not to pay attention to mandatory labelling on packaged products you buy on the market? a. Cannot read [ ] b. Trust for the product [ ] c. Bad reading habit [ ] d. Hurries/not want to waste time [ ]

SECTION E: HOW MANDATORY LABELLING ON PACKAGED PRODUCTS AFFECT CONSUMER'S CHOICE OF PRODUCT

14. Do you go ahead and buy packaged products when the mandatory labelling attributes you expect are not found on them? a. Yes [ ] b. No [ ]

15. Please give reason(s) to your answer to question Ten
    (10)…………………………………………………….……………………
    ………………………………………………………………………………
    …………………………………………………………………

16. Which type of packaged products do you pay critical attention to its mandatory labelling attributes, when buying on the market?
    a. Food and beverages [ ] b. Drugs [ ] c. Clothing [ ] d. Machines/Gadgets [ ]

17. Which of the mandatory label/inscription do you pay rapt attention to when buying a packaged product on the market? a. Beauty of the Packaging [ ] b. Brand name [ ] c. Expiry date [ ] d. Place of origin [ ] e. Company name and logo [ ]

18. On what occasion(s) do you read mandatory labelling on the packaged products you buy on the market?
    a. Always [ ] b. occasionally [ ] c. Most often [ ] d. Not at all [ ]

19. Rank from 1st to 5th to indicate how important are the following mandatory labelling to you when buying a packaged product on the market.

	1st	2nd	3rd	4th	5th
a. Packaging					
b. Expiry date					
c. Place of origin					
d. Brand name					
e. 6.Name of manufacturer					
f. Net weight/size					
g. Direction for use					
h. Composition/active ingredients					

THANK YOU

APPENDIX B: SHOPKEEPERS'/MANAGERS' QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

TOPIC: EFFECTS OF LABELLING ATTRIBUTES OF PACKAGED
PRODUCTS ON CONSUMERS' CHOICE IN THE CAPE COAST
METROPOLIS

SHOPKEEPERS'/MANAGERS' QUESTIONNAIRE

The purpose of this questionnaire is to collect data for an academic exercise only. Your honest answers/responses to each of the questions would be very essential and useful for this study. You are therefore guaranteed for the maintenance of your privacy and confidentiality

RESPONDENT'S CONSENT SOUGHT: SIGNED

I understand that, the information collected is going to be used and disclosed, while keeping my identity confidential, between the researcher and the agencies responsible for the safety, effectiveness, and conduct of the research; and that the researcher may use and share my information for scientific purposes related to this and other associated studies.

Respondent's Signature……………………… Date……………………

Please, answer the question by ticking [√] in the appropriate box or by writing in the space provided.

SECTION A: DEMOGRAPHICS		

	Male	Female
1. Sex		

2. Please how old are you?	
	I am……………….......................years old.

138

3. What is your highest level of education?	
e) Basic school	
f) Secondary education	
g) Tertiary education	
h) No formal education	

SECTION B: CONSUMERS' KNOWLEDGE OF MANDATORY LABELLING ATTRIBUTES ON PACKAGED PRODUCTS.

4. Would you agree that consumers are familiar with mandatory labelling attributes of the packaged products you buy in your shop? a. Yes [ ] b. No [ ]

5. In your estimation, what is the size/magnitude of consumers who are familiar with mandatory labelling attributes of the packaged products they buy in your shop, if your answer to (Q.4) is "yes"? a. Very few of them [ ] b. Few of them [ ] c. Most of them [ ] All of them [ ]

6. Which of the following mandatory labelling attributes are you aware that consumers are familiar with? You can tick [√] more than one, depending on their familiarity with each of them.

Manufacturing and expiry date	[ ]	Direction for use	[ ]
Brand name	[ ]	Precautions	[ ]
Company address	[ ]	Company name and logo	[ ]
Net weight/size	[ ]	Composition/active ingredients	[ ]
Batch Identifier/Lot Mark or Batch Code	[ ]	Place of origin	[ ]

7. What do you think might be the reason for lack of familiarity with mandatory labelling attributes of the packaged products on the part of consumers if your answer to (Q.4) is "No"?
   a.   Illiteracy [ ] b. Lack of reading interest [ ] c. Trust in the product [ ]

SECTION C: DESCRIPTION OF THE GENERAL MANDATORY PRODUCTS LABELLING BY MANUFACTURERS IN GHANA

8. **How do you describe the general mandatory products labelling by manufacturers in Ghana?**					
	Excellent	Very good	Good	Poor	Very poor
j) Manufacturing and expiry date					
k) Brand name					
l) Company address					
m) Net weight/size					
n) Direction for use					
o) Precautions					
p) Composition/active ingredients					
q) Company name and logo					
r) Batch Identifier/Lot Mark or Batch Code					

SECTION D: FACTORS THAT TRIGGER THE CONSUMER'S EAGERNESS OR FAILURE TO READ MANDATORY LABELLING ON PACKAGED PRODUCTS BEFORE BUYING.

9. What usually prompts consumers to pay attention to mandatory labelling on the packaged product they buy from your shop? a. Health concerns [ ] b. Product content [ ] c. To avoid fake product [ ] d. Just for reading sake [ ]

10. What possible factor do you think could cause a consumer not to pay attention to mandatory labelling on packaged products you buy on the market? a. Cannot read [ ] b. Trust for the product [ ] c. Bad reading habit [ ] d. Hurries/not want to waste time [ ]

SECTION E: HOW MANDATORY LABELLING ON PACKAGED PRODUCTS AFFECT CONSUMER'S CHOICE OF PRODUCT

11. Do consumers still go ahead and buy packaged products from your shop when the mandatory labelling attributes they expect are not found on them? a. Yes [ ] b. No [ ]

12. Please give reason(s) to your answer to question eleven………………………………………………………………………… ………………………………………………………………………………

13. Which of the mandatory label/inscription do consumers pay rapt attention to when buying a packaged product from your shop? a. Beauty of the Packaging [ ] b. Brand name [ ] c. Expiry date [ ] d. Place of origin [ ] e. Company name and logo [ ]

APPENDIX C: OBSERVATIONAL CHECK LIST

OBSERVATIONAL CHECK LIST [√]

Consumer	Spending enough time to read product labelling		Taking a quick glance on product labelling		Not looking at the product labelling at all	
	Observed	Not Observed	Observed	Not Observed	Observed	Not Observed
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

APPENDIXES D: CHI-SQUARE RESULTS TABLES

Table A: Sex and Type of packaged product

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.300[a]	3	.512
Likelihood Ratio	3.502	3	.321
Linear-by-Linear Association	.050	1	.823
N of Valid Cases	90		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .97.

Table B: Educational background and Type of packaged product

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.220[a]	9	.614
Likelihood Ratio	7.884	9	.546
Linear-by-Linear Association	.028	1	.866
N of Valid Cases	90		

a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .07.

Table C: Marital status and Type of packaged product

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.643[a]	9	.775
Likelihood Ratio	7.764	9	.558
Linear-by-Linear Association	.035	1	.852
N of Valid Cases	90		

a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .07.

Table D: Employment status and Type of packaged product

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.545[a]	9	.389
Likelihood Ratio	11.944	9	.217
Linear-by-Linear Association	1.585	1	.208
N of Valid Cases	89		

a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .07.

Table E: Descriptive Statistics consumers & Shopkeeper/shop owners' Ages

	N	Min.	Max.	Mean	Std. Dev.
Age of Consumers	91	16	66	27.34	9.378
Valid N (listwise)	91				
Age of Shopkeeper/shop owners	10	18	33	24.00	4.784
Valid N (listwise)	10				

143

APPENDIX E: CROSS TABULATION TABLES

Table (a): Sex of Respondent * Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying Crosstabulation

			Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying				Total
			Food and beverages	Drugs	Clothing	Machines/Gadgets	
Sex of Respondent	Male	Count	31	24	4	2	61
		Expected Count	30.5	25.8	2.7	2.0	61.0
		% within Sex of Respondent	50.8%	39.3%	6.6%	3.3%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	68.9%	63.2%	100.0%	66.7%	67.8%
		% of Total	34.4%	26.7%	4.4%	2.2%	67.8%
	Female	Count	14	14	0	1	29
		Expected Count	14.5	12.2	1.3	1.0	29.0
		% within Sex of Respondent	48.3%	48.3%	0.0%	3.4%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	31.1%	36.8%	0.0%	33.3%	32.2%
		% of Total	15.6%	15.6%	0.0%	1.1%	32.2%
Total		Count	45	38	4	3	90
		Expected Count	45.0	38.0	4.0	3.0	90.0
		% within Sex of Respondent	50.0%	42.2%	4.4%	3.3%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	50.0%	42.2%	4.4%	3.3%	100.0%

144

Table (b): Respondent's Educational Background * Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying Crosstabulation

			Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying				Total
			Food and beverages	Drugs	Clothing	Machines/Gadgets	
Respondent's Educational Background	Basic education	Count	4	3	0	0	7
		Expected Count	3.5	3.0	.3	.2	7.0
		% within Respondent's Educational Background	57.1%	42.9%	0.0%	0.0%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	8.9%	7.9%	0.0%	0.0%	7.8%
		% of Total	4.4%	3.3%	0.0%	0.0%	7.8%
	Secondary education	Count	13	9	3	1	26
		Expected Count	13.0	11.0	1.2	.9	26.0
		% within Respondent's Educational Background	50.0%	34.6%	11.5%	3.8%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	28.9%	23.7%	75.0%	33.3%	28.9%
		% of Total	14.4%	10.0%	3.3%	1.1%	28.9%
	Tertiary education	Count	26	26	1	2	55
		Expected Count	27.5	23.2	2.4	1.8	55.0
		% within Respondent's Educational Background	47.3%	47.3%	1.8%	3.6%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	57.8%	68.4%	25.0%	66.7%	61.1%
		% of Total	28.9%	28.9%	1.1%	2.2%	61.1%
	No formal education	Count	2	0	0	0	2
		Expected Count	1.0	.8	.1	.1	2.0
		% within Respondent's Educational Background	100.0%	0.0%	0.0%	0.0%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	4.4%	0.0%	0.0%	0.0%	2.2%
		% of Total	2.2%	0.0%	0.0%	0.0%	2.2%

145

Table (c): Respondent's Marital Status * Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying Crosstabulation

			Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying				Total
			Food and beverages	Drugs	Clothing	Machines/Gadgets	
Respondent's Marital Status	Single	Count	36	26	4	3	69
		Expected Count	34.5	29.1	3.1	2.3	69.0
		% within Respondent's Marital Status	52.2%	37.7%	5.8%	4.3%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	80.0%	68.4%	100.0%	100.0%	76.7%
		% of Total	40.0%	28.9%	4.4%	3.3%	76.7%
	Married	Count	7	8	0	0	15
		Expected Count	7.5	6.3	.7	.5	15.0
		% within Respondent's Marital Status	46.7%	53.3%	0.0%	0.0%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	15.6%	21.1%	0.0%	0.0%	16.7%
		% of Total	7.8%	8.9%	0.0%	0.0%	16.7%
	Widower/widow	Count	0	2	0	0	2
		Expected Count	1.0	.8	.1	.1	2.0
		% within Respondent's Marital Status	0.0%	100.0%	0.0%	0.0%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	0.0%	5.3%	0.0%	0.0%	2.2%
		% of Total	0.0%	2.2%	0.0%	0.0%	2.2%
	Divorced/separated	Count	2	2	0	0	4
		Expected Count	2.0	1.7	.2	.1	4.0
		% within Respondent's Marital Status	50.0%	50.0%	0.0%	0.0%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	4.4%	5.3%	0.0%	0.0%	4.4%
		% of Total	2.2%	2.2%	0.0%	0.0%	4.4%

146

Table (d): Respondent's Employment Status * Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying Crosstabulation

			Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying				Total
			Food and beverages	Drugs	Clothing	Machines/Gadgets	
Respondent's Employment Status	Employed	Count	18	17	0	1	36
		Expected Count	17.8	15.4	1.6	1.2	36.0
		% within Respondent's Employment Status	50.0%	47.2%	0.0%	2.8%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	40.9%	44.7%	0.0%	33.3%	40.4%
		% of Total	20.2%	19.1%	0.0%	1.1%	40.4%
	Self-employed	Count	7	3	0	0	10
		Expected Count	4.9	4.3	.4	.3	10.0
		% within Respondent's Employment Status	70.0%	30.0%	0.0%	0.0%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	15.9%	7.9%	0.0%	0.0%	11.2%
		% of Total	7.9%	3.4%	0.0%	0.0%	11.2%
	Unemployed	Count	19	16	4	2	41
		Expected Count	20.3	17.5	1.8	1.4	41.0
		% within Respondent's Employment Status	46.3%	39.0%	9.8%	4.9%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	43.2%	42.1%	100.0%	66.7%	46.1%
		% of Total	21.3%	18.0%	4.5%	2.2%	46.1%
	Retired	Count	0	2	0	0	2
		Expected Count	1.0	.9	.1	.1	2.0
		% within Respondent's Employment Status	0.0%	100.0%	0.0%	0.0%	100.0%
		% within Type of packaged products respondent pays critical attention to its mandatory labelling attributes, when buying	0.0%	5.3%	0.0%	0.0%	2.2%
		% of Total	0.0%	2.2%	0.0%	0.0%	2.2%