AWARENESS OF FOOD LABELLING AND USE OF THE INFORMATION IN PURCHASING PRE PACKAGED FOOD PRODUCTS AMONG CONSUMERS IN ILALA MUNICIPALITY-DAR ES SALAAM

GWANTWA SAMSON

Master of Public Health Dissertation

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BY

GWANTWA SAMSON

A Dissertation Submitted in Partial Fulfillment of the Requirement for the Degree of Master of Public Health of the Muhimbili University of Health and Allied Sciences

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CERTIFICATION

The undersigned certifies that she has read and hereby recommends for examination by the Muhimbili University of Health and Allied Sciences, a dissertation titled "Awareness of food labelling and use of the information in purchasing pre- packaged food products among consumers in Ilala Municipality, Dar-Es-Salaam, Tanzania." Presented in partial fulfillment of the Degree of Master of Public Health of the Muhimbili University of Health and Allied Sciences.

Dr. Anna Tengia Kessy

(Supervisor)

Date: _____

DECLARATION AND COPYRIGHT

I **Gwantwa Samson,** hereby declare that this dissertation is of my original work and has never been submitted for a diploma or degree in any other University.

Candidate's signature.....

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ABSTRACT

Liberalization of trade, globalization and development in food science and technology has resulted in an increase in trade and consumption of pre-packaged foods. Reading food labelling information is important to assist in making informed choices of food.

This study determined level of awareness on pre-packaged food labelling information among consumers in Ilala Municipality, their perception on the importance of such information and difficulties encountered in reading and using pre-packaged food labels.

A descriptive cross- sectional study was conducted in Ilala Municipality from July to August, 2012. A questionnaire with both close and open ended questions was used to collect information from 208 consumers who were found purchasing prepackaged foods in selected supermarkets (Uchumi, Shoprite, Imalaseko, Mek One and TSN). The obtained data were computed to determine relationships and associations between various factors and the use of food labelling information among consumers in the area of study.

Awareness and use of pre-packaged food labelling information was found to be low among consumers in Ilala municipality. Findings showed that only a quarter of the study respondents had high awareness on food labelling. Health concerns, religious beliefs and the need to know characteristics of food, motivate consumers to read prepackaged food labels. Difficulties encountered in reading food labels included small font sizes, use of scientific and technical language as well as the use of unfamiliar language. Circumstances in which consumers purchase pre-packaged food without consulting the respective labels include time constraint and purchase of routine food products. Awareness and use of pre-packaged food labelling information was significantly associated with age, occupation and education level of respondents. People who read food labels concentrated on ingredients and expiry.

It is therefore recommended that deliberate efforts should be taken to improve food labelling, provide education to consumers to raise their awareness and use of food labelling information as well as develop a consumer guide on food labelling.

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LIST OF ABREVIATIONS

- CI Confidence Interval
- TFDA Tanzania Food and drugs Authority
- UAE United Arab Emirates
- USA United States of America
- UK United Kingdom

OPERATIONAL DEFINITION OF TERMS

Pre –Packaged Food: Food that has been packaged or made up in advance in a labelled container, ready for offer to the consumer.

Container: Any packaging of food for delivery as a single item, whether by completely or partially enclosing the food and includes wrappers.

Food labelling: Includes any written, printed or graphic matter that is present on the label, accompanies the food, or is displayed near the food, including that for the purpose of promoting its sale

Awareness of food labelling information (awareness score): Consumer's judgement/response to the importance of 10 basic food labelling items that will be listed on consumer's study.

Use of pre-packaged food labelling information in purchasing food: Practice of reading and understanding food labelling information to make right decisions when buying pre-packaged foods.

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CHAPTER ONE

1.0 Introduction

1.1 Background information

The expanding world economy, liberalization of food trade, growing consumer demand, developments in food science and technology, improvement in transport and easy communication has resulted in an increase of national and international trade of pre packaged foods. A paper prepared by the USA delegation to Codex Committee on Food Labelling in 2005 reported that consumers around the word increasingly have access to new food products and more information about food. While these developments are generally positive, they raised concerns about the potential for consumers to be misled by foods labels. This necessitates consumers to be enlightening with the knowledge and ability to read, understand and interpret food labelling and use such information in decision making during purchase of pre packaged foods.

Food label is any tag, brand, mark, pictorial or any descriptive matter written, printed, stencilled, marked, embossed or impressed on, or attached to a container of food. Food labelling includes any written, printed, or graphic matter that is presented on the label accompanying the food, or is displayed near food for the purpose of promoting its sale (Codex stan 1 -1985).

Food labels provide information from manufacturer to consumer about a particular pre packaged food. The information may include name of the food, ingredients used in its manufacture, nutritional composition, manufacture and expiry dates, recommended storage conditions, instructions for use etc. This information is useful as it assists consumers to make informed choices during purchase of food.

Food labels are found to be very important public health tools that are used to promote a balanced diet; and hence enhance public health and wellbeing. Food label information assists consumers to better understand the nutritional value of food and enables them to compare the nutritional values of similar food products and to make healthy informed food choices based on the relevant nutrition information. (Al – Tamimi and Company, 2004)

Food labelling information is legally regulated and food regulatory authorities are using the information to protect consumers by ensuring provision of clear, honest and correct information to consumers. These authorities are making use of various food labelling regulations and standards available depending on the country's context. In Tanzania regulation of food labelling is done by TFDA. The authority has the task to evaluate and register pre packaged foods before approval for distribution and marketing in the country. The evaluation includes assessment of labelling information to ensure that it complies with the specifications of the TFDC (Food Labelling Regulation), 2006 and the Codex stan 1-1985.

According to the Tanzania Food, Drugs and Cosmetics (Food Labelling Regulations), 2006 and the Codex General Standard for the Labelling of Pre Packaged Foods (Codex stan 1 -1985), the pre-packaged food labelling should include name of the food, list of ingredients, net content, name and address of the manufacturer and country of origin. Other information includes the batch /lot identification, date markings (manufacture and expiry dates), storage conditions, nutrition information (composition) and instructions for use. All these informations are essential to help consumers in making choices of food depending on preference, dietary recommendations/restrictions and other reasons. The information also allows consumers to compare food products for value for money.

Different people have different food/nutritional requirements, choices and preferences. Some people have health problems that require certain amount of nutrients. Some have health issues which require them to stay away from certain food ingredients. Some foods have specific instructions for preparation and use; some requires specific storage conditions etc. Importantly, pre packaged foods have specific shelf life which is normally indicated on the label through manufacture and expiry dates. All these suggest the need for consumers to be well informed about all the aforementioned characteristics of a particular pre packaged food before purchase and this information is expected to be found on the food label.

The choice of food is influenced by a number of factors including demographic characteristics such as age, sex, and education level, health status as well as situational factors such as income and time constraints. Other factors are product's attributes such as price and taste, information obtained from the label etc. The ability to choose pre packaged food based on information obtained on its label requires knowledge and ability to read understand and interpret the information (Sunelle *et al*, 2010).

Consumers are supposed to read food label before purchase of pre packaged foods so that they can be informed of what they intend to purchase. For example, in Australia and New Zealand, research shows that most consumers regularly read food labels for a number of reasons including allergy or intolerance to a food or food additive, a need to reduce fat intake or to avoid certain types of foods such as genetically modified foods. (Donna *et al*, 2001)

An increase in nutrition-related public health problems and diseases such as obesity, high blood pressure, various types of cancers, cardiovascular diseases, diabetes etc., calls for a need for consumers to be enlightened on how to use information on food labels in making informed choices. It is important for consumers to know about ingredients and nutritional composition of a particular pre packaged food because such information can help them to choose healthier foods and to avoid ingredients that they need to avoid or are allergic to. For nutrition information it is important for consumers to have basic nutrition knowledge first before they can use the nutritional labelling in choosing pre packaged foods. It is in this context this study was designed to assess awareness on food labelling information and use of the information in purchasing pre-packaged foods in Ilala municipality, Dar es Salaam.

1.2 Problem Statement

The practise of reading and using food labelling information in purchasing prepackaged food is very important. This is because pre-packaged food labels contain important information on the characteristics of a particular food such as ingredients, origin, shelf life and storage conditions. Unfortunately in most of our communities people are not used to reading pre-packaged food labels. This often leads to the purchase of expired pre-packaged foods, purchase of large quantities of foods on sale while having very short shelf life or very near expiry dates as well as purchase of foods with ingredients that one is allergic to or need to avoid due to health problems or religious beliefs.

Low awareness of food labelling, low level of education, low health consciousness, products attributes, food labelling format, influence of media, perceived role of regulatory authorities and non availability of consumer guidelines on the use of food labelling have been reported by studied from various countries as factors related to consumers not reading and using food labelling information in purchasing food (Coveney, 2007, Sunelle *et al*, 2010, Philip *et al*, 2010)

Although little is known about the magnitude of the problem in Tanzania, studies conducted in other countries show that small proportion of people are reading and using food labelling information in purchasing pre packaged food products. (Mahgoub *et al*, 2007, Sunelle *et al*, 2010, Philip *et al*, 2010). This might unknowingly predispose them into buying expired food items, foods with undesired ingredients and or untoward health consequences.

1.3 Rationale of the study

Findings from this study will provide information on the awareness of pre-packaged food labelling information among consumers in Ilala Municipality and the use of the information in purchasing pre-packaged foods. The information will bring to the attention of policy makers on the need to have programs to improve consumers awareness of food labelling information as well as the use of such information in the purchase of food.

Furthermore, the findings will also bring to the attention of pre packaged food manufacturers and regulators on the need to improve food labelling regulations and food label formats, and also provide baseline information for further research.

1.4 Research Questions

- 1. What proportion of consumers is aware of pre packaged food labelling information?
- 2. How useful is the food labelling information in purchasing pre-packaged foods?
- 3. What information would consumers like to see on labels of pre packaged foods?
- 4. What difficulties do consumers encounter in reading and understanding pre packaged food labels?

1.5 Objectives

1.5.1 Broad Objective

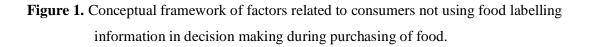
To determine awareness of pre packaged food labelling and use of the information in purchasing pre-packaged foods among consumers in Ilala municipality.

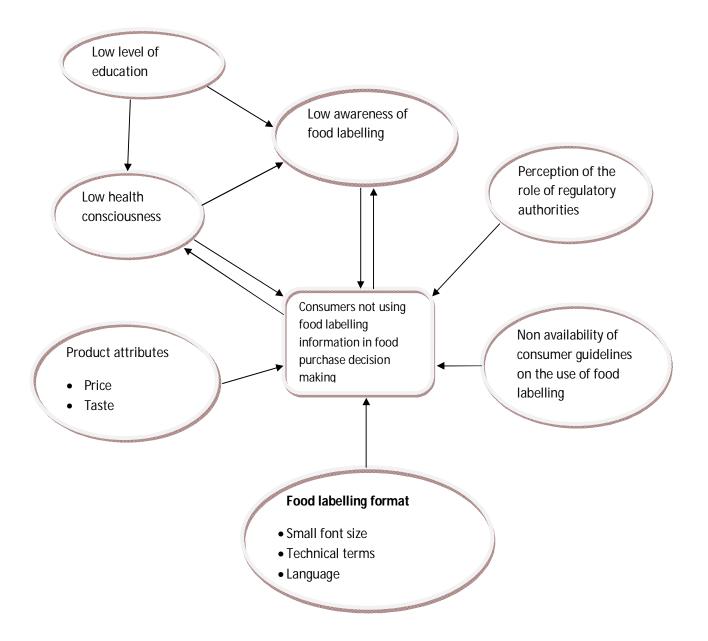
1.5.2 Specific Objectives

- 1. To determine level of awareness on the basic pre-packaged food labelling information among consumers in Ilala Municipality.
- 2. To determine perceptions on the importance of pre-packaged food labelling information among consumers in Ilala Municipality.
- 3. To determine factors associated with reading pre packaged food labels among consumers in Ilala Municipality.

1.6 Conceptual Framework

Several factors inter-relate in making consumers not use food labelling information in decision making during purchase of pre-packaged foods. These factors range from low awareness of food labelling to the use of technical terms on the labels. Others include low health consciousness, low level of education, product tributes such as price and taste, food labelling format, language used, as well as use of complicated pictures.





CHAPTER TWO

2.0 Literature Review

This chapter reviews various studies conducted in the area of consumers' awareness, knowledge and use of pre- packaged food labelling in decision making during purchase of food. This review also looks at documented factors which have been seen to influence reading and use of labelling in purchasing pre-packaged foods.

2.1 Role of food labelling information

Food labelling provides consumer with information on the characteristics of prepackaged foods. According to available literature, food labelling acts as a medium that carries information about the product (Katarzyna *et al*, 2010). Labelling information and consumers' level of education have large contribution in ensuring consumer with the suitable protection against hazards that may be associated with consumption of food. Consumers of pre packaged foods are ought to make conscious choice of foods with respect to their preferences, health status and needs. Food labelling information is very important /useful for people who are in special diet or with food /nutrition related health problems and diseases such as obesity, diabetics, cardiovascular diseases and various types of cancers as it helps them to make informed choices of food (Washi, 2012)

Food labelling is also an important tool in pre packaged food trade. Manufacturers of pre packaged foods use labelling information to market their products whereas consumers use the information in making informed food choices. A study by Katarzyna *et al* (2010) in Poland revealed that consumers drew the knowledge on food from different sources of the mass – media but in their opinion the most important sources providing the broadest information about pre packaged foods are food labels themselves.

2.2 Awareness of food labelling information and Use of the information in purchasing pre packaged foods

Few studies have been conducted in different countries on the knowledge and use of pre-packaged food labelling in decision making during purchase of such foods. In South Africa, Sunelle *et al*, (2010) observed that consumers have different motivations in searching for or using information on food labels according to the perceived risk they associate with the use of a particular pre packaged food. The study further documented that large proportion of consumers read food labels but they do not necessarily have an understanding of how to maximise the benefits of reading food labels. Data for the study were collected in supermarkets which were chosen as the appropriate site for data collection since the consumers who buy from such places tend to consult food labels during purchase of pre- packaged foods. The study are of great value to food labelling regulators and manufacturers with regard to the suggestions that have been made for improving food labelling in South Africa.

The Australia and New Zealand Food Authority conducted a qualitative consumer research on food labelling issues (Donna *et al*, 2001). The objective of the study was to explore consumers' awareness, knowledge and understanding of food labels and behaviours towards food labelling. The study revealed that, generally consumers use information available on food labels in determining product choice. The label reading was found to be greatly determined by life stage and health consciousness.

Mahgoub *et al* (2007) observed that majority of consumers in Lesotho claimed to use food labelling particularly nutrition information in their choices of specific foods. In this study 40.5% of consumers claimed to use nutrition information as the main motivator to purchase food.

A qualitative consumer research by Borra (2006) conducted in Bultimore and Chicago aimed at assessing consumer's attitudes and understanding of nutrition information on food packaged revealed that, health conscious consumers read food labels particularly nutrition information as a strategy to help improve their health. Although consumers reported usefulness of food labelling information in making better food choices, others reported that food labels are too complicated and that they should be made easier to use.

Washi (2012) in UAE conducted a study on awareness of food labelling among consumers. The study assessed consumers' knowledge, attitude and practice towards food labelling and revealed the need to raise level of awareness of consumers especially on nutrition aspects of food labelling in order to assist them make healthy choices of food. Production and expiry dates were documented by this study as necessary information preferred by consumers, a fact that indicated their concern about the risk of consuming expired foods. Nutrition information (calories and low cholesterol) was given attention by many consumers. They also expressed concern about the country of manufacturing which indicates that they are concerned about buying foods form preferred sources.

A study by Philip *et al* (2010) on public attitude towards and use of general food labelling in the UK revealed that food labels are read and used by approximately half of the population. Establishment of safety, hygiene and quality of food products have been mentioned as major reasons for reading food labels.

2.3 Factors related to awareness, knowledge and use of food labelling information in purchasing pre packaged food among consumers

Consumers' need and or motivation to use food labelling is determined by different factors. These factors, being internal (individual), situational or external (institutional, product attributes) motivate consumers whether to seek or not to seek information about a particular pre-packaged food prior its purchase or eat. The information about a particular pre-packaged food is normally expected to be found on its label. Consumer's attitude towards reading food labels can be influenced by demographic characteristics such as age, sex, education level, health status and nutrition knowledge. Situational factors such as income, time and being in special diet can also influence a consumer to seek information about a particular prepackaged food and use the information to make an informed food choice (Sunelle *et al*, 2010).

2.3.1 Internal factors

The internal factors that influence consumer to read and use pre packaged food labelling can be individual characteristics such as sex, age, health status education level etc. Situational factors such as time constraint and special diet status can also be influence consumers motivation in reading and using food labelling information. A study on impact of nutritional labelling on consumer buying behaviour by Prathiraja (2003) in Sri Lanka shows that consumer use food labelling particularly nutrition labelling, when making a purchasing decision and that it is especially because of health consciousness. However, in a qualitative study in Australia and New Zealand many consumer reported a feeling of rush and pressure to make quick product selection due to time constraint. (Donna et al (2001). The study further revealed that level of education of an individual to a large extent contributes to information search and use during purchase of pre-packaged foods. Consumers with special health needs and health consciousness were observed to read food labels more regularly. Consumers also reported a sense of great misunderstanding, confusion and lack of confidence when it comes to interpretation and use of nutritional information possibly due to inadequate knowledge on nutrition (Donna et al, 2001).

EdComs (2007) conducted a research in UK on consumers understanding of nutrition and health claims made on food and revealed that women especially mothers with high education levels read food labels due to their interest in nutrition and health, food allergy and religious beliefs. Generally the main reason for reading food labels was found to be the look at ingredients that they need to avoid or consume most of. The research also revealed some barriers to reading and use of pre packaged food labels as lack of time, lack of understanding, lack of consistency in the format of labels and being unsure of what nutrition information to pay most attention to. In the same study, consumers reported to prefer simple and non- technical health claims on food labels rather than those using negative terms and references to diseases.

Grunert *et al* (2010) revealed that 27% of shoppers in the UK looked for nutrition information on food labels. The study also revealed that use of food labelling is a

question of interest in healthy eating, whereas understanding food labelling information is a question of nutrition knowledge.

A study by Mahgoub *et al* (2007) observed a direct relationship between age, level of education and family income with level of knowledge and use of food labelling information in purchasing foods among consumers in Lesotho. In this study, level of knowledge and use of food labelling information increased with age, level of education and family income.

2.3.2. External factors

External factors that influence consumer to read and use pre packaged food labelling can be institutional such food labelling regulations, pre packaged food labelling information and pre packaged food product attributes.

A study by Philip *et al* (2010) reported that use of food labelling among consumers is affected by the format of many food labels being inadequate, especially the size of labels and the printing fonts used as well as the style of language in which they are written (not "plain English"). Food labelling has also being reported to present consumers with more information than they can reasonably process resulting into information overload. There were also some evidences that consumers view the responsibility for quality assurance as of government and public institutions i.e. food regulatory authorities.

Sunelle *et al* (2010), revealed that in South Africa, factors leading consumers not to use food labelling information in food purchase decision making as products attributes such as taste and price of the product, demographic characteristics of consumers such as lack of education and nutrition knowledge and situational factors like time constraints. On the other hand, a study by Coveney (2007) revealed that consumers view food labels as marketing ploys rather than a means to communicate the quality of food or its nutrition information thus are not using them as one of the factors to consider in food purchase decision making.

Purchase and consumption of pre-packaged food cannot be avoided in this era of high increase in national and international trade of pre-packaged foods. The increased access to pre-packaged foods from different sources and with different ingredients; has a potential risk for consumers to purchase foods with ingredients that have undesired impact to their health. It is therefore important to emphasize reading and understanding of the information provided on pre-packaged food labels before purchase/consumption of such foods. In Tanzania the frequency of which consumers check information on food labels is not clearly known. Also the understanding of labelling information in relation to purchase and consumption behaviour of pre-packaged food among consumers is not clearly known.

CHAPTER THREE

3.0 Methodology

3.1 Study design

The study design used was analytical cross-sectional. The design was selected because it allowed analysis of factors related to awareness of food labelling information and use of such information in purchasing pre-packaged foods.

3.2 Study area

The survey was conducted in Ilala Municipal Council, which is one of the three municipalities of the Dar es Salaam City Council others being Kinondoni and Temeke municipalities. According to the national census in 2002, Ilala municipal is estimated to have a total population of 815,313 with annual population growth rate of 4.4%.

Ilala municipal was specifically selected for this study due to the fact that large part of it is located within Dar es Salaam city centre where there is a concentration of government and private offices. The municipal is also characterised by many economic and social activities including shopping for food items in food selling outlets and the various supermarkets. Large numbers of people access the city centre during working hours and are more likely to obtain their domestic requirements (including pre-packaged foods) from shops and supermarkets available in their vicinity. There are many wholesale and retail pre-packaged food selling outlets including 17 supermarkets which are currently registered by the Tanzania Food and Drugs Authority (TFDA).

3.3 Study population

The study respondents were people aged 18 years and above who were found purchasing pre-packaged foods in the selected supermarkets in Ilala municipality. The supermarkets included Uchumi, Shoprite, Imalaseko, Mek One and TSN.

3.3.1 Exclusion criteria

The study excluded non – Tanzanians since they may have different practices with regards to reading and using information on food labels. The non citizens identified themselves via self declaration as it was clearly stated in the consent form that the study was meant for Tanzanians only.

3.4 Sample size and sampling procedure

3.4.1 Sample size

The sample size was calculated by using the following formula (John, 2003):

$$N = Z^2 P (100 - P) / \epsilon^2$$

Where,

N= the minimum desired sample size

Z= correspond to 1.96 (at 95% CI)

 $\varepsilon = margin of error 7\%$

P= 40%, proportion of pre-packaged food consumers who are aware of food labelling information (Mahgoub *et al*, 2007)

Therefore N = $1.96^2 0.40 (1 - 0.40)/0.07^2$

N = 188

After adjusting for non respondents by using the formula N * 100/100 - 10 =, the final sample size was 208 respondents.

3.4.2 Sampling procedure

Simple random selection was used to get 5 out of the 17 TFDA registered supermarkets in Ilala municipal for inclusion in the study. In each of the selected supermarkets a minimum of 40 respondents were interviewed in order to attain the estimated sample size (208). Respondents were selected using convenient - quota sampling method because of unavailability of sampling frame due to the nature of the study population and site.

In supermarkets pre-packaged foods are spread over several shelves and people who shop from these places normally pick products from these shelves by themselves. Any person who was found picking pre-packaged food items for purchasing and accepted to participate in the study was included.

3.5. Data collection procedure

3.5.1 Recruitment and training of research assistants

Two research assistants with food science or nutrition education background were recruited and trained for one day. The training included study objectives, how to identify study participants, appropriate introductions, confidentiality aspects and familiarization with the study questions.

3.5.2 Data collection

A questionnaire containing both open and close ended questions was used to collect information on the study variables (social demographic characteristics of respondents, awareness of food labelling information, food labelling information (format and language) and product attributes such as price and taste. Respondents were asked on how informed they are on food labelling and whether they are used to read food labels or not. Level of awareness on food labelling was obtained by asking respondents to express their familiarity with the 10 standard information which is supposed to be found on pre-packaged food labels as were read by interviewers from the questionnaire. Respondents who indicated to be label readers were asked to explain their perception on the importance of food labelling information and difficulties they encounter in reading and understanding food labels. On the other hand, respondents who do not read food labels were asked to briefly explain the reasons for not doing that.

3.6 Study Variables

3.6.1 Dependent variables

The dependent variable was 'use of pre-packaged food labelling information in purchasing food'

3.6.2 Independent variables

Independent variables included social demographic characteristics of respondents, awareness of food labelling information, food labelling information (format and language) and product attributes such as price and appearance and or/ packaging design.

3.7 Data processing and analysis

Data were collected for two weeks. Both open and close ended questions were checked for completeness and other errors at the end of each day of data collection. Data were entered into a computer database using SPSS computer software. Responses from the open ended questions were coded before entry into the computer. SPSS computer software was used for data analysis. Respondents' level of awareness on food labelling information was determined by the awareness score that was computed using respondents' response on their familiarity with the 10 standard information found on pre-packaged food labels. The level of awareness was classified into 3 categories: high level of awareness if one responded to 7-10 items, middle level of awareness if the responses were on 4-6 items and low level of awareness if responses were on 3 items and less. Chi –square test was performed to assess statistical significance between the demographic characteristics of respondents and awareness and use of food labelling information in decision making during purchase of pre-packaged foods.

Frequencies for information mostly sought by respondents when reading food labels, motivations to read food labelling information, perceived importance of food labelling information, circumstances in which respondents purchase pre-packaged foods without reading labelling information and difficulties encountered in reading food labelling information were determined.

3.8 Ethical considerations

Ethical clearance/approval for conducting this study was obtained from the Research Ethical Committee of the Muhimbili University of Health and Allied Sciences. Permission to conduct the study in supermarkets was obtained from the Ilala Municipal council and managers of each supermarket included. Since this study involved some personal issues such as age level of education and occupation, names of respondents were not recorded in questionnaires. Participants were given brief information on the nature of the study and requested to sign a consent form for their participation. However, based on the nature of the field environment (supermarkets) respondents did not sign consent forms and therefore verbal consent was used.

3.9 Pre- testing

Pre testing of the data collection tool (questionnaire) was done prior the study, at the Airport BP supermarket. Ten respondents were interviewed and the exercise involved the recruited research assistants as part of practical training to give them experience of all the necessary field procedures. Results of pre-test were used to correct errors on the study tools.

CHAPTER FOUR

4.0 RESULTS

This chapter provides description of findings of the research on consumers' awareness on food labelling information and its use in decision making during purchase of pre-packaged foods among consumers in Ilala Municipality, Dar es Salaam. It describes the socio -demographic characteristics of the respondents, their awareness on food labelling information, their perception on the importance of pre-packaged food labelling and the factors that are associated with reading of such labels before purchase of respective foods.

4.1 Demographic characteristics of respondents (pre-packaged food consumers)

A total of 208 respondents participated in this study. As shown in Table 1, males constituted 108 (51.9%) of all respondents. Large proportion of respondents 88 (42.4%) were in the age group 18 to 29 years while the smallest proportion (7.7%) was in the age group 50 years and above (16 respondents). Most of the respondents 143 (68.8%) had college/university education and slightly more than half of them (116, 55.8%) were formally employed.

aracteristic (N =208)	Frequency	Percentage
Gender		
Male	108	51.9
Female	100	48.1
Age (years)		
18-29	88	42.3
30-39	71	34.1
40-49	33	15.9
50+	16	7.7
Level of education		
Primary education	16	7.7
Secondary education	49	23.6
College/university	143	68.8
Occupation		
Formal employment	116	55.8
Business	43	20.7
Self employed	8	3.8
*Others	41	19.7

Table 1: Social demographic characteristics of respondents

*Others include students and retired workers

4.2 Awareness on the basic pre-packaged food labelling information

4.2.1 Extent of information on food labelling

Out of all study respondents, only 57 (27.4%) claimed to be very much informed about food labelling information.

As shown in Table 2, large proportion of respondents with primary education 11(68.8%) were minimally informed about food labelling. Among respondents with secondary education large proportion 30(61.2%) were moderately informed about food labelling. High extent of information was observed among respondents who had college/university education whereby 55(38.5%) of them were very much informed about food labelling.

More than half of male respondents 61(56.5%) were moderately informed about food labelling. Higher extent of having information about food labelling was observed among female respondents 32 (32%) than how it was among male respondents 25 (23.1%).

Among the social demographic characteristics of respondents, results have shown statistically significant relationships between age (p=0.009), occupation (p=0.000) and level of education (p=0.000) with the extent of being informed about food labelling. This implies that the extent of having information about food labelling increase as age and level of education increases.

On the other hand, results did not reflected any statistically significant difference (p=0.111) in the extent of being informed about food labelling between male and female respondents.

Social-demographic	Extent of inform	mation on food	labelling n=208	χ^2	P value
variables	Very much informed	Moderately informed	Minimally informed	-	
	Frequency (%)	Frequency (%)	Frequency (%)		
Education level				48.203	0.000
Primary education (N=16)	1 (6.3)	4 (25.0)	11 (68.8)		
Secondary education(N=49)	1 (2.0)	30(61.2)	18 (36.7)		
College/university (N=143)	55 (38.5)	69 (48.3)	19 (13.3)		
Age groups				17.185	0.009
18-29 (N=88)	16 (18.2)	41 (46.6)	31 (35.2)		
30 -39 (N=71)	24 (33.8)	40 (56.3)	7 (9.9)		
40 -49 (N=33)	12 (36.4)	14 (42.4)	7 (21.2)		
50+ (N=16)	5 (31.3)	8 (50.0)	3 (18.3)		
Gender				4.397	0.111
Male (N=108)	25 (23.1)	61 (56.5)	22 (20.4)		
Female (N=100)	32 (32.0)	42 (42.0)	26 (26.0)		
Occupation				25.290	0.000
Formal employ(N=116)	43 (37.1)	52(44.8)	21 (18.1)		
Business (N=43)	8 (18.6)	22 (51.2)	13 (30.2)		
Self employ (N=8)	0 (0)	2 (25.0)	6 (75.0)		
Others (N=41)	6 (14.6)	27 (65.9)	8 (19.5)		

Table 2: Association between social-demographic characteristics of respondents and
the extent of being informed about food labelling

4.2.2 Respondents level of awareness on food labelling information according to awareness scores

As indicated in Table 3, the awareness scores computed showed that all respondents who had primary education 16 (100%) had low level of awareness on food labelling. Also large proportion 28 (57.1%) of respondents who had secondary education had low level of awareness on food labelling. Nearly equal levels of high and low awareness, 44 (30.8%) and 43 (30.1%) respectively, were observed among respondents who had college/university education.

Slightly lower level of awareness on food labelling information was observed among male respondents 44 (40.7%).

Also, low level of awareness on food labelling was highly observed among self employed respondents 8 (100%) followed by 23(53.5%) among respondents engaged in business.

Statistically significant difference in levels of awareness on food labelling according to level of education (p=0.000) and type of occupation (p=0.009) was observed. This implies that level of awareness increase as level of education increases. Also formal employment had more potential to increase one's level of awareness on food labelling than informal employment. On the other hand, there was no difference in levels of awareness on food labelling among different age groups of respondents (p=0.956) as well as on gender (p=0.736).

Social demographic variables	Awareness scores		χ^2	P value	
	High	Medium	Low		
	Frequency (%)	Frequency (%)	Frequency (%)		
Level of education				37.501	0.000
Primary education	0(0)	0 (0)	16 (100)		
Secondary education	5 (10.2)	16 (32.7)	28 (57.1)		
College/university	44 (30.8)	56 (39.2)	43 (30.1)		
Age				1.552	0.956
18 -29	23 (26.1)	29 (33.0)	36 (40.9)		
30 - 39	16 (22.5)	24 (33.8)	31 (43.7)		
40 -49	6 (18.2)	14 (42.4)	13 (39.4)		
50+	4 (25.0)	5 (31.3)	7 (43.8)		
Gender				0.614	0.736
Male	24 (22.2)	40 (37.0)	44 (40.7)		
Female	25 (25.0)	32 (32.0)	43 (43.0)		
Occupation				17.030	0.009
Formal Employment	29 (25.1)	45(38.8)	42 (36.2)		
Business	7 (16.3)	13 (30.2)	23 (53.5)		
Self employment	0 (0)	0 (0)	8 (100)		
Others	13 (31.7)	14 (34.1)	14 (34.1)		

Table 3: Association between social-demographic characteristics and awareness scores

As shown in Table 4, majority of respondents 195 (93.8%) reported to read prepackaged food labelling information prior purchase/consumption of such foods.

Table 4: Free	uency of	reading	food	labels

Do you read food labelling information before purchase of pre- packaged foods? (N=208)	Frequency	Percentage
Yes	195	93.8
No	13	6.3

As shown in Table 5, more than three quarters of respondents 183 (88%) were checking for expiry dates on pre-packaged food labels before purchase of such foods, followed by list of ingredients which was sought by 133 (63.9%) of the study participants. Price of the food was the least factor accounting for 6 (2.9%) of the respondents. On the other hand, manufacturing date and nutrition information were checked by nearly equal proportions of respondents, 53 (25.5%) and 52 (25.0%) respectively.

Food label information	Frequency	Percentage
List of ingredients	133	63.9
Name of the food	18	8.7
Expiry date	183	88.0
Manufacture date	53	25.5
Name of the manufacturer	21	10.1
Country of origin	35	16.8
Net content	20	9.6
Nutrition information	52	25.0
Storage condition	16	7.7
Instructions for use	37	17.8
TBS mark	8	3.8
Price of the food	6	2.9

Table 5: Information that is sought by consumers before purchase of foods

4.3 Consumers perception on the importance of food labelling information

4.3.1 Perceived extent of importance of food labelling information

Results showed that, more than three quarters 177 (85%) of respondents perceived food labelling as very important information. As shown in Table 6, majority of respondents who had college/university education 129 (90.2%) perceived food labelling as very important information.

Male and female perceptions on the importance of food labelling information followed nearly the same pattern whereby high proportions of both respondents (male 93(86.1%) and female 84(84.0%)) perceived food labelling as very important information.

On the other hand, statistically significant difference in perceiving food labelling as important information was reflected by the chi-square test among respondents with different levels of education(p=0.006) and different occupations (p=0.009). This implies that perception of food labelling as important information increase as level of

education increased while formal employment had more potential to influence one's perception on the importance of food labelling than informal employment.

Social demographic variables	Perceived importance of food labelling information			χ^2	P value
variables	Very important	Some. important	Min. important	_	
	Frequency (%)	Frequency (%)	Frequency (%)		
Level of education				14.432	0.006
Primary education	10(62.5)	5(31.3)	1 (6.3)		
Secondary education	38 (77.6)	11 (22.4)	0 (0)		
College/university	129 (90.2)	12(8.4)	2 (1.4)		
Age				3.957	0.683
18 -29	73 (83.0)	13(14.8)	2 (2.3)		
30 - 39	62 (87.3)	8(11.3)	1 (1.4)		
40 -49	30 (90.9)	3 (9.1)	0(0)		
50+	12 (75.0)	4 (25.0)	0(0)		
Sex				0.484	0.785
Male	93 (86.1)	14 (13.0)	1(0.9)		
Female	84 (84.0)	14 (14.0)	2 (2.0)		
Occupation				17.030	0.009
Formal Employment	99 (85.3)	16(13.8)	1 (0.9)		
Business	34 (79.1)	8 (18.6)	1 (2.3)		
Self employment	6 (75.0)	2 (25.0)	0 (0)		
Others	38 (92.7)	2(4.9)	1 (2.4)		

 Table 6: Association between social-demographic characteristics and perception on the importance of food labelling information

4.3.2 Perceived importance of food labelling information

Generally, majority of respondents193 (92.8%), indicated "the provision of important information about the food such as ingredients, shelf life, nutrition information etc., that enable consumers to make informed choices of pre-packaged foods" as the major importance of food labelling. Very few 3(1.4%) respondents indicated traceability of the manufacturer of the food in case of problems as one of the importance of food labelling information.

The open -ended questions that required the respondents to state the importance of food labelling *yielded statements such as*:

- 'It helps customers or consumers to understand well quality of foods which they are going to purchase or eat'
- 'It helps final consumer to better understand the product he/she want to use'
- 'Labelling information enables consumers to buy products of their choice and also to know their shelf life'
- 'Helps to avoid expired foods and undesired ingredients'

4.4 Factors associated with reading food labels

4.4.1 Motivations to read food labelling information

The research revealed that respondents had different motivations to read information that is contained in food labels. As indicated in Table 7, more than half 132 (63.5%) of respondents were motivated by the need to know characteristics of the pre-packaged food before purchase or consumption of the food. Health consciousness motivated 85 (40.9%) of respondents. Few respondents 9 (4.3%) were motivated by advertisements/food promotions.

Motivation factor	Frequency	Percentage
N=208		
Price of the food	21	10.
Appearance /package design	15	7.2
Like to know characteristics of the food	132	63.:
Preference of some ingredients	18	8.7
Religious belief	5	2.4
Health consciousness	85	40.9
Convenience of environment	6	2.9
Advertisements/food promotion	9	4.3

Table 7: Factors motivated consumers to read food label

4.4.2 Circumstances in which consumers purchase pre-packaged foods without reading labelling information

As shown in Table 8, more than a quarter 69 (33.2%) of respondents reported to purchase pre-packaged food without reading labelling information because the food was routine/familiar to them. Others 47 (22.6%) purchased pre-packaged foods without reading labelling information because they were in a hurry/time constraints. Few respondents 10 (4.8%) reported to purchase pre-packaged foods without reading labels because the foods were sold at low price.

Circumstance in which respondents purchase pre-packaged foods without reading labels (n=208)	Frequency	Percentage
When the food is sold at low price		
	10	4.8
When in a hurry/time constraints	47	22.6
Purchase of routine/familiar foods	69	33.2
On streets or journey	17	8.2
When the language on the label is unfamiliar	13	6.2
When they trust the seller	13	6.2

 Table 8: Circumstances in which respondents purchase pre-packaged foods

 without reading labels

4.4.3 Difficulties encountered by consumers when reading/using food labelling information

As shown in Table 9, major difficulties/barriers towards reading food labelling information were reported by respondents. Unfamiliar language (other than English and/or Kiswahili) was mentioned by 92 (44.2%) respondents as the major barrier in reading food labels followed by the use of technical/scientific language which was mentioned by 55(26.4%) respondents. Use of small font sizes was mentioned by 36 (17.3%) respondents.

Difficulty	Frequency	Percentage
Unfamiliar language	92	44.2
Small fonts	36	17.3
Use of technical/scientific	55	26.4
language		
Incomplete labelling	45	21.6
Hidden information	15	7.2

Table 9: Difficulties encountered by respondents when reading/using food labels

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CHAPTER FIVE

5.1 DISCUSSION

This study was designed to determine awareness of food labelling and use of the information in purchasing pre-packaged food products among consumers. Findings of the research provide information on awareness of food labelling among pre-packaged food consumers, the perceived importance of food labelling and factors that are related to reading food labels.

The selected study population and the convenient selection of respondents had a positive impact in getting a wide range of consumers' responses and views. The sample composed of almost equal presentation of all genders thus enabled studying the influence of gender. The sample also composed of respondents with various education levels ranging from primary education to college university education thus enabled studying the influence of level of education. Also the sample composed of different aged groups of respondents which again enabled studying the influence of age in awareness and use of food labelling information.

5.1 Awareness and use of food labelling information in purchasing prepackaged foods

Extent of reading food labelling before purchase of pre-packaged foods was relatively high as 195 (93.8%) of the study participants reported to read labelling information prior purchase of pre-packaged foods. However, this high extent of reading food labels did not reflect the awareness and use of the information in purchasing pre-packaged foods. On the other hand, this high proportion could possibly be attributed by the supermarket settings since consumers who buy from such places tend to encounter food labels because normally they pick products from shelves by themselves (Sunelle *et al*, 2010). Nearly the same high extent of reading food labels (98.8%) was documented by Basarir *et al* (2012) in the UAE. However, this is different from 24.7% of respondents who 'always' read food labels and 42.0% who 'sometimes' read food labels as reported by Sunelle *et al* (2010) in South Africa.

Findings of this study revealed that only small proportion 57 (27.4%) of respondents were very much informed about food labelling. Also the computed awareness scores based on the number of items respondents declared to be familiar with, among the previously mentioned basic food labelling information that are normally found on food labels showed that only 49 (23.5%) of respondents had high awareness on food labelling. A study by Washi (2012) in the UAE reported similar low level of awareness on food labelling. However, this is different from 80% awareness in the USA, as reported by Rodolfo (1999) and 83% awareness on nutrition information as documented by Borra (2006) in the USA. In Lesotho, Mahgoub *et al* (2007) reported 59.6% food labelling knowledge and 63.8% utilization of the knowledge in shopping for pre-packaged foods among consumers.

Results also showed that, level of education and type occupation of respondents had statistically significant association with awareness and use of food labelling information. This finding resembles what Sunelle *et al* (2010) reported in South Africa, Mahgoub *et al* (2007) in Lesotho, Basarir *et al* (2012) in the UAE and in Canada by Hu *et al* (2006). Contrary to this study, Washi (2012) reported that there was no statistically significant relationship between level of education and level of awareness on food labelling among food consumers in the UAE. Similarly, as quote by Philip *et al* (2010), surveys from the UK (Eden, *et al*, 2008a, 2008b), and Belgium (Gellynck *et al*, 2006) suggested that social demographics variables such as occupation, gender and education were less important in explaining consumer variability in reading and using food labelling information.

Though not statistically significant, but this study revealed slight difference among males and females respondents on awareness and use of food labelling information. Female respondents seemed to be more aware of food labelling than male respondents. This is similar to what was reported by Washi (2012) and Basarir *et al* (2012) that in the UAE, high level of awareness on food labelling was highly found in female respondents than in males. However, these findings differ from the findings of Sunelle *et al* (2010) I South Africa, that there was no relationship between gender and reading and using food labelling information.

Findings of this study also showed that, in reading food labels, respondents' paid great attention on expiry dates (88.0%) and list of ingredients (63.9%). This indicated their concern about risks that might appear from consuming expired foods or foods with undesired ingredients. These results resemble what Mathew and associates (2012) revealed during an online survey conducted in the USA, whereby when consumers were asked about what information they check on food labels, 76% indicated expiry date and 51% indicated ingredients. The same was also reported in the UAE by Washi (2012), South Africa (Sunelle *et al*, 2010), Australia and New Zealand (Donna *et al*, 2001) and in the UK (Philip *et al*, 2010). However, the trend was slightly different with what information consumers sought on food labels in Australia and New Zealand, whereby brand name of a pre-packaged food was highly considered (72%) followed by price (60%) and then ingredients (49%) and expiry date (33%).

This study also documented that 25% of respondents paid attention to nutrition information during the purchase of pre-packaged foods. Nearly similar results were reported by Grunet *et al* (2010), that in the UK, 27% of consumers looked at nutrition information before selection of food.

5.2 Perceived importance of food labelling information

Results from this study showed variability in the extent of importance that respondents viewed food labelling. However, more than three quarters of respondents (85.1%) perceived the information as very important with the major importance being its ability to provide important information about the food, which enabled them to make informed choices. This is in line with what Washi (2012) pointed out that food labelling information is very important /useful for people with special diet needs or people with nutritional related health problems as it helps them to make informed choices of food. Food labelling was also considered important as it helps in traceability and marketing of pre-packaged foods.

5.3 Factors related to reading food labelling information

This study revealed a number of factors that inter- relate to reading pre-packaged food labelling information. These included motivations to read food labels, circumstances in which pre-packaged foods are purchased without consult labelling information as well as difficulties that respondents encountered in the course of reading pre-packaged food labels.

5.3.1 Motivations to read food labelling information

Results showed that of all study respondents, 132 (63.5%) were motivated by the need to know characteristics of a pre-packaged food before its purchase or consumption. This was basically associated with perceived risks of consuming expired foods or foods with undesired ingredients or poor quality. Health consciousness motivated 85 (40.9%) of respondents to read pre-packaged food labels before purchase of such foods. More or less the same motivations were reported by Philip *et al* (2010), that consumers are motivated by the need to establish safety, hygiene and quality of pre-packaged foods before purchase of such foods. Also, Rodoflo (1999) reported perceived health risks and the need to have healthy diet, motivated consumers to read food labelling information in the USA. Similarly, Sunelle *et al* (2010) reported that consumers in South Africa were motivated by health concerns including the need to know quality, nutritional content and diet related conditions of the food. In Lesotho Mahgoub *et al* (2007) reported nutrition information as the major factor that motivated consumers to purchase the specific types of foods.

5.3.2 Circumstances in which consumers purchase foods without reading labelling information

Results showed various circumstances in which respondents purchased pre-packaged foods without reading labels. These circumstances included routine /purchase of familiar foods, time constraints (being in hurry), purchase of foods in streets or when on journey and when they have trusted the seller of the food. Though indicated by few respondents, low price of the food caused some respondents to purchase pre-packaged food labels without consulting labelling information. More or less the same was reported by The Foundation Food Label Consumer Research Project (2006) in America and in South Africa by Sunelle *et al* (2010), that pre-packaged food consumers are less likely to examine food labelling information if they don't have enough time, when purchasing routine pre-packaged foods and discounted foods.

5.3.3 Difficulties encountered by respondents in reading and using food labelling information.

Participants of this study reported a number of difficulties encountered in the course of reading food labelling information. These included use of unfamiliar language, small font sizes, use of scientific/technical language, missed and/or hidden information. Similar findings were reported in South Africa by Sunelle *et al* (2010), in the UK (Philip *et al*, 2010), Mahgoub *et al* (2007) in Lesotho and Grunet et al (2010) in the UK. Donna *et al* (2001) also revealed the same problem, that use of technical/scientific language on food labels situate barrier to consumers in reading and understanding labelling information when deciding to purchase pre-packaged foods in Australia and New Zealand.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

This study has revealed that awareness and use of pre-packaged food labelling information is low among consumers in Ilala municipality although due to its relatively small sample these findings cannot be generalized to the rest of similar population in the municipality. Findings showed that only quarter of the study respondents had high awareness on food labelling. Occupation, education level and age of respondents were found to be significantly associated with awareness and use of pre-packaged food labelling information.

The most frequently referred labelling information was the list of ingredients, expiry date and nutrition information. Consumers were motivated to read labelling information by the need to know characteristics of the food in question, health consciousness, preference of some food ingredients, appearance or packaging design etc. It was also revealed that there were circumstances in which consumers did not read food labels because they were in a hurry (time constraints), purchased routine/familiar foods or the food was sold at lower price. The study also revealed several difficulties that consumers encounter in reading and using food labelling information including small font sizes, technical/scientific language and use of unfamiliar language other than English and Kiswahili.

6.2 RECOMMENDATIONS

The study recommends the following:-

- 1. Stakeholders who are concerned in one way or another with pre-packaged food labelling to design and implement special public education programs aiming at informing pre-packaged food consumers the importance of food labelling information and how best they can use it to make informed healthy choices of food.
- 2. Stakeholders (policy makers) should think of developing a consumer guide on reading and interpreting food labelling information.
- 3. Stakeholders in nutrition in the country should work hard to help prepackaged food consumers understand nutritional aspects of food and thus consider nutritional information as important information to consult before deciding to purchase or consume a pre-packaged food.
- 4. Stakeholders of food labelling should work on the reported difficulties encountered by consumers in reading and using the information presented on food labels and hence ensuring that pre-packaged food labels are presented in a manner that can help a consumer to make an informed choice of the food.
- 5. Further studies should be conducted to assess ability of consumers to interpret information that is presented on food labels especially food additives, health claims and nutritional information.

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APPENDICES

Appendix 1: Informed Consent – English version

MUHIMBILI UNIVERSITY COLLEGE OF HEALTH SCIENCES DIRECTORATE OF RESEARCH AND PUBLICATIONS.

Introduction:

Greetings! My name is I'm working on this research project with the objective of determining awareness of food labelling and use of the information in purchasing pre-packaged food products among consumers in Ilala municipality, Dar es Salaam.

Purpose of the study

The purpose of the interview is to collect information from Tanzanian pre-packaged food consumers on their level of awareness on the basic food labelling information and use of the information in decision making during purchase of pre-packaged foods among consumers in Ilala Municipality. You are being asked to participate in this study because we believe that you have particular experiences that may be important to the study.

What participation Involves

If you agree to participate in this study the following will occur:

- 1. You will be required to sit with interviewer and answer questions about your awareness and use of pre-packaged food labelling information. The interviewer will record your responses in the questionnaire.
- 2. No identifying information will be collected from you during this interview, except your age, level of education and your monthly earning.
- 3. You will be interviewed only once for approximately 10 -15 minutes in a private setting.

Confidentiality and consent:

I assure you that all the information collected from you will be kept confidential. Only people working in this research study will have access to the information. Your name will not be written on this form, and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer, and you may end this interview at any time you want to. However, your honest answers to these questions will help us to understand the level awareness on food labelling and use of the information in purchasing pre-packaged foods among consumers.

Benefits

The information you provide will help us and other stakeholders in the pre-packaged food industry and food regulatory authorities in the country on issues related to food labelling information including raising awareness on food labelling information among consumers as well as improvement of food labelling information by food manufacturers and regulators.

In case of injury

We do not anticipate any harm to occur to you or your family as a result of participating in this study.

Whom to contact

If you ever have questions about this study, you should contact Principal Investigator, Gwantwa Samson, Muhimbili University of Health and Allied Sciences (MUHAS), P.O. Box 65001, Dar es Salaam. (Tel. No. 0713 214714)

If you have questions about your right as a participant, you may call Prof. Aboud M, Chairman of the College Research and Publications Committee, P.O. Box 65001, Dar es Salaam. Tel: 2150302-6 and Dr. A.T. Kessy, who is the supervisor of this study.

Agreement of the Participant

Do you agree?

Yes
No
I Have read and understood the contents in this form.
My questions have been answered. I agree to participate in this study.
Signature of participants
Signature of research assistant
Date of signed consent

Appendix ii: Informed Consent – Kiswahili version

MUHIMBILI UNIVERSITY COLLEGE OF HEALTH SCIENCES DIRECTORATE OF RESEARCH AND PUBLICATIONS.

FOMU YA RIDHAA

Ridhaa ya kushiriki katika utafiti

Habari! Jina langu ninafanya kazi katika mradi huu wautafiti wenye lengo la kuangalia kiwango cha uelewa wa taarifa zilizopo katika lebo za vyakula vilivyofungashwa na matumizi ya taarifa hizo katika kufanya maamuzi ya ununuzi wa vyakula vilivyofungashwa miongoni mwa walaji katika manispaa ya Ilala.

Lengo la utafiti.

Utafiti huu una lengo la kukusanya taarifa miongoni mwa watanzania walaji wa vyakula vilivyofungashwa katika manispaa ya Ilala, kuhusu kiwango cha uelewa wa taarifa zilizoko katika lebo za vyakula hivyo pamoja na matumizi ya taarifa hizo katika kufanya manunuzi ya vyakula hivyo.

Ushiriki

Endapo utakubali kushiriki katika utafiti huu ,yafuatayo yatatokea:

- Utakaa na mtafiti na kujibu maswali yanayohusu uelewa wako kuhusu aarifa zilizopo kwenye lebo za vyakula vilivyofungashwa na matumizi ya taarifa hizo katika kufanya manunuzi ya vyakula hivyo. Mtafiti atanukuu majibu yako katika dodoso.
- ii. Hakuna taarifa zozote za utambulisho ttakazokusanya wakati wa usaili isipokuwa umri,kazi/shughuli na kiwango chako cha elimu.
- iii. Utahojiwa maramoja tu kwa takriban dakika 10 hadi 15.

Usiri

Unahakikishiwa kwamba taarifa zote zitakazokusanywa kutoka kwako zitakuwa ni siri,ni watu wanaofanya kazi katika utafiti huu tu ndio wanaweza kuziona taarifa hizi. Hatutaweka jina lako au taarifa yoyote ya utambulisho kwenye kumbukumbu ya taarifa utakazotupatia. Haulazimiki kujibu maswali ambayo hutapenda kuyajibu.Hata hivyo majibu yako sahihi yatatusaidia sana katika utafiti huu.

Faida

Taarifa utakazotupatia zitatusaidia sisi na wadau wengine katika sekta ya ufungashaji wa vyakula pamoja na mamlaka za udhibiti wa vyakula katika masuala yanayohusu maelezo yanayopatikana katika katika lebo za vyakula ikiwa ni pamoja na kuboresha uelewa wa walaji juu ya taarifa zilizopo katika lebo za vyakula vilivyofungashwa.

Madhara

Hatutarajii madhara yoyote kutokea kwako wala kwa familia yako kwa kushiriki katika utafiti huu.

Watu wakuwasiliana nao

Kama una maswali kuhusu utafiti huu unaweza kuwasiliana na mratibu mkuu wa mradi, Gwantwa Samson, Chuo kikuu ch Muhimbili, S.L.P 65001, Dar es salaam (Simu 0713 214714) .Kama utakuwa na maswali yoyote kuhusu haki zako kama mshiriki unaweza kupiga simu kwa Prof. S. Abood, ambaye ni Mwenyekiti wa kamati ya chuo ya utafiti na machapisho ,S. L.P 65001,Dar es salaam.Simu namba : 215030-6 na Dr. Anna Kessy ambaye ni msimamizi wa utafiti huu.

Saini

Mshiriki amekubali unakubali ?

Ndiyo	
Hapana	

Miminimesoma/nimeilewa hii fomu, maswahili yangu yamejibiwa. Nakubali kushiriki katika utafiti huu.

Saini	уа	mshiriki
Saini	уа	mtafiti
Tarehe	уа	makubaliano

Appendix iii : Questionnaire – English version

A QUESTIONNAIRE FOR AWARENESS OF FOOD LABELLING AND USE OF THE INFORMATION IN PURCHASING PRE PACKAGED FOOD PRODUCTS AMONG CONSUMERS IN ILALA MUNICIPALITY, DAR ES SALAAM.

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A: GENERAL INFORMATION

1.	Questionnaire No.				
2.	Date of interview				
		d d	mm	уууу	
3.	Name of the supermarket				

B: SOCIAL DEMOGRAPHIC CHARACTERISTICS OF CONSUMER

- 1. Gender
 - a) Male
 - b) Female
- 2. What is your age? (years)

.....

- 3. What is your level of education?
 - a) No formal education
 - b) Primary incomplete
 - c) Primary completed
 - d) Secondary education
 - e) College/university
- 4. What is your occupation?
 - a) Employed
 - b) Business
 - c) Housewife
 - d) Peasant
 - e) Others (specify)

C: AWARENESS ON THE BASIC PRE-PACKAGED FOOD LABELLING INFORMATION

- 5. How well informed would you say you are about food labelling information?
 - a) Very much informed
 - b) Moderately informed
 - c) Minimally informed
 - d) Not informed
- 6. Which of the following terms are you most familiar with in relation to the basic information found on pre- packaged food labels? (tick all mentioned)
 - a) List of ingredients
 - b) Net content
 - c) Name of the manufacturer
 - d) Country of origin
 - e) Batch /lot identification
 - f) Manufacture date
 - g) Expiry date
 - h) Storage condition
 - i) Nutrition information
 - j) Instructions for use
- 7. Do you read food labelling information before purchasing pre-packaged foods?
 - a) Yes
 - b) No

If yes, proceed with question No. 8, if no, explain why?

.....

8. What information do you seek on pre-packaged food label before deciding to purchase or eat a particular food?

.....

D: CONSUMERS PERCEPTION ON THE IMPORTANCE OF FOOD LABELLING INFORMATION

9. How important do you consider food labelling information to be?

- a. Very important
- b. Somewhat important
- c. Minimally important
- d. Not important

If the answer is (a) or (b) go to question No. 10 and if the answer is (c) or (d) go to question No. 11

10. Please explain briefly the importance of food labelling information.

.....

11. Please explain briefly why you think that food labelling information is not important.

.....

E: FACTORS ASSOCIATED WITH READING FOOD LABELS

12. What motivates you to read labelling information on pre-packaged foods?

.....

13. In which circumstances do you buy pre-packaged foods without reading labelling information?

14. What difficulties do you come across in reading and understanding pre-

packaged food labels?

.....

THIS IS THE END OF OUR INTERVIEW

THANK YOU VERY MUCH FOR SPARING YOUR TIME

Appendix iv : Questionnaire – Kiswahili version

DODOSO KUHUSU UFAHAMU WA WALAJI JUU YA TAARIFA ZILIZOPO KWENYE LEBO ZA VYAKULA VILIVYOFUNGASHWA PAMOJA NA MATUMIZI YA TAARIFA HIZO KATIKA KUFANYA UNUNUZI WA VYAKULA - ILALA,DAR ES SALAAM

A: TAARIFA ZA JUMLA

1.	Namba ya fomu
2.	Tarehe ya usaili
3.	Jina la "supermarket"
B: TA	ARIFA BINAFSI ZA WALAJI
1.	Jinsia
	a) Mke b) Mume
2.	Umri wa mshiriki (miaka)
3.	Kiwango cha elimu
	a) Hakusoma
	b) Amemaliza elimu ya msingi
	c) Amemaliza elimu ya sekondari
	d) Elimu ya juu
4.	Kazi gani unafanya?

- a) mwajiriwa
- b) Biashara
- c) Mkulima
- d) Mama wa nyumbani
- e) Nyingine (taja)

C: UFAHAMU JUU YA TAARIFA ZA MSINGI ZILIZOKO KATIKA LEBO ZA VYAKULA

- 5. Unaelezeaje kiwango chako cha ufahamu juu ya taarifa zilizopo katika lebo za vyakula?
 - a) Nafahamu kwa kiasi kikubwa
 - b) Nafahamu kiasi
 - c) Nafahamu kwa kiasi kidogo
 - d) Sifahamu kabisa
- 6. Je ni taarifa zipi kati ya zifuatazo umezoea kuziona katika lebo za vyakula (tiki zote anazotaja)
 - a) Orodha ya viambato
 - b) Ujazo
 - c) Jina la mtengenezaji
 - d) Jina la nchi bidhaa ilikotoka
 - e) Namba ya bachi
 - f) Tarehe ya kutengenezwa
 - g) Tarehe ya mwisho wa matumizi
 - h) Hali ya uhifadhi
 - i) Taarifa za lishe
 - j) Maelekezo ya matumizi
- 7. Je huwa unasoma lebo kabla ya kununua vyakula vilivyofungashwa?
 - a) Ndiyo

b) Hapana

L	

Kama jibu ni ndiyo, endelea na swali Na. 8. Kama jibu ni hapana, eleza sababu

.....

8. Ni taarifa zipi unazotafuta katika lebo kabla ya kuamua kununua au kula aina fulani ya chakula kilichofungashwa?

.....

D: MTAZAMO WA WALAJI KUHUSU UMUHIMU WA TAARIFA ZILIZOPO KATIKA LEBO ZA VYAKULA.

- 9. Unadhani taarifa zilizopo kwenye lebo za vyakula vilivyofungashwa zina umuhimu kiasi gani?
 - a) Muhimu sana
 - b) Muhimu kiasi
 - c) Muhimu kidogo
 - d) Sio muhimu

Kama jibu ni (a) au (b) endelea swali la 10.Kama jibu ni (c) au (d) endelea swali la 11.

10. Tafadhali eleza kwa kifupi umuhimu wa taarifa zilizopo katika lebo za vyakula vilivyofungashwa

.....

11. Tafadhali eleza kwa kifupi ni kwanini taarifa zilizopo katika lebo za vyakula vilivyofungashwa sio muhimu

.....

E: MAMBO YANAYOHUSISHWA NA USOMAJI WA TAARIFA ZILIZOPO KWENYE LEBO ZA VYALULA VILIVYOFUNGASHWA

12. Kitu gani kinakuhamasisha kusoma taarifa zilizopo kwenye lebo za vyakula vilivyofungashwa?

······

13. Je ni katika mazingira gani huwa unanunua vyakula vilivyofungashwa bila kusoma taarifa zilizopo katika lebo?

·····

14. Ni changamoto zipi unakumbana nazo katika kusoma na kuelewa taarifa zilizoko katika lebo za vyakula vilivyofungashwa?

HUU NDIO MWISHO WA MAHIOJIANO YETU

ASANTE KWA MUDA WAKO