

Influence of Antecedents on Consumer Attitudes towards Functional Food: Empirical Study in Sri Lanka

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How to cite this paper: R. M. K. S. Rasanjalee | D. S. R. Samarasinghe "Influence of Antecedents on Consumer Attitudes towards Functional Food: Empirical Study in Sri Lanka" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-3 | Issue-5, August 2019, pp.2523-2529, <https://doi.org/10.31142/ijtsrd27994>



IJTSRD27994

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I. INTRODUCTION

Food is any nutritious substance that people or animals eat or drink or that plants absorb in order to maintain life and growth. With the evolvement of time now people are very busy in their lifestyles and might not pay attention on their food as it was done in the early times. Therefore what we can observe is that there are so many different kinds of health issues arising day by day. As a result we have to think of a way of being healthy by consuming healthy food. But now we have come to point where we cannot be healthy by just having healthy food as we have been poisoning ourselves throughout the years passed with junk foods. As a result we need to take measures to cure the poisoned parts of our body first and that is where functional food comes into place. One of the recommendations of the research "An assessment of consumers' knowledge, attitudes and habits in relation to functional foods" is that; functional foods should be promoted among the people (Zoysa, et al., 2014).

Another research done on "Assessing the Factors Affecting the Extent to which Consumers Incorporate Functional Ingredients in to their Diets: A Case of Sri Lankan Urban Consumers" states in their conclusion that promoters of functional foods must direct their promotions towards changing the attitudes of consumers about the effectiveness of the functional ingredient (Attanapola, Udugama, &

ABSTRACT

Food is one of the basic needs to be satisfied for the survival of a human being. "Functional Food" is food and food components that may provide benefits beyond basic nutrition, and it includes a wide variety of foods and food components believed to improve health and well-being of people which help to reduce the risk of specific diseases. This paper investigates the influence of antecedents (Customer knowledge, Necessity, Safety, Confidence, Rewards) on consumer attitudes towards functional food within the Sri Lankan context. It is important for marketers to understand the attitudes in relation to functional food so they can properly implement in marketing strategies. In addition to the main objective of identifying influence of antecedents on consumer attitudes, the most influencing antecedent was also established. Convenient sampling method was used in collecting data from the respondents which consisted of 280 respondents from Colombo district within the age group of eighteen to sixty. Inferential statistics were used analyse and interpret the data by Correlation and Regression. Validity and reliability were tested for all the measures. The results indicate that customer knowledge, necessity and safety have a negative impact while confidence and rewards has a positive impact on the consumer attitude towards functional food. Rewards from functional food were derived to be a crucial factor for the consumer attitudes on functional food. These findings will provide food processing organizations and policy planners with valuable insights on consumer behaviour.

KEYWORDS: Antecedents, Consumer Attitudes, Functional food, Knowledge, Necessity, Safety, Confidence, Rewards

Mudalige, 2011). Most of the past researches done on the functional food, based on the attitudes towards the purchase intention are under the study of either Theory of Reasoned Action or Theory of Planned Behaviour. Also the antecedents of consumer attitude of functional food have only being assessed with the "Willingness to use Functional Food". But this research would cater in identifying the impact of antecedents of consumer attitudes of functional food on the consumer attitude towards functional food which is not a research area that have been catered before for functional food.

Globally there are many researches that have been carried out on the antecedents of attitudes on functional foods, while in Sri Lanka only two prominent researches that have been done are as follows. With the above evidences what we can understand is that there is a need for the functional foods to be promoted among the people. Promotion is obviously an automatic concern of responsibility of the marketers of the functional food producers. Therefore this study focuses on what the antecedents of consumer attitudes towards functional food are and their impact on consumer attitudes towards functional food. Based on the antecedents identified from the previous studies which are customer knowledge, necessity, safety, confidence and rewards from functional

food that may influence the consumer attitudes towards functional food, the following two research objectives were established.

1. To elucidate the impact of customer knowledge, necessity, safety, confidence of functional and rewards from functional food on the consumer attitudes towards functional food.
2. To identify the most influencing antecedent on the consumer attitudes towards functional food.

Introduction catered in explaining the background of the variables of the research and how the research problem has arisen. In the context of human life Food is a major necessity for survival. The urbanization and busy lifestyles of people are making them more and more vigilant in facing with many health issues. That is why Functional Food now plays a major role in our lives with or without our knowledge. With that basic understanding it gives the approach to study by introducing the variables, the research purpose and the research objectives to proceed on to the literature review and the methodology of the research.

II. LITERATURE REVIEW

A. Nature of food and human behaviour

"Food is something that is considered as a basic need of the human beings. With that people have started following different patterns of consuming food depending on the lifestyle they spend. Their lifestyle depends upon the attitudes they have and those will play a major role in them deciding what they would be consuming as food for their survival" (Ranaweera, 2017).

B. Food and Functional food

Food is any nutritious substance that people or animals eat or drink or that plants absorb in order to maintain life and growth. Functional food is a rather new concept, and was developed in 1984 which was created by Japanese scientists, who studied the relationships between food products fortified with particular ingredients and the physiological effects they had on the body. The Japanese revolution in functional food increased the awareness for functional food in both the US and Europe according to (Lopez, González, & Marcos, 2002; Menrad, 2003; Moller & Rowland, 2002). Doyon & Labrecque (2008) depicted that "a functional food is, or appears similar to, a conventional food. It is part of a standard diet and is consumed on a regular basis, in normal quantities. It has proven health benefits that reduce the risk of specific chronic diseases or beneficially affect target functions beyond its basic nutritional functions."

C. Functional Food in Sri Lanka

According to Ranaweera (2017) Medicines, Super Food and Fortified Food cannot be considered as Functional Food. In the context of Sri Lanka we can see Gotukola and Karawila (Bitter gourds) contain bioactive chemicals that brings us medicinal benefits according to (Ranaweera, 2017). Ranaweera (2017) stated that some functional foods are generated around a particular functional ingredient, for example foods containing probiotics (Beneficial microorganisms that improve our gut health and produce compounds like vitamins in our intestine) and prebiotics (Foods for probiotics, but be cannot digest them (E.g. Dietary fibre). In Sri Lanka we have yoghurts containing probiotic bacteria Other functional foods or drinks can be foods fortified with a nutrient that would not usually be present to

any great extent (e.g. folic acid fortified bread or breakfast cereals) as per noted by (Ranaweera, 2017) Turmeric (Kaha) is a well know spice used in Sri Lanka for cooking as well as for many other things including treatment of wounds. Curcumin, an antioxidant present in turmeric, helps in lowering inflammation and speeding up the healing process. Similarly, Moringa (Drumstick), Oats, Sweet potato and many fish containing Omega 3 fatty acids (e.g. Hurulla – mackerel) are functional foods referring to what (Ranaweera, 2017) said. According to Ranaweera (2017) major examples of functional food available in Sri Lanka at present are Probiotic, Prebiotics and Stanols. Probiotics are defined as live microorganisms – mostly bacteria – which when taken in adequate amounts confer a health benefit. Prebiotics promote the growth of particular bacteria in the large intestine that are beneficial to intestinal health and also inhibit the growth of bacteria that are potentially harmful to intestinal health. Stanols and sterols, which occur naturally in small amounts in plants and fruits, are thought to have a cholesterol lowering effect and are added to products such as reduced/low fat spreads.

D. Food consumption behaviour and attitudes

Consumer behaviour is the process consumers go through in different stages of the consumer purchasing a product or service as per stated by (Blythe, 2008). Understanding consumer behaviour is important to marketers in order to develop successful marketing strategies regarding the pricing, product placement, design, positioning and promotion of the product as what (Askegaard, et al., 2006) stated in their studies. Examining attitudes is a good way to get a better understanding of consumer's behaviour in regards to a product, idea or service as per (Ajzen, and Fishbein, 2005). Attitudes have been found to affect food choice behaviour and they provide a useful tool for explaining food choices according to (Tuorila, 1997).

"Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour". (Eagly & Chaiken, 1993). As most of the researches have used the existing theories such as Theory of Reasoned Action and Theory of Planned behaviour in studying their analysis, this study focuses on a model developed with the factors affecting the attitudes towards functional food.

E. Factors affecting the attitudes towards the purchase intention of Functional Foods

A consumer's attitude towards functional foods can have significance on their purchase decision on certain goods. According to Lähteenmäki and Urala (2007), "When consumers make a food choice, it can be divided into three central factors: the food, the consumers, and environmental and economic issues". A major factor that has not been taken into consideration so far in relation to the attitudes towards on functional food which is the "Customer Knowledge" will be considered as factor to be measured under this study along with the factors affecting the attitudes towards functional food which have been introduced by the "Functional Foods in Finland" study by (Lähteenmäki & Urala, 2005) which are Necessity, Safety, Confidence and Rewards. The knowledge component is especially essential for an area such as functional foods, in which the cost of engaging in health-related behaviours significantly exceeds the cost of conventional behaviour. Thus knowledge is

crucial in this kind of product setting that is characterized by features that are more numerous and complex than those of food in general, and in which the benefits yielded by functional foods cannot be easily assessed. Across all product categories, functional foods tend to be significantly more expensive than the corresponding conventional products as per stated by (Sääksjärvi, Holmlund, & Tanskanen, 2009). With reference to the previous literature H1 was developed.

H1: Customer knowledge has a significant impact on the consumer attitudes towards functional food

Necessity is a more general factor describing the necessity of functional food concept from society's point of view according to the discussions by (Lähteenmäki & Urala, 2005). Necessity of functional food is how consumers perceive the need for functional foods as a medicine as per (Chen, 2011). "Necessity for functional food is mainly concerned about if consumers feel that functional food is necessary for society" according to (Lähteenmäki & Urala, 2007) Based on the above literature H2 was developed, H2: Necessity of functional food has a significant impact on the consumer attitudes towards functional food

Safety of functional foods is concerned with how consumers perceive the possible risks associated with consumption of functional foods as per stated by (Lähteenmäki & Urala, 2007). Yet in consideration to the previous literature in relation to the safety in terms of Functional Food what we can observe is that if something negative happens, confidence and safety aspects are likely to rise as active parts of willingness to use functional foods as per stated by (Lähteenmäki & Urala, 2005). But according to Chen (2011) "Consumers who believe that functional food is safe are more willing to consume functional foods". But it is better if we keep in mind that depending on the situations that might be working different in different countries and may change the results which were indicated in the research in Finland in terms of safety of functional food. With reference to the above arguments H3 was developed.

H3: Safety of functional food has a significant impact on the consumer attitudes towards functional food

Confidence in functional food is that consumers think functional food can be used in order to maintain their health or "The level of confidence consumers have in functional foods and whether or not they perceive functional foods as something that is safe and healthy to consume" according to (Lähteenmäki & Urala, 2007). Following the above arguments H4 was developed.

H4: Confidence in functional food has a significant impact on the consumer attitudes towards functional food

In relation to the Rewards from Functional Food it considered as the strongest predictor for the acceptance of functional foods according to (Lähteenmäki & Urala, 2005). At the same time Urala (2005) states that the rewarding feeling delivered from the use of functional food products gives the manufacturers attractive possibilities to communicate the health effects of the functional foods.

H5: Rewards from functional food has a significant impact on the consumer attitudes towards functional food

Along with the above developed hypotheses the following hypotheses was developed to analyse the objective of

identifying the most influencing antecedent of consumer attitudes towards functional food on the consumer attitude towards functional food.

H6: Antecedents of consumer attitudes on functional food has not equally influenced on the consumer attitudes towards functional food

Figure 1 shows the conceptual framework developed with reference to the previous literature taken into consideration for the study in relation to the particular requirements catering to the current study.

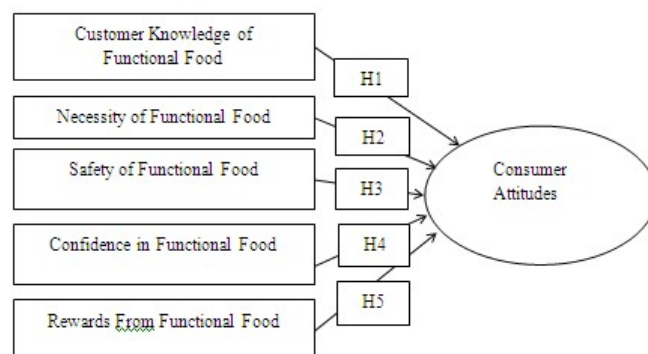


FIGURE 1 CONCEPTUAL FRAMEWORK

III. METHODOLOGY

Convenient sampling method was used to study the focused population between the ages of eighteen to sixty. Questionnaire based survey method was used for data collection. Two hundred and eighty participants were asked to respond for the questionnaire which was distributed both by hand and using online platforms using Google sheets. The questionnaire was designed to initiate with a section catering to the Recognizability of functional food which provided an understanding on the extent to which the respondents were familiar about functional food. All the antecedents of consumer attitudes towards functional food were measured using 7 point Likert Scale with 1 as "Strongly Disagree" and 7 as "Strongly Agree" except customer knowledge which has a 5 point Likert Scale ranging from "Strongly agree" to "Strongly disagree" with a "Not sure" option. Customer knowledge was measured using five items as; Some foods have specific health benefits that reduce your risk of developing chronic diseases, Functional foods include whole, enriched, or enhanced foods that have ingredients incorporated into them to provide a specific health benefit, The only foods that can be categorized as a functional food are foods with a health claim on the nutritional label, Eating is a better way to obtain health-enhancing substances than taking dietary supplements like vitamins, Eating is a better way to obtain health-enhancing substances than taking dietary supplements like vitamins (Munene, 2006). Necessity was measured using nine items as; "Functional foods are completely unnecessary", "The growing number of functional foods on the market is a bad trend for the future", "Functional foods are a total sham", "For a healthy person it is worthless to use functional foods", "I only want to eat foods that do not have any medicine-like effects", "Health effects are not appropriate in delicacies", "Functional foods are consumed mostly by people who have no need for them", "It is pointless to add health effects to otherwise unhealthy foods", "It is great that modern technology allows the development of functional foods" (Lähteenmäki & Urala, 2007). Safety was measured using five items as; "In some cases functional foods may be harmful for healthy people",

"Using functional foods is completely safe", "The new properties of functional foods carry unforeseen risks", "Exaggerated information is given about health effects", "If used in excess, functional foods can be harmful to health" (Lähteenmäki & Urala, 2007). Confidence was measured using four items as; "The safety of functional foods has been very thoroughly studied", "I believe that functional food fulfil their promises", "Functional foods are science-based top products", "Functional foods promote my well-being" while Rewards was measured using eight items as; "The idea that I can take care of my health by eating functional foods gives me", "My performance improves when I eat functional food", "Functional foods help to improve my mood", "Functional foods can repair the damage caused by an unhealthy diet", "I can prevent disease by eating functional foods regularly", "I am prepared to compromise on the taste of a food if the product is functional", "Functional foods make it easier to follow a healthy lifestyle", "I actively seek out information about functional foods" (Lähteenmäki & Urala, 2007). The consumer attitude towards functional food had three items with a 7 point Likert Scale using three items as; "I think it is good to buy" (Tarkiainen & Sundqvist, 2005), "I think it is important to buy" (Thøgersen, 2009), "I think it is wise to buy" (Aertsens, Verbeke, Mondelaers, & Huylenbroeck, 2009). Demographic questions referring to the age, gender and the level of education were used at the end of the questionnaire which provided the data for the analysis of the profile of the respondents. IBM SPSS Statistics 22 software package was used for the analysis of the study in performing the tests for Frequencies and Descriptive Statistics, Pearson Correlation and both Simple and Multiple Linear Regression analysis. Initially to check the internal consistency and the validity of the measures Cronbach's alpha was calculated relevant to all the constructs being considered and a factor analysis was carried out. As all the Cronbach's values relevant for the constructs being considered were greater than 0.7 the reliability of the measures were established. As per the initial factor loading, two items were removed under the knowledge variable, four items were removed under the necessity variable and one item was removed from both safety and confidence variables while no items were removed from rewards variable. With the items being removed as mentioned in the final structure of the Rotated Component Matrix each component matrix value is greater than 0.5 (Fornell & Larcker, 1981) which would validate each question. Items of each variable loaded in one component validating uni dimensionality of each items of each variable. Referring to the Skewness and Kurtosis has been calculated for the test of normality. All components are well within the limits of ± 1.96 , suggesting that the normality is not too extreme.

IV. RESULTS

A total of 280 questionnaires were received, only 263 questionnaires were usable for this study and met the required inclusion criteria. 17 questionnaires deemed unusable, because the identified outliers were omitted for the further studies. As per the **Table 1** the sample consists of 129 Females and 134 Males. It shows that approximately equal percentages of Females and Males have participated as respondents with 49.05% and 50.95% respectively. 114 respondents are in the age category of 18-30 representing 43.35% of the sample. 44 respondents are in the age category of 31-40 which is 16.73% of the sample. 64 respondents and 41 respondents are within the age

categories of 41-50 and 51-60 representing 24.33% and 15.59% respectively. A substantial amount of the respondents are Graduates or have completed higher qualifications representing 42.59% of the sample. The next highest set of respondents have passed up to GCE (O/L) with a count of 69 respondents and representing 26.24% of the sample considered. 21.67% of the respondents have passed up to GCE (A/L) while the least representation is from the undergraduate with a percentage of only 9.51%.

Table-1 Frequencies and Descriptives for Demographic Variables

| Variable | Category | Frequency | Valid Percent |
|--------------------|------------------------|-----------|---------------|
| Gender | Female | 129 | 49 |
| | Male | 134 | 51 |
| Age | 18-30 | 114 | 43.3 |
| | 31-40 | 44 | 16.7 |
| | 41-50 | 64 | 24.3 |
| | 51-60 | 41 | 15.6 |
| Level of Education | Passed up to GCE (O/L) | 69 | 26.2 |
| | Passed up to GCE (A/L) | 57 | 21.7 |
| | Undergraduate | 25 | 9.5 |
| | Graduate or above | 112 | 42.6 |

Table-2 Results of Reliability and Validity of Measures

| Construct | Cronbach's Alpha | Composite Reliability | AVE |
|--------------------|------------------|-----------------------|-------|
| Customer Knowledge | 0.648 | 0.769 | 0.526 |
| Necessity | 0.813 | 0.889 | 0.576 |
| Safety | 0.737 | 0.839 | 0.568 |
| Confidence | 0.698 | 0.850 | 0.587 |
| Rewards | 0.896 | 0.919 | 0.588 |

AVE (Bolded values along the diagonal) > r² value of other dimensions

The internal consistency was ensured as the Cronbach's values for all the constructs were closer or above 0.7, the threshold as per presented in Table 2. Content, construct, convergent and discriminant validity were also tested to validate the measurement model used for the study (Hair et al., 1998). The content validity was validated through a proper literature review being conducted for the study. Average Variance Extracted (AVE) should be greater than 0.5 for construct validity and convergent to be established (Hair & Jang, 2012). Table 2 presents the AVEs for the measured constructs being validated on construct validity and convergent with their values being greater than 0.5. According to Hair et al., (1998) the composite reliability should be greater than 0.7 to accept the dimension under the factor analysis which is presented in relevance to the study by the Table 2. Discriminant validity can be assessed by comparing the shared variances among constructs with the AVE (average variance extracted) on the individual constructs as explained in (Sekaran & Bougie, 2010). The respective constructs have been validated on the discriminant validity too as per the Table 3. The

measurements for the consumer attitude were also validated under the reliability analysis with a Cronbach's Alpha value of 0.874.

| 1 | 2 | 3 | 4 | 5 |
|--------------|--------------|----------------|--------------|--------------|
| 0.526 | | | | |
| .024336 | 0.576 | | | |
| .02402 | .25603 | 0.56860 | | |
| .01768 | .05808 | .00067 | 0.587 | |
| 0.225 | .18232 | .0529 | .25200 | 0.588 |

Table-3 Discriminant Validity

According to the Table 4 there exist a weak negative relationship between customer knowledge and consumer attitude, necessity and consumer attitude and also safety and consumer attitude. Between confidence and consumer attitude there exists a closer to moderate positive relationship while between rewards and consumer attitude there exists a strong positive correlation. According to the Table 5, it can be stated that all the antecedents of consumer attitudes towards functional food are proved to be significant in relevant to the impact they may have on the consumer attitude towards functional food as all the relevant significance values are less than 0.05 the alpha value considered as the level of significance for the study and accepting all the hypothesis developed under the first objective of the study.

As per the Table 5 we can conclude that it is only 1.9% of the variation in the consumer attitude towards functional food is explained by the customer knowledge on functional food. Coefficient value -.504 for customer knowledge, implied that there is a strong negative impact from the customer knowledge on functional food on the consumer attitude

towards functional food as per the Table 5. Also a Table 5 show that it is only 17% of the variation in the consumer attitude towards functional food is explained by the necessity of functional food. Coefficient value -.439 for necessity implies that there is a weak negative impact from the necessity of functional food on the consumer attitude towards functional food as per the Table 5. According to the Table 5 only 4.4% of the variation in the consumer attitude towards functional food is explained by safety of functional food. Coefficient value -.220 in Table 5 implies that there is a weak negative impact from the safety of functional food on the consumer attitude towards functional food. As per the Table 5 only 19.5% of the variation in the consumer attitude towards functional food is explained by the confidence in functional food. Coefficient value .530 in Table 5 implies that there is a strong positive impact from the confidence in functional food on the consumer attitude towards functional food. As per the Table 5 53.3% of the variation in the consumer attitude towards functional food is explained by the rewards from functional food. According to the Table 5 coefficient value .806 which implies that there is a strong positive impact from the rewards from functional food on the consumer attitude towards functional food. According to the Table 6, significance values of the constant and the independent variables were less than 0.05 indicating that indicators were significant. The Coefficients (B statistics) of the independent variables are; Customer Knowledge:-.048, Confidence: 0.114, Necessity:-.127, Rewards: 0.695 Safety:-.329

Hence it can be concluded that the most influencing antecedent of consumer attitudes on functional food is rewards.

Table- 4 Pearson Correlation among the relationships of the constructs

| Two variables | Pearson's Correlation | Relationship | Two variables |
|--------------------|-----------------------|--------------|--------------------|
| Customer Knowledge | Consumer attitude | -.139 | Customer Knowledge |
| Necessity | Consumer attitude | -.413 | Necessity |
| Safety | Consumer attitude | -.210 | Safety |
| Confidence | Consumer attitude | +.441 | Confidence |
| Rewards | Consumer attitude | +.730 | Rewards |

| Antecedent | Coefficient | Significance value | Variation explained |
|--------------------|-------------|--------------------|---------------------|
| Customer Knowledge | -.504 | .024 | 1.9% |
| Necessity | -.439 | .000 | 17% |
| Safety | -.220 | .001 | 4.4% |
| Confidence | .530 | .000 | 19.5% |
| Rewards | .806 | .000 | 53.3% |

Table-5 Simple Linear Regression Analysis

| Model | Unstandardized Coefficients | Sig. |
|------------|-----------------------------|------|
| | B | |
| (Constant) | 1.559 | .000 |
| CKNOW | -.048 | .002 |
| NEC | -.127 | .024 |
| SAF | -.329 | .000 |
| CON | .114 | .023 |
| REW | .695 | .000 |

Table 6 Multiple Linear Regression

V. DISCUSSION AND CONCLUSIONS

Under the discussion in order to check the consistency of the results generated on the influence of the antecedents of consumer attitudes of functional food on the consumer attitudes towards functional food, it was simply harder to find previous literature particularly that have measured a similar relationship. The researches those were found relative to this subject area have only measured the relationship between the different attitudes catering as the antecedents of consumer attitudes of functional food and the willingness to use functional food, not the consumer attitudes towards functional food. Therefore to refer as literature in comparison to the results generated under this research study, the researches that have measured the relationship between the antecedents of consumer attitudes of functional food and the willingness to use functional food have been taken into consideration as a near similar relationship to the relationship between the antecedents of consumer attitudes of functional food and the consumer attitudes towards functional food for Hypothesis two, three, four and five, as it is based on the favourable consumer attitudes, the willingness to use functional food will also improve. The first hypothesis was developed to analyse whether there is an impact from customer knowledge of functional food on the consumer attitudes towards functional food. The coefficient implies that there is a strong negative impact from customer knowledge on the consumer attitudes towards functional food according to the regression analysis. In contrast to what is said by Sääksjärvi, Holmlund and Tanskanen (2009) as, the knowledge component is especially essential for an area such as functional foods, in which the cost of engaging in health-related behaviours significantly exceeds the cost of conventional behaviour and the knowledge being crucial in this kind of product setting that is characterized by features that are more numerous and complex than those of food in general, and in which the benefits yielded by functional foods cannot be easily assessed, this research has derived that the significance of customer knowledge on the consumer attitudes is very low compared to the other antecedents. It might be due to the proper management of the other antecedents affecting the consumer attitudes. According to Zoysa, et al. (2014) even though the research has been carried out targeting Colombo, it has a recommendation to identify the importance of promoting the functional foods.

Therefore in the Sri Lankan context we can identify that there is a need to properly promote functional food to make customer knowledge a significant impact on the consumer attitudes towards functional food as what was derived from the study was that there exists a negative relationship between customer knowledge and the consumer attitudes. The second hypothesis was developed to analyse whether there is an impact from necessity of functional food on the consumer attitudes towards functional food. The coefficient implies that there is a weak negative impact from necessity on consumer attitudes according to the regression analysis. The necessity for Functional Food (FF NEC) affected positively the willingness to use functional food products according what was concluded by Lähteenmäki & Urala (2004). But this research study has derived there is a negative impact from necessity of functional food on the consumer attitudes towards functional food with reference to the Sri Lankan context which is still might be because

people not clearly recognizing the necessity of functional food due to the lack of proper marketing strategies in promoting them. The third hypothesis was developed to analyse whether there is an impact from safety of functional food on the consumer attitudes towards functional food. The coefficient implies that there is a weak negative impact from safety on consumer attitudes according to the regression analysis. The results generated on the analysis of the impact of safety of functional food on the consumer attitudes towards functional food seems to comply with the results generated on a research that has analysed the impact of safety of functional food on the willingness to use functional food which was considered to be a closer concept to the relationship to consumer attitudes as no significant researches have been conducted on the same relationship considered for this study. According to Lähteenmäki and Urala (2007) the Safety of Functional Food (FF SAF) decreased respondents' willingness to use organic bread an example of Functional Food. Neither in 2001 or 2004 did the safety of Functional Food affect the respondents' willingness to use Functional Food products. The consumers seem to be aware of the possibility that use of Functional Food may have risks, but the possible risks do not affect the evaluated behaviour tendency. The fourth hypothesis was developed to analyse whether there is an impact from confidence in functional food on the consumer attitudes towards functional food. The coefficient implies that there is a strong positive impact from confidence on consumer attitudes according to the regression analysis. In 2002, the Confidence in Functional Food (FF CON) had a statistically significant effect on the willingness to use the Functional Food. Also the mistrust and the risks may not affect the personal behaviour as per stated by (Lähteenmäki & Urala, 2007). Therefore it can be concluded that confidence might be influencing similarly on the consumer attitudes towards functional food as it influenced on the willingness to use functional food resulting a strong positive impact from confidence in functional food on the consumer attitudes towards functional food. The fifth hypothesis was developed to analyse whether there is an impact from rewards from functional food on the consumer attitudes towards functional food. The coefficient implies that there is a strong positive impact from rewards on consumer attitudes according to the regression analysis.

Respondents who obtained rewards from using functional food were those most willing to use all the functional food examples and by choosing and using functional food consumers may achieve a modern and positive impression of themselves according to (Lähteenmäki & Urala, 2004). Therefore the impact of rewards from functional food on the consumer attitudes towards functional food might be similar to the impact on the willingness to use due to the underlying consumer behaviour with respect to the impact from rewards from functional food on the willingness to use functional food depicting a strong positive impact might be similar with the rewards from functional food on the consumer attitudes towards functional food. The sixth hypothesis was developed to analyse what the most influencing antecedent of consumer attitudes of functional food on the consumer attitudes towards functional food was. From the coefficients of the relevant variables it represented that Customer Knowledge (-.048), Necessity (-.127) and Safety (-.329) has a negative impact, Confidence (.114) has a weak positive impact and Rewards (.695) has a strong

positive impact on the consumer attitudes towards functional food. The perceived reward from using functional food and confidence in functional food seems to be the most crucial factors in consumer's willingness to use functional foods according to (Lähteenmäki & Urala, 2004). Therefore it could be observed that the results of the research comply with the previous literature conducted under this area of subject.

VI. LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH AREAS

As the population area was limited only to age eighteen to sixty for the easiness of study purposes, it was harder to take real picture about age categories. On the use of Online Google sheets the researcher was not able to actually be present at the respondents' requirements. Difficulties were faced by the researcher in finding previous research and articles, especially for measurement scales with Attitudes related to Functional Food in Sri Lankan context. As only the Colombo area was considered to conduct the survey this study will not be able to provide the Sri Lankan context exactly. Therefore it could be recommended to get a sample, island wide representing all the districts. It can be suggested to carry out this research under different cultural settings in order to look into potential differences in attitudes depending on different cultures as Sri Lanka is a multi-cultural country. Convenient Sampling method was used for the study. Therefore it can be recommended to test the study using another sampling method to test the consistency of the conclusions derived.

Acknowledgement

Hereby I convey my special gratitude to the Department of Marketing Management, University of Sri Jayewardenepura where the major support was provided in terms of the continuation of this study by providing theoretical and technical support. At last I especially forward my gratitude to the respondents who provided data for the questionnaires.

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