The Impact of Reference Groups' Recommendations on Attitude towards Organic Foods and Purchase Intention with Health Consciousness as a Mediator

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Abstract

Previous research has explored different aspects of reference groups, health consciousness, consumer attitude towards organic foods, and purchase intentions, but no research evidence is available on theoretical relationships among those said constructs. This research aims to investigate the impact of reference groups’ recommendations of health advice on health consciousness, attitude towards organic foods, and finally on purchase intention of organic foods. Besides, it investigates the mediation role of health consciousness on the relationship between reference groups' recommendations and attitudes towards organic foods. This research is a positivistic study and uses a questionnaire to collect the data using a convenience sample of 126. A structural equation analysis is used to analyze the data based on SPSS and Amos 23. According to the findings, reference groups’ recommendation of health advice has a significant positive impact on health consciousness and also on attitude towards organic foods. Finally, attitude towards organic foods impacts purchase intention of organic foods. Further, it is found that health consciousness partially mediates the relationship between reference groups’ recommendations on health advice and attitude towards organic foods. The present research has bridged the theoretical and empirical gaps that existed in the literature on the said relationships. The research provides a significant original contribution to organic food marketing by shedding light on how to increase the purchase intention of organic foods.

Keywords: Organic Foods, Reference Groups, Health Consciousness, Sri Lankan Consumers, Purchase Intention

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01. Introduction

Green consumption or echo-friendly consumption has drawn the consumers’ attention in the world due to the destruction of natural resources and hence more inclined people towards environment protection (Moisander, 2007). Consumers are becoming more educated on the health effects of what they consume. It is observed that people are consuming organic products due to environmental and ethical concerns (Kumar & Bhat, 2008). Organic foods are becoming more popular among green consumers. These organic foods contain low harmful additives compared to traditional foods (Hsu & Chen, 2014). People tend to consume organic foods under the impression that they are suitable for health. Mass media persuade consumers that they get health benefits from organic food consumption. Lien and Chen (2013) emphasized that consumer attraction must be drawn by persuasive advertisements.

Zanoli and Naspetti (2002) have found that lower prices, better distribution, good taste, and organoleptic quality are influential factors for increasing the demand for organic foods. According to these researchers, consumers need more information and are willing to know how organic foods are different from conventional products. The most important thing they found was that demand for organic food is not market-driven, and also consumers need to eat healthily.

According to Grankvist and Biel (2001), consumers buy organic produce for health reasons. Some consumers buy organic produce because of political, ethical, religious, and moral reasons. (McEachern & McClean 2002; Honkanen et al., 2006). Several researchers have found that people perceive that organic foods are healthier than traditional foods and have more nutrients (Magnusson et al., 2001; Lokie et al., 2004). Schifferstein and Ophuis (1998) have identified that organic food consumption is part of a way of life. Besides, it is connected to the value system of consumers, which involves personality, attitudes, and consumption behavior. Consumers consider organic foods are tasty and more enjoyable (Fotopoulos et al., 2003; Baker et al., 2004).

Even though some of the areas have been explored by researchers, still gaps exist in literature to understand how consumer attitudes towards
purchasing organic foods are formed. In the UK and Germany, similar values exist concerning health and wellbeing, but product attributes sought are different between the two countries (Baker et al., 2004). As they found, there are inconsistencies of motives to form people's attitudes in two counties. Bartels and Berg (2011) studied non-users, light users, and heavy users of organic foods and found significant differences among three groups on attitude towards antioxidants in fresh fruit and vegetables. In Indonesia and Taiwan, consumer knowledge and purchase behavior were different, but consumer attitudes were similar (Moslehpour et al., 2014). Nasir and Karakaya (2014) have identified three market segments with different behaviors and attitudes towards organic foods. It has been found that healthiness, taste, and environmental friendliness are linked with Consumers' attitudes toward buying organic food (Thøgersen et al., 2015). Tsakiridou et al. (2008) show evidence of an under-researched relationship of attitudes and behavior in Greece. Because of such kinds of discrepancies of findings and conflicting evidence obtained in antecedents of attitude formation and its impact to purchase intentions of organic foods, it is apparent that a theoretical gap still exists to understand the phenomenon perfectly.

Health-conscious consumers are open to health care alternatives and have a positive attitude towards such products (Gould, 1988). Further, they found that they are open to getting second opinions from others. According to Lee et al. (2002), self-reference leads to positive attitudes, which then influence purchase intention. When consumers are open to others' opinions about health issues, reference groups' recommendations become more effective on health-conscious consumers than other consumers. In line with this information, there is a strong possibility for health consciousness to play a mediation role in between reference groups' recommendations and attitudes toward organic foods. Even though health consciousness has been considered in some research, no research has simultaneously considered the impact of reference groups' recommendations and health consciousness on consumer attitudes towards organic foods. This research aims to investigate how the recommendations of reference groups on health and the health consciousness of consumers influence the formation of attitudes towards organic foods and, consequently, affect the purchase intention
of organic foods. Further, it examines the mediation role played by health consciousness in between reference groups' recommendations on health and consumer attitude towards organic foods.

02. Literature Review

Organic Food Market

The organic food market has been grown substantially since early 2000 in the world (Gifford & Bernard, 2006; Padel & Foster, 2005). Organic foods were becoming popular because of widespread concern as well as resistance to genetically modified foods (Michelsen et al., 2001). Organic foods have strong emotional feelings in people’s minds because of wellbeing, health, and benefit to the environment (Mintel, 2000). Consumer attitude of meat market also shown a tendency towards organic market due to meat’s safety, animal welfare, quality, and media topics (McEachern & Willock, 2004).

Reference Groups’ Recommendations

A Reference group is a group that has a direct or indirect influence on consumer attitudes or behavior (Kotler, 2003). Further, reference groups having direct influences are called membership groups, and some of them are called primary groups like family, friends, neighbors, and co-workers. Other groups like religious, professional and trade union groups are coming under secondary groups. Kotler (2003) described that people might be influenced by groups to which they do not belong. For example, aspirational groups and dissociative groups.

Goodrich and Mangleburg (2010) found parental and peer influence on the purchase behavior of young people. Childers and Rao (1992) have described two types of reference groups. They are normative and comparative. Parents, teachers, and peers come under normative type, and sports heroes and entertainment figures are coming under comparative types. Both groups affect consumers’ norms, attitudes, and values. According to Raven (2008), consumers believe in expert power, which affects cognitive change in specific points of the receiver. Wilson and Sherrell (1993) have said that expertise tends to substantially affect the attitudes of consumers.
Eagly and Chaiken (1993) stated that consumer attitudes are formed after a comprehensive study of a product. Therefore, for consumers to have such kind of comprehensive study, the recommendation of reference groups would help immensely. Persuasive messages of advertising attract the attention of consumers (Lien & Chen, 2013). When fear of health risk messages are communicated by advertising, these messages become drivers to influence consumers to buy no-risk products (Keller & Block, 1996; Peters et al., 2013). Attitudes might be formed as a result of strong recommendations. The elaboration likelihood model (Petty et al., 1983) can be used to explain the persuasiveness of organic products. The information received through advertisements about the recommendation of green products affects forming attitudes in consumers' minds. The advertisements recall consumers about their prior experiences and increase self-reference (Burnkrant & Unnava, 1995). According to Lee et al. (2002), a high level of perceived self-reference Leads to positive cognition and attitudes, and this attitude then influences purchase intention. In consumers' decision-making, reference group pressure is very important, and it has been widely used in social sciences. As defined by Gupta and Ogden (2009, p.379), “A reference group is a person or a group that influences another person’s decision.” Consumers largely depend on reference group opinions when purchasing products. These reference groups also influence organic food purchase behavior. People are under pressure when they are members or aspire to be members of such a group (Gupta and Ogden, 2009).

**Health Consciousness**

Health consciousness is defined as an individual assessment of the proactivity level in health maintenance by Naylor et al. (2009). Health consciousness is an essential factor in preventive health behavior (Jayanti & Burns, 1998). The motivation to stimulate consumers to take preventive actions and follow health activities is considered as health consciousness (Michaelidou & Hassan, 2008; Jayanti & Burns, 1998). Health-conscious people are evaluative about what is available, and they know about health information well. Further, their attitude is open towards health care alternatives (Gould, 1988). As Newsom et al. (2005) pointed out, when consumers become health conscious, they do health-related works, monitor their health regularly, and adopt healthy lifestyles. Health-
conscious consumers have a high level of risk about non-organic products
due to fear of the harmfulness of pesticide residue (Chou et al., 2020).
Organic foods are such alternatives that people may eagerly consume
presently to avoid unnecessary, unhealthy outcomes. Health-conscious
people have preventive attitudes, and they would like to get a second
opinion before deciding (Gould, 1988). Magnusson et al. (2003) has stated
that health consciousness predicts the attitude towards organic products.

Formation of Attitude towards Organic Foods
An attitude has been defined as an enduring set of beliefs about an
object that predisposes people to behave in a particular way toward
the object (Weigel, 1983). Personal experience of consumers and issue-
specific knowledge of them is the basis of consumer attitudes (Davidson
et al.,1985). Research has been done with the objective to find Chinese
consumers’ attitudes regarding green products by Tang et al. (2014).
They have found that consumer environmental concern is significantly
influencing consumer attitudes.

Keller and Block (1996) engaged in research to investigate how fear-
arousal affects to change attitude. This fear-arousal can happen in
different formats. Health experts' advice and different advertising
messages emphasize the unhealthy effects of foods produced under
different conditions. Those expert opinions generally criticize genetically
changed agricultural produced and high uses of pesticides. Due to these
messages playing a role in fear arousal, they affect to change the minds
of consumers and tend to use more and more organic foods. Some
researchers have argued that self-reference is also helping to form
attitudes toward targeted outcomes. Richetin et al. (2016) have supported
this opinion, and they have emphasized that self-reference can influence
the attitude toward organic foods.

Attitude towards Organic Foods and Purchase Intention of Organic Foods
Organic foods are considered less harmful than non-organic foods,
and therefore consumers prefer organic food products (Williams and
Hammitt, 2001). Chou et al. (2020) stated that the fear perception of
customers about non-organic would lead the customer to purchase green
products. This kind of fear perception forms a positive attitude toward
organic foods. As Magnusson et al. (2003) suggest, health consciousness predicts the attitude of organic food, which influences the purchase intention of organic products. As a result of attitude formation about green consumption, consumers tend to purchase healthier products. As Zanoli and Naspetti (2002) pointed out, organic products are purchased by consumers because of the health impact that they expect.

Based on the above-mentioned literature following conceptual model can be developed and accompanying hypotheses be proposed;

**Figure 1: The Conceptual Model**

![Conceptual Model Diagram]

Source: Developed by author, 2021

**Hypothsis1**
Reference Groups’ recommendations on health advice positively impact increasing the health consciousness.

**Hypothsis2**
Reference Groups’ recommendations on health advice positively impact changing the attitude towards organic foods.

**Hypothsis3**
Health Consciousness positively impact on attitude towards organic foods.
Hypothesis 4
Health consciousness mediates the relationship between reference groups’ recommendations and attitude towards organic foods.

Hypothesis 5
Attitude towards organic foods positively impact on purchase intention of organic foods.

03. Methodology
The present research is based on a positivistic approach. The target population is the Sri Lankan consumers spread out in all provinces of the country that purchase food items in the market. Therefore, the data were collected from consumers who are between 25 - 75 years. The convenience sampling technique was used, and data collection was done using an online survey. Two hundred emails were sent considering the target population, and the respondents were selected to include academics, accountants, managers, lawyers, engineers, and people employed in non-managerial positions. Finally, 126 responses were received. This sample size is adequate for current research since for structural equation models with five or fewer constructs, the required minimum sample size is 100, as recommended by Hair et al. (2010). A five-point Likert scale was developed in the questionnaire to collect the data.

For operationalization of the four latent constructs given in the model, this research used twelve indicator variables selected from the previous studies mentioned in the literature review.

Accordingly, the reference groups’ recommendations construct was measured by four indicator variables. They were designated as friends messages (persuasive messages recommending organic foods coming from friends messages), sufficient information (messages with sufficient information about organic foods), social groups (information from favorite social groups about organic foods), and expert recommendations (recommendations by respectable experts about organic foods). This scale was developed based on the scale used by Lien and Chen (2013).

Six indicator variables were used to measure the construct health
consciousness, and they were designated as thinking health (thinking about the health a lot), self-conscious (very self-conscious about the health), Inner feelings (generally attentive to inner feelings about health), constant examining (constantly examining the health), alert health changes (alert to changes in health), and involved health (very involved with health). This scale was adapted from the scale used by Gould (1988). Four indicator variables identified to measure the construct of attitude towards organic foods were designated as health problem (organic foods do not cause health problems), protect diseases (consumption of the organic foods can protect from diseases), worth buying (organic foods are worth buying), and organic buyer (proud to be an organic buyer). This scale was developed based on the scale used by Scarpa and Thiene (2011). Two indicator variables were identified to measure the purchase intention from the study done by D’Souza (2019) and designated as intend to buy (intend to buy organic foods) and decided to buy (decided to buy organic foods).

Confirmatory factor analysis and structural equation model were used to analyze the collected data with the help of SPSS and AMOS 23.

04. Data Analysis
As the first step of data analysis, the multivariate assumptions, as well as the other assumptions, were checked to apply the covariance-based SEM (CB-SEM).

The Sample Profile
The analysis of respondents reveals that 42% of males and 58% of females. There were 08% less than 30 years, 56% between 31-50 years old, and 36% were within 51-70 years old. The educational background shows that 68% of the respondents have professional qualifications and/or university degrees, while 32% have postgraduate qualifications. The income level ranges from 50000-100000 for 20 % of the sample, and 80% of the sample is earning more than 100000.

Multivariate Assumptions
Table 1 shows that Skewness and kurtosis statistics were within the recommended range of +2 and -2 range and confirmed that the data were
normally distributed (Field, 2000; George & Mallery, 2010). Therefore, parametric tests could be applied.

Table 1: Normality Test Results

| Source: Compiled by author, 2021 |
|---------------------------------|
| N Statistic | Mean Statistic | Std. Deviation Statistic | Skewness Statistic | Kurtosis Statistic | Std. Error Statistic |
| Friends Messages 126 | 3.94 | .584 | .005 | .216 | -.023 | .428 |
| Sufficient Information 126 | 3.97 | .632 | -.363 | .216 | .737 | .428 |
| Social Groups 126 | 3.95 | .618 | -.178 | .216 | .289 | .428 |
| Expert Recommendation 126 | 3.99 | .613 | .004 | .216 | -.283 | .428 |
| Thinking Health 126 | 3.17 | .658 | -.201 | .216 | -.708 | .428 |
| Self-Conscious 126 | 3.11 | .672 | -.134 | .216 | -.768 | .428 |
| Inner Feelings 126 | 3.11 | .672 | .027 | .216 | -.383 | .428 |
| Constant Examining 126 | 2.89 | .707 | .161 | .216 | -.973 | .428 |
| Alert Health Changes 126 | 2.98 | .663 | .026 | .216 | -.687 | .428 |
| Involved Health 126 | 2.87 | .685 | .179 | .216 | -.853 | .428 |
| Health Problem 126 | 4.40 | .507 | .239 | .216 | -1.502 | .428 |
| Protect Diceses 126 | 4.45 | .546 | -.259 | .216 | -1.048 | .428 |
| Worth Buying 126 | 4.30 | .526 | .184 | .216 | -.640 | .428 |
| Organic Buyer 126 | 4.37 | .502 | .338 | .216 | -1.423 | .428 |
| Intend to Buy 126 | 3.94 | .817 | -.239 | .216 | -.705 | .428 |
| Decided to buy 126 | 4.10 | .753 | -.388 | .216 | -.464 | .428 |

Test of Adequacy of Sample

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy test was conducted for testing the sample adequacy, and all values were greater than 0.5 as depicted in Table 2, ensuring the required sample adequacy (Kaiser, 1974; Malhothra & Dash, 2010). These results confirm that the factor analysis is appropriate for the data collected.

For measuring the multivariate normality of a set of distribution, Bartlett’s test of Sphericity is recommended. According to Field (2000), when the significant value is less than 0.05, the distribution is multivariate normal and recommended for factor analysis. The values obtained in this research are highly significant, and further analysis can proceed with CFA and SEM.
Table 2: KMO and Bartlett’s Test of Sphericity

| Construct                     | KMO    | Bartlett’s Test of Sphericity |
|-------------------------------|--------|-------------------------------|
|                               |        | Chi-Square | Sig.     |
| Reference groups’ recommendations | 0.812  | 241.012    | 0.000    |
| Health Consciousness          | 0.901  | 471.407    | 0.000    |
| Attitude towards Organic Foods| 0.774  | 190.086    | 0.000    |
| Purchase Intention of Organic Foods | 0.500  | 172.901    | 0.000    |

Source: Compiled by author, 2021

Confirmatory Factor Analysis (CFA)

In the beginning, a measurement model was developed, and a confirmatory factor analysis was done.

Model fit

Table 3: CFA-Goodness of Fit Indices

| Criterion            | CMIN  | df  | CMIN/df | GFI    | CFI     | PNFI   | PCFI   | IFI    | TLI    | NFI    | RMSEA  |
|----------------------|-------|-----|---------|--------|---------|--------|--------|--------|--------|--------|--------|
| Model Values         | 123.943 | 98 | 1.265   | 0.891  | 0.978   | 0.737  | 0.798  | 0.978  | 0.972  | 0.903  | 0.046  |
| Recommended Values*  |       |    |         | > 1.0 < 3.0 | > 0.90 | > 0.90 | > 0.5  | > 0.5  | > 0.95 | > 0.95 | > 0.90 | < 0.03 < 0.08 |

Sources: Hair et al. (2010); Holmes-Smith (2012); Suki (2017); Parry (2020)

Source: Compiled by author, 2021

As depicted in Table 3, the model indices obtained are within the recommended ranges. Therefore, the estimated model was used for further analysis.
Figure 2: Standardized Regression Weights of Confirmatory Factor Analysis (CFA)

Unidimensionality
The factor loadings were well exceeding 0.5, as shown in Table 4 and Figure 2, and all of them were positive and significant (P< 0.001). Therefore, the unidimensionality was ensured as very high (Cook & Kallen, 2009; Slocum-Gori, & Zumbo, 2011).

Table 4: Standardized Factor Loading of Confirmatory Factor Analysis (CFA)

| Indicators                      | Paths          | Constructs       | Estimates*** |
|---------------------------------|----------------|------------------|--------------|
| RGR1-Friends’ Messages          | <--- Ref_GroupRec | .712             |              |
| RGR2-Sufficient Information     | <--- Ref_GroupRec | .827             |              |
| RGR3-Social groups              | <--- Ref_GroupRec | .760             |              |
| RGR4-Expert Recommendations     | <--- Ref_GroupRec | .856             |              |
| HC1-Thinking Health             | <--- Health_Concious | .814             |              |
| HC2-Self Conscious              | <--- Health_Concious | .764             |              |
| HC3-Inner Feelings              | <--- Health_Concious | .787             |              |
| HC4-Constant Examining          | <--- Health_Concious | .855             |              |
| HC5-Alert Health Changes        | <--- Health_Concious | .784             |              |
| HC6-Involved Health             | <--- Health_Concious | .793             |              |
| ATOP1-Health Problem            | <--- Att_Org_Foods     | .658             |              |
| ATOP2-Protect Diseases          | <--- Att_Org_Foods     | .718             |              |
| ATOP3-Worth Buying              | <--- Att_Org_Foods     | .722             |              |
| ATOP4-Organic Buyer             | <--- Att_Org_Foods     | .882             |              |
| IBOP1-Intend to Buy             | <--- Purchase_Intention | .960             |              |
| IBOP2-Decided to Buy            | <--- Purchase_Intention | .904             |              |

Source: Compiled by author, 2021
Table 5: Results of Reliability and Convergent Validity Tests

| Constructs                                      | No. of Items | Cronbach's Alpha | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|-------------------------------------------------|--------------|------------------|-----------------------------|----------------------------------|
| Reference groups' recommendations               |              |                  |                             |                                  |
| RGR1-Friends’ Messages                          | 4            | 0.869            | 0.869                       | 0.625                            |
| RGR2-Sufficient Information                     |              |                  |                             |                                  |
| RGR3-Social groups                              |              |                  |                             |                                  |
| RGR4-Expert Recommendations                     |              |                  |                             |                                  |
| Health Consciousness                             |              |                  |                             |                                  |
| HC1-Thinking Health                             | 6            | 0.914            | 0.914                       | 0.640                            |
| HC2-Self Conscious                              |              |                  |                             |                                  |
| HC3-Inner Feelings                              |              |                  |                             |                                  |
| HC4-Constant Examining                          |              |                  |                             |                                  |
| HC5-Alert Health Changes                        |              |                  |                             |                                  |
| HC6-Involved Health                             |              |                  |                             |                                  |
| Attitude towards Organic Foods                  |              |                  |                             |                                  |
| ATOP1-Health Problem                            | 4            | 0.825            | 0.835                       | 0.562                            |
| ATOP2-Protect Diseases                          |              |                  |                             |                                  |
| ATOP3-Worth Buying                              |              |                  |                             |                                  |
| ATOP4-Organic Buyer                             |              |                  |                             |                                  |
| Purchase Intention of Organic Foods             |              |                  |                             |                                  |
| IBOP1-Intend to Buy                             | 2            | 0.928            | 0.930                       | 0.932                            |
| IBOP2-Decided to Buy                            |              |                  |                             |                                  |

Source: Compiled by author, 2021

Reliability
Cronbach’s Alpha and Composite Reliability (CR) values were used to assess the reliability of the measurement scales. Cronbach’s alpha values are depicted in Table 5, and for all scales, they are greater than 0.7 and confirmed the internal consistency for the scales used (Hair et al., 2010). CR values are also depicted in the same table and values greater than 0.7 are recommended for acceptable reliability (Fornell & Larcker, 1981; Hair et al., 2010; Malhothra & Dash, 2011). Therefore, CR values obtained for this model also provide strong evidence for reliability.

Convergent Validity
Table 5 shows that Average Variance Extracted (AVE) values were above the recommended value of 0.5, confirming the convergent validity was very high (Fornell & Larcker, 1981; Hair et al., 2010).

Discriminant Validity
The square roots of the AVE values are given as bolded numbers on the principal diagonal of Table 6. These values are greater than the inter-construct correlations in their corresponding rows and columns.
Therefore, these results ensured the discriminant validity of the model (Fornell & Larcker, 1981; Hair et al., 2010).

**Table 6: Assessment of Discriminant Validity**

| Reference Groups' Recommendations | Health Consciousness | Attitude towards Organic Foods | Purchase Intention |
|----------------------------------|----------------------|-------------------------------|--------------------|
| Health Consciousness             | 0.432                | 0.800                         |                    |
| Attitude towards Organic Foods   | 0.495                | 0.437                         | 0.750              |
| Purchase Intention               | 0.307                | 0.385                         | 0.377              | 0.965              |

*Source: Compiled by author, 2021*

**05. The Structural Model**

So far, testing of multivariate assumptions and other assumptions were done. Accordingly, the distribution of observations is confirmed as normally distributed. All the data were checked for missing values and found no missing data. Then reliability was checked for every construct, and unidimensionality was also checked using confirmatory factor analysis (CFA). For validity, convergent validity and discriminant validity were also checked. All required model fit indices were also calculated for the measurement model, and it was found that they are acceptable. All these testing confirm that the data are appropriate for parametric tests. The best method for theory testing and evaluating complex relationships involving a parametric statistical approach is covariance-based SEM (CB-SEM or full SEM), as Mohamed et al. (2019) recommended. Since all assumptions were satisfied to perform the CB-SEM in the present research, this study applied the covariance-based SEM (CB-SEM) to test the causal and mediator relationships of constructs.

Accordingly, a structural equation model was developed to test the causal relationships of latent constructs given in the research model. After the analysis, recommended goodness of fit indices were used to examine the model fit. As depicted in Table 7, the model fit is extremely good, and further analysis can proceed.
Table 7: SEM-Goodness of Fit Indices

| Criterion         | CMIN | df  | CMIN/df | GFI  | CFI  | PNFI | PCFI | IFI  | TLI  | NFI  | RMSEA |
|-------------------|------|-----|---------|------|------|------|------|------|------|------|-------|
| Model Values      | 131.576 | 100  | 1.316   | 0.883 | 0.973 | 0.747 | 0.811  | 0.973 | 0.967 | 0.897 | 0.050 |
| Recommended Values* | -   | -   | 1.0 < 3.0 | > 0.90 | > 0.90 | > 0.5 | > 0.5  | > 0.95 | > 0.95 | > 0.90 | 0.03 < 0.08 |

*Source: Hair et al. (2010); Holmes-Smith (2012); Suki (2017); Parry (2020)

Source: Compiled by author, 2021

Table 7: Standardized Regression Weights and Significance

| Paths                                      | Estimate |
|--------------------------------------------|----------|
| Reference Groups’ Recommendations --------->H1 Health Consciousness | .433*** |
| Reference Groups’ Recommendations --------->H2 Attitude towards Organic Foods | .378*** |
| Health Consciousness                       --------->H3 Attitude towards Organic Foods | .298** |
| Attitude towards Organic Foods             --------->H5 Purchase Intention of Organic Foods | .403*** |

*** Statistically significant at .001; ** statistically significant at .01

Source: Compiled by author, 2021
**Testing the Hypotheses**

Figure 3 shows that reference groups’ recommendations impact health consciousness positively with a contribution of 0.43. Table 7 indicates that it is significant at 0.001 level, and therefore, H1 can be accepted. Reference groups’ recommendations impact attitude towards organic foods positively, and its contribution is 0.38. It is significant at 0.001 level. Therefore, H2 is also accepted. Health consciousness positively impacts attitude towards organic foods with a contribution of 0.30 at 0.01 significance level. Therefore, H3 is also accepted.

The fourth hypothesis is the health consciousness mediates the relationship between reference groups’ recommendations and attitudes toward organic foods. Baron and Kenny (1986) have stated that for testing the mediation effect, certain conditions should be satisfied. There should be a significant direct impact from the independent variable to the dependent variable, then a significant direct impact from the independent variable to mediator variable, and thirdly, a significant direct impact from mediator variable to dependent variable in the equation where regressing the dependent variable on both independent variable and mediator variable. As depicted in Figure 3 and Table 7, all these conditions are met. For testing hypothesis H4, the values depicted in Table 8 can be used.
Table 8: Amalgamated Output Table of Standardized Total Effects, Standardized Direct Effects, and Standardized Indirect Effects after Bootstrapping

| Latent Constructs | Reference Groups’ Recommendations | Health Consciousness | Attitude towards Organic Foods | Reference Groups’ Recommendations | Health Consciousness | Attitude towards Organic Foods | Reference Groups’ Recommendations |
|-------------------|----------------------------------|---------------------|-------------------------------|----------------------------------|---------------------|-------------------------------|----------------------------------|
| Reference Groups’ Recommendations | --- | --- | --- | --- | --- | --- | --- |
| Health Consciousness | .433*** | --- | --- | --- | .433** | --- | --- |
| Attitude towards Organic Foods | .507*** | .298** | --- | .378** | .298** | --- | .129** |
| Purchase Intention | --- | --- | .403** | --- | --- | --- | .403** |

*** Statistically significant at .001; ** statistically significant at .01

Source: Compiled by author, 2021
As depicted in Table 8, the total effect of reference groups’ recommendations to attitude towards organic foods is 0.507, and it is significant at 0.001 level. This value of 0.507 has reduced to 0.378 as depicted under direct effect, which is also significant at 0.01 level. The reason is that health consciousness has mediated the relationship between reference groups’ recommendations and attitudes towards organic foods. This is reflected by the indirect effect of 0.129, which is significant at 0.01 level. However, even after the mediator appears in the relationship, still the direct effect is significant, and therefore, it can be concluded as the mediation done by health consciousness is a partial mediation.

Table 7 also shows that Attitude towards Organic Foods positively impacts purchase intention at 0.001 significant level and its contribution is 0.40. Accordingly, H5 is also accepted. The summary of hypothesis testing is depicted in Table 9.

Table 9: Summary of Hypothesis Testing

| Hypotheses                                                                 | Results                      |
|---------------------------------------------------------------------------|------------------------------|
| H1  Reference Groups’ recommendations on health advice positively impact increasing the health consciousness | Supported                    |
| H2  Reference Groups’ recommendations on health advice positively impact changing the attitude towards organic foods | Supported                    |
| H3  Health Consciousness positively impact on attitude towards organic foods | Supported                    |
| H4  Health consciousness mediates the relationship between reference groups’ recommendations and attitude towards organic foods | Supported (A partial mediation) |
| H5  Attitude towards organic foods positively impact on purchase intention of organic foods | Supported                    |

Source: Compiled by author, 2021
06. Findings and Discussion

Reference groups’ recommendations on health advice and the attitude towards organic foods

The present research found that reference groups’ recommendation on health advice has a positive impact of 0.38 (at 0.001 significant level) to attitude towards organic foods. Consumer attitudes are formed due to many reasons. The marketers are interested in changing them to a certain way where their businesses can be benefited. As Keller and Block (1996) examined, fear-arousal can change consumers’ attitudes. It is observed that some advertisements stimulate these fear through different messages and recommend some products to avoid specific adverse outcomes for the health of consumers, making a positive attitude of consumers. Petty et al. (1983) also have similar findings. Accordingly, recommendations about green products affect to form attitudes in the minds of consumers. Thus present findings are consistent with some of the past similar research findings, and consumer attitudes towards organic foods are affected by reference groups’ recommendations. Present research findings confirm the finding presented by Wilson and Sherrel (1993) by saying that expert power tends to have a strong relationship with consumer attitudes.

Reference groups’ recommendations on health advice and the health consciousness

The present study shows that reference groups’ recommendations on health advice have a strong impact of 0.43 (at .001 significant level) on health consciousness. These results provide evidence for the ability of reference groups to increase the health consciousness of consumers. These recommendations may come from different sources such as family, friends, professional groups, or relatives. Consequently, the health consciousness of consumers would be enhanced by them.

As discussed by Gould (1988), health-conscious consumers are concerned about healthy alternatives, and they are evaluative about what is available. These findings are also confirmed by the present research. Sri Lankan consumers are more concerned about the health and tend to be alert about reference groups’ recommendations on health issues and ready to go for better alternatives.
Health consciousness and the attitude towards organic foods

The analysis shows that health consciousness positively impacts attitude towards organic foods with a contribution of 0.30 at 0.01 significance level. As Newsom et al. (2005) explained, health-conscious consumers monitor their health and adopt healthy lifestyles. It is evident in current research, and that is why the health construct positively affects attitude towards organic foods. These findings are also in line with the findings of (Gould 1988), as consumers tend to go for health care alternatives. Health-conscious people show different lifestyles, and they are easily influenced by sensitive messages. Organic foods are well accepted in the Sri Lankan context in the recent past, and therefore these people easily form a positive attitude towards organic foods. As Chou et al. (2020) pointed out, due to fear of the harmfulness of pesticide residue of non-organic products, people avoid them and choose organic products.

Health consciousness as the mediator

The present research revealed that health consciousness mediates the relationship between reference groups’ recommendations and attitudes toward organic foods. When consumers receive different recommendations from respective reference groups, the health consciousness gets stimulated and becomes stronger and consequently affects the attitude towards organic foods.

Health consciousness is different from person to person. Some persons are not health-conscious at all. Therefore, the attitudes towards organic foods formed in these health-conscious people are stronger than other people. So it is evident that such other people may have some positive attitude towards organic foods as a result of different recommendations of reference groups, but as to health-conscious people, it is more powerful and stronger since their inner feelings also influence that mindset. As Newsom et al. (2005) pointed out that health-conscious people are more involved with health-related work, and reference groups’ recommendations are more effective for these groups. Gould (1988) has stated that these people have a fear of non-organic foods, and consequently, form a strong attitude towards organic foods. The said findings have been validated by current research by providing empirical evidence about the mediation effect of the health-consciousness
construct.

**Attitude toward organic food and the purchase intention of organic foods**

Consumers’ attitude towards organic foods impacts purchase intention. It has been proved by current research at 0.001 significant level, and its contribution is 0.40. As described earlier in the discussion, consumer attitudes are formed in two-way influences. The recommendation of reference groups directly influences this attitude, and at the same time, through the health consciousness, it is also influencing. Finally, this attitude towards organic foods strongly affects purchase intention since the consumers with some strong willingness indicated their decisions to purchase organic foods in the research. Present findings are in line with Zanoli and Naspetti (2002), who explained that people buy organic foods because of health impacts. Magnusson et al. (2003) also has confirmed this view.

**07. Conclusion**

The present research aimed at investigating whether the recommendation of reference groups and the health consciousness of consumers influence the formation of attitudes towards organic foods and, consequently, affect the purchase intention of organic foods. Firstly, the researcher attempted to understand the impact of reference groups’ recommendations on health advice on health consciousness. Findings revealed that it has a significant positive effect. The second objective was to find the impact of reference groups’ recommendations on health advice on attitude towards organic foods. It is also found significantly positive. The third objective was to estimate the impact of health consciousness on attitude towards organic foods, and it was also found positive and significant. The fourth objective established in this research was to investigate the mediation role of health consciousness on the relationship between reference groups’ recommendations on health advice on attitude towards organic foods. The researcher found that health consciousness partially mediates this relationship. Finally, this research investigated the impact of attitude towards organic foods on purchase intention. It was also found significantly positive.

The theoretical gap that existed due to the dearth of relevant research
regarding this comprehensive understanding of the structural relationships among said four constructs was removed by this present research. Similar research has not been done previously, and therefore, this research sheds light on theoretical relationships. Further, it uncovers Sri Lankan consumers' behavior on organic food purchase intentions with these findings, and the positive directions for industrial applications can be formulated with these added research contributions. Therefore, it can be concluded that this research has bridged the theoretical and empirical gaps that existed. This research's original contribution to the existing body of knowledge is that this became the first research to investigate the comprehensive relationship among reference groups' recommendations on health advice, health consciousness, attitude towards organic foods, and purchase intention of organic foods, including the mediation effect of health-consciousness.

Theoretical and Managerial Implications

Present research reveals that attitude towards organic foods has a significant positive effect on purchase intention. This finding implies that marketers’ task is to make sure that consumers have such feelings about organic foods. The present research uncovers that two ways are available to develop such an attitude: the direct and indirect ways. When reference groups recommend to the target consumers organic foods, the target consumers will develop such attitudes. Therefore, marketers should identify such reference groups and inform the relevant updates and educate such groups on the positive side of organic foods.

It is revealed that reference group recommendations affect health consciousness, and further, the latter is playing a mediation role. Health-consciousness is an inherited or learned behavior that people have inculcated constantly. The people who are having these health-conscious characteristics have a tendency to develop an attitude toward organic foods, and therefore, marketers should send messages to these people through reference groups. This implies that other than direct messages to persuade target groups to convert into organic buyers, marketers also can influence target groups through reference groups as an indirect strategy.
Limitations and Future Research
In this present research, purchase intention was estimated. To understand the actual situation in the country, future research can consider actual purchases of organic foods instead of purchase intentions. Besides, this research concentrated on only organic foods but the green products category as a whole needs investigation.

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