

# Mediating Effects of Intention On The Factors Affecting Organic Food Products Consumption Among Chinese Generation Y In Malaysia

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### Abstract

This study aimed to measure the effect of intention as a mediator in the relationship between internal factors and external factors on consumption. The factors were a) internal factors: knowledge, awareness, health consciousness, product attributes, environmental concern, and b) external factors: subjective norms, perceived behaviour control, and media and advertisement. From the review of literature, there were limited studies done on the mediating effect of intention on the relationship between (internal factor and external factors) and organic food product consumption among CGY in Malaysia. A total of 410 respondents completed the online questionnaires that evaluated the factors. Structural Equation Modelling was used as the main practical approach for data analysis. The results showed that intention was a full or a complete mediator between the six exogenous constructs; knowledge, health consciousness, product attributes, environmental concern, perceived behaviour, and media and advertisement, while it only acted as a partial mediator between subjective norm and consumption. However, the intention was not a full or a complete mediator between awareness and consumption. Eventually, the implications for theory improvement and practices were discussed.

**KEYWORDS:** Organic Food, Intention, Consumer Behaviour.

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## 1. INTRODUCTION

Ministry of Agriculture Malaysia has been attempting to reduce the importation of chemical fertilizers and at the same time has encouraged local farmers to invest in organic agricultural food farming [33]. This is due to the fact that chemical fertilizers used by farmers to grow fruits and vegetables may cause cancer, birth defects, infertility, Parkinson disease (PD), and antibiotic resistance [3] [34]. If these problems are not solved promptly, any consumer who consumes them may be exposed to various health risks [46]. The unsafe food issue may affect consumers' decision making to purchase safe, healthy, and pesticide free products, such as organically grown food products [6] [64]. The attempt by the Malaysian government to encourage the consumption of organic food products and to reduce the use of chemical fertilizers are not easy to achieve as past research has discovered that there were lack of organic food product consumption by consumers [4] [44].

## 2. FOCUS OF THE PRESENT STUDY

There are very limited researches done on the mediating effects of intention on the factors that are affecting Chinese generation Y organic food product consumption. The few studies done on the subject were by Salleh, Ali, Harun, Jalil, & Shaharudin (2010) and Shaharudin, Rezaimy, &

Jalid (2010). Salleh et al. (2010) had used academic staff from Universiti Teknologi MARA in the Northern region and the samples were predominantly of Malays ethnicity (93%). In the study conducted by Shaharudin et al. (2010) he used customers from few restaurants and shops in few big towns in Malaysia and the samples were also predominantly Malays (82.7%). Therefore, exploring the mediating effects of intention on the factors affecting organic food product consumption among Chinese Generation Y has become an important issue, and it can close the gap.

### **3. OBJECTIVE OF STUDY**

This study proposed eight objectives

1. To explore the mediating effects of intention on the relationship between knowledge and organic food product consumption.
2. To study the mediating effects of intention on the relationship between awareness and organic food product consumption.
3. To investigate the mediating effects of intention on the relationship between health consciousness and organic food product consumption.
4. To determine the mediating effects of intention on the relationship between product attributes and organic food product consumption.
5. To analyse the mediating effects of intention on the relationship between environmental concern and organic food product consumption.
6. To explore the mediating effects of intention on the relationship between subjective norms and organic food product consumption.
7. To study the mediating effects of intention on the relationship between perceived behaviour control and organic food product consumption.
8. To determine the mediating effects of intention on the relationship between media and advertisement and organic food product consumption.

### **4. LITERATURE REVIEW**

#### **4.1 Internal Factors: Knowledge**

Organic Monitor (2006) reported that many Asian consumers are less knowledgeable about the benefits of organic foods. Several studies regarding knowledge and consumption, such as studies by Chinnici et al. (2002); Lin & Wang (2007); Gracia & de Magistris (2007); Stobbelaar, Casimir, Borghuis, Marks, Meijer, & Zebeda (2007); Vermeir, and Verbeke (2002) had pointed out the importance of knowledge towards consuming organic food products. Chiou (2000) found that if a person possesses more of the product knowledge, his or her confidence level in making the right decision increases. On the other hand, consumer with insufficient knowledge about organic food will try to avoid consuming the food. Yiridoe, Bonti-Ankomah, and Martin (2005) found that knowledge on organic food products can affect consumers' consumption behaviour of organic food. However, there was no study on the mediating effect of intention on the relationship between knowledge and organic food product consumption among CGY in Malaysia. Therefore, this study has formulated the following null hypothesis.

**Hypothesis 1<sub>0</sub>.** There is no full mediating effect of intention on the relationship between knowledge and organic food product consumption among CGY.

#### **4.2 Awareness**

Zhen and Mansori (2012) pointed out in the marketing concept, awareness refers to consumers' consciousness as customers' awareness of particular products and company allows them to receive the greatest form of what they buy. As reported by previous studies, awareness has become a critical factor in changing consumers' intention towards organic foods, which, in turn, is expected to improve the growth in the organic food markets [56]. However, there is still no study on the mediating effect of intention on the relationship between awareness and organic food product consumption among CGY in Malaysia. This appears as an opportunity to prepare the following hypothesis.

**Hypothesis 2<sub>o</sub>.** There is no full mediating effect of intention on the relationship between awareness and organic food product consumption among CGY.

#### **4.3 Health Consciousness**

Health consciousness is the degree to which someone tends to care about their health. Gracia and de Magistris (2007) and Stobbelaar et al. (2007) had identified the relationship between consumer's health related attitudes and organic food products consumption. Consumers are concerned about what they eat. Modern agricultural practices that use chemical pesticides, which are harmful to health, have changed the consumers' decision making [20] [27] [29] [45] and [59]. In some studies, health consciousness issues were important to consumers towards organic food products consumption [38]. Besides that health consciousness towards nutrition is also a vital factor in affecting adolescents' intention towards organic foods consumption [35]. However, Holm (2003) pointed out that even though Gen Y has health-related knowledge, it does not necessarily lead their intention to healthy food choices. Nevertheless, at this juncture, there are limited studies that looked into mediating effect of intention on the relationship between health consciousness and organic food product consumption among CGY in Malaysia. Therefore, this study has formulated the following hypothesis.

**Hypothesis 3<sub>o</sub>.** There is no full mediating effect of intention on the relationship between health consciousness and organic food product consumption among CGY.

#### **4.4 Product Attributes**

Generally, consumers are influenced by product attributes, such as the quality, taste, safety, and accessibility. According to Richter (2012) the decision on whether or not to consume organics is certainly more influenced by the consumer's personal perception towards food attributes. Many past studies discovered that consumers' intention to consume organic food products can be related to the product's attributes, such as the perceptions of the product to be good in quality, safety, health, and tastes, and has a reasonable price [7] [50] [70]. However, there is the absence of comprehension in the area of mediating effect of intention on the relationship between product attributes and organic food product consumption among CGY. Therefore, this study has formulated the following hypothesis.

**Hypothesis 4<sub>o</sub>.** There is no full mediating effect of intention on the relationship between product attributes and organic food product consumption among CGY.

#### **4.5 Environmental Concern**

Environmental concern is related to an individual's emotional perspective of the environment, such as their annoyance with the damage to the natural surroundings [23]. In fact, studies about organic food products can communicate to consumers about the environmental concerns [40]. Organic food products apply environmental friendly manners in their production and processing, thus environmentally concerned consumers are set to have a high positive intention to consume organic food products. This is supported by a study among Swedish consumers, which had found that the respondents who were concerned about the environmental consequences, tended to choose organic foods over conventional foods [15] [41]. Moreover, numerous studies have been conducted in this area; however, these studies had found out that consumers who are environmentally concern do not always end up purchasing environmentally friendly products, such as organic food products [27] [29] [42]. However, studies on the mediating effect of intention on the relationship between environmental concern and organic food product consumption among CGY is still lacking and there exists an opportunity to study this issue. As a result, this study has formulated the following hypothesis.

**Hypothesis 5<sub>o</sub>.** There is no full mediating effect of intention on the relationship between environmental concern and organic food product consumption among CGY.

#### **4.6 External Factor: Subjective Norm**

Subjective norm is defined as how the behaviour is viewed by those who influence our decisions. Parents at home may influence or affect their children's behaviour directly or indirectly by providing perspectives, principals and rules through parent and child interaction [21]. Gotschi, Vogel & Lindenthal (2007) found that for Austrian young adults, the norms and values learnt at home have a significant influence on the development of a positive attitude towards organic foods. Past researchers found that the availability of healthy foods, such as organic vegetables, fruits, breakfast foods, and low-fat milk products, are highly correlated to the development of healthy eating patterns in children [49]. However, many previous researchers, such as Fotopoulos and Kryskallis (2002); Larue, West, Gendron, & Lambert (2004); Verdurme et al. (2002) and Wier & Calverly (2002) have not investigated much on mediating effect of intention on the relationship between subjective norms and organic food product consumption among CGY. As a result, this study has formulated the following hypothesis.

**Hypothesis 6o.** There is no full mediating effect of intention on the relationship between subjective norms and organic food product consumption among CGY.

#### **4.7 Perceived Behaviour Control**

Perceived behaviour control refers to the certain level of control that a consumer perceives as the ability and barrier of acting the behaviour [10]. Those who are perceived to have a higher degree of personal control tend to have stronger intention to engage in certain behaviour [2]. The primary consumption obstructions for organic food found in the literature were the relatively high price premium [8] [26] [33] or perceived lack of availability [53] [53] [26] and lack of trust in the organic certification process [26] [30]. On the other hand, factors that influence the abilities to perform a certain behaviour, such as income resources, may have high influence on the performance of the behaviour. According to a few empirical studies Arbindra, Moon, & Balasubramanian (2005); Tsakiridou, Konstantinos, & Tzimitra-Kalogianni (2006), financial appeared to have a significant positive effect in describing organic food consumption in Europe [60], however, in the USA, several studies did not find this relationship to be significant [14] [51] [50]. Nevertheless, studies on the mediating effect of intention on the relationship between perceived behaviour control and organic food product consumption among CGY is still lacking. Consequently, this study has formulated the following hypothesis.

**Hypothesis 7o.** There is no full mediating effect of intention on the relationship between perceived behaviour control and organic food product consumption among CGY.

#### **4.8 Media and Advertisement**

Advertising includes the placement of an advertisement on television, newspapers, radio, flyers at college cafeterias, Internet, and magazines. The primary mission of advertising is to reach prospective customers and to influence their awareness, knowledge, and buying behaviour. Consumers usually obtain information related to organic food via information campaigns, and promotion. Furthermore, the current Gen Y discusses their brands of interest, for instance, through text or instant messages, blogs, Facebook, or Internet [25] [68]. It has been reported that there is usually no promotion or advertising support for any organic food product brand in Malaysia [63]. In fact, organic food product advertising to the Gen Y has been studied less extensively in Malaysia. However, past studies reported that the governments of the European countries have provided subsidies for advertising organic food such as in Denmark, France, and Netherlands, and this would help to promote the growth of the organic food market in the region [45]. The media and advertisement were constructed as a new independent variable in the research model to identify the mediating effect of intention on the relationship between media and advertisement and organic food product consumption among CGY. The result would support the food marketers to save a substantial amount of money in market segmentation and to select the best advertising messages to match the interests of Gen Y consumers. Furthermore, no research has investigated the mediating effect of intention on the relationship between media and advertisement and organic food product consumption among CGY. Therefore, the exploration in

this area is needed to ensure that it could contribute new knowledge to the literature. As a result, this study has formulated the following hypothesis.

**Hypothesis 8.** There is no full mediating effect of intention on the relationship between media and advertisement and organic food product consumption among CGY.

#### 4.9 Intention

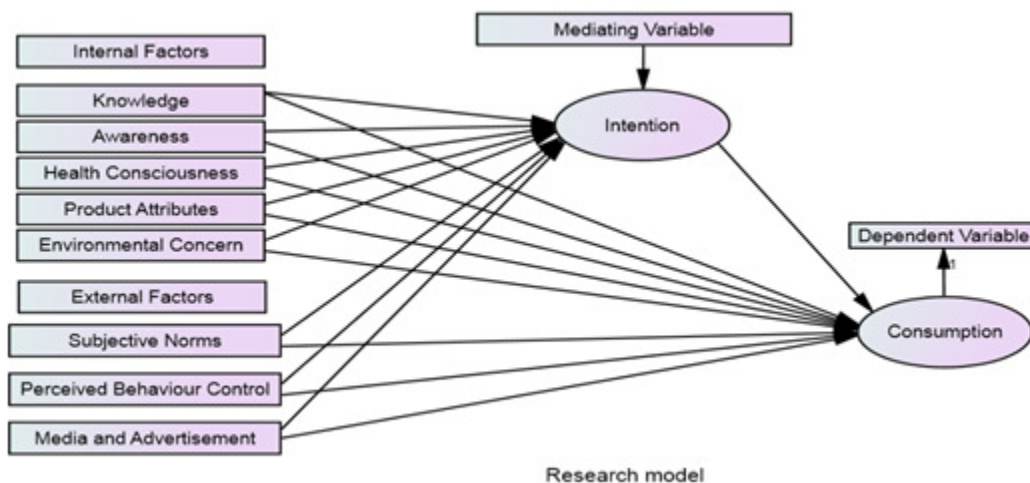
Lwin, and Williams (2003) stated that the greater the intent to perform behaviour, the higher the likelihood of the individual to be engaged in that behaviour. Studies by Magnusson et al. (2001) and Tarkiainen and Sundqvist (2005) attitudes may explain the details of purchase intention. However, limited studies have incorporated intention as a mediator in assessing the relationship between internal or external factors and consumption. In connection with this study, the intention was referred as to find the mediating variables to test various factors such as (knowledge, awareness, health consciousness, product attributes, environmental concern, subjective norm, perceived behaviour control and media and advertisement) with organic food products consumption.

#### 4.10 Consumption

Hoyer and Macinnis (2007) explained that factors affecting consumer consumption behaviour can be categorised into several aspects; a) the psychological core, b) the process of making decisions, and c) the consumer culture. Although many researchers, such as Tsakiridou et al. (2008); Larue et al. (2004); Verdurme et al. (2002); Wier and Calverly (2002), and Fotopoulos & Kryskallis (2002), have explored the consumers' consumption of organic food, they had focused mainly on Western consumers. Therefore, the applicability of the result to Asian consumers' consumption behaviour is questionable. As a consequence, this study focused on the mediating variables to test factors such as (knowledge, awareness, health consciousness, product attributes, environmental concern, subjective norm, perceived behaviour control and media and advertisement) with organic food products consumption.

### 5. THEORETICAL FRAMEWORK

The research model included the independent variable (internal factors are knowledge, awareness, health consciousness, product attributes, and environmental concern) and (external factors are subjective norm, perceived behaviour control, and media and advertisement), intention as the mediator, and consumption as dependent variables. Figure 1 is the research model.



**FIGURE 1:** Research Model.

## **6. RESEARCH METHODOLOGY**

### **6.1 Population and Sampling**

In evaluating the null hypotheses of this research, the samples were selected based on a systematic random sampling method. The target population for this study was students at a University, which had a total population of 20,000 students in the Kuala Lumpur campus. This university was chosen because it had 90% Chinese students population compared to other universities. In order to determine the actual sample size for this study, the researcher referred to Krejcie and Morgan's (1970) table, as the table is applicable to any population of a definite size. According to the table, when the population size,  $N=15,000$ , the sample size ( $n$ ) = 375, and when  $N=20,000$ ,  $n=377$ . Thus, the sample size for this study should be around 377 samples. Instead of using 377 samples, a total of 500 respondents from the university were selected to participate in this study. The email addresses of the students were acquired from the Admission Office of the university. The students targeted as respondents ranged from the first to the final year students. From the list of students' e-mails, the researcher used systematic sampling using Microsoft Excel to select the student emails to be used as participants in the survey. The reason to select 500 samples was because many students or internet users have multiple e-mail addresses and may frequently change their addresses; nevertheless, the error messages for unusable e-mail addresses were taken into account as the researcher would need to select more participants to reach the planned sample size.

### **6.2 Instrument**

The data in this research were derived from questionnaires that were adapted from the works of Flora (2009); Lawrence (2007); Liu (2007); Shaharudin et al. (2010), and Wei (1997). The online survey instrument was designed with 64 items assessed by a five-point Likert scale and demographic variable with nine items. The five-point Likert scale, which varied from 'strongly agree', 'agree', 'slightly agree', and strongly disagree', was employed to evaluate the 64 items. The scale measured knowledge, awareness, health consciousness, product attributes, environmental concern, subjective norms, perceived behaviour control, media & advertisement, intention and consumption. A pre-test was conducted with convenient sampling from the population to evaluate the respondents' understanding of the questionnaires. The result of the pre-test had shown the respondent's comprehension of the questionnaires. This study was carried out by using an online survey approach. A total of 500 questionnaires were emailed to the respondents, and 410 (82%) were returned. Confirmatory factor analysis (CFA) was carried out to measure the reliability, unidimensionality, and validity of the scales applied in the measurement model. Later, structural Equation Modelling (SEM) was implemented to determine the research model and the eight null hypotheses.

## **7. RESEARCH RESULTS**

### **7.1 Data Analysis**

SEM was used to measure the proposed research model and the hypotheses. In reality, the goodness of SEM is the adequacy of the estimated coefficients for the hypothesized relationships in the research model that suggested two alternatives between constructs that appear to agree good fit or not [9]. This study accounted a good fit of the research model to the data. The ratio  $\chi^2/df$  was 1.937, lower than the value of 3.0, as suggested by Byrne (2001). Incremental fit indexes were greater than 0.90, which was 0.91, with CFI of 0.91, and TLI of 0.90. As for the absolute fit indexes, they were near to the 0.08 guideline, as confirmed in the literature [9] [17] [22]. The absolute fit indexes shown in the research model also discovered a reasonable fit of the model, as the RMSEA was 0.48, and the RMR was 0.60. Granted these indexes, it is confirmed that the research model was properly fit. Later, asserting on the fit of the research model, estimated path coefficients were derived for the examined relationships. On top of that, the research hypotheses were examined as well. Table 1 portrays the findings of Goodness of fit indexes. Some of the items in each of the construct were deleted because they were discovered to be designed in an inappropriate manner. The factor loading of each item in the four constructs were all above 0.45. Furthermore, there are a few valid criteria to be met to analyse SEM path structure, which are unidimensionality, validity, and reliability. Reliability and factors loadings are

shown in Table 1 and discriminant validity correlation between variables is presented in Table 2. Figure 2 presented the final structural model and Table 3 shows the proven fitness index measurements and the results of the influence of integrity as mediator on the relationship between independent variables (internal factors and external factors) and dependent variable. In Table 4 show the results of the influence of integrity as mediator on the relationship between exogenous variables and endogenous variable.

**TABLE 1:** Reliability and Factor Loading.

| <b>Constructs</b>           | <b>Items</b> | <b>Factor Loading</b> | <b>C.R</b> | <b>AVE</b> | <b>C. Alpha</b> |
|-----------------------------|--------------|-----------------------|------------|------------|-----------------|
| Knowledge                   | Know6        | 0.478                 | 0.825      | 0.61       | 0.77            |
|                             | Know7        | 0.773                 |            |            |                 |
|                             | Know8        | 0.846                 |            |            |                 |
|                             | Know9        | 0.710                 |            |            |                 |
| Awareness                   | Aware1       | 0.555                 | 0.806      | 0.56       | 0.70            |
|                             | Aware3       | 0.525                 |            |            |                 |
|                             | Aware5       | 0.634                 |            |            |                 |
|                             | Aware6       | 0.653                 |            |            |                 |
| Health Consciousness        | Health2      | 0.649                 | 0.760      | 0.50       | 0.70            |
|                             | Health3      | 0.553                 |            |            |                 |
|                             | Health4      | 0.668                 |            |            |                 |
|                             | Health5      | 0.640                 |            |            |                 |
| Product attributes          | PA2          | 0.677                 | 0.795      | 0.54       | 0.75            |
|                             | PA5          | 0.759                 |            |            |                 |
|                             | PA6          | 0.726                 |            |            |                 |
|                             | PA7          | 0.493                 |            |            |                 |
| Environmental Concern       | Environc1    | 0.603                 | 0.791      | 0.62       | 0.84            |
|                             | Environc2    | 0.598                 |            |            |                 |
|                             | Environc3    | 0.802                 |            |            |                 |
|                             | Environe4    | 0.821                 |            |            |                 |
|                             | Environc5    | 0.681                 |            |            |                 |
| Subjective Norm             | SubjectN1    | 0.745                 | 0.919      | 0.68       | 0.90            |
|                             | SubjectN2    | 0.798                 |            |            |                 |
|                             | SubjectN3    | 0.767                 |            |            |                 |
|                             | SubjectN4    | 0.740                 |            |            |                 |
|                             | SubjectN5    | 0.752                 |            |            |                 |
|                             | SubjectN6    | 0.868                 |            |            |                 |
| Perceived Behaviour Control | PBC1         | 0.628                 | 0.823      | 0.50       | 0.75            |
|                             | PBC2         | 0.691                 |            |            |                 |
|                             | PBC3         | 0.495                 |            |            |                 |
|                             | PBC4         | 0.619                 |            |            |                 |
|                             | PBC5         | 0.543                 |            |            |                 |
| Media and advertisement     | Media3       | 0.787                 | 0.930      | 0.81       | 0.87            |
|                             | Media4       | 0.876                 |            |            |                 |
|                             | Media5       | 0.767                 |            |            |                 |
|                             | Media6       | 0.704                 |            |            |                 |
| Intention                   | Intent2      | 0.866                 | 0.844      | 0.80       | 0.94            |
|                             | Intent3      | 0.885                 |            |            |                 |
|                             | Intent4      | 0.903                 |            |            |                 |
|                             | Intent5      | 0.925                 |            |            |                 |
|                             | Intent6      | 0.902                 |            |            |                 |
|                             | HFL1         | 0.773                 |            |            |                 |
| Consumption                 | HFL2         | 0.721                 | 0.903      | 0.68       | 0.88            |
|                             | HFL3         | 0.659                 |            |            |                 |
|                             | HFL4         | 0.870                 |            |            |                 |
|                             | HFL5         | 0.839                 |            |            |                 |

**TABLE 2:** Discriminant Validity Correlation between Variables.

|     | K                  | A                  | H                  | P                          | E                  | S                  | Pbc                | M                  | I                  | HFL   |
|-----|--------------------|--------------------|--------------------|----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------|
| K   | 1.000              |                    |                    |                            |                    |                    |                    |                    |                    |       |
| A   | 0.337*<br>(0.000)  | 1.000              |                    |                            |                    |                    |                    |                    |                    |       |
| H   | 0.307*<br>(0.000)  | 0.168*<br>(0.001)  | 1.000              |                            |                    |                    |                    |                    |                    |       |
| P   | 0.456**<br>(0.000) | 0.397**<br>(0.000) | 0.400*<br>(0.000)  | 1.000                      |                    |                    |                    |                    |                    |       |
| E   | 0.323**<br>(0.000) | 0.278**<br>(0.000) | 0.392**<br>(0.000) | <b>0.575**<br/>(0.000)</b> | 1.000              |                    |                    |                    |                    |       |
| S   | 0.111*<br>(0.250)  | 0.072<br>(0.148)   | 0.164**<br>(0.001) | 0.299**<br>(0.000)         | 0.322**<br>(0.000) | 1.000              |                    |                    |                    |       |
| Pbc | 0.241**<br>(0.000) | 0.250**<br>(0.000) | 0.300**<br>(0.000) | 0.420**<br>(0.000)         | 0.351**<br>(0.000) | 0.225**<br>(0.000) | 1.000              |                    |                    |       |
| M   | 0.181**<br>(0.000) | 0.136**<br>(0.006) | 0.349**<br>(0.000) | 0.382**<br>(0.000)         | 0.357**<br>(0.000) | 0.408**<br>(0.000) | 0.420**<br>(0.000) | 1.000              |                    |       |
| I   | 0.258**<br>(0.000) | -0.002<br>(0.960)  | 0.350**<br>(0.000) | 0.418**<br>(0.000)         | 0.294**<br>(0.000) | 0.363**<br>(0.000) | 0.381**<br>(0.000) | 0.573**<br>(0.000) | 1.000              |       |
| H   | 0.076<br>(0.122)   | -0.081<br>(0.103)  | 0.098*<br>(0.48)   | 0.129**<br>(0.009)         | 0.109*<br>(0.028)  | 0.272**<br>(0.000) | 0.009<br>(0.861)   | 0.211**<br>(0.000) | 0.359**<br>(0.000) | 1.000 |

Remark : N= 410; \*\* Correlation is significant at the 0.01 level (two tailed); Numbers in parentheses are standard errors; K= Knowledge; A= Awareness; H= Health Consciousness; P= Product Attributes; E= Environmental Concern; S= Subjective Norms; Pbc= Perceived Behaviour Control; M= Media and advertisement; I= Intention; HFL= How Frequency Level



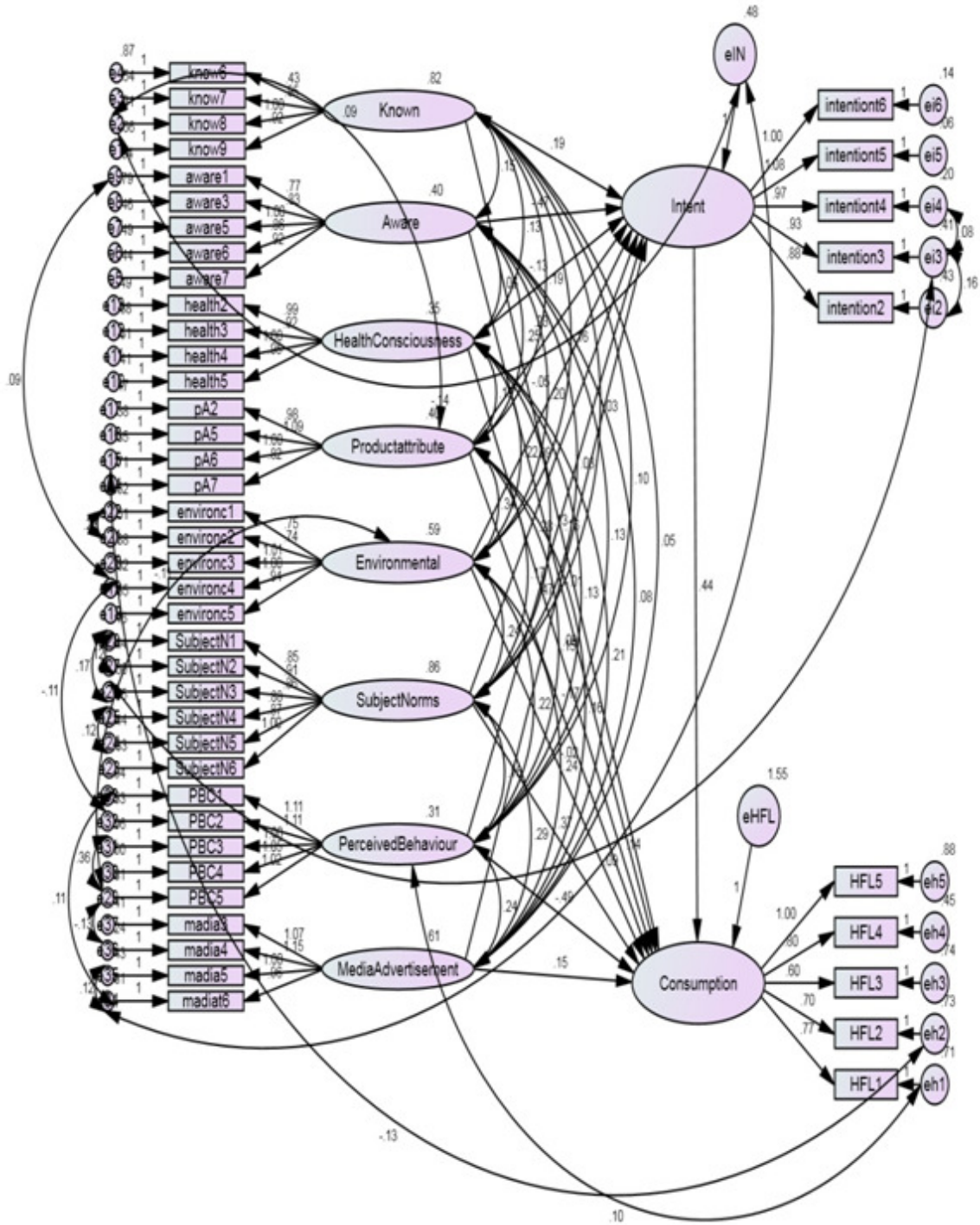


FIGURE 2: Final Structural Model.

**TABLE 3:** Fitness Index Measurement.

| Goodness-of-fit Indices | Desirable Range | Structural Model | Results  |
|-------------------------|-----------------|------------------|----------|
| $\chi^2$                | NIL             | 1879.08***       | Achieved |
| NC                      | $\leq 5$        | 1.937            | Achieved |
| GFI                     | $\geq 0.80$     | 0.840            | Achieved |
| AGFI                    | $\geq 0.80$     | 0.814            | Achieved |
| RMSEA                   | $\leq 0.08$     | 0.048            | Achieved |
| NFI                     | $\geq 0.80$     | 0.832            | Achieved |
| CFI                     | $\geq 0.90$     | 0.910            | Achieved |
| TLI                     | $\geq 0.90$     | 0.900            | Achieved |

**TABLE 4:** Results of the Influence of Integrity as Mediator on the Relationship between Exogenous Variables and Endogenous Variable.

| Variables                                     | Baron and Kenny (1986) Test Statistic IV--DV(c) | Structural Research Model 1 (IV→Mediator) (a) | Structural Research Model 2 (M → DV) (b) | Structure Research Model 3 (IV → DV) (c') | Mediation Result  |
|---|---|---|--|---|-------------------|
| H1 <sub>o</sub> . Knowledge                   | 0.225   | $\beta = 0.129^{***}$                         | $\beta = 0.463^{***}$                    | $\beta = 0.047$                           | Full Mediation    |
| H2 <sub>o</sub> . Awareness                   | -0.139  | $\beta = -0.079$                              | $\beta = 0.467^{***}$                    | $\beta = -0.081$                          | No Mediation      |
| H3 <sub>o</sub> . Health Consciousness        | 0.177   | $\beta = 0.344^{***}$                         | $\beta = 0.465^{***}$                    | $\beta = 0.017$                           | Full Mediation    |
| H4 <sub>o</sub> . Product attributes          | 0.031   | $\beta = 0.284^{***}$                         | $\beta = 0.480^{***}$                    | $\beta = -0.095$                          | Full Mediation    |
| H5 <sub>o</sub> . Environmental concern       | 0.140   | $\beta = 0.283^{***}$                         | $\beta = 0.469^{***}$                    | $\beta = -0.003$                          | Full Mediation    |
| H6 <sub>o</sub> . Subjective Norms            | 0.334***  | $\beta = 0.253^{***}$                         | $\beta = 0.392^{***}$                    | $\beta = 0.235^{***}$                     | Partial Mediation |
| H7 <sub>o</sub> . Perceived Behaviour Control | 0.055   | $\beta = 0.514^{***}$                         | $\beta = 0.520^{***}$                    | $\beta = -0.209$                          | Full Mediation    |
| H8 <sub>o</sub> . Media & advertisement       | 0.277***  | $\beta = 0.540^{***}$                         | $\beta = 0.449^{***}$                    | $\beta = 0.031$                           | Full Mediation    |

The role of Structural Equation Modelling in this research was to give a superior direction in analysing the research model and at the same time, to measure the mediating variable results of intention and to supply substantial multiple fit indices to justify the significance or insignificance of the hypothesized model. This is a crucial contribution of the study since the simultaneous examination of the various internal and external factors (i.e. Knowledge, awareness, health consciousness, product attributes, environmental concern, subjective norms, perceived behavioural control, media and advertisement), intention, and consumption behaviour will give a clear picture of the important concern of the interrelationship of internal and external factors, intention and consumption in the research model. In order to test for mediation, there should be three regressions [5]. Firstly, the mediator is regressed on the independent (predictor) variable based on path a. Secondly, the dependent variable is regressed on independent variable to establish path c. Thirdly, the dependent variable is regressed on both the independent variables and mediators to establish Path c'. In order to establish mediation, the independent variable

should show a significant relationship with the mediator at the beginning of the equation [5]. This is followed by the independent (predictor) variable where it is necessary to have an effect upon the dependent (outcome) variable in the second equation. Lastly, the mediator variable should be significant with the dependent variable in the final equation. Whenever the measurement result occurs in the predicted direction, the consequence of the independent (predictor) variable on the dependent (outcome) variable must be smaller in the last equation than in the second equation. The full mediation model occurs when the relationship between the independent (predictor) variable and the dependent (outcome) variable controlling the mediator is zero. The Partial mediation model is found whenever the relationship between the independent variable and the dependent variable is significantly smaller but bigger than zero when the mediator is in the equation (*Path c'*) than that of when the mediator is not included in the equation (*Path c*). The mediation shown is not supported when the relationship between the independent variable and the dependent variable stays significant and unchanged when the mediator is added to the model. Figure 3 discusses the mediating model.

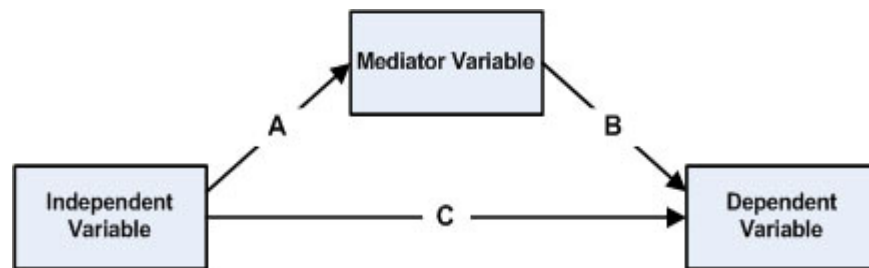


FIGURE 3: Mediating Model.

## 8. DISCUSSIONS OF MAJOR FINDINGS

**Hypothesis 1<sub>o</sub>.** There is no full mediating effect of intention on the relationship between knowledge and organic food product consumption among CGY.

According to Table 4, equation *a* indicates that knowledge significantly influenced intention (equation *a*:  $\beta = .0129$ , C.R= 2.468,  $p < 0.000$ ). Equation *b* tells us that consumption was significantly influenced by intention (equation *b*:  $\beta = 0.463$ , C.R=6.420,  $p < .000$ ). However, knowledge did not show significant influence over consumption (equation *c'*:  $\beta = 0.047$ , C.R= 0.697  $p > 0.486$ ), and furthermore, the output shows equations *c* and *c'* ( $\beta$  was reduced from 0.225 to 0.047) when the mediator (Intention) entered the model. Therefore, it could be concluded there was a full mediator between knowledge and consumption. Hence, there was a full mediating effect of intention. Thus, the H1<sub>o</sub> null hypothesis is not accepted. Intention has a positive effect on the relationship between knowledge and consumption. Hence, in order to increase organic food products consumption, one should enhance the relationship between knowledge and consumption to improve the CGY' intention. In reality, there are some positive findings related to intention that influence consumption [1] [2]. This is consistent with an empirical finding by Vermeir, and Verbeke, (2004); Chinnici et al. (2002) that reported that consumer knowledge about organic products is the most commonly mentioned reason for purchasing organic products. As a result, the outcome of this study discovered that intention did appear to be a full mediator influencing knowledge and consumption behaviour.

**Hypothesis 2<sub>o</sub>.** There is no full mediating effect of intention on the relationship between awareness and organic food product consumption among CGY.

The awareness equation *a* shows us that awareness was insignificant in influencing intention (equation *a*:  $\beta = -0.079$ , C.R= -0.990,  $p > 0.322$ ). Equation *b* tells us that consumption was significantly influenced by intention (equation *b*:  $\beta = 0.467$ , C.R=6.513,  $p < .000$ ). Nevertheless, awareness did not show significant influence over consumption (equation *c'*:  $\beta = -0.081$ , C.R= -

0.787  $p > 0.432$ ), furthermore, the output shows equations  $c$  and  $c'$  ( $\beta$  was reduced from -0.139 to -0.081) when the mediator (Intention) was included into the model. As a result, it could be concluded that the intention was not a mediator between awareness and consumption. Thus, there was no full mediating effect of intention. As a result, the  $H_{2o}$  null hypothesis is accepted. Intention has a negative effect on the relationship between awareness and consumption. This explains that not all consumers like organic food products. Furthermore, peer pressure, and personal preference towards price and availability may also be the reasons for rejecting organic food products. It could be that the CGY are aware of the organic food, but do not have adequate knowledge on the benefits of organic food. Another reason is that the current CGY may think that there is no need for them to choose organic food. In addition, many conventional foods that they prefer are available.

**Hypothesis 3<sub>o</sub>.** There is no full mediating effect of intention on the relationship between health consciousness and organic food product consumption among CGY.

Subsequently, health consciousness equation  $a$  tells us that health consciousness significantly influenced intention (equation  $a$ :  $\beta = 0.344$ , C.R= 4.495,  $p < 0.000$ ). Equation  $b$  tells us that consumption was significantly influenced by intention (equation  $b$ :  $\beta = 0.467$ , C.R=6.202,  $p < .000$ ). However, health consciousness did not show significant influence over consumption (equation  $c'$ :  $\beta = 0.071$ , C.R= 0.171,  $p > 0.864$ ), furthermore, the output shows equations  $c$  and  $c'$  ( $\beta$  was reduced from 0.177 to 0.017) when the mediator (Intention) entered the model. Hence, it could be concluded that the intention behaved as a full or a complete mediator between health consciousness and consumption. Consequently, there is a positive mediating effect of intention. Thus, the  $H_{3o}$  null hypothesis is not accepted. The result shows that intention has a full mediating effect on the relationship between health consciousness and consumption. According to past studies, health consciousness issues are important in changing consumers' intention towards purchasing organic food products [29] [45] [27]. Health consciousness towards nutrition is also a very important factor in motivating young adults' intention to consume organic foods [35].

**Hypothesis 4<sub>o</sub>.** There is no full mediating effect of intention on the relationship between product attributes and organic food product consumption among CGY.

Next, for product attributes, equation  $a$  points that product attributes significantly influenced intention (equation  $a$ :  $\beta = 0.284$ , C.R= 3.019,  $p < 0.003$ ). Equation  $b$  tells us that consumption was significantly influenced by the intention (equation  $b$ :  $\beta = 0.480$ , C.R=6.576,  $p < .000$ ). However, product attributes did not show significant influence over consumption (equation  $c'$ :  $\beta = -0.095$ , C.R= -0.798,  $p > 0.425$ ), furthermore, the output shows equations  $c$  and  $c'$  ( $\beta$  was reduced from 0.031 to -0.095) when the mediator (Intention) entered the model. Thus, it could be concluded that the intention behaved as a full or a complete mediator between product attributes and consumption. Hence, there was a full mediating effect of intention. Therefore, the  $H_{4o}$  null hypothesis is not accepted. Intention has a positive effect on the relationship between product attributes and consumption. Therefore, one way of increasing organic food product consumption among the CGY is to improve their intention.

In terms of product attributes, there are several past studies that have reported that there are some positive levels of product attribute that may contribute to intention and consumption behaviour [7] [50] [70]. In fact, this study discovered that intention appeared to be a full mediator influencing product attributes and consumption behaviour.

Richter (2012) believed that the decision on whether or not to consume organics is affected by the consumer's personal perception towards organic food attributes. It can be explained that the organic food product price, quality, appearance, label, and availability are very important factors that affect consumers' intention towards organic food consumption.

**Hypothesis 5<sub>o</sub>.** There is no full mediating effect of intention on the relationship between environmental concern and organic food product consumption among CGY.

As for environmental concern, equation **a** tells us that environmental concern significantly influenced intention (equation **a**:  $\beta = 0.283$ , C.R= 4.564,  $p < 0.000$ ). Equation **b** tells us that consumption was significantly influenced by the intention (equation **b**:  $\beta = 0.469$ , C.R=6.346,  $p < .000$ ). However, environmental concern did not show significant influence over consumption (equation **c'**:  $\beta = -0.003$ , C.R= -0.036,  $p > 0.971$ ), furthermore, the output shows equations **c** and **c'** ( $\beta$  was reduced from 0.140 to -0.003) when the mediator (Intention) was included into the model. Therefore, it could be concluded that the intention behaved as a full or a complete mediator between environmental concern and consumption. Thus, there was a positive mediating effect of intention. The H5<sub>o</sub> null hypothesis is not accepted. Intention has a full mediating effect on the relationship between environmental concern and consumption. Consequently, one way of increasing organic food product consumption among the CGY is to improve their intention.

This study found that intention also influenced environmental concern towards consumption behaviour. This implied that when consuming organic food, consumers are assuring themselves that they are 'doing their part' by 'acting responsibly' to the environment, because by consuming organic food, pollution is reduced. The findings were consistent with Kim and Choi (2003) who found that environmental concerns have a direct and positive influence on the customer purchasing intention of green products such organic food product. This suggested that customer with strong environmental concern may be interested in the consumption of products which reflect that concern. In addition, past studies by D' Souza, Taghian and Lamb (2006), and Magnusson et al. (2003) found that consumers do have the intention to purchase environmental friendly products such as organic food products.

**Hypothesis 6<sub>o</sub>.** There is no full mediating effect of intention on the relationship between subjective norms and organic food product consumption among CGY.

According to Table 4, equation **a** tells us that subjective norms significantly influenced intention (equation **a**:  $\beta = 0.253$ , C.R= 5.418,  $p < 0.000$ ). Equation **b** tells us that consumption was also significantly influenced by the intention (equation **b**:  $\beta = 0.392$ , C.R= 5.453,  $p < .000$ ). Meanwhile, the result indicated that subjective norm gave significant effect on consumption regardless in the absence ( $\beta = 0.334$  C.R= 5.230,  $p < 0.01$ ) or presence ( $\beta = 0.235$  C.R= 3.728,  $p < 0.01$ ) of intention and the coefficient beta value ( $\beta$ ) decreases. Thus, it was a partial mediator. Hence, there was a positive mediating effect of intention. Therefore, H6<sub>o</sub> null hypothesis is not accepted. Intention has a positive effect on the relationship between subjective norm and consumption. Since the result showed partial mediator, consequently, a way of increasing organic food product consumption among the CGY is by improving their intention, as well as through the subjective norm.

Surprisingly, the result indicated that the intention was a partial mediator between subjective norm and consumption among the CGY. This may explain that the current CGY families always make healthy food choices, such as organic food products. The result is consistent with the past study done by Gunter and Furnham (1998) who described that parents at home may influence or affect their children's behaviour directly.

**Hypothesis 7<sub>o</sub>.** There is no full mediating effect of intention on the relationship between perceived behaviour control and organic food product consumption among CGY.

For perceived behaviour control factor, equation **a**, tells us that perceived behaviour control significantly influenced intention (equation **a**:  $\beta = 0.514$ , C.R= 5.688,  $p < 0.000$ ). Equation **b** tells us that consumption was also significantly influenced by the intention (equation **b**:  $\beta = 0.520$ , C.R= 6.656,  $p < .000$ ). However, perceived behaviour control further showed no significant influence over consumption (equation **c'**:  $\beta = -0.209$ , C.R= -1.797,  $p > 0.072$ ), furthermore, the output shows equations **c** and **c'** ( $\beta$  was reduced from 0.055 to -0.209) when the mediator (Intention) entered

the model. As a result, it could be concluded that the intention behaved as a full or a complete mediator between perceived behaviour control and consumption. Hence, there was a positive mediating effect of intention. The H7<sub>0</sub> null hypothesis is not accepted. Intention has a positive effect on the relationship between perceived behaviour control and consumption. Therefore, a way of increasing organic food product consumption among the CGY is to improve their intention.

This finding indicates that the strength of the relationship between the perceived behaviour control through intention towards organic food products consumption varied depending on the level of intention. Usually, available source of wealth, time, and skills are known as the affecting factors in perceived behavioural control [2]. When the CGY believes that they have more money, time, and skill, their perceptions of control are high, and therefore, their behavioural intentions increase. Studies by Thøgersen (2007); Tarkiainen and Sundqvist (2005) found that the path from the intentions of consuming organic food to the behaviour is significant. As a result, it is assumed that the intention to buy organic food is higher when consumers perceive more control over buying these products.

**Hypothesis 8<sub>0</sub>.** There is no full mediating effect of intention on the relationship between media and advertisement and organic food product consumption among CGY.

Lastly, for media and advertisement, equation *a* tells us that the media and advertisement significantly influenced intention (equation *a*:  $\beta = 0.540$ , C.R= 10.058,  $p < 0.000$ ). Equation *b* tells us that consumption was also significantly influenced by the intention (equation *b*:  $\beta = 0.449$ , C.R= 5.142,  $p < 0.000$ ). However, media and advertisement further showed no significant influence over consumption (equation *c*:  $\beta = 0.031$ , C.R= 0.372,  $p > 0.710$ ), furthermore, the output shows equations *c* and *c'* ( $\beta$  was reduced from 0.277 to 0.031) when the mediator (Intention) was included into the model. Consequently, it could be concluded that the intention behaved as a full or a complete mediator between media and advertisement and consumption. Hence, there is a positive mediating effect of intention. As a result, the H8<sub>0</sub> null hypothesis is not accepted. Intention has a positive effect on the relationship between media and advertisement and consumption. Therefore, proper method of increasing organic food product consumption among CGY is going through media and advertisement to improve their intention. Generation Y is important audiences to advertisers. If the media and advertisement of organic food target the CGY, it may have a great impact on the CGY's intention towards organic food product consumption. The CGY also uses advertisement to support their intention towards consumption behaviour and decision making [25] [43] [68]. Hence, to make a success, an advertisement must target CGY consumers as will influence them to consume organic food products. Therefore, to increase the CGY's intention towards organic food consumption, the media and advertisement should not be avoided.

## 9. IMPLICATION OF STUDY

The findings found from this study will be particularly helpful for government's desire to increase the organic food product consumption may confirm this as the first step. This means that they should pay close attention to this finding to take into consideration of the need to increase public knowledge and intention related to the benefits of organic food products in order to be successful in encouraging consumers to consume organic food products. Furthermore, companies that market organic food products in this country should consider this finding when setting media and advertisement in their marketing strategy so that they can establish a more suitable marketing approach. When this segment has been determined, the organic food industries will be able to offer the same organic food products, but with distinct positioning, depending on the generation Y's needs and wants.

## 10. LIMITATION OF THE STUDY

The limitation of this research is that the study only targeted respondents from one University College, and furthermore, this study only paid attention to the Chinese Generation Y towards organic food products frequency consumed at home. The results might not be closely similar to

other races, such as Malays Generation Y and Indians Generation Y intentions and consumption behaviour.

## 11. CONCLUSION AND FUTURE STUDY

In this study, the intention was indicated as a full mediator between knowledge, health consciousness, product attributes, environmental concern, perceived behaviour control, media and advertisement and consumption. This study also found that intention was not a full mediator between awareness, subjective norms and consumption. Hence, this study suggested two approaches for further exploration. First, future research should cover other races Generation Y. Lastly, the research model should be applied to other similar business research contexts.

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