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The Influence of Organic food Product Attributes on its Purchase Behavior
The Mediating role of Perceived Value of Organic Food

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Abstract

Interest in organic food consumption remarkably increased worldwide. This study aims to assess the impact of organic food attributes on consumer’s purchase behavior (PB). A framework is proposed based on the Stimuli-Organism-Response (S-O-R) model to examine the five product attributes of organic food, namely; price fairness, sensorial appeal, natural content, nutritional content and organic labels on PB and to study the mediating role of PV in this relationship. Perceived Behavioral Control (PBC) is also considered as a moderator in the relationship between PV and SPB. Based on a sample of 402 customers of retail stores in Alexandria, a survey was conducted using a self-administered questionnaire to collect data and SEM-PLS to analyze data. The result of the study indicates the significant impact of price fairness, sensorial appeal and natural content on organic food purchase, while nutritional content, organic labels are insignificant. Also, PV is found to fully mediates the relationships between organic label, nutritional content and organic food PB, but it partially mediates the relationship with price fairness and sensorial appeal. A significant positive relationship was also found between organic food purchase and PV, and the moderating role of PBC is approved in this relationship. Based on the findings, the study provided various implications for managers and marketers.

Keywords: Organic food, Perceived value, purchase behavior, Stimuli-Organism- Response (SOR) model.
1. Introduction

The 21st century is known as the “century of sustainable development” (Spindler, 2013). That witnessed the well establishment of sustainability in various disciplines including politics, economy and society (Williams, 2022). Sustainability is a wide and often disputed concept, it is known as the improvement that meets the needs of the present time without preventing the ability of future generations to meet their own needs. To achieve sustainability is to create and maintain the conditions under which human and nature can exist in productive harmony to support present and future generations. Some scholars described sustainability dimensions as a system of connectedness issue among the social, environmental and economic demands (Von Schirnding, 2005).

At the individual level, sustainability includes the consumption of goods and services that meet economic, social and environmental standards. Sustainable purchase behavior (SPB) occurs consciously when the consumer adopts a holistic purchasing decision that involves the before and after aspects of the decision (Williams, 2022). Thus, consumers consider issues such as the extraction of raw material, how products are produced and its effect on the environment, society and economy not only before consumption but also after disposition. This considerably leads to the increasing demand of ethical products, which are known as sustainable products (Szmigin et al., 2009; Zakbar & Hosta, 2013; Balderjahn et al., 2018). Among sustainable product types is organic food which is the focus of the existing paper.

Organic food is claimed to have exceptional sustainable attributes (Bourn and Prescott, 2002) according to which customers are basing their
purchase decisions, with the believe that production and processing of such products is better for human wellbeing (Molinillo et al., 2020). Global attention to organic food has grown remarkably as consumers and marketers’ interest in popular media about health and environmental effects of pesticides, genetically-modified organisms, and food safety trended upwards in recent years. The term ‘organic’ is derived from the Greek word bios, means life or way of living (Essoussi & Zahaf 2008). The production of an organic product involves practices such as using renewable resources, preserving energy, conserving soil and water, recognizing welfare needs and avoiding artificial fertilizer or synthetic chemicals (Hamzaoui-Essoussi & Zahaf, 2012). Examples of organic products are organic personal care products and organic clothing, however; organic food is the most common form of organic products.

The organic food is the focus of the current study as it supports the three dimensions of sustainable development (environmental, social and economic) as was claimed in previous studies (e.g., Elkington, 2004). Organic food is considered an important form of sustainable consumption (Seconda et al., 2019); it contains no chemicals, no fertilizers, free from genetically modified organisms, pesticides, hormones and antibiotics. It causes no harm to animals, and do not require injections for them (Hamzaoui Essoussi & Zahaf, 2008). According to previous studies, organic food is perceived by customers as less contaminated, healthier, safer and containing more nutrients than conventional food (Hoefkens et al., 2009), this is because of being grown under a system that follows the environmental and social responsibility approach (Thogersen et al., 2015). Thus, organic food production is supposed to contribute to sustainable development by having considerable impact on many facets of our lives; for instance, organic agricultural production pursuits preserving the environment by considering the efficient use of irrigating water, contributes in reducing the world’s total
greenhouse gas emissions and the world’s total energy consumption (De-Magistris and Gracia, 2016). Meanwhile, organic food production supports the local economy since it includes the natural products that are produced locally in addition, to its direct relation with consumers health and animal wellbeing (Strassner et al., 2015; Verain et al., 2015). Therefore, it is believed that promoting organic food consumption would be the key to move towards more sustainable patterns of consumption as well as lessen and improve a series of environmental as well as health problems (Thøgersen, 2017).

However, when considering specifically the number of studies conducted in the field of organic food, it was observed that there are great variations in its results which doubt the positive impact of organic food products over other conventional alternatives. Literature review shows contradicting results concerning whether consumers consider sustainability attributes of organic food as the most important choice criteria. Some authors claimed that other attributes may count for higher importance such as price (Heinzle and Wustenhagen, 2012), brand image (Sonnenberg et al., 2014), taste (Maehle et al., 2015), or functionality (Momberg et al., 2012; Luchs & Kumar, 2017) which raises a question about whether sustainability attributes are always an asset.

In this sense a group of studies have argued that sustainability attributes of organic food do not always drive consumer choice (e.g., Rokka and Uusitalo, 2008; Gupta and Jain, 2014), while another group of studies showed that product attributes have varied effects on consumer purchase behavior (Grunert et al., 2014; Hoek et al, 2017), some confusion is still existing regarding the role of attributes in driving organic food purchase. These variations could be explained by the differences in consumers’ value perceptions (Lago et al., 2020). However, little is still known about how organic food attributes shape its value perception.
Despite its importance in determining purchase decisions, PV of organic food products is still questioned, assessing how consumers perceive the value of organic food products may help in improving its demand which considered one of the preliminary requirements of achieving sustainable development. Moreover, product availability, time, cost and understanding contents of labels are found to be external limitations that may hinder such type of product purchase (Armitage & Conner, 2001; Barbarossa & De Pelsmacker, 2016). These external limitations are referred to as perceived behavioral control (PBC) For example, perceived limited availability of organic food might demotivate the conversion of consumers positive evaluation into actual behavior (Vermeir & Verbeke, 2006). Accordingly, research is highly needed to investigate to what extent customers’ existing level of PBC may hinder their actual purchase of sustainable products.

To date, most studies investigate organic food purchase by focusing on attitudes (Park and Lin, 2018; Wiederhold and Martinez, 2018; Testa et al., 2021) and intentions (Mostafa, 2007; Paul et al., 2016) as antecedents to such behavior although, consumers were proved to have an inconsistent attitude with their actions, which so called attitude-behavior gap (Tantawi et al. 2009). Which calls the need for addressing another predictor -other than attitude- to understand organic food purchase behavior.

Therefore, the current study aims at providing an understanding of how organic food product attributes determine its perceived value, which in turn influence their purchase behavior, while taking into consideration the impact of PBC level.
2. Literature Review

2.1 Sustainable Attributes of Organic Food Products

In general, product attributes refer to the physical or quantitative properties that can be objectively measurable (Wu et al., 1988). However, recently the accepted definition has been broadened to embed all evaluative criteria, including not only objective or physical properties (price, package, taste and color) but also, subjective ones (social and environmental aspects, health concern, comfort, and user appeal,). Both objective and subjective properties proved to be effective in the purchase decision process (Jamal & Goode, 2001). Accordingly, Zia (2017) broadly described product attributes as those exclusive features of a specific product that distinguish it from other products.

Nowadays, more and more consumers choose organic food products based on their high ethical standards such as being risk-free and safe products for environment and society (Witek, 2015). Recent studies revealed that the ethical attributes of organic food products (e.g., natural taste and freshness, quality, and safety) are rated higher by customers than its prices (Ahmad et al., 2020).

Given the importance of product attributes in communicating its sustainability performance, there have been a dearth of related research that classify product attributes into categories, among them Girard & Dion, (2010) who differentiated among three categories of product attributes namely: search, experience and credence (SEC classification);

- Search (S) Attribute, which can be arbitrated prior to purchase with less effort, such as Appearance, color, size, and price, and place of origin.
- Experience (E) Attribute, is not straightaway apparent and thus can be evaluated only after purchase and consumption for example, Smell, taste, texture and natural content.
- Credence (C) Attribute, where consumers cannot determine it even after purchase and consumption however, it is important in predicting
purchase. This category includes nutritional content, environment-friendly, animal welfare attributes, claims on organic labels.

2.2 Perceived value of sustainable products

Based on theory of utility consumers derive value from the difference between the ‘utility’ provided by the attributes of a product and the ‘disutility’ represented by the cost involved, this cost may represent the price, time or effort needed to get that product (Tellis and Gaeth, 1990). Woodruff (1997) defined perceived value as customer’s evaluation of product attributes, performances, and consequences arising from its use that facilitate (or block) achieving the customer’s purposes in various use situations.

From consumers’ perspective the higher the price the higher the cost; consumers may think that in comparison to benefits, organic food products have higher purchase cost more specifically when they are not certain about these benefits. Sustainability research claimed that organic food products attributes influence the perception of its utility which constitutes the positive function of its PV, while the price is the negative function of PV that represents consumers’ costs. This perspective includes the possibility that PV might be produced by the effects of multiple antecedents within the constraints of a particular use situation (Pura, 2005; Gallarza et al., 2011).

Considerable amount of literature has recognized PV as a key determinant of consumer product choice (Lim et al., 2014; Sultan et al., 2021). Accordingly, it could be used as alternative predictor of purchase behavior of organic food instead of attitude which is expected to provide an explanation of the attitude-behavior gap found in the current literature. Moreover, assessing the overall customers’ PV may give an indication of the reasons behind the small market size of sustainable products that has been
advocated by many authors in previous studies (e.g., Rust et al., 2004; Zhuang, & Riaz 2021).

2.3 Stimulus-Organism-Response model (S-O-R)

SOR is a comprehensive model that gains its wide applicability by authors in green and organic field such as Hempel and Hamm (2016); Lu and Chi (2018); Lee et al., (2019) and Qi & Ploeger (2021). According to Mehrabian and Russell, (1974) the rationale behind S-O-R model is that the development process of an individual’s response to any action consists of three stages as shown in figure (1): first, the stimuli which refers to the defined factor in the environment influencing the physical and psychological well-being of individuals. Second, the organism which refers to the internal / psychological activity processes on the stimulus, an organism will always process the stimuli in an individual way and act accordingly (Lee and Yun, 2015). Finally, consumers’ responses are the outcomes of the cognitive and affective processing (organism) that takes place.

![Figure (1) Conceptual Framework of S-O-R Theory](image)

Source: (Kim et al., 2020: P. 71)

The current paper contributes to the existing literature by developing a framework as shown in figure (2) that explains organic food purchase based on SOR model through focusing on the organic food attributes as the stimulus that help customers in forming their perception of value which finally led
them to respond by purchase or not purchase those products. In the light of S-O-R model assumptions (Mehrabian and Russell, 1974), the change of people’s internal state can have a mediation role in the relationship between the stimulating elements and response. In other words, PV is assumed to intervene the relationship between its predictors (organic food attributes) and the purchase behavior. Also, the proposed model is considering the moderating role played by PBC on the relationship between PV and organic food purchase.

3. Hypotheses Development

3.1 The Stimulus (S): Organic Food Attributes

The present research focuses on the organic food attributes that showed debatable results concerning its impact on SPB namely: price fairness, natural content, sensorial appeal, organic labels and nutritional content;

3.1.1 Price Fairness

Price fairness is considered a search attribute that can be arbitrated by a consumer prior to purchase as it acts as an extrinsic quality cue. Price fairness implies that consumers do not only think about what they pay and get when buying a product, but also care about what the firm pays (costs) and what it gets (price) (Bechwati et al., 2009). Customers’ fairness perception is a process of comparison between current price and a reference point which might be a price set by another store, a price paid in another buying occasion, or the price paid by another person for similar products or the level of estimated cost for the product (Xia et al, 2004). When consumers compare the current price with the reference point the resulted assessment might be
equality, a disadvantageous inequality or an advantageous inequality (Dekhili, & Achabou, 2013). At the end it implies that the imposed price should reflect the value offered.

There are several reasons that justify customers’ acceptance of organic food higher prices. First, its superior value; either values resulted from the individual benefits (e.g., premium quality, good taste, natural contents, nutritional value, and the preservation of one’s health) or from public benefits (such as protecting environment, social justice, improving salary levels, animal well-being etc.) (Peattie & Peattie, 2009). Another justification of price acceptance relates to higher costs of production which are uncontrollable by the sellers. It was proved that the production of organic products requires more time and money than due to the expensive manufacturing methods and materials. To that end, it can be said that consumers’ understanding of the reasons behind sustainable products in general and organic food in specific is essential to drive its acceptance (Xia et al., 2004).
Figure 2 research model
Based on the prior studies it can be concluded that reasonable, acceptable and fair organic food prices enhance their value perceptions (Oh, 2000; Ferreira et al., 2010).

The majority of literature suggests that price fairness has a positive effect on purchase intentions (Kukar & Kinney et al., 2007; Martín-Consuegra et al., 2007; Homburg et al., 2014; Konuk, 2018). It is expected that consumers who perceive organic food product's price as fair, their purchase intentions towards this food product will be increased. From the above discussion the following are hypothesized:

H1a: Organic foods’ price fairness will have a significant positive impact on its value perception.

H1b: Organic foods’ price fairness will have a significant positive impact on its sustainable purchase behavior (SPB).

3.1.2 Sensorial Appeal

It is referring to the consumers’ senses that may be inspired and influence their wellness perception (Chen, 2007). Sensorial appeal of organic food could be through its attributes such as appearance, flavor, texture, and even the sounds of food that can affect the desire to eat (Chen, 2007; Hemmerling et al., 2016). Sensory aspects of foods have been evidenced to be the most determinant factor in food choice in several studies (e.g., Magnusson et al., 2001; Wang et al., 2014).

Sensorial appeal impact on PV has been addressed in a number of previous studies for example, Chang and Zepeda (2005) in Australia who
found that the most important characteristics of organic food that people pay attention to are sensorial appeal (taste, flavor, texture, smell, look, freshness, and nutrition). Similar results were achieved by Espejel et al., (2007) who asserted that food products sensory aspects influence their perceived quality and consumer satisfaction. Accordingly, it can be claimed that the sensorial appeal of organic food will shape consumer’s PV.

On the one hand, a dearth of research has postulated that taste and appearance are attributes that positively affect purchase behavior (Chang & Zepeda, 2005; Thøgersen et al., 2015; Lee and Yun, 2015, Bhattacharjee et al., 2021). On the other hand, few found insignificant relationship between the sensorial attributes (taste and appearance) and purchase intention of organic food (Dolezalová, et al., 2016; Curvelo et al., 2019). This study supports the positive relationship between sensorial appeal and organic food purchase. Accordingly, the following are hypothesized:

H2a: Organic foods’ sensorial appeal will have a significant positive impact on its value perception.

H2b: Organic foods’ sensorial appeal will have a significant positive impact on its purchase behavior.

3.1.3 Natural Content

It reflects the natural composition of organic food products as it is free from artificial additives such as chemical fertilizers, insecticides, pesticides, and genetically modified organisms (GMO). Natural content was found to be closely related to consumer’s belief about food safety concern which is defined as the consumer’s degree of worry about chemical usage in farming.
or artificial additives and preservatives in food processing (Hsu et al., 2018). Therefore, it was found also to have a favorable impact on consumers' food purchase decisions (Michaelidou and Hassan, 2008) as consumers perceive organic products as less risky than conventional foods because of its natural ingredients (Michaelidou and Hassan, 2008).

The belief that the food is natural has a positive impact on the family and community environments and thus on the perceived value of such products (Laroche et al., 2001; Padel and Foster, 2005). More specifically after the frequent food safety events in recent years consumers started to reevaluate their food selections. They become more concerned about the natural content raw material sources, ingredients and processing (Hsu et al., 2017). The perception that the product is natural triggers the feeling that organic products are more worthen for their safety which in turn resulted in placing more value for such kind of food (Michaelidou and Hassan, 2008). Therefore, it can be claimed that natural content of sustainable products affects consumers’ perception of value.

According to Michaelidou and Hassan (2008) and Laroche et al., (2016) the knowledge that a product is made with natural ingredients affect purchase behavior positively more specifically among highly conscious consumers. Similar results achieved by Molinillo et al., (2020) in their study across two different countries (Brazil vs. Spain). Hence, it can be claimed that natural content of organic food can significantly affects their purchase behavior. From the above discussion the following are hypothesized:

H3a: Organic foods’ natural content will have a significant positive impact on its value perception.

H3b: Organic foods’ natural content will have a significant positive impact on its purchase behavior.
3.1.4 Organic Labels

They are the approved certified seals applied by the government which show that the organic food is validated. It can be described as a government device that provides quality assurance for organic food (Loebnitz and Aschemann-Witzel, 2016). It provides consumers with information and guarantees which build their trust in this type of food. Organic labels are studied in previous literature as the tool that drives consumers’ trust and confidence in the validity and reliability of organic products (e.g., Lee et al., 2019). Moreover, organic labels were also addressed as one of the ways by which the government accredits and sets the standards that help consumers distinguish organic from no-organic foods. (Schuldt and Hannahan, 2013; Lee et al., 2019). Accordingly, organic label is considered an essential communication tool for marketing managers through which they clearly inform consumers about the sustainable features of organic food (Janssen and Hamm, 2012; Thøgersen et al. 2015). Furthermore, it is an effective vehicle to promote organic food more specifically in a country like Egypt where consumers are quiet in the early stages of organic products adoption and their knowledge of organic labels is still relatively low. Nowadays organic labels are primarily necessary to assist consumers in making informed purchases (Mostafa, 2007).

Findings revealed that organic labeled products are highly valued by consumers (Kaczorowska, 2019), organic labels act as predictors of consumers’ beliefs that shape their expectations with regard to the taste, health, price and quality of organic products (Chen and Lobo, 2012). These labels act as a third party to certify the value of such products; thus, they are
affecting the way customers are shaping their value perception (Moser et al., 2011 and Lee & Yun, 2015).

The presence or absence of a certified organic sticker affects consumers’ buying behavior of organic foods (Meyerding and Merz, 2018). Consumers were found to purchase organic foods due to their trust in the certified organic labels on their packages (Kauppinen-Raisanen et al., 2014). Therefore, the current study proposes the following hypotheses:

H4a: Organic label as a tool of trust and differentiation will have a significant positive impact on its value perception.

H4b: Organic label as a tool of trust and differentiation will have a significant positive impact on its purchase behavior.

3.1.5 Nutritional Content

It refers to product nutritional value. Nutritional content and heath content are interchangeably used in previous research. The overwhelming majority of studies found health content as the main reason behind consumers’ purchase of organic foods (Hughner et al., 2007). Subsequently, a chain of research studies (Mondelaers et al., 2009; Lee et al., 2019) uncovered the higher nutritional benefit of organic food compared to conventional foods. It was claimed that the higher perceived nutritional value of organic foods the higher willingness to pay premium prices (Yazdanpanah et al., 2015). However, there is still a controversial debate of whether organic food is actually more nutritious than conventional food (Lea and Worsley, 2005). Accordingly, it was recommended by Dall’Asta et al., (2020) to investigate the nutritional quality in various organic food categories.
Examples of beneficial nutrients that differentiate organic food from conventionally grown counterparts are the antioxidants, and the higher proportions of proteins, vitamins and minerals while lower proportions of toxic minerals (Rana and Paul, 2017).

The relationship between nutritional content and PV proved its significance in several previous studies (e.g., Lee and Yun, 2015 and Chekima et al., 2016). Similarly, health contents relation to consumers’ perception of value was supported in many researches (Thogersen et al., 2015; Rana and Paul, 2017; Prentice et al., 2019; Fleseriu et al., 2020).

The majority of relevant research has proclaimed a positive relationship between a product's nutritional content and its purchase behavior (Muhammad et al., 2014; Chekima et al., 2016). Thus, the current study claimed a significant impact of nutritional content of organic food on its purchase behavior. Consequently, the following can be hypothesized:

H5a: Organic foods’ nutritional content will have a significant positive impact on its value perception.

H5b: Organic foods’ nutritional content will have a significant positive impact on its purchase behavior.

3.2 The Organism (O): PV

The organism is the second part of the S-O-R model, it is presented by the PV of organic food products and assumed to be a mediator in the relationship between the stimuli and the final response. Supposedly, consumers are expected to evaluate organic food products based on their attributes (blackwell et al., 2011; Voon et al., 2011). The previous researchers
claimed that PV is a central determinant of purchase intention/behavior (e.g., Rana and Paul, 2017; Xu et al., 2020). The environmental and social features of organic food products extend value perception to include not only the functional aspects of quality and price but also ethical, emotional, social value components (Ramirez, 2013). The existing study will adopt the unidimensional perspective of PV following Pura (2005) and Gallarza et al., (2011) which implies that PV is a trade-off between organic products utility and price.

It is worth to mention that in the field of sustainable consumer behavior PV was proved to be a suitable mediator between the drivers of perceived value and purchase intention/behavior. The mediation effect has been supported in a number of previous authors such as Alamsyah et al., (2013); Chen et al., (2016); Wang and Hsu (2019), therefore, PV mediates the relationship between attributes and consumers’ purchase intention/behavior.

Therefore, the following can be hypothesized:

**H6:** PV of organic food products will have a significant positive impact on consumers’ purchase behavior of organic food products.

**H7a:** PV mediates the relationship between price fairness of organic food products and its purchase behavior.

**H7b:** PV mediates the relationship between sensorial appeal of organic food products and its purchase behavior

**H7c:** PV mediates the relationship between natural content of organic food products and its purchase behavior

**H7d:** PV mediates the relationship between organic labels and its purchase behavior.

**H7e:** PV mediates the relationship between nutritional content of organic food products and its purchase behavior
3.3 Perceived Behavioral Control (PBC)

PBC in the present study refers to the individual’s perception of control over external factors that are required to purchase organic food (Kidwell and Jewell, 2003). Despite having positive intention prior to behavior, customer’s low level of PBC may prevent the purchase decision of organic food. Most studies highlighted that consumers’ actual behavior is highly depending on their level of PBC (Barbarossa & De Pelsmacker, 2016; Ashraf et al., 2018; Lim and An 2021). This is quite prevailing in previous studies, for example, Yadav and Pathak (2016), studied the impact of PBC of young consumers’ intention toward buying green products. The finding shows a significant positive relationship between consumers with higher levels of PBC and their purchase of green products. Similarly, Dixon et al. 2015, Lin and Hsu (2015), and Lowe et al., (2015) have proved significant positive relationship between PBC and purchase of sustainable products.

As concluded from previous studies (e.g., Lin and Hsu, 2015; Marzouk & Mahrous, 2020), the various obstacles that may be faced by consumers and constraint their ability to buy the products are: products availability, time, confusing labels, higher prices. PBC was added to the SOR model as moderator in the relationship between consumers’ PV and their organic food purchase. PBC represents in this study the level of perception of control on external limitations such as availability, level of difficulty of messages on organic labels as well as the time and money needed to take the actual buying action (Paul et al., 2016). Consumers who have high levels of organic labels knowledge, easy access organic food and possess the needed resources for purchase (time and money), are in turn of more levels of control perception over their buying behaviors accordingly, they are expected to go for the purchase of the organic food products as long as they are positively perceiving its value. In the same vein, a person who may highly perceived organic food but with low level of PBC and thus has incomplete control over his buying decision will not likely turned his/her positive perception of value into actual purchase behavior. Therefore, the following is hypothesized:
H8: Higher levels of PBC strengthen the relationship between PV and purchase behavior of organic food while lower levels of PBC weaken the relationship between PV and organic food purchase.

4. Methodology

4.1 Sample and procedure

Data was collected from Alexandria-Egypt through distributing both online and paper-based questionnaires during April 2022. The instrument was assessed using two techniques; direct translation and pre-testing to ensure vocabulary equivalence (Sekaran, 2003). The participants were filtered based on a question about their interest in purchase organic food. Respondents whose answer was no, were excluded from the analysis.

A convenient sampling in addition to snowball techniques were selected in the purpose of leveraging the response rate and due to their convenience and accessibility to the researcher. In total 500 copies were distributed to conduct the study; of which the majority were distributed online through google forms and the remaining questionnaires were paper-based and distributed by the researcher in specialized retail stores of organic food and shopping malls.

4.2 Measures Development

Measurement scales were developed from the prior literature. The items were measured on a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree). Price fairness (PF) was measured using a set of four items developed by De Toni et al. (2018). To assess Sensorial Appeal (SA) a scale of four items of Chen (2007) was applied. Natural Content (NC) was measured by three items following Lee and Yun (2015) while Organic Labels (OL) and Nutritional Content (NU) each was assessed by four items. The former scale was borrowed from De Toni et al, (2018) and the later scale is taken from Lee & Yun (2015). PV is viewed as single overall concept that can be measured by a set of items which determine the consumer’s perception of value. Accordingly, four items as borrowed from Le-Ah & Nguyen-To (2020) were used to measure PV of organic food. PBC is measured based on
a widely used and well-established scale that was taken and modified by Paul et al., (2016). It reflects the respondents’ level of controllability perception over external constraints on buying organic food products this include enough knowledge to understand messages on organic labels, the availability of resources such as money (as organic foods is more high-priced than non-organic foods), time (people need to have time to find a specialty store to buy organic food or to search for it in hypermarkets or online stores) and attainability of organic food products (is it convenient or it is hard to find it nearby). Finally, to measure organic food purchase behavior the existing study depends on a six-item scale developed by Schlegelmilch et al., (1996).

4.3 Sample Size

PLS software v.3 was used in the assessment of the measurement model and structural model. The minimum sample size required by PLS equals at least five cases per parameter estimate (Hair et al., 2010). From this perspective, at least 165 valid responses are required for 33 items, but a larger sample size is always desirable to minimize sampling error (Randall & Gibson, 1990). As a result, a sample size of 402 elements is accepted and meets all the requirements of the analysis techniques. Table 2, provides a full description of the sample profile.

Table 2: Sample Profile

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>285</td>
<td>64.2</td>
</tr>
<tr>
<td>Male</td>
<td>144</td>
<td>35.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>6</td>
<td>1.5</td>
</tr>
<tr>
<td>21-30</td>
<td>34</td>
<td>8.5</td>
</tr>
<tr>
<td>31-40</td>
<td>120</td>
<td>29.9</td>
</tr>
<tr>
<td>41-50</td>
<td>166</td>
<td>41.3</td>
</tr>
</tbody>
</table>
A total number of 402 completed questionnaire were used, the sample demographic and characteristics are presented in table 2. As shown in this table, 144 respondents were males and 285 were females. The majority of the respondents were aged between 41-50 constituting a percentage of 41.3% followed by those who aged between 31 and 40 with a percentage of 29.9%. and 54.7% of the respondents are university graduates. The occupational status shows that 41.3% of the respondents are working either for private employers, only 2% are students. The mainstream levels of income were relatively high varied between income level group of “15000 less than 20000” (31.8%) and “more than 20000’ (52.2%).

**4.4 Assessment of Measurement model**

To analyze the data, the Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed; this method is of great potential to
researcher in the area of marketing given the inclusion of moderation effect relationships. Following Hair et al., (2019), the assessment of the measurement model starts by examining the factor loadings of indicators. Out of the 33 indicators only 25 were perfectly loading with values greater than 0.7 at significant t-value (p < 0.001); thus, support the association of indicators with the respective constructs. The item with low loading was subject to elimination as shown in table 3.

Internal consistency is tested using both Cronbach’s alpha and composite reliability (Hair et al., 2010). Both measures had satisfactory values above 0.7; thus, meet the requirements of construct reliability. Convergent validity was also assessed based on the average variance extracted (AVE) with a cut-off point of 0.5, the resulted values of all variables evidenced a good convergence as shown in table 4.

Finally, the discriminant validity is also tested based on Fornell-Larcker criterion through comparing the square root AVE to the inter-construct correlation for each construct.
Table 3: Factor loading analysis

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC1: Organic food free from preservatives and additives</td>
<td>0.885</td>
</tr>
<tr>
<td>NC2: Organic food contains natural ingredients</td>
<td>0.932</td>
</tr>
<tr>
<td>NC3: Organic food contains no artificial ingredients</td>
<td>0.865</td>
</tr>
<tr>
<td>NU2: Organic food contains natural ingredients</td>
<td>0.891</td>
</tr>
<tr>
<td>NU3: Organic food contains no artificial ingredients</td>
<td>0.925</td>
</tr>
<tr>
<td>NU4: Organic foods are high in nutrients needed (proteins, antioxidants and nitrogen)</td>
<td>0.868</td>
</tr>
<tr>
<td>OL2: I trust the label to correctly identify organic foods.</td>
<td>0.874</td>
</tr>
<tr>
<td>OL3: I have the greater trust in organic food when they have the label on them.</td>
<td>0.904</td>
</tr>
<tr>
<td>OL4: I have confidence in the production standards for labeled organic food.</td>
<td>0.917</td>
</tr>
<tr>
<td>PB2: I choose the organic food alternatives for other products regardless of their price.</td>
<td>0.892</td>
</tr>
<tr>
<td>PB3: I try to discover the environmental and social effects of organic food products prior to purchase</td>
<td>0.811</td>
</tr>
<tr>
<td>PB4: I understand the potential damage to society and environment that some products can cause, I do not purchase those products</td>
<td>0.746</td>
</tr>
<tr>
<td>PBC1: I have the ability to understand the various messages on organic labels (ex. Natural, No GMO, Fresh, Free of pesticides, ...)</td>
<td>0.959</td>
</tr>
<tr>
<td>PBC2: I have resources (time and money) to purchase organic food.</td>
<td>0.974</td>
</tr>
<tr>
<td>PBC3: Whether to buy organic food is entirely determined by myself</td>
<td>0.770</td>
</tr>
<tr>
<td>PFr2: Organic foods are being sold at an acceptable price.</td>
<td>0.906</td>
</tr>
<tr>
<td>PFr3: The prices of organic food are justifiable</td>
<td>0.893</td>
</tr>
<tr>
<td>PFr1: Organic food are sold at fair prices (sellers get fair profit margin for the given real value)</td>
<td>0.917</td>
</tr>
<tr>
<td>PV1: Overall benefits (individual, environmental and social) of organic food is greater than its cost.</td>
<td>0.882</td>
</tr>
<tr>
<td>PV2: The old saying “you receive for what you pay” is true for organic food.</td>
<td>0.897</td>
</tr>
<tr>
<td>PV3: I am willing to pay a bit more for food that not harm my health.</td>
<td>0.744</td>
</tr>
<tr>
<td>SA1: Organic food looks fresh</td>
<td>0.823</td>
</tr>
<tr>
<td>SA2: Organic food smells nice</td>
<td>0.884</td>
</tr>
<tr>
<td>SA3: Organic food has pleasant texture</td>
<td>0.864</td>
</tr>
<tr>
<td>SA4: Organic food tastes good</td>
<td>0.730</td>
</tr>
</tbody>
</table>

Table 4: Reliability and validity assessment of the measurement model
As indicated in table 5, values in bold on the diagonal is higher than the off-diagonal correlation values, showing a satisfactory discriminant validity.
4.5 Structural model

The next step after the assessment of the measurement model is to examine the structural model for its quality based on $R^2$ and path coefficient, to verify the developed hypotheses. The coefficient of determination ($R^2$) is a quality criterion that used to evaluate the predictive power of the model. The $R^2$ of PV is 0.506 indicating high predictive validity while it is 0.365 for SPB revealing a moderate predictive validity. Results are summarized in table 6.

Table 6: Coefficient of Determination

<table>
<thead>
<tr>
<th></th>
<th>R-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV</td>
<td>0.506</td>
</tr>
<tr>
<td>Organic Food Purchase</td>
<td>0.365</td>
</tr>
</tbody>
</table>

The test of the significance of paths as summarized in table 7 revealed that price fairness has significant direct positive impacts on PV ($\beta = 0.215$, $t = 4.531$, $p = 0.000$) and organic food purchase ($\beta = 0.312$, $t = 5.564$, $p = 0.000$) therefore, accepting H1a and H1b. Sensorial appeal has a significant direct effect on PV ($\beta = 0.228$, $t = 3.527$, $p = 0.000$) and organic food purchase ($\beta = 0.148$, $t = 3.527$, $p = 0.024$) leads to accepting H2a and H2b. Natural content has insignificant impact on PV ($\beta = 0.060$, $t = 1.165$, $p = 0.244$) and a significant direct positive impact on organic food purchase ($\beta = 0.291$, $t = 5.040$, $p = 0.000$) accordingly, rejecting H3a while accepting H3b. With regard to organic labels, a significant positive impact was proved on PV ($\beta = 0.169$, $t = 3.598$, $p = 0.001$) however, no impact was found on organic food purchase ($\beta = 0.093$, $t = 1.463$) thus accepting H4a yet rejecting H4b. Nutritional content attribute has a significant impact on PV ($\beta = 0.284$, $t = 5.655$, $p = 0.000$) however, it has insignificant impact on organic food purchase ($\beta = 0.084$, $t = 1.339$), supporting H5a and rejecting H5b. Finally, PV has a significant positive impact on SPB ($\beta = 0.295$, $t = 3.826$, $p = 0.000$) which leads to the acceptance of H6.
Figure 3: PLS Analysis. Outer loadings are shown on paths of outer model. B coefficient values are shown on paths of inner model.
Table 7: Results of Hypotheses testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Hypothesized Path</th>
<th>β</th>
<th>t Value</th>
<th>Significance P</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>PF – – – – – – PV –</td>
<td>0.215</td>
<td>4.531</td>
<td>0.000***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H1b</td>
<td>PF – – – – – – SPB –</td>
<td>0.312</td>
<td>5.564</td>
<td>0.000***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2a</td>
<td>SA – – – – – – PV –</td>
<td>0.228</td>
<td>3.527</td>
<td>0.000***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2b</td>
<td>SA – – – – – – SPB –</td>
<td>0.148</td>
<td>2.190</td>
<td>0.024**</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3a</td>
<td>NC – – – – – – PV –</td>
<td>0.060</td>
<td>1.165</td>
<td>0.244</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3b</td>
<td>NC – – – – – – SPB –</td>
<td>0.291</td>
<td>5.040</td>
<td>0.000***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4a</td>
<td>OL – – – – – – PV –</td>
<td>0.169</td>
<td>3.298</td>
<td>0.001***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4b</td>
<td>OL – – – – – – SPB –</td>
<td>0.093</td>
<td>1.463</td>
<td>0.144</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5a</td>
<td>NU – – – – – – PV –</td>
<td>0.284</td>
<td>5.655</td>
<td>0.000***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5b</td>
<td>NU – – – – – – SPB –</td>
<td>0.084</td>
<td>1.339</td>
<td>0.181</td>
<td>Rejected</td>
</tr>
<tr>
<td>H6</td>
<td>PV – – – – – – SPB –</td>
<td>0.295</td>
<td>3.826</td>
<td>0.000***</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

* p < 0.10  ** p < 0.05  *** p < 0.01

4.6 Mediation effects of PV

To provide a deep understanding of the role of PV, a mediation test was used to evaluate if PV mediates the relationship between each studied product attribute and organic food purchase. The results provided in table 8 support the indirect effect of price fairness (t = 3.915, p = 0.000), sensorial appeal (t = 3.341, p = 0.001), organic label (t = 1.998, p = 0.002) and nutritional content (t = 4.866, p = 0.000) on organic food purchase through PV. Therefore, a partial mediating role of PV is supported in the relationships of two of the studied organic food attributes (price fairness and sensorial appeal) with purchase of organic food, while it is fully mediate the relationships with the other two attributes (organic label and nutritional...
content). However, the mediating role of PV was not supported in the relationship with natural content attribute.

Table 8: Mediation effect of PV

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>T-value</th>
<th>Significance P</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H7a</td>
<td>Price fairness -&gt; PV -&gt; SPB</td>
<td>3.915</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7b</td>
<td>Sensorial appeal -&gt; PV -&gt; SPB</td>
<td>3.341</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7c</td>
<td>Natural content -&gt; PV -&gt; SPB</td>
<td>1.185</td>
<td>0.236</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7d</td>
<td>Organic labels -&gt; PV -&gt; SPB</td>
<td>3.055</td>
<td>0.002</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7e</td>
<td>Nutritional content -&gt; PV -&gt; SPB</td>
<td>4.866</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

4.7 Moderation effect of PBC

Results as summarized in table 9 showed that the moderating impact of PBC is significant ($\beta = 0.103$, $t = 2.284$, $p= 0.022$). Accordingly, H8 is accepted which implies that the relationship between PV and customers’ purchase behavior of organic food products is more significant for those who have higher levels of PBC and vice versa for those with lower levels of perceived control.

Table 9: Moderating Effect of PBC

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypnotized path</th>
<th>$\beta$</th>
<th>T Statistics</th>
<th>P Values</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H8</td>
<td>Moderating Effect -&gt; purchase behavior</td>
<td>0.103</td>
<td>2.284</td>
<td>0.022</td>
<td>Supported</td>
</tr>
</tbody>
</table>

5. Discussion

The aim of this study is to examine the effects of product attributes on organic food purchase while testing the mediating effect of PV and the moderating role of PBC. The proposed model is based on the SOR model it suggests that the five product attributes – price fairness, sensorial appeal, natural content, organic label and nutritional content are antecedents to PV of organic food products which leads to its purchase. The PV acts as a mediator
in the relationships between its antecedents and the purchase behavior. While PBC acts as a moderator in the relationship between PV and organic food purchase behavior. Findings revealed that the studied attributes contributed differently in shaping consumers’ value perception and purchase behavior of organic food;

*Nutritional content* associated with healthy ingredients and components of organic food is found to be the most important factor constituting consumers’ perception of organic food products’ value concerning its role as predictor of PV. This finding implies that customers’ perception that organic food contains higher portions of vitamins, minerals proteins, antioxidants, and nitrogen contributes mostly to their evaluation of such kind of food. Similar findings are achieved by Thøgersen, Barcellos, Perin, and Zhou (2015); Loebnitz and Aschemann-Witzel (2016); and Singh and Verma (2017). However, in contrast to most of previous studies such as Escobar-López *et al.*, (2017); Janssen (2018), Gundala & Singh (2021) the current study shows that nutritional content of organic food does not influence its purchase. Thus, despite respondents’ perception of nutritional content value, when it comes to action, this concern might not be manifested consistently. Similar findings were supported by Michaelidou and Hassan (2008) and Curvelo *et al.*, (2019); who found that nutritional content of food is not a convincing driver for organic food purchase. One reason behind this unexpected finding is the credence nature of nutritional content as an organic food attribute which implies that customers cannot judge it even after purchase. This implies that healthy content of such type of food does not provoke customer to purchase it.
Sensorial appeal associated with food freshness, smell, texture and taste has been found to come in the second position with regard to its importance as predictor of PV. This result came consistent with results achieved by Chang and Zepeada (2005) who claimed that aspects appealing to consumers’ senses enhance their value perception. However, it comes in the third position in importance to organic food purchase after natural content and price faireness. This implies that customers are willing to sacrifice part of their sensorial appeal in favor of food safety as long as its prices are fair enough. Similar results reached by a group of studies like Magnusson, et al., (2001); Chang & Zepeada, (2005); Roitner-Schobesberger et al., (2008); Shafie & Rennie (2012); Lee and Yun (2015); Thøgersen et al., (2015) and Hati, et al., (2021) who concluded the positive contribution of sensory aspects as determinant of purchase of organic food.

Price fairness is proved to be the third important determinant of PV. Thus, when customers perceive the price of organic food as acceptable, justifiable, reasonable and fair, their value perception of such types of products is increased. This result implies that in order for customers to perceive organic food as of value they must perceive that its price (monetary sacrifice) is reflecting its benefits. Similar results reached by majority of authors in previous studies like De-Toni (2018); Konuk (2019) and Oh, (2000). However, when it comes to purchase behavior, price fairness is found to be the attribute that contributes the most in organic food purchase behavior. This finding entails that if organic food’s prices of organic food are reasonable, acceptable and justifiable they are motivated to purchase it. The majority of previous studies support the positive effect of price fairness on purchase intentions (such as Fernandes & Calamote, 2016; Konuk, 2018;
Singh & Alok, 2022), given that in the present study the researcher tests beyond intention to the prediction of behavior. Mohamed et al., (2012) claimed that customers who are price sensitive may prioritize price over the other aspects of transaction. They added that perception of high prices may yield consumers’ feeling that they are getting exploited by producers and therefore they may perceive the product benefits but still want to lessen its prices. Accordingly, increasing transparency related to the reasons behind the higher prices of sustainable products is recommended to reduce buyers’ feeling of relative price unfairness.

_Natural content_ is proved to have insignificant impact on PV. This result is in contrast of most of the previous studies such as Hsu et al., (2018) and Yu et al., (2021). This unexpected finding implies that customers do not develop their PV on whether organic food contains safe and natural ingredients since it is a given fact to customer that organic food does not contain harmful residues of pesticides or chemicals. Accordingly, consumers may see the word “natural” as a meaningless marketing term although essential for purchase but do not contribute to its value perception. Natural content is proved to be the next strongest stimulus among other attributes after price fairness that motivate organic food purchase. This result indicates that perception of food safety concerns that is associated with no chemicals and contaminants is critical determinant that stimulate customers’ organic food purchase. This finding is parallel with results achieved by previous authors (e.g., Janssen, 2018; Pham et al., 2019 and Imtiyaz, 2021).

_Organic labels_ are proved to show the least positive impact on PV of organic food. This result entails that organic label has the least contribution in shaping customers’ PV. One reason could be customers’ skepticism in
labelling which can widen the perceived gap between organic and regular food with respect to all the other organic attributes such as naturalness, healthiness, price fairness and sensory traits. Therefore, improving customers’ perceived value still requires to improve trust on organic labels. The significant contribution of organic label in PV formation was proved by authors in previous studies for example, Chen and Lobo (2012); Lee et al., (2019) and Kaczorowska, (2019). Although minimally affects organic food PV, organic label has no impact on its purchase again this could be explained through two folds, first organic label is classified as credence attribute which cannot be arbitrated even after purchase this in turn drives customers skepticism. Second, claimed messages on organic labels are multiple and different; examples of these messages are: “direct from farm,” “green and fresh,” “natural product”, “zero pesticide”, “greater nutritional value”, “Eco friendly”, “certified organic”, “whole food”, “non-GMO -Genetically Modified Organism-”, the thing that may result in customers’ confusion and uncertainty towards claims on organic labels. While if consumers are having the required awareness related to the process of label issuance and certification, they become more capable of comprehending the different messages that they faced on organic labels. Organic labels designs are also recommended to be similar, sharing the same color, simple and avoiding scientific terms. Therefore, it can be concluded that organic food labels are still induce inferential beliefs, which implies that the meaning of messages on labels is quite vague and redundant from customers’ perspective.

The mediating analyses confirmed a partial mediating influence of PV in the relationship between price fairness, sensorial appeal and organic food purchase while a full mediation is proved of PV in the relationship between
organic label, nutritional content and organic food purchase. While no mediation impact of PV was found between natural content and organic food purchase. This asserts the importance of PV of organic food as it accounts for some of the relationship of price fairness, sensorial appeal with its purchase while it accounts for all the relationships of both organic label, nutritional content with organic food purchase. This result appears to be consistent with past studies that evidenced the mediating role of PV in the relationship between organic food attributes and purchase behavior (e.g., Chen et al., 2016; Sumi and Kabir 2018). This mediating role implies that the organic food purchase is not only depending on price fairness and sensorial appeal but also on the trade-off between what is given (price) compared to what customers receive. Therefore, if customers perceive a high value of price fairness and sensorial appeal of organic food, they are more likely to purchase it. The impact of nutritional content and organic label on purchase behavior will be only through their perceived value thus customers are not deciding to purchase organic food due to their health content or organic labels claims unless they perceive these attributes as valuable benefits and worth what they are paid for (perceived cost).

PBC was found to play a moderating role in the relationship between PV and purchase of organic food purchase. This finding implies that customers with low levels of perceived control over the external limitations of organic food purchase, are less likely to purchase it even if they have positive PV of organic food. In other words, PBC contributes by strengthening or weakening the relationship between PV and organic food
purchase according to its level. Similar findings reached by Umeh & Patel, (2004); La Barbera & Ajzen, (2021) and Afridi et al., (2021).

6.1 Theoretical implications

The present study contributes to the existing literature in five folds:

First: the existing study identified three products attributes (out of five) directly and positively affect purchase of organic food namely; price fairness, natural content and sensorial appeal. Furthermore, the study examined the relative importance of each attribute in shaping organic food purchase where price fairness is found to be the most contributor in predicting organic food purchase followed by natural content (food safety) and finally the sensorial appeal. These three attributes are classified as search and experience attributes. While nutritional contents and organic labels which are categorized as credence attributes are proved to be insignificant with regard their impact on organic food purchase behavior.

Second: this research provides empirical evidence on the direct positive impact of PV on organic food purchase. Accordingly, PV is proved to be a significant predictor of organic purchase behavior, this conclusion contributes in lessening the attitude-behavior gap found in previous literature.

Third: PV was proved to partially mediates the relationship between price fairness, sensorial appeal and organic food purchase in addition it fully mediates the relationships between nutritional content and organic label. While no mediating impact was found of PV in the association between
natural content and organic food purchase behavior. Accordingly, the existing study advocates the great importance of the PV as determinant of organic food purchase.

**Fourth:** the current study proved that the proposed model is appropriate and represents an understanding of the value perception and organic food purchase.

**Fifth:** the current research examines the moderating impact of PBC as recommended by Aschemann-Witzel and Aagaard, (2014). It provides additional justifications for customers’ purchase of organic food on both levels; high PBC and low PBC. In case customers have high level of PBC (i.e., have sufficient time and money, have the sufficient knowledge that enable the understanding of various claims on organic labels, have complete control on their purchase decisions and finally can easily access the organic food products) their purchase is strongly associated with their PV, therefore, if they have positive PV of sustainable products this leads most likely to its purchase. While in case of low levels of PBC -perceived low levels of control on external difficulties- they most likely will avoid organic food purchase even if they positively perceive its value.

### 6.2 Marketing and Managerial implications

**First:** the existing study results imply that marketing managers are advised to focus on improving the search and experience attributes of organic food such as the sensory attributes and price fairness.
Second: purchasers of organic food are mostly motivated by price fairness of organic food accordingly, it is recommended for marketing managers to promote organic food based on its benefits, while taking customers’ purchasing power into account. Pricing strategy should be strongly correlated with consumers’ fair price expectations. Marketers are better to go beyond the merely financial rationale; communicating the ethical benefits of organic food which seems to be relevant in the case of selling organic food products. In other words, connecting organic food price to environmental, social and economic benefits, therefore, promotional messages should be based on environmental, social and economic causes. Moreover, in case of having uncontrollable cost increases associated with the production of organic food, marketers are recommended to provide evidence of the higher costs. Being clear in their communication about the benefits and costs of production that are related to organic food products, justify to customers the higher prices, therefore helps in reducing consumers’ skepticism and improve the credibility and trust in organic food (Dekhili and Achabou, 2013).

Fourth: the significant moderating impact of PBC suggests that marketers are advised to amend the existing distribution strategies by increasing the number of outlets where organic food is sold. This is supposed to lessening the problem of organic food accessibility and increase its potential demand. Moreover, these places are recommended to announce that they are selling this type of food, this announcement could be through
T.V advertisements, flyers and /or billboards. It is also recommended to sell this type of food through farmers in farmlands to add to its perceived naturalness credibility and appeal of sensorial attributes.

**Fifth:** current research reveals that purchasers find some difficulties in understanding various messages on organic labels therefore, they may act skeptically about the credence attributes of this type of food like organic labels and nutritional content. Therefore, it can be suggested that promoting organic food as a mean of a healthier diet that could prevent future diseases and consequently, reduce public health spendings may convince customers with the nutritional value of organic food. In addition, mangers are recommended to disseminate greater knowledge about the health benefits of organic food to individuals, which are supposed to accelerate the healthy awareness and consumption.

6.3 *Policy Makers Implications*

1- It is suggested that the Egyptian government should work closely with the business community by forming strategic alliances with producers of organic food to come up with a comprehensive sustainability certification scheme and a set of guidelines that regulate the practices of organic food marketing.
2- Public agencies can promote the production and consumption of these foods through financing machinery and equipment at low interest rates, offering professional courses which teach better planting techniques, handling and marketing practices of organic food, supporting the development of venues for producers to sell their products.

3- The existing results recommend the call for educational programs that are enforced by the government with the aim of enriching the awareness of sustainable activities and benefits of organic products in general and motivate customers to imbed these activities in their everyday life.

7. **Limitations and recommendations for future research**

   1- To obtain a more comprehensive understanding of consumers’ purchase of organic food, further factors have to be taken into account such as demographics, lifestyle considerations, brand image, sustainability consciousness, the prestigious effect and word of mouth (Mohamed, 2018). This should be a potentially fruitful avenue for further research towards knowledge advancement on marketing of organic food.
2- Data were gathered with convenience sampling method from one city (Alexandria), which limits the generalization of the findings. Therefore, future studies are recommended to be conducted in different regions with diverse samples to gain additional insights about organic food purchase.

3- PV were modeled as unidimensional construct. It would be fruitful to deconstruct PV into its dimensions (functional, social, emotional and economic) to explain its relationship with organic food purchase in more details.

4- More studies are required to identify consumers' reference price in Egypt which helps in understanding their price fairness perception of organic food thoroughly.

5- This research is based on a cross-sectional data. It is recommended for future studies to conduct longitudinal research to shed additional light on organic food purchase.
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