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# Consumers' Demand for Organic Food Products and Purchase Intentions: Empirical Evidence from a Consumer Survey in Nigeria

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**Abstract:** This study mainly aims to investigate the impact of consumers' demand for organic food products on purchase intentions in Rivers State of Nigeria. This study adopted a quantitative method to disentangle the impact of consumers' demand for organic food products (CDOFP) on purchase intentions (PI). A self-administered questionnaire was distributed to 390 existing consumers of organic food products in the Port Harcourt fruit garden market and 6 organic food product retail outlets in Port Harcourt, Rivers State, Nigeria, using the nonprobability convenience sampling method. A total number of 339 surveys were returned. Besides, usage evaluation unveils 296 recovered and accessible questionnaires, representing 87.3.9% of the completed and returned questionnaire. The Statistical Package for Social Sciences (SPSS) version 22 was used to perform descriptive analysis, validity and reliability analysis, and the structural equation modeling was used to test the hypothetical relationships between the proposed constructs. The results illustrated that Food safety concern was the strongest predictor of purchase intentions, followed by environmental concern, and the last emerged as health consciousness. The study therefore concludes that the consumers' demand for organic food products has positive and significant influence on purchase intentions through food safety concern, environmental concern, and health consciousness. The study recommends among others that, organic food products marketers should prioritize on food safety concern, environmental concern and health consciousness benefits of organic food products to attain high purchase intentions.

**Keywords:** Consumers' demand, Nigeria, Organic food products, Purchase intentions.

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## 1. INTRODUCTION

It is well known that the consumption of food has a considerable impact on the environment, individuals and public health (Dube *et al.*, 2014; Reisch *et al.*, 2013; Wilcock, 2004). Notably, food consumption is associated with environmental concerns such as greater than before greenhouse gas discharge, water scarcity and pollution (Reisch *et al.*, 2013). The expansion in population and income has motivated consumer demand for organic products, visibly in developing and up-and-coming countries, predominantly for healthy and environmentally responsive food (Mottaleb *et al.*, 2016).

Organic product stands as one of the fastest growing markets in contemporary years in a number of countries, and its consumption has been broadly observed as causative to sustainable conducts (Smith & Paladino, 2010; Tanner & Kast, 2003). This is somewhat determined by consumers' socio-environmental responsibility as well as their individual concern and preference (Vermeir & Verbeke, 2006). According to Dahm *et al.* (2009:195), organic products defined as

item for consumption which are “grown without the use of pesticides, synthetic fertilizers, sewage sludge, genetically modified organisms, or ionizing radiation” including products manufactured “free of antibiotics or growth hormones”. Most consumers accept as true that organic product is environmental-friendly, improved, harmless, hygienic, additionally wholesome, tastier and out of harm's way as compared to conventional food (Smith & Paladino, 2010; Bryla, 2016; Hughner *et al.*, 2007; Magnusson *et al.*, 2001).

A sizeable number of scholarly investigations on demand for organic products and purchase intentions have been carried out (Rana & Paul, 2017; Aertsen *et al.*, 2009; Verhoef, 2005; Grunert & Juhl, 1995). Fascinatingly, there exist varied findings concerning the association between consumers’ demand for organic products and purchase intentions (Aschemann-Witzel & Niebuhr, 2015). Whereas a variety of studies exhibit that consumers’ demands in the direction of organic products appreciably increase their purchase intention, quite a lot of authors disclose that several consumers do not in point of fact procure organic product regardless of the demonstrated optimistic stance towards them (Pearson *et al.*, 2011; Shepherd *et al.*, 2005). Consumers embrace exceedingly encouraging mind-set in relation to organic products, however their genuine purchases hang about low (Aschemann-Witzel & Niebuhr Aagaard, 2015). As noted by Padel and Foster (2005), such an inconsistency can be explicated by the intricacy of the consumer decision-making process and the wide-ranging intentions and hurdles connected with diverse categories of organic products.

Even with this increase, the number of studies with consumers of organic products is still diminutive (Hsu, Chang & Lin, 2016; Nandi, Bokeelmann, Gowdru & Dias, 2016). It is even more diminutive as regards consumers’ purchase intention for organic products, which is exceedingly pertinent in this up-and-coming market. More scholarly inquiries are needed to concentrate on the likelihood of scheduling a purchase or the enthusiasm to actually purchase a product in the future (Yin, Wu, Du & Chen, 2009). Hence, this study is expected to address the research gap.

This paper is therefore aimed at exploring the relative importance of consumers’ demand for organically products in explaining purchase intentions among consumers in Rivers State, Nigeria. The analysis is particularly pertinent for the organic food industry in the area as it is comparatively a nascent industry. Information from this investigation can support local stakeholders in developing marketing strategies and spotting target market segments for organic produce. The analysis focal point is the fruit and vegetables sector, given the comparative significance of this sector to the agricultural economy in Nigeria, and the prospective for apprehensions over food safety concern, health consciousness, and environmental concern from the application of synthetic pesticides in conventional agriculture to affect this sector.

## **2. LITERATURE REVIEW**

### **Hierarchy of Effect Model (HEM)**

The Hierarchy of Effect Model (HEM) underpins the conceptual framework of this study.

The Hierarchy of Effect Model (HEM) was pioneered by Lavidge and Steiner (1961), and afterward modified by Barry and Howard (1990). The Hierarchy of Effect Model (HEM) clarifies that consumers will move through diverse psychological stages in the course of making purchase decisions. The breadths of the hierarchy of effect model encompasses cognitive

(awareness, learning, knowing), affective (thinking, feeling), and conative (doing). The cognitive component passes on the knowledge and belief held by a person (Fill, 2013). Beliefs can spring from an individual's life experience, the upshot from straight observation and recognized by acquiring information or from inference (Ajzen & Fishbein, 1980). The affective dimension refers to the emotions in the direction of and assessment of the product (Chitty, Barker, Valos & Shimp, 2011). Conative alludes to the behavioural action (Agapito & Mendes, 2013). The hierarchy of effect model has been broadly used to appreciating consumer attitude and behaviour (Dubé, Cervellon, & Han, 2003).

Prior studies have applied diverse constructs to test the three constituent of cognitive, affective, and conative in the hierarchy of effect model (Park & Yoo, 2018; Mokhtar, 2016; Lee & Goudeau, 2014). Explicitly, this present study will explore the consumers' demand for organic products based on food safety concern, health consciousness, and environment concern as dimensions, which influence purchase intentions.

### **Consumers' demand for organic products**

Organic products are derived by eco-friendly processes by means of cultivation procedures that reflect on the characteristics of the ultimate product as well as the production techniques. There exists no universal definition of "organic" owing to the actuality that diverse countries have dissimilar standard for products to be licensed "organic". In straightforward words organic products are modestly processed to sustain the veracity of the product devoid of non-natural constituents, chemical addition or irradiation. Organic food products springs from an eco-friendly management practices that reinstate, preserve and improve ecological harmony in production system that upholds and boosts biodiversity, organic cycles and soil genetic movements.

The demand for organic products is very high in growing markets in contemporary years in a several countries, and its consumption has been broadly observed as causative to maintaining behavior (Smith & Paladino, 2010; Tanner & Kast, 2003). This is to some extent triggered by consumers' socio-environmental liability as well as their personal apprehension and preference (Vermeir & Verbeke, 2006). Organic product industry in nearly all developing countries is gradually moving from the niche market to high potential growth industry. The growth of organic product industry is connected to the ever-increasing demand by consumers for the products. Amid the reasons for the ever-increasing demand of organic products are food safety concern (Hsu, Chang & Lin 2016), health consciousness (Lillywhite, Al-Oun & Simonsen, 2013), and environment concern (Nandi, Bokelmann, Gowdru & Dias, 2016).

### **Food Safety Concern**

Food safety concern is a central factor powering organic product purchase intentions (Pham, Nguyen, Phan & Nguyen, 2018; Hsu, Chang & Lin 2016, Padel & Foster, 2005). Given the unremitting incidents of food safety episodes and food-related diseases (Wang *et al.*, 2018), food safety has been recognized as the top apprehension among consumers (Tsakiridou *et al.*, 2008). Food safety concern, in its expansive logic, designate the extent to which people are concerned about pesticide deposits enclosed in food as well as about food scares (Pharm, *et al.*, 2010).

For all intents and purposes, consumers often link food safety concerns with the use of pesticides, fertilizers, antibiotics, artificial additives and preservatives in the food manufacturing process. Organic production techniques are well thought-out as being free of these objectionable chemicals (Rana & Paul, 2017). For instance, it has been said that routine buyers of organic chicken robustly accept as true that such a product has smaller quantity of deposits (Van Loo *et al.*, 2010). Food safety concern is the most applicable factor illuminating consumer demand towards organic products (Michaelidou & Hassan, 2008). Michaelidou and Hassan (2008) emphasize that product characteristics value such as food safety predisposed purchase intentions of organic products. Krystallis, Fotopoulos and Zotos (2006) concluded that consumers are anxious about food safety and they are prepared to pay higher price to purchase organic products for values in return.

### **Health Consciousness**

Health consciousness concerns to the preferred condition of safety and focal point to sustain a healthy life. Health consciousness is the most frequently affirmed motives for purchasing organic food by consumers (Pham *et al.*, 2018). Consumers with a sturdy intention to purchase organic food products assumed an optimistic environmental, human health and animal welfare outcomes (Magnusson *et al.*, 2003). Organic products are devoid of pesticide residues, which are capable of improving consumers' health.

Consumers understand that organically products are secured, better nutritional value and add to better health benefits than conventional foods. Hsu *et al.* (2016) established that health consciousness en route for organic products had a significantly positive effect on purchase intentions. It is therefore assumed that consumers' consciousness and knowledge with reference to organic products play a significant role in purchase decisions (Yiridoe *et al.*, 2007). Accordingly, Aertsens *et al.* (2011) unearth that objective as well as subject knowledge are positively related to attitudes in the direction of organic vegetable consumption, depicting that a contributory association, in that objective knowledge augments subjective knowledge, which in turn advances a person's attitude in the direction of organic product purchase and consumption. Equally, de Magistris *et al.* (2008) authenticate a positive relationship between consumers' self-reported organic knowledge and their attitudes in the direction of organic produce.

### **Environmental Concern**

Environmental concern mirrors emotions linked to environmental concerns (Lee 2008) influencing factor in decision to purchase organic food. In contrast, Leong and Paim (2015:482) affirm that consumers rarely take environmental concerns into thoughtfulness purchasing organic products. Dunlap and Jones (2012) refer to environmental concern as "the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution". Broadly, consumers who are anxious about the environment are inclined to build up positive environmental attitudes, articulate enthusiasm to pay more for environmental-friendly products and put on display of pro-eco-friendly behavior (Albayrak *et al.*, 2013; Nguyen *et al.*, 2016).

Environmental concern therefore appears to be a dynamic factor of organic product purchase intentions, and this has been largely accredited to being eco- friendly (Hughner *et al.*, 2007). Organic product consumers articulate curiosity in shielding the ecology and natural production process (Squires *et al.*, 2001). The growing consciousness on environmental

dilapidation has changed consumer attitude to purchase more eco-friendly and organic food products (Basha *et al.*, 2015). Environmental concern has been found to be a chief decider of consumer purchase intention for organic food products. Harper and (Nguyen & Nguyen 2016; Hassan, Loi & Kok 2015; Basha *et al.*, 2015; Makatouni, 2002) It has been acknowledged that, in addition to environmental consciousness, knowledge and attitude toward the environment positively affect the intention to buy green products (Maichum, Parichatnon & Peng, 2017) .

### **Purchase Intentions**

Purchase intention refers to a person's sensible design to seriously attempt to purchase a product (Singh, 2004). Purchase intention is based on a study between consumer behavior and his/her intentions, which makes this construct very important for consumer research (Ghalandari & Norouzi, 2012). Intention is a germane dimension in marketing literature, used by companies to predict sales of new products or the recurring purchase of accessible products ( Diallo, 2012), and it confirms the consumer inclination to purchase goods or services in the same store, and share product/service experience with friends and family (Cronin, Brady & Hult, 2000).

Purchase intention for organic products, can be affected by a number of components, such as health perception, environmental awareness, product availability, perceived quality, product distribution, nutritional value, among others. Rana and Paul (2012) illustrate that not only the health factor affects purchase intention, but also the accessibility and quality of these products. Consumers with strong purchase intentions to buy a product will ultimately have a keenness to pay for the product (Wu, Yeh & Hsiao, 2011). Purchase intention is a vital forecaster of the purchase intention of consumers (Phong, 2011). Therefore, it is imperative to comprehend the purchase intention of organic food products.

### **Empirical Review**

Some existing studies have tried to evaluate the nature of the impact of consumer demand for organic food products on purchase intentions. Some have identified positive relationship between both variables while some have identified negative relationship. A few others have also identified no relationship (i.e. no significant correlation). The following subsection presents relevant empirical studies on consumer demand for organic food products on purchase intentions.

Song and Liew (2019) investigate the young consumers' motives to purchase organic food in a developing nation (Malaysia), using four key motives of food safety concern, health consciousness, affordability and environment concern in the study. A self-administered questionnaire distributed to a convenience sample of 398 young consumers from Kuala Lumpur and Petaling Jaya, Malaysia. Data were analyzed by means of Structural Equation Modeling and the findings revealed that food safety concern, health consciousness, and environment concern have significantly influenced purchase intentions of organic food. Purchase intention is positively associated with the actual purchase of organic food. There was no significant effect of affordability on purchase intentions. The study recommends that, strategies to boost the quality, long-term health benefits, environment friendliness, and trim down in pricing of organic food should be undertaken.

Nguyen *et al.*, (2019) examined the integrative effects of consumers' personal and situational factors on their attitude and purchase behavior of organic meat in Vietnam. Data were unruffled by means of a customized and validated survey instrument from a sample of 609

organic meat consumers at four food outlets in Hanoi. The results established that consumers' concerns regarding the environment, health, food safety and their knowledge of organic food significantly impacted their attitude towards the purchase behavior of organic meat. Fascinatingly, positive attitude did not necessarily translate into actual purchase of organic meat. Furthermore, food stores' green marketing practices significantly improved consumers' actual purchase behavior. On the contrary, premium prices of organic meat were without doubt a disincentive for the actual purchase of organic meat.

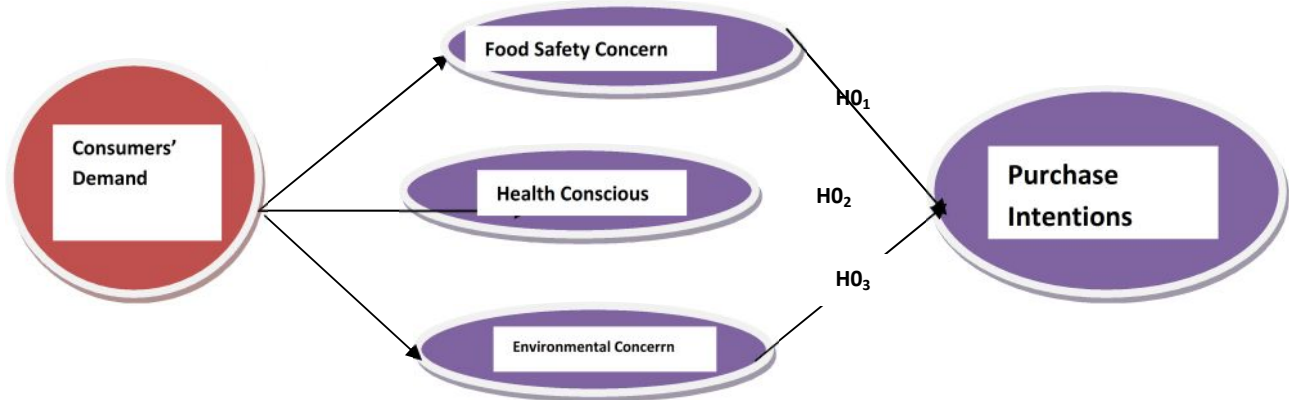
Mainardes, Araujo, Lasso, and Andrade (2017) explored the relationship between personal values and attitudes and the purchase intention of organic food in Brazil and discovered a positive influence of values allied to conservatism, self-promotion and openness to change regarding the purchase behavior toward this organic food.

Iyer, Davari, and Paswan (2016) looked into the relationship between purchase intention and variables such as price, value, social awareness and environmental awareness of green products. However, only environmental awareness was directly linked with purchase intention, corroborating the results of Yadav and Pathak, (2016). Liang (2016) considered other relationships between the purchase intention of organic food and properties, certification mechanisms, retail channels and prices of these products, and detects that factor such as certification, retail channel; nutritional value and environmental protection have a positive influence on the purchase intention. As for the price, where organic products were cheaper, consumers exhibited more concern for product certification. Thus, consumers underline trust in the store or the supermarket where such products were purchased.

Chandrashekar (2014) investigated consumers' perception towards organic products in Mysore City. The study used the survey method and gathered data from selected consumers of Retail outlets of Organic products, Organic Products Marketing Agencies, through a structured questionnaire, The Simple Random sampling techniques was used and the SPSS, Multivariate Analysis, ANOVA (Analysis of Variance) were used to analysis data. The study established that a lot of problems are encountered by respondents while purchasing the organic products in the markets, and that, consumers' enthusiasm to purchase is influenced by restricted and inconsistent supply, higher price of the products and very limited access and information.

Morteza, Hobbsb, and McNamara (2009) examined consumer willingness-to-pay a premium to purchase organic fresh fruit and vegetables with environmental and health attributes, on two locations in eastern New Brunswick. The Willingness-to-pay the premium was represented as a function of a series of demographic, socioeconomic and knowledge variables, plus degrees of awareness with reference to the environment, and risk attitudes. The findings demonstrate that when making food choices, although the environment may be considered as imperative, eventually consumers in eastern New Brunswick prioritize their health over the environment. Likewise, the more income households earn, and the more consumers see a probable negative impact on health from pesticides usage, the more probable they would be enthusiastic to pay a premium for fresh organic produce.

From the literature review the operational model for the study was developed:



**Figure 1:** Operational Model of Consumer Demand for Organic Food Products and Purchase Intentions

**Source:** Designed by the Researchers

The hypotheses for this study are formed to investigate the three independent variables of food safety concern, health consciousness and environmental concern towards purchase intentions, to draw a conclusion on consumers' demand for organic food products and purchase intentions.

Therefore, to explore the influence of consumers' demand for organic food products and purchase intentions, the following hypotheses were examined:

**H1:** Food safety concern does not significantly influence purchase intentions of organic food products.

**H2:** Health consciousness does not significantly influence purchase intentions of organic food products.

**H3:** Environmental concern does not significantly influence purchase intentions of organic food products.

### 3. METHODS

#### Sample and Data Collection

The respondents in this study were the existing consumers of organic food products in the Port Harcourt fruit garden market and 6 organic food product retail outlets in Port Harcourt, Rivers State, Nigeria. The sample size of 390 was derived and set with a confidence level of 95% and margin error at 5% (Raosoft 2018). Pilot test was conducted to test the survey questionnaire on 20 respondents. The respondents were selected using nonprobability convenience sampling method. The study targeted consumers present at the fruit garden market and organic food product retail outlets in Port Harcourt, Rivers State, Nigeria. Non-probability convenience sampling method provided suppleness to the study as the sample was accessed easily and higher survey response rate is achieved.. The items operationalizing the constructs in the research model were selected and adapted from measurement scales validated in previous research. To

measure *food safety concern*, 3 items were taken from Michaelidou and Hassan (2008). An added 3 items operationalizing *health consciousness* were modified from Tarkiainen and Sundqvist (2005), and for *environmental concern*, 4 items were espoused from Yadav and Pathak’s (2016). To measure the *purchase intentions* of organic products, 3 items in quest of respondents’ purchase frequency was assumed from Dean *et al.* (2012). The survey instrument was designed with 13 items anchored on a five point Likert scale (1: strongly disagree and 5: strongly agree). The scale measured food safety concern, health consciousness, environment concern, and purchase intentions. The survey using self-administered questionnaire was conducted between January to March 2020, during which time a total number of 339 surveys were returned. Besides, usage evaluation unveils 296 recovered and accessible questionnaires, representing 87.3.9% of the completed questionnaire. Accordingly, 296 copies of disseminated questionnaire were engaged for the study’s analysis. The Statistical Package for Social Sciences (SPSS) version 22 was used to perform descriptive analysis, validity and reliability analysis, and to test the hypothetical relationships between the proposed constructs.

**4. RESULTS AND DISCUSSIONS**

Data from the returned surveys were screened to examine potential missing data, outliers and normality of distribution. The final valuable sample therefore incorporated 296 responses. Of these, 210 (70.9%) were female and 86 (29.1%) were males. Additionally, the majority of the respondents (74.3%) were aged less than 50 years, 70.3% had higher education degrees, while majority belongs to income category between ₦30,001 to ₦60,000 (58%), The demographic profile of the respondents is depicted in Table 1.

**Table 1: Demographic Profile of Respondents (n-296)**

S/N	Gender	Frequency	Percentage (%)
i.	Female	210	70.9
ii.	Male	86	29.1

S/N	Age Bracket	Frequency	Percentage (%)
i.	<50	220	74.3
ii.	>50	76	25.7

Education	Frequency	Percentage (%)
i. Primary	22	7.4
ii. Secondary	66	22.3
iii. Tertiary	208	70.3



Monthly Income	Percentage
	(%)
i.< 30,000	24
ii.30,001-60,000	58
iii.60,001-90,000	11
iv.90,001-120,000	4
v.>120,000	3

Source: SPSS 22.0 Window output (based on 2020 field survey data).

Taken as a whole, it is rational to argue that the study’s sample is moderately representative.

### Reliability Analysis

The Cronbach's Alpha, composite reliability (CR) and average variance extracted (AVE) results are presented in Table 2. The reliability assessment is performed based on the internal reliability and CR. Internal reliability is achieved when the Cronbach's Alpha value is greater than 0.7, which indicated a high level of internal consistency in the data

**Table 2 Test of Reliability (n=296)**

Scale	Dimension	Items	Reliability
FSC	Food Safety Concern	3	0.761
HC	Health Consciousness	3	0.712
EC	Environmental Concern	4	0.802
PI	Purchase Intentions	3	0.912

Source: SPSS 22.0 Window output (based on 2020 field survey data).

For this study, the reliability analysis, as shown in Table 2, demonstrates that the Cronbach’s Alpha values for all constructs are above 0.7. The values of composite reliability (CR) for the four constructs were between 0.71 and 0.9, higher than the threshold level of 0.7. The CR values were 0.761 (food safety concern), 0.712 (health consciousness), 0.802 (environmental concern), and 0.912 (purchase intentions). It is therefore realistic to conclude that all the measures have good internal consistency of reliability.

### Hypotheses Testing

SEM was used to test the three proposed hypotheses. The results of the hypotheses testing are illustrated in Table 3. As specified, all the associations between each of the variables were significant. Consequently, H1, H2, and H3 were accepted. Distinctively, food safety concern

( = 0.269,  $p < 0.001$ ), health concern ( = 0.223,  $p < 0.001$ ), and environmental concern ( = 0.248,  $p < 0.001$ ) had a significant positive influence on purchase intention of organic food products.

**Table 3: SEM (structural equation modeling) results and hypotheses testing.**

Hypotheses		S.E.	t-Value	p-Value	Findings	
H1: Food Safety concern	Purchase Intentions	0.269	0.055	6.152	***	Supported
H2: Health Consciousness	Purchase Intentions	0.223	0.052	4.679	***	Supported
H3: Environmental Concern	Purchase Intentions	0.248	0.052	5.114	***	Supported

**Note: \*\*\*  $p < 0.001$ ; S.E.: standard error.**

Overall, the findings indicated that organic product consumers in Nigeria have prioritized on food safety concern, health consciousness, and environment concern as their motives to purchase organic food products. This study has developed and validated a model adopting key elements of the hierarchy of effects theory to explain purchase intentions for organic food products. The importance of further research into organic food product preference and purchase has been highlighted in the literature (Rana & Paul, 2017; Pham *et al.*, 2010). An outstanding finding in this study concerns the clear findings in the context of organic food product demand and purchase intentions of consumers in Nigeria. That is, Nigerian consumers' demand towards organic products is significantly deciphered into their actual purchase intentions. Whilst this finding increases the significance of preferences in encouraging organic food products purchases, it substantiates the attitude-behavior continuity in a novel research perspective, i.e., organic food product purchase in Nigeria. This consistency could be accredited to the affordability of organic food products.

This study has also extended the results of previous studies by broadly investigating diverse determinants of attitudes towards organic food product purchase. The findings reverberates the extant literature that advocate that food safety concern (Michaelidou & Hassan, 2005), health consciousness (Yadav & Pathak, 2016) and environmental concern (Smith & Paladino, 2010), significantly reinforce demand towards purchase intentions for organic food products. Conspicuously, among the determinants of organic food demand, food safety concern has the strongest impact on purchase intentions. As underscored by Thøgersen, Pedersen, Paternoga, Schwendel and Aschemann-Witzel (2017), food safety information had the prevalent

influence on purchase intentions for organic food products. This finding may be due to the high level of knowledge about organic products demonstrated by the respondents in this study. As such, the respondents widely appreciate the distinctive benefits and uniqueness of organic products, which might have favorably affected their mind-set towards buying the product. It is also interesting to note that environmental concern has the next strongest influence on purchase intention. This finding can be somewhat explicated in actuality that the respondents were urban dwellers, who fell under middle and high income, and are prone to be bothered more in relation to the environment.

## **5. CONCLUSION**

The objective of this study was to analyze the influence of consumers' demand for organic food products on purchase intentions. To do this, the study collected data and submitted them for statistical tests. Results indicated that food safety concern, health consciousness and environmental concern affect purchase intentions. Food safety concern was the strongest predictor of purchase intention, followed by environmental concern, and the last emerged as health consciousness. The study therefore concludes that the determinant of consumers' demand for organic food products have strong, positive and significant influence on purchase intentions. The study therefore concludes that the consumers' demand for organic food products has positive and significant influence on purchase intentions through food safety concern, environmental concern, and health consciousness.

## **6. RECOMMENDATIONS**

Organic food products marketers should prioritize on food safety concern, environmental concern and health consciousness benefits of organic food products to attain high purchase intentions.

Government should support local organic farmers by providing more subsidies and financial assistance to encourage more locally produced organic food products. This will actually promote food safety assurance for organic food products sold in the market and motivate consumers' purchase of the products.

The eco-friendly concept of organic food products should be prioritized. The government, manufacturers and retailers should work cooperatively with appropriate non-government organizations (NGOs) in the aspect of environment concern, to further promote organic food products to the consumers.

## **7. CONTRIBUTIONS OF THE STUDY**

The study offers some useful contributions. The first is the focus on organic food products in academic research. This topic, from the consumer's perspective, is not much explored in Nigeria, even with the growing market for these products.

Second, the theoretical contribution of this study is the validation and development of the Hierarchy of Effect Model (HEM) in the organic food product purchase context. In this study, food safety concern, health consciousness and environment concern have shown to be important constructs that influenced purchase intentions. Therefore, the findings on the influence of food safety concern, health consciousness and environment concern on purchase intentions have

validated the three stages of HEM model of cognitive (motivational factors), affective (purchase intentions) and conative (actual purchase) components.

From a managerial perspective, this study presents valuable information to organic food product marketers in emerging countries in quest of boosting sales and realizing enduring growth in business. Organic food marketers could therefore, plan and execute more effectual targeting and positioning strategies to increase consumers' demand on the organic food products.

## **8. LIMITATIONS**

Despite all methodological precision adopted in the research, the study portrayed some limitations:

The first limitation of this present study is its generalizability since; the sample is composed of urban consumers in Port Harcourt city only.

Additionally, the study's sample was not large enough, so the study could not conduct more advanced statistical analyses.

## **9. DIRECTION FOR FUTURE STUDIES**

The validated research model in this study pooled personal factors (food safety concern, health consciousness and environmental concern) to satisfactorily explain purchase intentions. It therefore, can serve as a framework for future studies in other emerging market economies.

Furthermore, to attend to the limitation of this study's sample on generalizability, future studies should elicit data from respondents situated in other major cities of Nigeria, such as Lagos, Ibadan, Kano and Abuja. It might be attractive to assemble data from consumers in rural areas, which facilitates a comparative investigation amid rural (lower income) and urban (higher income) consumers.

Finally, in addition to attending to consumers' purchase intentions, future studies may perhaps seek to measure the observed purchase behavior of organic food product consumers. Future research could investigate alteration in organic products demand over time by performing a longitudinal study.

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