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Post-Covid-19 Attributes and Organic Food Purchase Behavioral Intention Nexus: Navigation to Elicit Health Consciousness Mediation Role

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Abstract

The COVID-19 pandemic made critical transformations in lifestyle facets, human interests, and health concerns that would influence diet habits and organic food purchase behavioral intention, and the trend has continued. This study examined health consciousness mediation in the link between post-COVID-19 and organic food purchase behavioral intention. The population consisted of organic food consumers in the Asir area (region) in the South Kingdom of Saudi Arabia. The sample size was for regular and non-occasional organic food consumers. The data collection used a questionnaire, and the analysis was only for 435 valid questionnaires. The results showed that post-COVID-19 attributes influenced health consciousness and organic food purchase behavioral intention. In addition, health consciousness partially mediated the relationship between post-COVID-19 attributes and organic food purchase behavioral intention. This study conclusively showed that the health consciousness construct mediated the relationship between post-COVID-19 attributes and organic food purchase behavioral intention. In turn, the findings might help businesses and marketers design the relevant policies that would urge the consumers' health consciousness and purchase behavioral intention to fall into organic food and promote business strategy designs to foster performance.

Keywords: *health consciousness, COVID-19, post-COVID-19 attributes, purchase behavioral intention, organic food.*

1. Introduction

As life progresses, the worry about the new and future orientation and choice of food eating type, production methods, and consumption patterns dominates the world scene after the Coronavirus pandemic. Suddenly, the recent terrifying health events of COVID-19 have scared the world and changed many consumer lifestyles over the past four years. In addition, COVID-

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19 occurrence has strongly influenced food production and consumption globally (Galali, 2021). Qi and Ploeger (2021) noted that the pandemic of COVID-19 has out-broken globally and impacted consumers' habits, styles, and behaviors to opt for healthier and sustainable food consumption and safe food choices. Although in the scene post-COVID-19, there are semi-perfectly controlling the pandemic with no more infected cases appearing in the communities, a new lifestyle has emerged (Latip, Newaz, Latip, May, & Rahman, 2021) together with renewed old attributes that begin to impose themselves to consumers and business.

Strangely, sometimes a harmful occurrence in life perhaps makes it later beneficial for several parties, despite its cruelty that leaves people grieving for the death of loved ones or the possibility of the eternal loss of their lives. The clear benefit is that the consumers have begun changing their hygiene behaviors (Głąbska, Skolmowska, & Guzek, 2020) and consumption patterns (Yuen, Wang, Ma, & Li, 2020). In addition, there are changes in lifestyles and intentions to increase the consumption behavior of sustainable green products as organic food in the COVID-19 diffusion time and continue in the post-COVID-19 era (Hu, Bhuiyan, Rahman, Hossain, & Akter, 2022). Therefore, thanks to Corona for upgrading attention to health concerns.

Before COVID-19, Román, Sánchez-Siles, and Siegrist (2017) exhibited that consumers looked interested in buying natural, hormone-free, and antibiotic-free food due to their rising considerations about health and the environment in synchronized care. After, Van Huy, Chi, Lobo, Nguyen, and Long (2019) confirmed a high demand growth for organic food in the past years. However, it is even smaller regarding consumers' organic food intention (OFPBI) (Curvelo, Watanabe, & Alfinito, 2019). Meanwhile, consumers during the COVID-19 outbreak opted favorably for organic food over its alternatives in battling the consequences (Pang, Tan, & Lau, 2021).

Notwithstanding, there are increasing research efforts that have examined organic food consumption due to the high regard for sustainable foods and healthy lifestyles (Lazzarini, Visschers, & Siegrist, 2018), the number of studies on consumers of organic food still is few rates (Nandi, Bokelmann, Gowdru, & Dias, 2016). Hence, examining organic food purchases at the consumers' sight gains regular research priority to apprehend consumer intention and demand (Latip, Newaz, Mohamad, Tumin, Rahman, & Noh, 2021). Notable, increasing intent to purchase and consume organic food attribute had prevailed in the pre-pandemic era and has continued during COVID-19, and possibly go on post-COVID-19, perhaps at least to avoid the risk of repeating the bad experience and bringing back sad memories of the famous pandemic. Bibi (2022) confirmed that COVID-19 has positively influenced OFPBI. Conversely, Abid, Jahan, Agha, and Hussini (2022) affirmed that a considerable portion of the respondents in their study reported that COVID-19 does not affect their OFPBI.

Additionally, health consciousness (HC) attributed toward consumers' OFPBI is presumed to increase in post-COVID-19 time as the learned lessons ensure the necessity of being mindful of the issue linked with healthier and safer food like organic food. The COVID-19 pandemic has transformed individuals to concede the value of carefully maintaining personal health (Saufi, 2022). Previously, Donga, Roman, Adebiyi, Omukunyi, and Chinyakata (2021) highlighted the necessity of regularly checking a person's health and well-being to prepare for fighting future pandemics like COVID-19. In line with this, the research findings revealed a positive nexus between HC and consumers' OFPBI via consumer involvement (Iqbal, Yu, Zubair, Rasheed, Khizar, & Imran, 2021). Contrariwise, Zayed, Gaber, and El Essawi (2022) confirmed that HC does not affect the consumers' purchase intention. Notably, previous

studies have concentrated on the antecedent variables of OFPBI, but their conclusions have not informed consent on the influential factors (Janssen, 2018). Hence, HC indicated no significant influence and nexus on consumers' OFPBI products (Ayub, Naziman, & Samat, 2020; Hsu, Chang, & Lin, 2016).

On the research platform, Qi, Yu, and Ploeger (2020) revealed that research examining COVID-19's impact on consumer behavior, in general, needs more research investigation as long it is at a budding stage where post-COVID-19 consequences increased ambiguities of generalization. In addition, the utmost research analyses on organic food consumption and purchase rates were in developed countries (Yadav & Pathak, 2016), while few research diagnoses focused on dissecting organic food within the developing markets milieu (Basha & Lal, 2019). However, according to Chetioui, Butt, Lebdaoui, Neville, and El Bouzidi (2023), there has been restricted focus on the facets that impact consumers' intention to purchase organic food in developing markets within the current post-pandemic literature. According to Das, Nayak, and Naik (2023), exploration still needs much more ink regarding the impact of COVID-19 on health. In the adjacent scientific area, more research needs to determine optimal approaches to health promotion in the post-COVID-19 era (Robertson, Lee, Wu, Liao, Raber, Parker, Basen-Engquist, et al. 2022). Thus, it may be helpful to focus on HC, which has changed people's lifestyles to a new normal, and to know how HC as a mediator motivates the state of the relationship between post-COVID-19 attributes and OFPBI. Therefore, HC will play a significant role in shaping consumer behavioral intention toward organic food purchases and expecting any future potentiality that will influence the existing relationship.

Back to the start, thus, after the global decay of the post-COVID-19 pandemic, it is sounder to scrutinize the nexus examination of post-COVID-19 attributes and OFPBI of consumers. Likewise, it is honest to keep an eye on certain variables linked with the health consciousness for a mediation role play in such a nexus to reassess the examination analyses after the abnormal conditions people lived in during the pandemic era. Consequently, this study scrutinizes the relationship between post-COVID-19 attributes and organic food purchase behavioral intention and dissects the mediating role of health consciousness. Hopefully, the conclusions of this study will supply valuable literature contributions to comprehending the post-COVID-19 epoch and assist businesses in preparing their strategies, tactics, and operational plans accordingly.

2. Literature Review and Hypotheses and Model Development

2.1 Organic Food

The term organic eating concept is widespread in developed countries where advanced societies live as long as knowledge comes of the abundance of literature covering purchase intentions of organic food besides consumption (Yadav, Singh, Srivastava, & Ahmad, 2019). Also, the term organic indicates the agricultural process systems adopted in agriculture that are free of applying traditional or synthetic pesticides, fertilizers, sewage sludge, irradiation, or artificial flavors, colors, or preservatives to produce agricultural products (Akter, Ali, Fekete-Farkas, Fogarassy, & Lakner, 2023). However, Latip, Newaz, Ramasamy, Tumin, and Noh (2020) shortened the organic food definition by concentrating on the safe and healthy type of food the consumer opts to consume. Accordingly, organic food is a product of unique characteristics and attributes that ignite a consumer's purchase intention (Curvelo, Watanabe, & Alfinito, 2019). Thus, consumers become better conscious about the type of food they intentionally

purchase that emphasizes attributes of organic, quality, safety, and healthy features. Despite the high cost of organic food, many consumers believe that organic food benefits are worth the extra cost. According to Savarese, Wismer, and Graffigna (2020), consumers perceive natural and organic food items as more authentic than non-organic ones.

2.2 Purchase Behavioral Intention

Intention is a specificity to behave certainty (Ramayah, Lee, & Mohamad, 2010). Further, the intention notion initially appeared in psychology, which refers to a person's subjective concept of performing a particular act. The researchers in marketing considered purchase intention derived from its links with the attitude and behavior of buying products (Abdelkhair, Babekir, Mudawi, & Al. Abiad, 2023). According to Cong and Zheng (2017), consumer purchase intention implies the willingness and decisions consumers make during the purchase process. In addition, purchase intention is the probability gauge of consumers buying specific products (goods or services) (Lie, Riantini, & Tjhin, 2022). Therefore, purchase behavioral intention centralizes on consumers' willingness to shop, exerting efforts to buy products, and plans for a future buy (Latip, Newaz, Ramasamy, Tumin, & Noh, 2020) and measuring the consumer's probability of buying. In short, behavioral intention is the engagement in a behavior (Arfansyah & Marsasi, 2023; Oliver, 1997), and it compasses three sub-dimensions representing intention to use, word-of-mouth intention, and ended by the willingness to pay more (Hwang, Kim, & Lee, 2020).

2.3 COVID-19

The COVID-19 pandemic has proven to be a unique challenge that continues to affect people worldwide. Of course, considerable infectious diseases have diffused in world different areas, SARS, virus influenza H1N1, the Ebola disease, and MERS, in 2003, 2009, 2014, and 2015 respectively (Huang, Makridis, Baker, Medeiros, & Guo, 2020). Interestingly, little research demonstrated how COVID-19 has spread from bats to humans via virus transmission. Several attributes linked to the COVID-19 pandemic have driven discourteous impacts, such as dying, which leads to economic recessions and depressions (Sigala, 2020). According to Albu, Preda, Lupu, Dobrotă, Călin, and Boghicevici (2020), the COVID-19 pandemic has provoked a transnational crisis in eclectic humanitarian, social, and economic areas. Thus, the realistic misfortune is that the consequence of the COVID-19 pandemic still has been descending across all aspects of human life, from the economy to healthcare, the environment, social and cultural norms, and education. Eventually, post-COVID-19 is the state that followed the decline of the pandemic, in which the rate of infection with COVID-19 disease decreased, and the virus that transmits it is no longer widespread and effective among people.

2.4 Health Consciousness (HC)

The famous definition of the term health by the World Health Organization in 1948 implies that the word health is not just about the absence of diseases or illness, and accordingly, being healthy means a state where a person feels complete physical and mental well-being, along with having a perfect sense of social status. Health is not limited to the absence of illness because it encompasses a wide range of factors that contribute to one's overall well-being. In addition, it is a combination of external and internal resources such as a healthy lifestyle, access to healthcare, and a positive mindset. Besides, a supportive environment that enables individuals to pursue a good life (Schramme, 2023). Xu, Wang, and Yu (2020) indicated that HC is the penchant to be advertent to personal health. Logically, HC gauges the readiness of persons to decide on health actions (Wang, Pacho, Liu, & Kajungiro, 2019). Accordingly, HC involves

being aware of the importance of healthy habits and taking action to maintain or improve one's health via eating healthy and safe food and being committed to health conditions while caring about well-being. Thus, consumers' HC involves individuals' health concerns, striving to improve their quality of life by engaging in healthy diets and behaviors and continuing to think and become mindful of related health issues.

2.5 The Post-COVID-19 Attributes and Health Consciousness

Donga, Roman, Adebiyi, Omukunyi, and Chinyakata (2021) stated that as the COVID-19 crisis continues with new strains emerging, people are consistently adjusting their hygiene and health strategies for dealing with the pandemic. Xu, Wang, & Li (2021) exhibited that individuals with a higher degree of health concern are more sensitive to changes in the external environment. Further, Donga, Roman, Adebiyi, Omukunyi, and Chinyakata (2021) afforded that COVID-19 has resulted in families becoming increasingly hygienic, and some participants in their field study revealed that they also learned to take an active interest in their health and stressed being more conscious of what they consumed and the risks of getting infected. Probably, such a trend will continue even after the pandemic subsides completely. Schimmenti, Billieux, and Starcevic (2020) have stated that the COVID-19 pandemic boosted people's interests and health concerns.

Therefore, Asuamah (2023) conclusively implied that COVID-19 as a severe pandemic has led to their consumers' emphasis on health, sustainability, and ethical consumption, impacted their purchasing decisions, and altered consumer picks for elemental goods and services in several developing countries in the globe. As for attributes in the post-COVID-19 era, consumers demand hygiene as long as cleaning and sanitization can control the space of the disease, besides utmost commitment toward safety protocol (Nayak, Bhinder, & Kaur, 2021). In addition, security concerns include health, acquiring authentic information, and quality (Kővári & Zimányi, 2011). Thus, post-COVID-19 individuals' attitudes may sensitively focus on their health and safety. Henceforth, based on the above results and arguments, this study hypothesizes the following:

H_1: *Post-COVID-19 Attributes have a Significant Statistical Impact and Relationship with Health Consciousness.*

2.6 The Post-COVID-19 Attributes and Organic Food Purchase Behavioral Intention

The COVID-19 pandemic decline has left several characteristics and attributes as long it has affected individuals in terms of concern for personal health safety, shifted the consumption pattern towards organic food, and moved intentionally to buy and consume highly healthy food product quality such as organic foods as the consumers become more health conscious. In general, the pandemic's severity has resulted in a shift in human behavior, as evidenced by Mehta, Saxena, and Purohit's (2020) study. The perception is that consumers lean toward picking organic food as the healthiest option, which evidentially is gaining traction (Wang, Pacho, Liu, & Kajungiro, 2019). The COVID-19 pandemic has instigated a noteworthy metamorphosis in consumers' and societies' thoughts, beliefs, and practices regarding the market demand for organic food products (Grinberga-Zalite, Pilvere, Muska, & Kruzmetra, 2021; Mehta, Saxena, & Purohit, 2020). As per Grinberga-Zalite, Pilvere, Muska, and Kruzmetra (2021), this trend is rising at these moments. Accordingly, Latip, Newaz, Mohamad, Tumin, Rahman, and Noh (2021) ascertained that the trend probably continues even after the pandemic. Further, there might be changes in consumers' intent to purchase organic food due to the impact of the pandemic (Chaturvedi, Rashid Chand, & Rahman, 2021).

Additionally, it is fascinating to see how pickings consumers make regarding the food they consume, and incorporating organic products as healthier food into their diets could be a valuable choice for their health and well-being. Meaningfully, organic food consumers find organic foods are sustainable, healthier, and safer, besides higher quality nutritional contents whenever they compare against conventional food (Marian & Thøgersen, 2013). Hence, COVID-19 pushed consumers to increasingly choose organic food products due to healthier, safer, and environmentally friendly characteristics (Ghufran, Ali, Ariyesti, Nawaz, Aldieri, & Xiaobao, 2022). Thus, the crisis of COVID-19 changed consumer perceptions of safe and healthy organic food that is often costly and not easily accessible. Henceforth, reclining on the above results and arguments, this study hypothesizes the following:

H_2: Post-COVID-19 Attributes have a Significant Statistical Impact and Relationship with Organic Food Purchase Behavioral Intention.

2.7 Mediating Role of Health Consciousness

Therefore, there is an awareness of significant healthful lifestyles, and health consciousness is becoming the factor that lures and inspires humans to prefer organic food (Wojciechowska-Solis & Barska, 2021). The confirmation is that if consumers are health conscious, organic food would be their first choice (Castellini, Savarese & Graffigna, 2021; Iqbal, Yu, Zubair, Rasheed, Khizar, & Imran, 2021; Nagaraj, 2021). Additionally, the literature assures a positive and significant effect of consumers' health concerns on behavioral motives for healthy food consumption. Besides, many scholars ensured that HC is a crucial construct of consumption behaviors (Qi, Yu, & Ploeger, 2020). In addition, several studies presented more than a few findings that ascertained the impact of HC on organic food behavioral intentions. Additionally, HC is a substantial cause for motivating people intentionally to fall into mode and practice buying and consuming organic products as a favorable alternative (Katt & Meixner, 2020; Parashar, Singh, & Sood, 2023).

According to Asif, Xuhui, Nasiri, and Ayyub (2018), organic food grows when consumers' awareness of healthy diet consumption increases. However, the reason that inspires consumers to purchase organic foods relates to health and the environment (Hansen, Sørensen, & Eriksen, 2018). Moreover, Qi, Mou, Meng, and Ploeger (2023) authenticated that HC recreates a consequential position in turning consumers' purchase behavioral intention of organic food into the post-pandemic period. Previously, HC affects organic food purchase intention (Hsu, Chang, & Lin, 2016; Hsu & Liang & Lim, 2020; Kabir & Islam, 2022; Köse & Kırcova, 2021). Correspondingly, HC affected purchase intention after the pandemic (Chetioui, Butt, Lebdaoui, Neville, and El Bouzidi; 2023; Wathanakom, 2023), while several studies ensured the reverse, as Abid, Jahan, Agha, and Hussini (2022) denied that HC is an influential factor that lures consumers purchase intention according to a marked portion of the studied sample. Therefore, it is not a secret, and it is remarkable that many consumers become increasingly health-conscious and turn to organic food with consideration worries about the impact of pesticides and other chemicals on their bodies.

Hence, the COVID-19 pandemic has altered human behavior, including consumer behavior and consumption patterns; it has affected lifestyles, buying intentions and behaviors, wants, and the way to consume goods and services (Martin, Markhvida, Hallegatte, & Walsh, 2020; Verma & Naveen, 2021). Also, it has been confirmed by several deductions, as stated by Qi, Mou, Meng, and Ploeger (2023), that buyers' organic foods behavior underwent noteworthy changes during the COVID-19 pandemic, with a marked shift towards safer and healthier

organic food options. These behavioral changes are distinct from those observed before the pandemic and likely to persist in the post-COVID-19 era.

Notable, Signorelli and Fara (2020) announced that the COVID-19 pandemic continuity excavated the critical essence of the appropriate application of public health ideas currently assumed insignificant, such as healthy eating, personal hygiene, personal protective equipment, or basic epidemiological measures. Sequentially, Xu, Wang, & Li (2021) exhibited that, faced with the impact of COVID-19, the self-protection awareness of people is constantly increasing, and the degree of attention to their health is significantly increased. Accordingly, Chaturvedi, Rashid Chand, and Rahman (2021) highlighted that after COVID-19, people understood the value of nutritious food, which can increase their immune system and prevent coronavirus.

Thus, during COVID-19, consumers choose food based on the food choice motives of health and nutritional quality (Skalkos & Kalyva, 2023) and consumer interest in functional and organic food (Galanakis, 2021). Newly, Natarajan, Geetha, and Jayapal (2022) confirmed that in the post-pandemic situation, the interest in healthy food positively influences the purchase intention of branded functional beverages, such as clean labels with organic ingredients. Therefore, consumers will adapt to the new normal situation, and some behavioral changes resulting from the pandemic might continue (Li, Yao, Osman, Zainudin, & Sabri, 2022). Henceforth, reclining on the above results and arguments, this study hypothesizes the following:

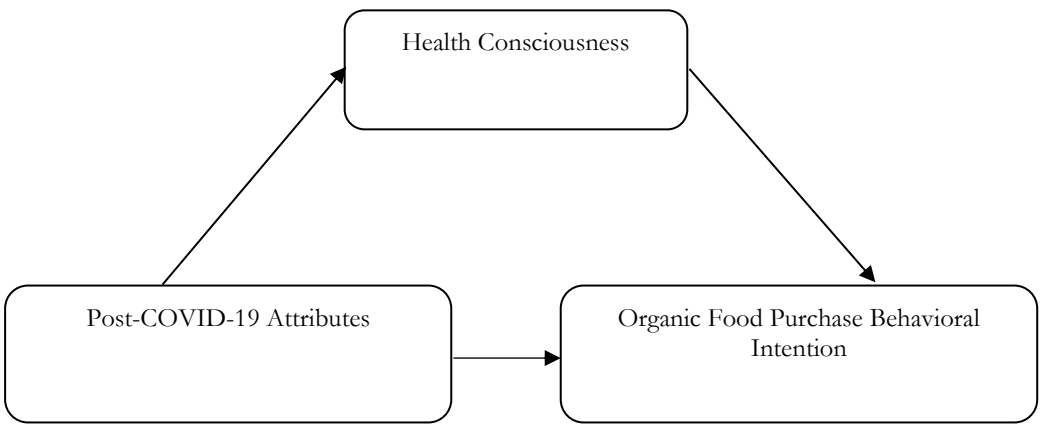
H_3: *Health Consciousness Has a Significant Statistical Impact and Relationship With Organic Food Purchase Behavioral Intention.*

H_4: *There is a mediating role of health consciousness on the relationship between post-COVID-19 attributes and organic food purchase behavioral intention.*

2.8 Theoretical Model of the Study

Reclining on the literature and previous findings, Figure 1 provides a theoretical basis for constructing the study theoretical model that has presented the study hypotheses and finally suggests the mediation role of HC on the relationship between post-COVID-19 attributes and OFPBI.

Figure 1: Theoretical Model of the Study.



H_1 **H_3** **H_2**

Source: The Researchers, 2023.

3. Methodology

3.1 Research Method

The study followed a descriptive-analytical method as a suitable research method for the nature of the studied variables.

3.2 Sample

Conduction of this study was on consumers of organic foods in the Asir area (region) of the southern Kingdom of Saudi Arabia (KSA), which has a population of 2,024,290 person. Due to the large size and spread of the population, it was hard to reach all members regarding the study variables. Therefore, the study utilized a non-probabilistic design method, focusing on a convenience sampling design using a self-selection sampling approach (Saunders, Lewis, & Thornhill, 2016) to select 435 organic food consumers. Additionally, the study utilized snowball sampling, which relied on the interpersonal relationships of sample participants to help fine-tune the distribution of the online questionnaire and increase the participants by ensuring that the sample met the characteristics of having regular and occasional purchasing and consuming of organic food, possessing smart Internet devices, and using Internet services. Notable, the advice was to send the online questionnaire to those who had appropriate knowledge and education.

According to the sample size table, the lowest sample size needed for this study could be 140 participants since it included 14 survey items and three variables (Hair, Black, Babin, & Anderson, 2014). Additionally, when the number of variables equals three, the study sample equals 45 participants (Stevens, 1996). It is worth noting that, to confirm the creditable generalization, the study included 435 participants, which exceeded the highest recommended guidance number for sample size, which as suggested by Sekaran and Bougie (2016) is 384. Notable, the chosen sample knows and deals with organic food. Digesting educational statuses could be noteworthy main socio-demographic characteristics with long-lasting forecasts on perceived health concerns and food consumption-related issues in the long run (Tsakiridou, Boutsouki, Zotos, & Mattas, 2008).

3.3 Measurement Instrument & Data Collection

Based on the various previous studies and literature related to the study issues, the study developed the questionnaire items constructs of a five-point Likert scale, which meanders from 1 (totally disagree) to 5 (totally agree). The personal data of the questionnaire were five items, including gender, age, social status, nationality, and job. In addition, in this study, three items for every pivotal variable were HC, OFPBI, and Post-COVID19 attributes. As for HC, the items development of the questionnaire based on (Abid, Jahan, Agh, & Hussini, 2022; Qi & Ploeger, 2021; Yadav & Pathak, 2016); as for OFPBI, the items based on (Prakash, Singh, & Yadav, 2018; Phan & Mai, 2016); and as for post-COVID-19 attributes, the items based on (Katt & Meixner, 2020; Qi, Tian, & Ploeger, 2021).

For data collection, a copy of the initial questionnaire was distributed to 40 business administration and marketing academicians for technical reviews on the questionnaire design to benefit from their views and to see the initial reliability of questionnaire items for further improvement in the final questionnaire version. Three months after the distribution process (from February up to May 2023), the data collection of the questionnaire responses reached 435 respondents, representing the sample size of this study.

3.4 Statistical Tools

Of course, the study exhibited the frequencies, means, and standard deviations to describe the sample personal data and rank the studied variables adopting the bases of 1 - 1.80 (*Very Low*) up to 4.21-5 (*Very High*). The study utilized several statistical techniques and tools to analyze the collected data. It used *SPSS* and *Amos* programs to tackle statistical analyses employing structural equation modeling consisting of the confirmative factor analysis to assess the item's reliability, validity, model fitness, and pass analysis technique. In addition, the study employed Cronbach's Alpha, Composite Reliability (*CR*) measurement, the validity of the data by Average Variance Extracted (*AVE*), and Criterion Validity (*CV*). Notable, the study utilized the *Amos* program tools considering structural equation modeling tackling confirmatory factor analysis to know the statistical loading observed and latent variables positions. Further, using path analysis to estimate a structural model for testing the different statistically significant impacts and correlations of the studied variables, and lastly, knowing the mediation functional role of the HC construct on the post-COVID-19 attributes and OFPBI nexus.

3.5 Sample Profile Description

The respondents' data profile displayed that the studied sample's dominant gender was male category 66.4%. Besides, the nationality of not Saudis overlooked the studied sample equals 67.8%. Also, (51.7%) of the respondents were aged 40 < 50 years. The sample domination was for those who were in a continuing marriage with children (74.7%). At last, the assistant professors filled the jobs by (64.4). Additionally, the correlations of the variables were 0.565 (moderate) and 0.721 (strong) between post-COVID-19 and HC and OFPBI respectively. However, the correlation between HC and OFPBI was 0.644.

4. Data Analysis and Results

4.1 Variables Descriptive Analysis

Table 1: Descriptive Statistics of Studied Variables & Correlations.

Variables	Mean	Standard deviations	Levels	Correlations		
	Values		Rank	(1)	(2)	(3)
Post-COVID-19 Attributes (1)	3.743	0.985	High	1	0.565***	0.721***
Health Consciousness (2)	4.046	0.700	V. High		1	0.644***
Organic Food Purchase behavioral Intention (3)	3.935	0.861	High			1
TOTAL	3.908	0.706				

Source: Processed Data of Field Study, 2023.

In Table 1, the means of post-COVID-19 attributes (independent) and OFIBP (dependent) variables are at a high level, whereas HC (mediator) is at a very high level.

4.2 Model Fitness, Reliability, and Validity Analysis

The structural model evaluated the theoretical model reliability, validity, and model goodness fit indices check of this study in Figure 1. In line with measuring reliability, the study used Cronbach α (coefficient) to measure the internal consistency of the questionnaire in Table 2. However, Hair, Black, Babin, & Anderson (2014) proposed 0.70 for the lower limits of

Cronbach α; the measure will accept the value of 0.60. According to the achieved results, the overall scale coefficient value was > 0.70 (α = 0.887). Besides, the subscale coefficient values were also greater than 0.70 (α = 0.883 for post-COVID-19 attributes, α = 0.730 for HC, and α = 0.895 for OFPI). Eventually, the calculated coefficients are above the generally accepted value of 0.70. Therefore, all reliability scales proved acceptance good levels that meet adequate reliability suggestion.

Regarding the study's confirmatory factor analysis (CFA) via AMOS, likely all-around model fitness seemed good. Additionally, all loading of the other 8 study items scored 0.70 and above except items 4 and 8 (0.58 and 0.69) in Figure 2, which indicated good loading factors. Likewise, in Table 2, the Composite Reliability (CR) of all the constructs scored 0.60 and above, which meant good internal consistency and reliability. As for validity measurement assessment in Table 2, constructs of Average Variance Extracted (AVE) of most variables scored higher than 0.50, indicated convergent constructs validity and met the adequacy (Fornell & Larker, 1891), besides the Criterion Validity is 0.943. The discriminant validation in Table 2 also showed that the diagonal square root of AVE and the correlation value for the constructs stood higher than the underlying correlation value of other constructs in off-diagonal (Fornell & Larker, 1891), achieving discriminant validity, and all estimates were significant.

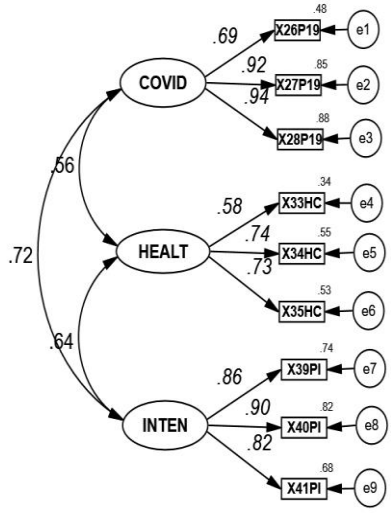
The *CFA* in Table 2 results implied a Chi-square of Freedom (*CMIN/DF*) of 1,561 with a significant *P*-value of 0.000 and a Comparative Fit Index (*CFI*) of 0.971. In addition, the Incremental Fit Index (*IFI*) of 0.97, Goodness of Fit Index (*GFI*) of 0.913, Tucker-Lewis Index (*TLI*) of 0.956, Normal Fit Index (*NFI*) of 0.93, Standardized Root Mean Residuals (*SRMR)* of 0.053, and Root Mean Square Error of Approximation (*RMSEA*) of 0.074. Thus, the result indicates that all data corresponding to the achieved indicators fitted a minimum and good model regarding the studied theoretical model. Accordingly, the measurement indicators of the model were acceptable.

Table 2: Results of Reliability Analysis, Validity Analysis, and Model Fit Indices.

Construct	**Cronbach's α**	**CR**	**AVE**	**Post-COVID1-9 Attributes**	**HC**	**OFPBI**
Post-COVID-19 Attributes	0.883	0.892	0.737	0.858		
HC	0.730	0.727	0.473	0.565***	0.688	
OFPBI	0.895	0.897	0.744	0.721***	0.644***	0.863
Total	0.887	Model Fit Indices, Measures, and Standards				
Category		**Fit Indices**		**Model Measures**	**Standards**	
Parsimonious Fit		X^2/df		1.562	< 3	
		Chi-Square		50,515	< 149,885	
Incremental Fit		CFI		0.97	> 0.900	
		IFI		0.97	> 0.900	
		TLI		0.96	≥ 0.900	
		NFI		0.93	> 0.900	
Absolute Fit		GFI		0.91	> 0.900	
		RMSEA		0.074	< 0.080	
		Standardized RMR		0.053	< 0.080	

Source: Processed Data of Field Study, 2023.*Note.* **p* < 0.10; ***p* < 0.05 *p* < 0.001

Figure 2: Confirmatory Factor Analysis



Sig. P-value = 0.000
CMIN/DF = 1.561 CFI = 0.971
TLI = 0.956 RMSEA = 0.08

Source: Processed Data of Field Study, 2023.

4.3 Hypotheses Testing Results of Direct & Indirect Relationships

Table 3: Path Coefficients of Direct and Indirect Hypotheses Testing Toward Mediation.

NO.	Relationship tested			Std. est. β	SE.	C.R.	P-Value	Decision Sig. (P < 0.05)
	Independent & Mediator	Path	Dependent					
1	Post-COVID-19 Attributes	→	HC	0.294	0.069	4.243	0.001	Supported
2	Post-COVID-19 Attributes	→	OFPBI	0.452	0.074	6.121	0.001	Supported
3	HC	→	OFPBI	0.380	0.104	3.595	0.001	Supported

Source: Processed Data of Field Study, 2023. *Note.* *p < 0.10; **p < 0.05;***p < 0.001.

The study utilized the structural equation modeling for different statistical analyses and to test the direct and indirect study relationships as in Table 3 and Figure 3 path analysis out results summarized the post-COVID-19 attributes direct result was positively and statistically significant towards health consciousness (β = 0.294; CR = 4.243; p-value = 0.001). Accordingly, when post-COVID-19 attributes increase by one standard deviation, the health consciousness increases by 0.294. Therefore, the result supported H_1. Additionally, post-COVID-19 attributes direct result was positive and statistical significance towards organic food purchase behavioral intention (β = 0.452; CR = 6.121; p-value = 0.001). Accordingly, when post-COVID-19

attributes increase by one standard deviation, the organic food purchase behavioral intention increases by 0.452. Hence, the result supported H_2. Lastly, the health consciousness direct result was positively and statistically significant on organic food purchase behavioral intention (β = 0.380; CR = 3.595; *p*-value = 0.001) Table 3 and Figure 3. Consequently, when health consciousness grows by one standard deviation unit, the organic food purchase behavioral intention rises by 0.304. Accordingly, the result supported H_3.

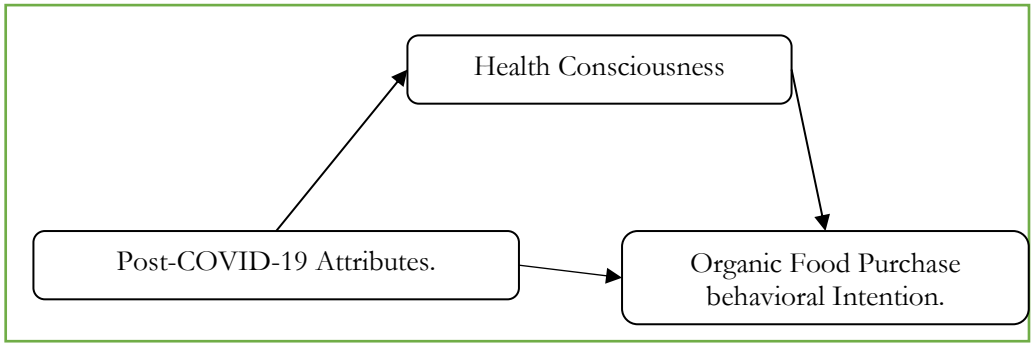


Figure 3: Model of the Study.
0.294 0.380
0.452
Source: Processed Data of Field Study, 2023.

The indirect effect analysis of the model confirmed the partial mediation of health consciousness, as long as a direct regression effect of post-COVID-19 attributes resulted in organic food purchase behavioral intention of 0.452 with a *P*-value of 0.001 compared to the total effect metric of the same relationship equal 0.563. Therefore, the result insinuated that health consciousness partially mediated the relationship between post-COVID-19 attributes and organic food purchase behavioral intention, which implied post-COVID-19 attributes' indirect consequence on organic food purchase behavioral intention via health consciousness. Accordingly, the result supported H_4.

5. Results Discussion

The study results support all suggested hypotheses to the extent that the conclusion vouchsafes that health consciousness partially mediates the relationship between post-COVID-19 attributes and organic food purchase behavioral intention. Notably, several findings confirmed that COVID-19 has continued to influence many aspects of life at the personal and public life levels consistent with (Latip, Newaz, Mohamad, Tumin, Rahman, & Noh, 2021) findings. In addition, it continues affecting thorough health aspects coping with the results of previous studies (Chaturvedi, Rashid Chand, & Rahman, 2021; Donga, Roman, Adebiyi, Omukunyi, & Chinyakata, 2021).

The present study exhibits that there is a positive and significant of post-COVID-19 attributes towards health consciousness. In the post-COVID-19 era, the current result is in line with the findings of the previous studies (Asuamah, 2023; Donga, Roman, Adebiyi, Omukunyi, & Chinyakata, 2021; Saufi, 2022; Xu, Wang, & Li, 2021). Even during with (Schimmenti, Billieux & Starcevic, 2020; Signorelli & Fara, 2020) regarding hygiene applications and health attention-getting. This result indicates that the attributes associated with post-COVID-19 trickled down positively to raise the health consciousness of the consumers. This result may be due to the

gained experiences from COVID-19 that have renewed the scene, in which personal health concerns features and human dealings have penetrated people trends who benefited from the bitter experience of the Corona pandemic pain and tragedies. Accordingly, they start to follow up precautions to avoid entering into a repetition of the bad experiences. Thus, they adopt proactive health and hygiene consciousness protocols to reduce falling into the coronavirus trap or other potential diseases. The observation is that personal and public dealings with health attention, health cognition, awareness, and the enablers of HC that enhance the body's immunity have risen. Reciprocally, Asuamah (2023) exhibited that as people became more conscious of health and hygiene practices, there has been an increased demand for products directly related to preventing the spread of the virus.

In addition, the post-COVID-19 attributes positively and significantly affect the purchase behavioral intention of organic food. The present study's result agrees with the previous studies in the post-COVID-19 (Bibi, 2022; Hu, Bhuiyan, Rahman, Hossain, & Akter, 2022; Ghufran, Ali, Ariyesti, Nawaz, Aldieri, & Xiaobao 2022) in the post-COVID-19 era because people have comprehended nutritious food values to preserve the immune system and gear body resistance during the coronavirus pandemic spread. Besides, organic food has healthier, safer, and environmentally friendly characteristics. However, a previous study (Abid, Jahan, Agha, & Hussini, 2022) denies this result and sided (Chaturvedi, Rashid Chand, & Rahman, 2021; Pang, Tan, & Lau, 2021) during the coronavirus pandemic and conversely with (Martin, Markhvida, Hallegatte, & Walsh, 2020; Verma & Naveen, 2021). This result may be due to the advantages that organic food fosters individual health and strengthens the immune system to confront any diseases that attack humans, as it has proved that a perfect immune system helps to resist coronavirus. Accordingly, Chaturvedi, Rashid Chand, and Rahman (2021) highlighted that after COVID-19, people understood the value of nutritious food, which can increase their immune system and prevent coronavirus

Further, the current result confirms that there is a positive significant impact of health consciousness on organic food purchase behavioral intention that coincides with the previous studies (Chetioui, Butt, Lebdaoui, Neville, & El Bouzidi, 2023; Kabir & Islam, 2022; Natarajan, Geetha, & Jayapal, 2022; Parashar, Singh, & Sood, 2023; Qi, Mou, Meng, & Ploeger, 2023; Wathanakom, 2023) in the post-COVID-19 epoch conversely to (Abid, Jahan, Agha, & Hussini, 2022; Ayub, Naziman, & Samat, 2020; Zayed, Gaber, & El Essawi, 2022). In addition, the result sided the previous studies during the pandemic spread (Castellini, Savarese & Graffigna, 2021; Chaturvedi, Rashid Chand, & Rahman, 2021; Hsu & Liang & Lim, 2020; Iqbal, Yu, Zubair, Rasheed, Khizar, & Imran, 2021; Köse & Kırcova, 2021; Meixner & Katt, 2020; Nagaraj, 2021; Wojciechowska-Solis & Barska, 2021), conversely the result of (Ayub, Naziman, & Samat, 2020). Eventually, the result copes with the previous studies pre-COVID-19 pandemic outbreak (Hsu, Chang, & Lin, 2016). Interestingly, a health-conscious person would be attentive to organic foods due to their health and safety aspects. Organic foods have health and safety qualities and many properties that support human health, such as sustainable, healthier, and safer, besides higher quality nutritional ingredients. Persuasive findings noted by Wang, Pacho, Liu, and Kajungiro (2019) confirmed that consumers' beliefs in healthy aspects affect organic products purchase behavioral intention of the consumers.

Nevertheless, the study found that health consciousness impacted consumers' organic food purchase behavioral intention. However, the study's outcome suggests that the relationship between post-COVID-19 attributes and organic food purchase behavioral intention is mediated in a partial state by health consciousness. This result looks similar to the previous studies (Ghufran, Ali,

Ariyesti, Nawaz, Aldieri, & Xiaobao, 2022; Natarajan, Geetha, & Jayapal, 2022; Qi, Mou, Meng, & Ploeger, 2023) and loudly reconciled with interventional relationships of COVID-19, health, and organic diet with (Asuamah, 2023) in the post-COVID-19 attribute. Additionally, the result agrees with the study of (Donga, Roman, Adebiyi, Omukunyi, & Chinyakata, 2021) during the COVID-19 spread. The result may be due to health as an interrelated joint and common word that links COVID-19, health consciousness, and organic food regarding disease, protection, pro-activeness, resistance, recovery, awareness, and diet properties.

Prominently, considerable investigations have reported that consumers are increasingly concerned regarding the health and safety facets of their food consumption. Besides, there is a desire to defend and reinforce their immune systems via food diets that accentuated the mark of the COVID-19 pandemic on food consumption, and thus, consumers prioritized the health facets of diets (Qi, Yu, Ploeger, 2020; Xie, Huang, Li, & Zhu, 2020; Scacchi, Catozzi, Boietti, Bert, & Siliquini, 2021; Rodríguez-Pérez, Molina-Montes, Verardo, Artacho, García-Villanova, Guerra-Hernández, & Ruíz-López, 2020) and highlighted the influence of the COVID-19 pandemic on food consumption, with many consumers prioritizing the health aspects of their diet (Qi, Yu, Ploeger, 2020; Xie, Huang, & Li, Zhu, 2020; Scacchi, Catozzi, Boietti, Bert, & Siliquini, 2021). Eventually, if people become more conscious of health and hygiene attitudes, the demand for safe and healthy products to avert the spread of the virus increases (Asuamah, 2023).

6. Implications

The findings of this study can contribute to a better understanding of COVID-19 and the post-COVIDE-19 attributes influences on the different aspects of human life in general and consumers' orientations toward their health awareness and behavioral intentions to focus on safe and healthy diets like organic food as it is healthy, safer, and convincing in securing immune system. Thus, the concentration of the study was to display the post-COVID-19 attributes and organic food purchase behavioral intention nexus mediated by health consciousness. Moreover, the results may expand the academic studies and the knowledge of similar research fields. Therefore, the findings pave the way for the researchers to make rigorous and deeper investigations regarding attributes of post-COVID-19, as well as to foster an understanding of health consciousness roles and organic food as options with their various properties and consumers' behavioral intention trends.

In addition, the findings may encourage the researchers to deal with other sample categories and specify certain organic food brands or types for research in other KSA areas or other geography. Finally, the originality/value of this study is that it is the first study in the KSA to conspicuously look jointly at the three variables of post-COVID-19 attributes, organic food purchase behavioral intention, and health consciousness. Practically, the findings of the study alert consumers, producers, and marketers in KSA to take carefully into consideration while planning their marketing policies, strategies, and campaigns the roles of the post-COVID-19 attributes promotional tools in fostering health consciousness more rationally and, in turn, ignite the consumers' organic food purchase behavioral intention.

7. Limitations and Scope for future Research

This study's results broaden perceptions of the partial mediating role of health consciousness in the relationship between post-COVID-19 attributes and organic food purchase behavioral intention and allow potential studies to appear in the future. However, this study suffered

limitations that may affect its generalization as long as it concentrates only on organic food without determining specific brands or types and organic food occasional consumers of a convenience sample. Despite the various nationalities the study's sample has enjoyed, the study did not examine the statistical differences of sample characteristics to the research model. Further, the study was conducted only in the Asir area in the South of KSA and disregarded others in KSA. Of course, there are high similarities in KSA, but the study's results are not generalizable to other KSA areas or countries. Accordingly, future research should replicate the model considering other variables like food safety, specific brands of organic food, perceived quality, e-WOM, and coronavirus risk impact on branding and purchase behavioral intention with different large sample categories in other geographical areas, accompanying the personal characteristics differences of the sample, regular organic food consumers, and engaging in-depth qualitative and quantitive inquiries investigations.

8. Conclusion

The Corona pandemic has left many health, economic, psychological, and social impacts on daily people interactions and changed their thinking, attitudes, behavior, and lifestyles after COVID-19 decline. The aspects related to their health concerns and awareness of its issues were some of the critical changes, besides their behavioral intentions that make them plan and prepare to buy food products characterized by health safety and high-quality levels, which helps them strengthen their immune systems to face any health events. The study presented two positive impacts associated with the direct effect of the post-COVID-19 attributes on health consciousness (HC) and organic food purchase behavioral intention (OFPBI). Later, an investigation revealed that HC played a partial mediation role in the post-COVID-19 and OFPBI nexus**.** The study conducted using a convenience sample of organic food regular and non-occasional consumers living in the Asir area in south Saudi Arabia, where an emerging economy prospers strongly, a competitive market where organic food businesses compete and financially well-off organic food consumers shops to consume organic food with remarkable health concerns in the post-COVID-19 pandemic era. Therefore, the study attempted to fill the gap in the existing literature and body of knowledge by providing evidence that health consciousness mediates the relationship between post-COVID-19 attributes and organic food purchase behavioral intention; accordingly, businesses plan strategies vigilantly to promote the studied constructs. Further research in this field is imperative to gain comprehensive perspicuity and aspire to lead a sustainable life even in such challenging circumstances.

Authors' Contribution

Dr. Farah presented the research idea with the assistance of Dr. Sarah and Dr. Mamoun. Dr. Farah and Dr. Yasser developed and conceptualized the idea. Dr. Farah wrote the first draft together with Dr. Yasser, Dr. Sara, and Dr. Mamoun. Dr. Farah and Dr. Sara invited Dr. Lemya to join the proposal group and participate in the first draft discussion. All authors surveyed the literature to develop the theoretical model. Dr. Farah and Dr. Lemya developed the methodology and research design plan verified by Dr. Yasser, Dr. Sara, and Dr. Mamoun. Dr. Mamoun Yaseen and Dr. Sara Suleiman administrated the field study of the project to collect and enter data using SPSS under the supervision of Dr. Farah and Dr. Lemya. Again, Dr. Farah and Dr. Lemya performed the formal analysis and interpretation. All authors discussed the results and suggested improvements. Dr. Farah and Dr. Yasser wrote the first version of the manuscript with the consultation and assistance of all authors. All authors reviewed and edited the final manuscript of the project.

Conflict of Interest

The authors of the article "Impact of Post-Covid-19 Attributes on Organic Food Purchase Behavioral Intention: Mediating Role of Health Consciousness" declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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