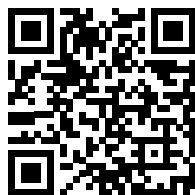


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Attitude towards Organic Food and Purchase Intention: Role of Cancer Information, Cancer Belief, Food Safety, Health Consciousness and Natural Content

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Abstract

Attitude plays a crucial role in shaping purchase intention because a positive attitudes often lead to a higher likelihood of buying a product. Therefore, research aimed to examine the impact of natural content, health consciousness, food safety concerns, and cancer-related information on consumers' attitudes towards organic food and purchase intention, with the moderation of cancer beliefs. Cross-sectional quantitative data were collected from 275 organic food consumers using a purposive sampling technique. The findings demonstrated that consumers' attitudes towards organic food are positively and significantly impacted by cancer-related information, health consciousness, natural content, and food safety concerns. The purchase intention of organic food is also positively and significantly impacted by consumers' attitudes. Furthermore, cancer beliefs also moderate among all independent variables and attitude towards organic food. These insightful findings suggest that to influence customers' preferences and purchase intentions, marketers and health policymakers should incorporate the health-related safety benefits of organic food with its features in advertisements. To improve the generalizability of findings, our study cleared the path for future researchers to expand on existing research and investigate novel moderating variables in a comparable and varied setting.

Keywords:

Natural content, Health consciousness, Food safety concern, Cancer information, Cancer beliefs, Attitude, Organic food, Purchase intention.

Introduction

Consumer attitudes have significantly shifted in favor of eating more organic food in recent years due to increased understanding of health problems ^[1]. However, organic food consumption has increased because of global consumer demand for healthier products options ^[2]. Similarly, organic food items promote the health of the soil, the environment, and humans ^[3]. Generally, many people believe that, when compared with conventional food, organic food is healthier and safer ^[4] and consumer attention could increased the positive attitude. Accordingly, consumers' attitude directly influences consumer

attention to organic food purchases ^[5]. To increase the attention of consumers towards the organic food, consumers' attitudes play a crucial role in converting these motivations into actual buying intentions ^[6]. Other studies also highlighted attitude importance for organic food purchase decisions ^[7]. In this regards, study highlighted influence of attitude on purchase intention.

However, attitude toward organic food has emerged as a vital predictor of purchase intentions ^[1]. To improve the attitude towards organic food consumption, the involvement of consumers played an integral role because they are key stakeholders of any product^[4]. For example, customers who

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have a negative view toward organic products may be less likely to make purchases^[8]. This is the reason, to increase the intention towards organic foods, it is important to look into how health consciousness, natural content, information about cancer, and food safety concerns increase the positive attitude to increase the purchase intention^[4, 5]. From the factors, the perceived natural content of organic food creates trust, which leads to stronger positive attitudes among health-conscious and environmentally aware individuals^[9]. Furthermore, cancer-related information also enhances the consumer's intentions towards organic food, particularly among those individuals who are prioritizing health-related choices^[10]. While, consumers are worried about food safety issues also increases the intention to give more preference to organic products^[11] compared to those who are not looking for safety concerns, which could be affected by cancer diseases^[12]. Therefore, this study examined how customers' attitudes can be improved by addressing concerns about food safety, health consciousness, cancer knowledge, and natural content about their purchase intentions.

Similarly, cancer beliefs also have a significant effect on how consumers of organic foods changed their purchase intentions because different people have different opinions about how diet influences cancer risk, which can alter how much their health and food safety concerns affect their decision to purchase organic food^[13]. Moreover, cancer beliefs can strengthen or weaken consumer attitudes and decisions about healthy food choices^[14]. In addition, individual health beliefs, such as those related to cancer, can drive the impact of health concerns on behavioral intentions^[15]. In other words, Karimi, et al.^[16] also emphasized that cancer-related beliefs influence consumer behavior toward organic food. Their research revealed that consumers who trusted and valued organic products were more likely to make a purchase. This was especially true for those who believed that organic products could help prevent chronic diseases like cancer. Therefore, the study used cancer beliefs as a moderating variable.

With the significance of previous studies' relationship, prior studies still have various gaps. Firstly, past studies primarily focused only on the direct impact of consumption motives, natural content, safety concerns, cancer-related information, and health consciousness on purchase intentions^[2, 17, 18]. There is no study on the combined consumption motives on purchase intentions. Therefore, the combined impact of health consciousness, food safety concerns, cancer knowledge, and natural content on purchase intention was influenced by this study. Secondly, limited researches examined the indirect impact of attitudes toward the intention to purchase organic food. For example, Khan, et al.^[4] Kamboj, et al.^[19] found that behavioral intention is predicted by one's attitude toward organic food. Therefore, this study contributed to the indirect effect of consumers' attitudes on the

organization's food purchase intention. Moreover, previous studies conducted on consumers' attitudes also have inconsistent findings, which shows that there is a need for a moderating variable. Cancer beliefs may significantly influence consumer responses to health and safety information^[13, 20]. Seeking this significance, the study mainly focused on the moderating effect of cancer beliefs, which has limited attention in prior studies, particularly in the context of a moderated mediation model. Therefore, this study fills in the gaps by analyzing how customers' opinions toward the purchase intention of organic food are influenced by natural content, health consciousness, food safety concerns, and knowledge about cancer. The moderating influence of cancer beliefs was also examined in the study.

Research hold significant practical implications for producers of organic food. For example, this study showed the significance of developing positive attitudes and beliefs about organic food to strengthen purchase intentions, especially among individuals with strong cancer-related health beliefs. These insights can guide the development of consumer education programs, marketing content, and product labeling that reinforce the health benefits and safety of organic food. Moreover, in emerging markets where organic consumption is still developing, the findings provide a roadmap for aligning health-focused messaging with culturally relevant consumer motivations. As such, this research supports broader public health and sustainability goals and can inform future strategies aimed at boosting organic food adoption in alignment with growing health consciousness and demand for safe food practices. The study was further divided into four chapters. Chapter two was a literature review where both theoretical and empirical perspectives of previous studies were discussed. Chapter three discussed the design and research approach. Chapter four discussed data analysis. The study discussion was presented in the fifth chapter, where each finding was supported by the relevant studies.

Literature Review

Natural content and attitude

Natural content (NC) is considered to be food items from the consumers that come from organic sources, which are not manufactured from chemicals^[21]. Natural content is an essential element to change the opinion of the individuals to increase their attention towards organic food because it increases the link between naturalness to authenticity, purity, and health advantages^[22]. Schirmacher, et al.^[23] indicated that consumers' favorites for organic food are greatly influenced by perceived naturalness. On the other hand, natural foods also offer health, safety, and environmental benefits significantly reinforce consumer attitudes in favor of organic products^[22]. Talwar, et al.^[24] empirically also found that natural

labeling boosts perceived health benefits and trust, resulting in a more positive attitude among consumers. Anisimova and Vrontis [25] also conducted the study and found that clear labeling of natural ingredients fosters trust and openness, enhancing attitudes toward organic food. These previous studies emphasized that natural content is an integral factor in enhancing attitude, and hence hypothesis is,

H1: Natural content plays a significant role in shaping attitude towards organic food.

Furthermore, consumers' health consciousness (HC) about the improvement of health significantly affects food and healthy lifestyles [26]. In the same vein, health consciousness is a major psychological factor shaping favorable attitudes to buying organic food goods for preventive care [27]. Referring to others, Duarte, et al. [28] study discovered that customers who are health consciousness then they focus more on organic food intentions.. Liang and Lim [29] research further highlighted that health concerns as a top motivator for organic food consumption across various demographics which demonstrating a clear link between health awareness and positive consumer attitude Wang, et al. [30] study also revealed that greater health awareness and nutritional knowledge profoundly influence individual attitudes which is emphasizing the direct link between health motivation and perceptions. By the previous relationship, a study has the following research hypothesis below,

H2: Health consciousness plays a significant role in shaping attitude towards organic food.

Food safety concerns and attitude

Furthermore, the food safety concerns (FSC) are represented by consumers worried about the unsafe production practices [31]. This is the reason consumers focus on those products that are safe from any diseases to raise awareness of food scandals and foodborne illnesses [32]. This issue is particularly noticeable in places with lax food safety laws, as people look for lower-risk goods to safeguard their health [33]. Lin, et al. [34] study also recommended that, due to increased food safety, the positive attitude also significantly increased, where they also emphasized that further relationships could be tested with other variables. Ramakrishnan, et al. [35] also highlighted that the idea of food as a safer option is strengthened by transparent communication regarding safety procedures and regulatory compliance, which eventually improves customer views. Eynade, et al. [36] further found that customers' perceptions of food safety in developing nations have a significant impact on their confidence and attitudes toward organic products. As a result, the previous study demonstrates how safety concerns positively impact attitudes, and the study has the following hypothesis,

H3: Food safety concerns plays a significant role in shaping attitude towards organic food.

Cancer information and attitude

Cancer information (CI) in the context of food refers to consumers' understanding of how diet impacts cancer risk, particularly the potential harm from pesticides, preservatives, and artificial additives in conventional food [37]. Growing access to health information has made customers more conscious of the carcinogenic risks of eating foods high in chemicals, which has increased demand for safer organic alternatives [38]. Jadotte, et al. [39] also endorsed that customers who are exposed to food warnings regarding cancer are more likely to develop positive attitudes about organic products. Yang, et al. [40] study also discovered that cancer-related information significant element to increase the motive attitude. Sezgin, et al. [41] also highlighted that reliable and well-structured cancer-related health information significantly influences attitudes by improving perceptions of safety and health protection. Clarke, et al. [42] study also found that cancer warnings can effectively influence consumer preferences toward organic food, particularly when the information comes from trustworthy sources. Keeping attention on previous studies, the following hypothesis is below,

H4: Cancer Information plays a significant role in shaping attitude towards organic food.

Moderator Role of Cancer Beliefs

Previous direct association between natural content and attitude has been explored, which has an inconsistent relationship that is enforced for other relationships. Cancer beliefs refer to an individual's conviction about the connection between diet and cancer prevention [43]. Those who strongly believe that food choices affect cancer risk tend to prioritize natural ingredients, perceived as free from harmful substances [44]. For these individuals, natural content in food enhances positive attitudes toward organic options due to perceived health benefits [36]. Moreover, Schils, et al. [45] highlighted that beliefs about cancer prevention make consumers more receptive to natural labels, increasing their preference for organic products. Additionally, Khan, et al. [4] found that when consumers understand the connection between diet and cancer, they place greater value on natural content, leading to more positive attitudes toward food. Along with natural content, Rathna and Sumathy [46] also highlighted that consumers who are health-conscious and believe they have a higher chance of developing cancer are more likely to have favorable opinions about particular goods, such as organic food. Wang, et al. [30] further argued that when consumers are motivated by health concerns and aware of disease risks, their preference for organic food increases substantially. Additionally, Young [47] showed that attitudes towards particular foods are influenced by health knowledge, which in turn is influenced by health-related beliefs, particularly those regarding cancer. Similarly, Xu, et al. [48] found that communities that share cancer information make organic food more appealing to people who are already health-conscious.

On the other hand, Hyatt, et al. [49] highlighted that food safety increases the attitude of individuals towards organic foods because when selecting organic food, people who believe their risk of developing cancer is high are more likely to put food safety first. Oxman,

et al. [50] study also found that clear and unambiguous risk information persuading people who firmly believe in the significance of cancer prevention through food choices is especially accomplished through communication. Silva, et al. [51] study also showed that when people think diet is important for preventing disease, safety concerns have a big influence on their food perceptions. They also enforced that safety concerns in an integral factor for consumer attitudes in developing nations when people believe that eating certain foods can reduce health risks. Equally, Hyatt, et al. [49] found that cancer information also increases the attitude of individuals when the consumer's cancer beliefs are strongly enhanced. Wu, et al. [52] supported the previous study's argument and showed that consumers' strong health beliefs have significant predictors for the consumers who hold these ideas are more responsive to health-related communications. Additionally, Andrijauskaite and Wargovich [53] found that when knowledge on cancer strengthens, consumers' beliefs about the disease and validate their preconceptions. According to previous studies, the following hypothesis on the moderating effect has been formulated below,

H5: Attitude towards organic food is significantly shaped by natural content, with the cancer belief as moderator.

H6: Attitude towards organic food is significantly shaped by health consciousness, with a moderating role of cancer belief.

H7: Attitude towards organic food is significantly shaped by food safety concern, with the moderating role of cancer belief.

H8: Attitude towards organic food is significantly affected by cancer information with the moderating effect of cancer belief.

Attitude towards organic food and organic food purchase intention

A consumer's attitude reflects their overall assessment encompassing the aspects of emotional perspective [54]. Literature supported that when consumers' positive

attitude towards any products increased, then the sales of companies also increased due to the increased buying behavior of the individuals [55]. Ahmed, et al. [55] empirical study showed that consumers' intentions significantly increased from the positive attitude of consumers. Yu, et al. [56] study demonstrated that when consumers have a favorable opinion of the products, they have a good opinion towards the products. Their research indicated that attitude and buying intention were positively correlated. In another study, Ahmad, et al. [57] discovered a strong correlation between consumers' opinions regarding purchase intention. They also highlighted that further research might be conducted on other countries or sectors to enhance the study scope. Jabbour Al Maalouf, et al. [58] study also found that attitude significantly increases the purchase intention of individuals towards the products Jin, et al. [59] research also found that when the attitude of consumers towards the product increases, then their purchase intention also increases. They also argued that further research could be conducted in another country to increase results. These previous studies highlighted that attitude enhances the organic food purchase intention, and accordingly following research hypothesis is below,

H9: Attitude towards organic food plays a significant role in shaping organic food purchase intentions.

Framework development

The study's conceptual framework was formulated under the theory of Planned Behavior (TPB) [60]. Hagger, et al. [61] highlighted under this theory that attitude toward a behavior significantly influences purchase intention through shaping the individual's willingness towards the products. Therefore, to increase the intention towards organic food, increasing the positive attitude is important. In the literature, it has been highlighted that when the natural content, health consciousness, food safety concerns, and cancer information are increased by improving cancer beliefs, then the positive attitude towards organic food product purchase intention increases. This relationship is predicted in Figure 1.

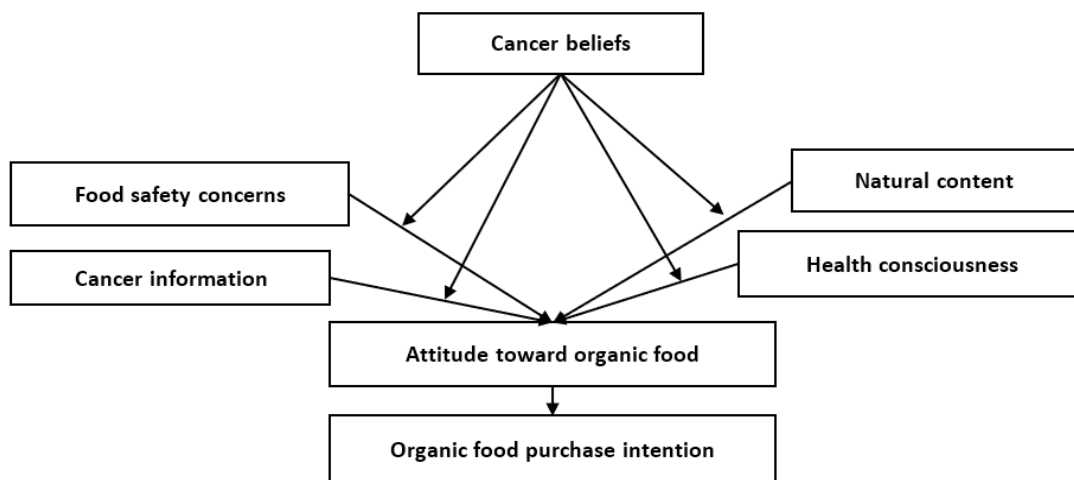


Figure 1: Research Framework

Research approach and Design

Researchers used the quantitative research approach for the study objective, which is appropriate for employing statistical methods to measure the study variables [62]. In other words, Data was gathered using a cross-sectional research technique since the self-administered questionnaire at one time is thought to be appropriate for the current study [62]. In this regard, the study employed the cross-sectional research design.

Research Instrument Development

The study instrument was adopted from previous literature. Natural content comprises 3 items [63]. Health consciousness comprises 6 items, food safety concerns comprises 3 items, and purchase intention comprises 3 items [5]. Furthermore, attitude toward organic food comprises 9 questions [64]. Cancer information comprises 4 items. Cancer beliefs consist of two dimensions, where the first dimension is Cancer fatalism, which was measured on 3 items, and the second is Cancer curability, that also measured on 3 items, which were adopted from [65]. The items were composed using a likert scale with five points.

Sampling Technique

Data was collected from organic food consumers, that is, the population of the current study. Researchers employed the purposive sampling strategy to gather data. Purposive sampling is thought to be a suitable method when the study requires individuals with particular traits that support its objectives [66]. Under the assumption of purposive sampling techniques, there were 350 questionnaires were distributed to the organic food consumers. Of those, 275 survey instruments were

returned. This response is enough for the Partial Least Square (PLS)-Structural Equation Modeling (SEM), which is appropriate for the moderated mediated model [67]. Other authors also argued more than 60 percent response rate is considered to be sufficient for the findings' credibility and enhances generalizability within similar demographic and market settings [68]. In this regard, this response rate is enough for the study.

Data Analysis and Results

Collected data analyzed from two software namely SPSS and Smart PLS 4. Smart PLS was selected for hypothesis testing utilizing the PLS-SEM technique, which looks for and elucidates causal relationships across components, while SPSS was utilized for data screening and demographic analysis [69].

Demographic Analysis

This section represents the study's demographic characteristics. Most are females, that is (58.5%) compared to males (41.5%). In terms of education, most respondents have a graduate degree (45.3%), followed by those with an undergraduate degree (41.5%). The income distribution is relatively spread out, with a substantial portion earning between \$1,000 and \$2,000 monthly (30.2%) and a similar number earning over \$2,000 monthly. Employment-wise, a majority are employed full-time (60.4%), while a smaller percentage are self-employed (11.3%). When it comes to organic food consumption, most respondents purchase organic products weekly (37.7%) or daily (30.2%), highlighting a strong commitment to organic food choices within the sample. Table 1 shows the demographic analysis results.

Table 1: Demographic Results

Demographic	Category	Frequency	Percentage
Gender	Male	110	41.50%
	Female	155	58.50%
Education Level	High School or Below	35	13.20%
	Undergraduate Degree	110	41.50%
	Graduate Degree	120	45.30%
Income Level (Monthly)	Less than \$1,000	50	18.90%
	\$1,000 - \$2,000	80	30.20%
	\$2,001 - \$3,000	70	26.40%
	More than \$3,000	65	24.50%
Employment Status	Full time Employee	160	60.40%
	Part-Time Employee	50	18.90%
	Businessman	30	11.30%
	Unemployed	25	9.40%
	Frequency of Organic Product Consumption	Daily	80	30.20%
	Weekly	100	37.70%
	Monthly	60	22.60%
	Rarely	25	9.40%

Validity and reliability of the Questionnaire

For the construct acceptability, it is necessary to test the study's reliability and validity using a measurement model through the evaluation process. For the internal consistency, composite reliability (CR) and alpha both are important, where threshold values should be

greater than 0.70 [70, 71]. For example, natural content ($\alpha = 0.913$, CR = 0.921), health consciousness ($\alpha = 0.883$, CR = 0.931), and purchase intention ($\alpha = 0.933$, CR = 0.944), which demonstrates the excellent reliability. On the other hand, convergent validity was examined using factor loadings and average variance extracted

(AVE). Among these, all factor loadings are above the benchmark, which ranges from 0.742 to 0.922. AVE values for the constructs that exceed the values of 0.50 [72]. Specifically, AVE values were as follows: natural content (0.751), health consciousness (0.723), food safety concern (0.713), cancer information (0.733), and attitude toward organic food (0.783), purchase intention (0.832), and cancer beliefs (0.742). The results mentioned above satisfy the measurement model's

criteria, demonstrating that each construct accurately conveys the intended idea and enhancing the structural model's overall credibility [73]. Measurement model results are depicted in Table 2 and in Figure 2. On the other hand, the Variance Inflation Factor (VIF) employed for multicollinearity in variables, where the values below 5 were considered to be free of the multicollinearity problem.

Table 2: Measurement Model

Construct	VIF	Alpha	Composite Reliability (CR)	AVE
Natural Content (NC)	1.31	0.913	0.921	0.751
Health Consciousness (HC)	1.031	0.883	0.931	0.723
Food Safety Concern (HFC)	1.931	0.852	0.894	0.713
Cancer Information (CI)	1.392	0.864	0.882	0.733
Attitude Toward Organic (STO)	1.542	0.912	0.922	0.783
Purchase Intention (PI)	.....	0.933	0.944	0.832
Cancer Fatalism (CF)	.....	0.873	0.912	0.742
Cancer Curability (CC)	.....	0.843	0.895	0.712

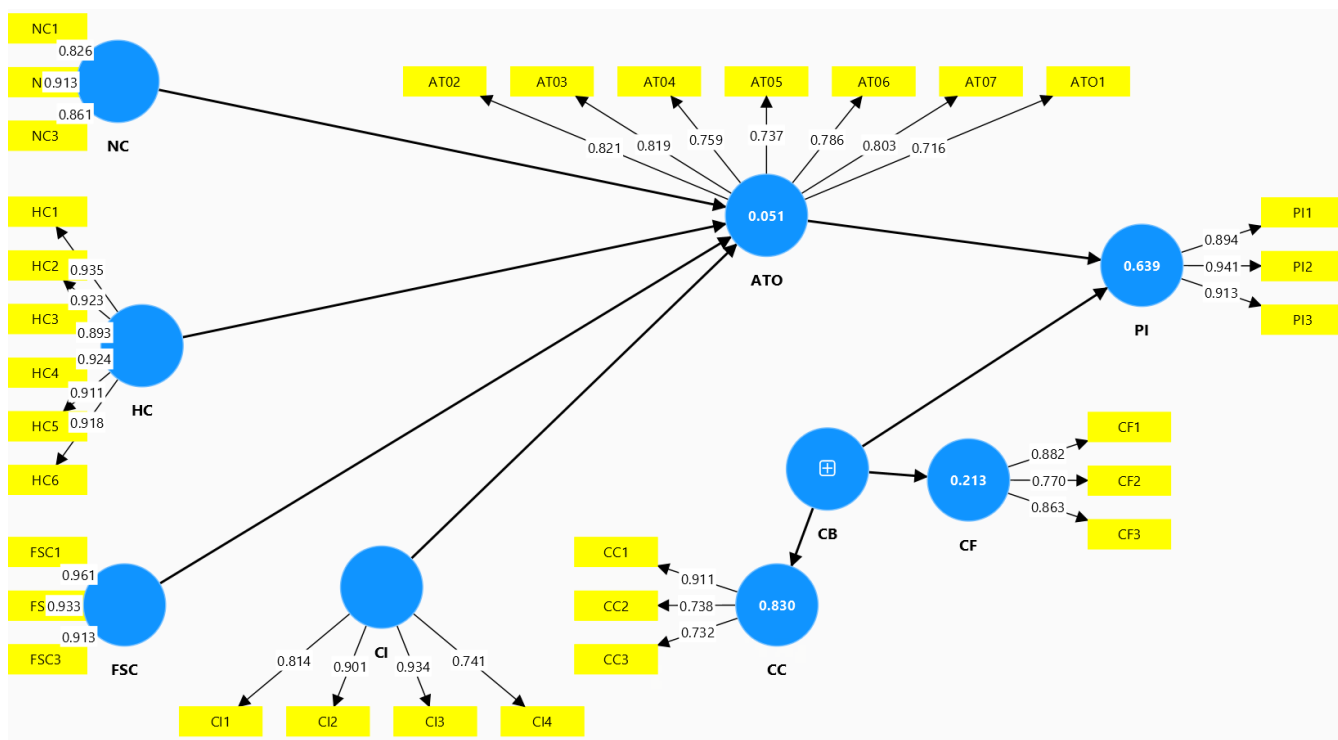


Figure 2: Factor loadings

Table 3: Discriminant Validity

	CB	CC	CF	CI	ATO	FSC	HC	NC
CB								
CC	0.561							
CF	0.518	0.725						
CI	0.045	0.148	0.161					
ATO	0.652	0.003	0.794	0.2				
FSC	0.074	0.123	0.196	0.348	0.134			
HC	0.081	0.153	0.174	0.088	0.118	0.139		
NC	0.288	0.198	0.112	0.392	0.133	0.316	0.586	
PI	0.763	0.123	0.592	0.097	0.75	0.044	0.09	0.178

Further, discriminant validity is shown that each construct value should be different from each other. Henseler, et al. [74] highlighted that heterotrait monotrait correlation (HTMT) used to measure the discriminant validity and correlation value should be less than 0.85. Table 3 values are less than 0.85, which highlights no issue of collinearity.

Hypothesis Results

The hypothesis results indicate that consumers' attitude is significantly influenced by various factors, which are tested using a structural model. H1 shows that customers' perceptions of organic products are significantly and favorably impacted by natural content ($\beta = 0.212, t = 2.329$). This demonstrates that customers are drawn to meals with labels that list natural components. In addition, H2 showed that attitudes toward organic food are positively impacted by health consciousness as well ($\beta = 0.228, t = 2.561$). It demonstrates that health-conscious customers have a favorable opinion of organic food as a healthier way of life and better health results. Furthermore, H3 shows that worries about food safety have a major beneficial influence on attitudes of organic food ($\beta = 0.205, t = 2.303$). According to this research, consumers are more inclined to select organic food as a preventative strategy if they are more aware of the detrimental effects of conventional food.

Adding more to the direct effect, H4 shows that cancer-related information is positive and significant to the attitude ($\beta = 0.311, t = 3.747$). It clearly states that consumers who know of cancer-related information are more likely to be attracted to organic food consumption than conventional food. By turning

toward the moderation effect of cancer beliefs, H5 testing found that cancer beliefs positively moderate the natural content and attitude relationship ($\beta = 0.307$ and $t = 3.337$). This indicates that cancer beliefs strengthen this relationship, as consumers who believe that food choices can influence cancer risk, the perception of organic food as natural has an even stronger positive impact on their attitudes. In the same vein, H6 demonstrated a strengthening positive impact of cancer beliefs between health consciousness and attitude ($\beta = 0.313, t = 3.294$). It means that consumers benefit from organic food only if they are both health-conscious and hold strong cancer beliefs. Furthermore, H7 demonstrates that food safety concerns significantly influence attitude with the moderation of cancer beliefs ($\beta = 0.344, t = 4.095$). In the same vein, H8 highlighted that the cancer information and attitude relationship is also moderated by cancer beliefs ($\beta = 0.332, t = 4.098$). Finally, H9 demonstrates that the desire to acquire organic food is significantly and favorably impacted by a favorable attitude ($\beta = 0.325, t = 3.651$). Table 4 and Figure 3 represents the hypothesis results.

Table 4: Hypothesis Results

Hypothesis	Beta	SD	t-Value	Decision
NC → ATO	0.212	0.091	2.329	significant
HC → ATO	0.228	0.089	2.561	significant
FSC → ATO	0.205	0.089	2.303	significant
CI → ATP	0.311	0.083	3.747	significant
NC*CB → ATO	0.307	0.092	3.337	significant
HC*CB → ATO	0.313	0.095	3.294	significant
FSC*CB → ATO	0.344	0.084	4.095	significant
CI*CB → ATO	0.332	0.081	4.098	significant
ATO → PI	0.325	0.089	3.651	significant

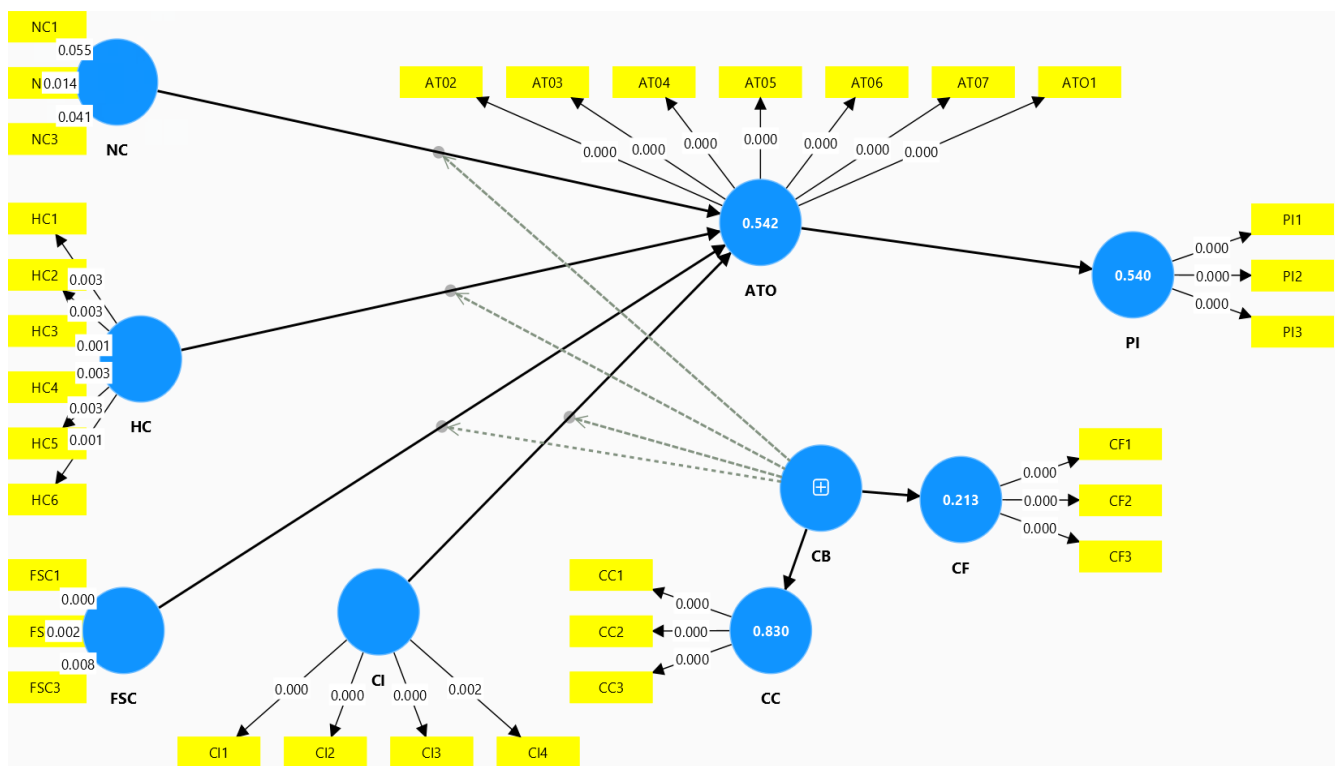


Figure 3: R Square

Discussion

The study results demonstrated that natural content significantly improves the attitude toward organic food (ORF) products. This result demonstrated how important natural content is in influencing consumers' perceptions of ORF products. Baydas, et al. [73] further endorse the results, where they found that natural content is a substantial factor in determining consumer attitudes. Additionally, the study's findings are further confirmed by Rana [76] investigation, which explored that there is a growing demand for chemical-free and clean-label food, making natural content a central determinant. These studies indicate that natural content emphasizing the ORF composition to strengthen consumer appeal and enhance consumer attitudes. The above results revealed that food natural perception of food the consumers is an integral factor for increasing the positive consumer attitude, which increases the ORF purchase intention. Therefore, it is highlighted that there should be proper attention on natural food to increase the ORF usage.

Further results highlighted that health awareness also positively and significantly improves the attitude towards ORF products. These results highlighted that health-conscious people prefer ORF and see it as a healthy alternative, as aligned with welfare goals. This performance allows consumers to avoid processed and synthetic chemically processed food, looking for an option that they believe will support their long-term health. The study's finding is corroborated by previous studies' results, which found a significant relationship between health information about cancer and attitude [77, 78]. Wang, et al. [30] also supported the view where they found that in ORF consumption health motivation remains a strong influencer. These prior studies indicate that health-oriented consumers consider ORF more nutritious and healthier. Additionally, positive consumer attitudes toward ORF proved that marketing campaigns that promote wellness by highlighting the ORF features can generate strong results. Whereas, it also aligns with the negative attitude toward functional food that may increase health risks. Therefore, consumers' positive attitude toward ORF consumption lies in its perceived benefits of disease prevention and long life. Hence, consumer perceptions of ORF are greatly influenced by health consciousness, which also serves as a useful instrument for positioning ORF in markets that prioritize health. Based upon the above discussion, health consciousness is a strong foundation for promoting and expanding ORF consumption.

Furthermore, customer attitudes on ORF are significantly positively impacted by food safety. This result demonstrated how sensitive consumers increase their attention towards ORF. Findings are supported by Iqbal, et al. [2], who also found the same results were arguing that food safety concerns are integral to increasing positive attitudes. Results are also collaborated with the study of Flynn, et al. [79],

who claimed that public food safety risks increase the demand for clean and natural food. As shown above, These findings confirmed that consumers' concerns about food security have a major impact on their opinions of ORF and their propensity to buy it, which also acts as a powerful incentive for the consumption of biological foods. Food firms are therefore required to concentrate on safety issues to eliminate any risk barriers that would encourage consumers to choose ORF items. Furthermore, research indicates that customers' perceptions of ORF items are much improved by cancer information. These findings demonstrated how growing consumer awareness of the connections between certain food contaminants and cancer risk has made them more vigilant and receptive to preventive actions. Baudry, et al. [80] found the same results who claiming that consumers exposed to cancer-related information increase awareness about the risks associated with chemically treated conventional food products, which shifts their purchasing attention toward ORF. Therefore, health advocates and ORF companies can leverage cancer-related risk awareness to foster safer alternative options. Thus, cancer information should be integrated into ORF and broader health education marketing efforts, and informing consumers about consumer risks to strengthen their preference for ORF.

Apart from the direct impact, the moderating influence of cancer beliefs enhances the correlation between natural attitude and attitude. This study is supported by the study of Mie, et al. [81], who noted that consumers perceived health risks associated with chemically treated food heightened their interest toward ORF. These studies explored that natural content had a more powerful to consumers with strong cancer beliefs. Furthermore, the integration of cancer beliefs strengthens consumers' motivation by linking ORF with cancer prevention. Therefore, natural food is not only used for its purity but also in the context of health prevention. In the same vein, the association between health consciousness and attitudes toward ORF is also positively and significantly influenced by the moderating function of cancer beliefs. This research suggests that customers are particularly drawn to ORF if they are health-conscious and aware of the possible hazards associated with cancer. Consistent with the studies of Mie, et al. [81], who found that consumers having high health awareness tend to respond positively if confronted with cancer factored in. This finding suggested that a layered decision-making approach, where consumers' beliefs about their long-term health risks strengthen the demand for ORF consumption. Moreover, for consumers, ORF is not only a natural food but also a preventive measure that further validates its role as a predictor of food attitudes. Therefore, these findings highlighted that cancer beliefs played an integral role in increasing the health consciousness in developing a positive attitude that could increase the ORF purchase intention.

Similarly, results show that food safety concerns and attitude towards ORF relations are strengthened by CB. According to this study, people are more inclined to buy ORF as a preventative measure if they think that issues with food safety are connected to the chance of developing cancer. Additionally, if consumers link food safety concerns to the risk of cancer, they are more likely to advocate purchasing ORF. Furthermore, it demonstrates that consumers who suffer from a fear of illness are more easily develop an interest in purchasing ORF as an alternative option against conservation food. In today's world, food safety scandals are more prevalent than enabling cancer beliefs to drive the market toward ORF. In addition, the finding emphasized that marketing of ORF should include both cancer beliefs and health protective characteristics of ORF. This finding is consistent with the study of Bou-Mitri, et al. ^[82], who explored that consumer who have high safety concerns change their preferences for purchasing food. Collectively, these findings indicate that consumers favor ORF if they have both food safety worries and strong cancer beliefs.

In addition, the moderating role of cancer beliefs also has a significant impact on the relationship between cancer information and attitude ORF. This indicates that the influence of cancer information on consumer attitudes toward ORF is stronger only if individuals have strong cancer beliefs. This finding also emphasized that consumers who have more information about potential cancer risks linked with chemically treated conventional food are more likely to prefer ORF as a safer health preventive option. This indicates that the customer believes that eating ORF can reduce the chance of developing cancer, demonstrating the effectiveness of cancer education in influencing consumers' intentions to buy ORF. This idea is supported by the findings of Lane, et al. ^[83], who found that when exposed to cancer-related risk information are likely to make healthier food choices, including ORF consumption. Moreover, the finding also corroborated with the view of Magee ^[84] who claimed that customers' perceptions of the value of ORF are much raised when cancer-related health initiatives are in line with ORF marketing.. Hence, the importance of addressing these beliefs in health communication efforts to promote healthy dietary choices was highlighted by the considerable influence of cancer beliefs in the link between cancer knowledge and attitude toward ORF.

Finally, the results of the study showed that attitude towards ORF has a positive influence on their willingness to purchase it. This research highlights how consumer perceptions of ORF play a big role in the expansion of ORF products. According to the study, attitude significantly influenced purchasing intention positively. Additionally, it was discovered that consumers' favorable opinions about ORF are more likely to affect their inclination to purchase. The findings are consistent with the view of Lazaroiu, et

al. ^[85], who stated that stronger purchase intentions are a result of customers' favorable perceptions of ORF, such as its environmental friendliness and health benefits. Moreover, by promoting a positive attitude toward ORF, ORF businesses can increase consumer purchase intentions and boost sales. Overall, previous results highlighted that in a competitive marketing consumers' positive attitude toward ORF is essential for the promotion of consumer trust, loyalty, and purchasing behavior. Therefore, it is enforced that there should a proper attention on the cancer beliefs to improve the ORF purchase intention to increase their contribution in economic development.

Contributions

The results of the aforementioned investigation added to the body of knowledge both theoretically and practically. Theoretically, the incorporation of the moderating role of cancer beliefs added substantially to the current research on consumer intentions in the ORF sector. The current study stated by highlighted how cancer beliefs interact with these factors and influence consumer attitudes toward ORFs, even though previous research mostly concentrated on direct factors like natural content, cancer information, health consciousness, and food safety. The study offers a better understanding of how attitudes connected to cancer increase the impact of these factors by assessing the moderating effect for the first time. By testing the moderating effect for the first time, the study provides a deeper understanding of how cancer-related beliefs amplify the influence of these factors. Unambiguously, the study's findings showed that consumers with strong cancer views are more affected by natural content, health consciousness, food safety issues, and cancer knowledge when it comes to their opinions on eating ORF. This enormous contribution enhances existing consumer behavior models, may pave the way for future researchers to explore more mediating or moderating variables in a similar context.

Practically, the current study provides ^[84]valuable insights for policymakers, public health campaigns, and marketers to engage ORF consumers. Marketers can improve consumer interest by emphasizing the cancer-preventive qualities of ORF. Cancer beliefs have been shown to significantly boost the impact of food safety concerns and cancer knowledge on consumer attitudes regarding ORF. The importance of chemical-free and natural qualities of ORF in the cancer prevention context can resonate strongly with health-conscious consumers. In Addition, this study contributed by demonstrating that knowledge about cancer not only affects attitudes but also reinforces the link between attitudes toward ORF and health consciousness. Furthermore, markers can increase trust and loyalty by promoting health-centered campaigns comprising information about the potential risks of conventional food that may lead to cancer. Therefore, the study results contributed theoretically as well as practically to increase public health messages and ORF marketing.

Conclusion and Future Directions

The study aimed to investigate the role of natural content, health consciousness, food safety, and cancer information on consumers' attitudes toward ORF, along with the moderating role of cancer beliefs. To achieve this objective, the study used a quantitative and deductive research design, gathering information from 275 consumers of ORF. The results show that customers' opinions about ORF and their subsequent purchase intentions are positively and significantly influenced by natural content, health consciousness, food safety, and cancer information. Moreover, food safety and cancer knowledge show the biggest interaction effect, the moderating function of cancer beliefs increases the association between these factors and consumers' attitudes toward ORF. Furthermore, this study also highlighted the relationship between attitude and consumer purchase intention. In addition, by offering a more thorough understanding of the nuances of ORF, this study gave marketers and health policymakers new opportunities to create more focused marketing campaigns and legislative measures to encourage people to choose healthier foods. Ultimately, these results highlight how crucial cancer beliefs are in shaping consumer attitudes and driving demand for ORFs as a cancer prevention strategy.

Although this study offers insightful information about the elements influencing consumers' intentions toward organic food (ORF), there are several limitations to be considered. Firstly, findings' generalizability is restricted by the purposive sampling technique since the sample might not fairly represent the overall population of consumers of ORF. Secondly, self-administered data may lead to social desirability bias, particularly about health and consumption habits. Lastly, the cross-sectional study design hinders the potential to establish a robust causal relationship between factors. Recognizing these limitations and findings opened new avenues for future scholars to build upon and address these gaps. Future studies could use longitudinal methods to track how consumer attitudes and behaviors evolve, especially as new data regarding food safety and health hazards becomes available. Additionally, the generalizability of findings could be enhanced through the inclusion of more diverse geographic and demographic profiles. Furthermore, future researchers can explore further mediating or moderating variables such as social influences, health conditions, and environmental concerns to extend the concept of ORF consumption. Therefore, these factors in diverse cultural or geographical contexts provide a more inclusive perception of ORF consumer intention.

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