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Article

Influential Elements Influencing How Consumers Behave when Purchasing Organic Farm Products

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Abstract: The principal aim of this descriptive-survey investigation is to ascertain the factors influencing individuals' choice to purchase organic commodities in Tehran. The statistical populace for this examination comprised all patrons of food retail establishments in Tehran, with the sample size determined using the Cochran formula for an unknown community size, involving the distribution of 30 questionnaires to customers (n=439). Data collection was carried out through a random sampling technique. The survey instrument consisted of a questionnaire with two sections consisting of general queries (7 questions) and specific inquiries (23 items) categorized into four dimensions (product, price, place, and promotion) for the clientele. The questionnaire's validity was confirmed through face and content validation, while its reliability was assessed utilizing Cronbach's alpha. Data analysis was conducted using SPSS25 software, encompassing both descriptive and inferential statistical analyses. The results revealed a positive and significant correlation between customers' inclination to consume organic goods and the characteristics of the product, price, and promotion. However, no association was found between the propensity to consume organic products and location characteristics. Concerning contextual variables, a solely positive and significant correlation was identified between the willingness to purchase organic items and consumer income levels. No significant relationships were detected between other contextual variables and organic product consumption. A notable contrast was observed between respondents' gender and their readiness to buy organic products, while no significant variances were noted regarding age, income, occupation, and education in relation to the propensity to purchase organic commodities.

Keywords: agricultural organic products; marketing mix; consumer behavior

Introduction

Enhancing the well-being of individuals within a given society constitutes a pivotal objective of the healthcare framework in any nation (Maftoon et al., 2011). The populace's health stands out as a fundamental element influencing the vitality, advancement, and progression of a society, with the primary determinant being the access to nutritious and safe sustenance (Azizi, 2024)[b]. The escalation of diseases in recent times has led to an increased apprehension among food consumers regarding the safety of their edibles (Zarei et al, 2024). Factors such as the augmented utilization of chemical inputs like fertilizers, pesticides, herbicides, fungicides, unprocessed animal waste in the production chain, as well as the presence of heavy metal remnants (such as lead, mercury, nickel, chromium, arsenic, zinc, copper, tin, cadmium, etc.) in agricultural yields, residues of pesticides and detergents, and the incorporation of animal, human, and chemical fertilizers, antibiotics, hormones, among other substances in agricultural products, alongside the development of genetically modified organisms, have significantly influenced consumers' perspectives on food safety (Masoumi et al, 2014). This shift has inclined individuals towards prioritizing the health aspects of food products, while also emphasizing the conservation of natural resources, thus prompting a more conscientious, informed, and discerning behavior among consumers. The selection of raw materials for consumption by individuals and their families is a critical decision. The global market for eco-friendly products is

expanding due to rising environmental concerns. These concerns regarding environmental sustainability have prompted consumers to focus more on this issue (Rostamzadeh and Alimohammadi Siaban, 2016). Consumers not only show a preference for organic products over conventionally grown ones, but they are also willing to pay a premium for products that offer genuine environmental protection and meet established environmental standards (Kolter and Armstrong, 2008). The shift in consumer behavior towards environmental consciousness has spurred an increase in green marketing initiatives worldwide, aligning product supply with the demands of environmentally conscious consumers (Azizi and Yazdani, 2004). The primary objective of marketing is to exert a significant influence on consumers' purchasing decisions (Govender et al., 2016). Marketers encounter numerous challenges in persuading consumers to purchase and embrace their offerings. Various factors impact consumer purchasing behavior, including attributes of the product, brand, packaging, quality, country of origin, and information related to the product on consumer behavior (Chovanova et al., 2015; Holt, 2015; Shirai, 2015; Lee, 2014; Hislop, 2001; Azizi, 2023; Azzam and Ali, 2019; Dodds et al., 1991). Additionally, secondary factors, such as pricing, distribution, and promotional strategies, play a significant role in influencing consumer buying decisions, constituting essential components of marketing efforts (Kotler and Keller, 2016). These elements are meticulously crafted and tailored to cater to market demands and competitive responses. Consequently, to gain insights into consumer responses to products, it is imperative to conduct a thorough analysis of the interplay between these factors and consumer purchasing behavior (Azizi, 2024)[a]. The outcomes of extensive research indicate that the marketing of organic food products via social media in Iran necessitates the implementation of policies to address supply-side challenges, primarily concerning organic producers (Bayat et al, 2012). This involves institutional support, encompassing the formulation of regulations and standards for organic products, establishment of certification mechanisms, provision of resources, and tax incentives for organic producers. The outcomes of their study also indicated that numerous barriers hinder the progression of the organic products market and organic agriculture. The success in promoting these products on social media hinges on resolving these challenges and concentrating on opportunities and facilitators (Gholampour et al., 2009). A direct correlation exists between demographic factors (such as age, gender, education) and green consumer behavior, while an inverse correlation is noted with income levels (Delaphrooz and Moghaddam, 2017). Furthermore, a connection is identified between environmental awareness, ecological worries, and the perception of environmentally friendly organizations with green purchasing patterns. Additionally, a link is established between the perceived value and quality of the item and the inclination to make a purchase (Chegini Asli and Ardestani, 2016). Notably, there is a significant association between accessibility, packaging, advertising, and pricing with consumer behavior. Among dairy consumers, pricing promotions, accessibility, and packaging play the most substantial roles in influencing consumption habits, respectively (Azizi, 2018). Moreover, the purchase intent for agricultural goods in the Perlis region of Malaysia is connected to Halal products, location, and certification (Nasirun et al., 2019). Product satisfaction, price satisfaction, and promotion satisfaction exert a noteworthy influence on consumer intention to purchase, while satisfaction with the place holds a substantial impact on product purchase intention, as indicated by Elvinda et al. (2018). The confluence of marketing strategies, consumer attributes, and psychological determinants significantly shapes consumer buying intention, as highlighted by (Azizi and Arefeshghi, 2011). Brand image, promotion, sales promotion, and personal selling play a crucial role in influencing consumer purchasing decisions, as demonstrated by Onigbinde and Odunlami (2015). Paramount among the factors impacting consumers' buying behavior is product quality. Furthermore, Varghese and Santhosh (2015) revealed that consumers' primary challenges encompass limited product accessibility, elevated prices, and regulatory constraints. The adoption of green products positively impacts the purchasing behavior of the majority of respondents, although Majerova (2015) found no correlation between households' average monthly income and their willingness to pay premium prices for eco-friendly products. There is a deficiency in consumers' exposure to green product marketing. Moreover, Maheshwari (2014) emphasized the effectiveness of heightened marketing efforts and brand promotion in driving the sales of environmentally sustainable products. Factors such as organic knowledge, prices, subjective norms, product quality, and consumer experience levels collectively shape consumer attitudes and behavioral intentions, as noted by Saleki et al. (2012). The prioritization of green marketing components from the perspective of consumers includes green

product attributes, pricing strategies, certifications, environmental awareness, and promotional efforts (Abolghasemi and Barfi Moghaddam, 2016). The impact of promotional, distribution and pricing dimensions of green marketing has been observed to positively influence consumer behavior towards green purchases, while the influence of green products appears to be negative and insignificant (Ranaei Kurdsholi and Yari Buzjani, 2012). Factors such as green branding, marketing communications, and consumer attitudes shaped by marketing communications, environmental knowledge, and perceived effectiveness collectively influence consumers' inclination to purchase green products (Nakhaei and Kheiri, 2012). Aspects like quality, information, brand image, and product packaging demonstrate a significant positive correlation with consumer behavior, with product information and quality playing a particularly prominent role (Azizi, 2024)[c]. Companies that uphold environmental ethics are more inclined to execute green marketing initiatives encompassing green production, pricing strategies, and distribution channels, consequently enhancing overall business performance. Additionally, the discovery of a negative feedback loop underscores the detrimental impact of distrust and internal reluctance on the efficacy of green intermediary programs (Han et al., 2019). Rahmati Ghofrani's study revealed substantial support for the influence of pricing, consumer efficacy, and perceived outcomes on the intention to purchase organic food products. Factors such as organic knowledge acquisition trust in green practices, and pricing emerge as key determinants of consumers' intent to purchase environmentally friendly products. The findings also indicated that green marketing strategies have no impact on the inclination and acquisition of organic goods (Azizi and Rahmani, 2024). Indomathi and Davood inferred that the primary concern for consumers regarding a product is its convenience, followed by its quality, brand, environmental well-being, and lastly, taste. Product-related aspects also play a role in consumer behavior, as individuals who prioritize quality and health tend to choose organic goods (Eskandari et al, 2022). Price considerations also influence consumer behavior, as evidenced by the willingness of consumers to purchase organic items even at higher prices. Consumers are willing to invest in organic products due to their perceived health benefits and superior quality (Davarifarid, et al, 2019). Furthermore, spatial factors impact purchasing decisions, with a preference towards establishments exclusively offering organic goods. Promotional tactics also have an influence on consumer behavior, with a preference for discounts and doorstep delivery among regular organic product purchasers (Indumathi and Davood, 2016). Consumer behavior when purchasing organic farm products is influenced by various factors identified in the research. These factors include consumption values such as economic, emotional, social, and functional values, which significantly impact consumers' intentions to buy organic food. Additionally, attributes of organic food like price fairness, sensorial appeal, natural content, nutritional content, and organic labels play a crucial role in shaping consumer purchase behavior (Nikzadi panah et al, 2021). Moreover, elements like environmental concern and health consciousness have been found to positively affect purchasing attitudes and intentions towards organic foods, ultimately influencing actual purchase behavior. Understanding these influential elements is essential for stakeholders in the organic food industry to develop effective marketing strategies and meet consumer preferences and demands (Azizi et al, 2020).

This study aims to explore the factors influencing the decision-making process of purchasing organic agricultural products among residents of Tehran metropolis. Therefore, the primary objective of this research is to examine the factors affecting the choice to purchase organic agricultural products among Tehran's residents, with specific goals of analyzing respondents' individual traits, prioritizing the most significant factors influencing the decision to purchase organic agricultural products, and exploring the relationship between contextual variables and the inclination to consume organic goods.

Research Methods

The dominant paradigm employed in this study is quantitative, with data collection carried out through a survey method. The study focused on the customer base of food supply establishments in Tehran, with a sample size determined using Cochran's formula for unknown populations, distributing 30 questionnaires among customers (n = 439). The research instrument consisted of a questionnaire with two sections: general questions (7 items) and specific questions (23 items) across four dimensions (product, price, place, and promotion) (Azizi, 2007). Specific questions in the questionnaire were structured using a five-point Likert scale ranging from 'strongly disagree' to

'strongly agree'. Initial feedback on the questionnaire's validity was sought from a panel of university professors and experts. Their input was integrated into the final questionnaire following necessary revisions. To gauge the questionnaire's reliability, Cronbach's alpha coefficient was calculated (product 0.767, promotion 0.754, price 0.807, and place 0.795), affirming the research tool's reliability (Azizi and Yazdani, 2007). Descriptive statistics such as frequency, percentage, mean, and standard deviation were applied for data analysis in this study. Inferential statistics including mean comparison (t-test and F-test) along with Pearson and Spearman correlation coefficient tests were conducted using SPSS25 statistical software.

Discussion

The results obtained regarding the gender of the respondents showed that most of the respondents (52.2) were female. The minimum and maximum age of the respondents were 18 and 86 years, respectively, and their average age was 43.48 years, with the highest frequency (70.4 percent) in the age group of 40 to 50 years group. In terms of education, the highest frequency was related to people with post-graduate education with 36.7 percent and the lowest frequency was related to master's degree and higher (16.2 percent). The results of frequency distribution of respondents based on their job showed that the highest frequency is related to the housewife group (44.2 percent). Most respondents (50.6 percent) used organic products. Most of them (28.9 percent) provided between 25 and 50 percent of their required products from organic products. In terms of income, most of the respondents with 16.9 percent frequency were in the group with income between 10 to 15 million Tomans and the lowest of them were in the group with income above 15 million Tomans. Factors influencing the decision to buy organic agricultural products among the citizen of Tehran metropolis were examined in four dimensions of product, price, place and promotion. In relation to product features; High quality products (M= 4.74), good taste of products (M= 4.71), observance of environmental aspects in product production (M= 4.46), health products (M= 4.43) and freshness organic products (M= 35.4) were of green importance to customers. In relation to the promotion feature component; offering discount coupons (M= 4.34), free door-to-door delivery (M= 4.28), taking into account customers' opinions (M= 4.25) and offering discounts to regular customers (M= 4.23) are of great importance to customers. They enjoyed. In relation to the component of price characteristics; Having the best value for money for organic products (M= 4.18) was very important for customers. And in relation to the place properties component; Availability of stores (M = 12.4), ease of buying organic products (M= 4.09), variety of products offered (M= 4.08) and product presentation space features (M= 4.7) are of great importance to customers.

Table 1. Frequency distribution of factors affecting organic consumption.

Factors affecting organic consumption		Average	Standard Deviation	Rank
Product Features				
Pro1	organic products are of high quality	4.74	0.494	1
Pro3	the taste of organic products is good	4.71	0.524	2
Pro6	in the production of organic product environmental aspects are considered	4.46	0.621	3
Pro8	organic products are good for your health	4.43	0.651	4
Pro4	very fresh organic products are offered	4.35	0.663	5
Pro2	organic products have the right packaging and appearance	4.33	0.784	6
Pro5	there is a wide variety of organic products available	4.32	0.747	7
Pro7	the packaging of organic products is in line with the environment	4.32	0.641	8
Promotional Features				
Adv1	use discount coupons	4.34	0.667	1
Adv2	for organic products, free door-to-door delivery is possible	4.28	0.782	2
Adv3	the advantage of the poll system	4.25	0.821	3
Adv4	discount for organic products are offered to regular customers of the store	4.23	0.667	4
Adv5	provide detailed product environmental information on the packaging	4.22	0.834	5
Adv6	informing the company about the environmental responsibility of the products	4.22	0.675	6
Adv7	encourage consumers to use organic products to protect the environment	4.19	0.600	7
Price Features				
Pri2	organic products have the best value for money	4.18	0.877	1
Pri1	according to the quality; organic products offer reasonable prices	4.12	0.858	2
Place features				
Dis1	(stores) organic products are available	4.12	0.752	1
Dis4	it is easy to buy organic products in the store	4.09	0.830	2
Dis3	organic products have a high variety in the store	4.08	0.721	3
Dis2	organic product stores have air conditioning	4.07	0.719	4
Dis5	it is possible to buy organic products through the application (online shopping)	4.06	0.684	5
Dis6	use of green distribution and transportation system	4.05	1.098	6

In order to rank the component related to the factors affecting the purchase of organic products; cumulative indicators were considered for each component. Product features components (with an average of 4.46); Promotion features (with an average of 4.25); Price marketing features (with an average of 4.15) and distributive features (with an average of 4.08) were ranked first to fourth, respectively, as factors affecting the purchase of organic products (Table 2).

Table 2. Ranking of factors affecting the purchase of organic products.

Component	Average	Standard deviation	Minimum	Maximum	Rank
Product	4.46	0.354	3.63	5	1
Promotion	4.25	0.392	3.14	5	2
Price	4.15	0.605	2.00	5	3
Place	4.08	0.437	2.83	5	4
Total	4.27	0.320	3.52	4.78	-

To investigate the relationship between the tendency to consume organic products and some research variables, Spearman and Pearson coefficients based on the characteristics of the variable were used. The result show that there is a positive and significant relationship between the tendency to consume organic products with product characteristics and price characteristics at the level of one percent and with promotion characteristics at the level of five percent. The table also showed that there is no significant relationship between the tendency to consume organic products and place characteristics (Table 3).

Table 3. Relationship between propensity to consume organic products and research variables.

Variable	Type of correlation coefficient	The value of r	The significance level
Product	Pearson	0.165**	0.001
Advertise	Pearson	0.103*	0.031
Price	Pearson	0.140**	0.003
Promotion	Pearson	0.079	0.100
Total	Pearson	0.153**	0.001

*Significance at the level of 0.05   **Significant at the level of 0.01

Among the contextual variables, only between the desire to consume organic products and the level of consumer income at the level of five percent, there is a positive and significant relationship. There is no relationship between other contextual variables (age, education, gender and occupation) and consumption of organic products (Table 4).

Table 4. Relationship between the tendency to consume organic products and some individual characteristics.

Variable	Type of correlation coefficient	The value of r	The significance level
Gender	Spearman	-0.016	0.731
Job	Spearman	0.075	0.0116
Income	Spearman	0.173*	0.014
Education	Spearman	-0.084	0.080
Age	Pearson	-0.078	0.102

*Significance at the level of 0.05

Mean comparison test was used to investigate the effect of contextual variables on the tendency consume organic products. The result of t-test showed that a significant difference was observed at the level of one percent between the gender of the respondents and the dimensions of the tendency to consume organic products in all dimensions, including product characteristics, promotion, price and distribution. This significant difference was also observed at the level of one percent between the total of four dimensions of desire to consume and gender of respondents. The results of F-test also showed that there was no significant difference between the variable of age, income, occupation and education with the desire to buy organic products (Table 5).

Table 5. The effect of some research variables on the tendency to use organic (t-test and F- test).

Variable	Dimensions	Test	Statistics t & F	The significance level
Gender (Female- Male)	Product	t	263.635**	0.000
	Advertisement	t	227.251**	0.000
	Price	t	143.614**	0.000
	Distribution	t	195.698**	0.000
	Total	t	279.636**	0.000
Age		F	1.089	0.319
Income		F	0.102	0.834
Job		F	1.144	0.335
Education		F	0.680	0.565

**Significance at the level of 0.01

Results

Product characteristics play the most important role in the decision to buy organic products among customers (in line with the findings of Abolghasemi and Barfi Moghadam, 2015; Indomathi and Davood, 2016; Varghese and Santhosh, 2015). One of most important features affecting the consumption of organic products; Quality, taste, being environmentally friendly and its role in maintaining the health of the body. After product features, promotion plays the most important role in the decision to buy organic products among customers (in line with the findings of Maheshwari, 2014). The most important promotion features affecting the behavior of organic purchasing can be offering discount vouchers for organic products, providing free product delivery service, survey system, providing discount to regular customers of these products in exchange for purchasing and providing detailed environmental information Mentioned with the product. Price characteristics were ranked third among the factors affecting the decision to buy organic products among customers (in line with the finding of Abolghasemi and Barfi Moghadam, 2015). Reasonable price per product

excepted by the consumer affects its consumption behavior. Distributive characteristics ranked fourth among the influencing the decision to buy organic products among customers. Among the most important place features that affect the consumption of organic products are the availability of products, ease of purchase, variety of goods offered, the quality of supply space and the availability of online shopping and shopping applications. There is a positive and significant relationship between the tendency to consume organic products among customers with product characteristics, price characteristics, and promotion characteristics, but there is no significant relationship between the tendency to consume organic products and place characteristics. Among the contextual variables, there is only a positive and significant relationship between the desire to consume organic products and the level of consumer income. This means that the higher the income level, the more inclined people are to consume organic products (contrary to the heartbreaking findings of Delafrooz & Moghaddam, 2017; Majerova, 2015). There was no correlation between the variables of gender, age and education with the consumption of organic products (these findings are in contrast to the heartbreaking findings of 2017). Also, there is no correlation between the job variable and the consumption of organic products. There was no significant difference between the respondents' gender and the desire to consume organic products. which means that there is a significant difference between men and women in terms of the desire to consume organic products, but between the variables of age, income (Majrova, 2015). Occupation and education there were no significant difference with the tendency to buy organic products.

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