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Willingness to pay for organic foods in Algeria: A gender based study

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Abstract

Organic food consumption has increased rapidly in recent years as people grow more concerned about their health, the environment, and the origins of their foods. These foods are produced using natural methods while avoiding synthetic chemicals such as pesticides, fertilizers, antibiotics, and genetically modified organisms. As a result, green customers frequently prefer organic foods for a variety of reasons, including perceived health benefits, superior flavor, environmental concerns, and animal welfare. Organic foods may be more expensive than traditionally produced meals, but many individuals believe that the benefits exceed the costs. This study has an aim to check the impact of gender of respondents on the willingness to pay a premium for organic foods. This type of products is illustrated on natural milk and natural oil generated from olive. The method explored in this research is an online survey during February 11-25, 2021 among 103 Algeria participants. Then, the results were analysed through SPSS software V26 in order to use Chi-square test.

The results show that the willingness to use organic foods is independent of respondents' gender. It means that both men and women are willing to pay it in this circumstance (p-value = 0.231). Furthermore, various recommendations for future research were made, including the inclusion of additional factors (age groups, academic degree, and income level).

Key Words: Consumer behaviour - Organic foods - Chi-square test- Gender - Algeria.

Introduction

Global interest in organic food consumption has increased, owing to rising consumer concerns about wellness, environmental friendliness, and food safety (Diagourtas et al. 2023; Leonidou et al. 2022). As a result, it appears that the most essential motivation for choosing organic products is "health." (Aygen. 2012). Furthermore, organic foods are those grown without the use of chemical pesticides (Singh and Verma 2017). When the world's population was small, practically all agriculture was organic and close to nature.

However, these traditional customs, passed down through generations, did not provide enough food to meet the demands of the world's fast expanding population. This incited the "green revolution," in which farmers used technological interventions to enhance outputs in order to fulfil increased food demand from a growing population (Dholakia and Shukul, 2012).

Furthermore, previous studies has found that the most important aspects of organic foods are health (low artificial chemical residues and high nutritional content), environment (want for a product produced and processed in an environmentally responsible manner), and high quality, such as flavour (Pearson, 2002). Customers' desire to maintain healthy eating habits that improve their quality of life motivates the use of organic food, in addition to addressing immediate environmental concerns (Ditlevsen et al, 2019).

The organic market is now 60 years old, so term harmonization was essential, and it is updated on a regular basis. The term "organic" first appears in Northbourne's (1940) report on organic farms, "Look to the Land." Consumers play an important role in addressing food system sustainability issues (Hedin et al, 2019; Vermeir et al, 2020). Eurobarometer (2020) and Mintel (2021) report that consumers anticipate producers and manufacturers to increase food system sustainability.

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Organic agriculture was described in Europe as an integrated system of farm management and food production that combines best environmental and climate action practices, a high level of biodiversity, natural resource preservation, and the application of high animal welfare and production standards in response to rising consumer demand for products made from natural ingredients and processes. Furthermore, the French Agency for Organic Agriculture states that the label assures that the food has at least 95% organic ingredients, is free of GMOs (within a 0.9% limit), and is certified by a organization approved by French public authorities.

According to Boukhedimi et al. (2024), Algeria's diverse climate and geography have resulted in a multitude of locally produced items. These items help to address the demands of local consumers through co-financing. However, in order to increase the awareness of these products, they must be awarded quality labels such as BIO, Protected Geographical Indication (PGI), Protected Designation of Origin (PDO), and Controlled Designation of Origin (AOC). For example, public authorities have implemented a regulatory structure that allows local items to be certified. However, the labelling procedure for these items is suffering severe delays due to a variety of obstacles.

The relationship between masculine and feminine values, as described by Hofstede (2011), and the consumption of organic food is a complicated topic that necessitates careful examination. Here's how cultural elements can affect customer behaviour:

Masculine Societies:

- In cultures with a high masculinity, the emphasis is on performance, competition, and materialism.

- This may result in less concern for the environmental and health aspects of organic food.

- Men may be more inclined to prioritize quantity and price, while women may be influenced by standards of beauty and thinness, which may turn them away from organic foods, which are perceived as more "natural" and less "processed."

Feminine Societies:

- In cultures with a high femininity, the dominant values are quality of life, harmony, and cooperation. This can foster greater awareness of environmental and health issues, resulting in increased consumption of organic products.

- Women, who are often responsible for food purchases, may be more attentive to information about the health benefits of organic foods for their families.

According to (Lea and Worsley, 2005; Van Doorn and Verhoef, 2011), younger households and women value organic food higher and incorporate it in their purchases. Similarly, previous research has revealed that women are more interested in organic foods than men (WandelL and Bugge, 1997). These previous research are also corroborated by (Koivisto and Mangnusson, 2003), who discovered that a higher proportion of women had good opinions toward organic foods and consume them (Storstad and Bjorkhaug, 2003).

1.2 Literature review

Gender is a appropriately investigated variable to explain healthy purchase habits. The outcomes differ. There are studies that reveal disparities between men and women, while others show no substantial difference in the buying of healthy products. Martins et al (2019) found that women in Brazil are more interested in organic food consumption than males, based on a sample of 1230 participants. This trend is supported by various recent research (Fatha and Ayoubi, 2023; Jánská et al. 2020). Even though women have positive sentiments regarding organic food products, this does not imply that they are willing to pay more for them.

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Furthermore, Ureña et al. (2008) suggested that men are ready to pay a higher price for organic food than women, which differs from another study on healthy juice consumption in Australia and New Zealand (Hallak et al., 2022).

In this regard, the current paper examines the linkage between gender willingness to pay for organic foods among Algerian consumers. Hence, the research hypotheses could be presented as follows:

1.3 Research hypotheses

1. Both men and women are willing to pay for organic foods in Algeria;

2. There is a significant difference regarding the willingness to pay for organic foods in Algeria based on the gender.

2. Methods

To address the research issues raised, this paper employs both qualitative and quantitative methodologies. Several articles were used to study prior studies, which were mostly concerned with organic foods. In this case, specific keywords were chosen to stress the study's objective. However, the quantitative technique is used to validate previously stated hypotheses through statistical tests and procedures such as descriptive statistics and the Chi-square test.

2.1. Sampling

The current study's sample population comprises of Algerian consumers in order to investigate the impact of their socio-economic status on the consumption of organic foods, with 103 participants. Thus, it should be mentioned that the study sample is representative according to the central limit theorem (CLT), which was highlighted by (Chang et al, 2006; Polya, 1920; Johnson, 2004; Urdan, 2005; Berenson et al, 2012 ; Fukuda, 2024), who outlined that as long as we have a reasonably large sample size (e.g, n= 30), the sampling size of the study will be normally distributed.

2.2. Data collection

Data was collected using an online questionnaire, with respondents being asked about their consumption of organic foods. The online survey was conducted between February 11th and February 25th, 2021, using a random sample of Algerian residents. Thus, the collected data were entered and analysed using SPSS software V26 to enable the evaluation of study hypotheses.

3. Result and discussion

3.1. Reliability test

The Cronbach alpha ranges statistically from 0.0 to 1.0. The number is allowed when it ranges between 0.6 and 0.7 (George and Mallery, 2003). Our questionnaire's reliability is adequate (0.72).

3.2. Sociodemographic statistics

The survey had 103 participants. Women accounted for 70.87% of the entire sample, while men made up 29.13%, with birth years ranging from 1986 to 2003, or ages 18 to 35. Overall, it is appropriate to use the term gender rather than gender in economic studies because gender is closely related to biological and physical features. According to age group statistics, the bulk of respondents are from generation "Y" (95.1%), with generation (Z) accounting for 4.9%. Furthermore, the table below demonstrates some desperation based on the responses gathered (SDs were close to zero).

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Table1. Descriptive statistics for the gender of the study sample.

	Frequency (n)	Mean ($\bar{x}$)	Sd (σ)
Man	30	1.26	0.24
Woman	73	1.20	0.25

Source: Survey data

3.3. Data analysis

Referring to the table below, the majority of men (n= 21/30), and women (n= 59/73), showed their interest to pay for organic foods.

Table2. Cross tabulation based on gender

		Yes	No	Total
Gender	Man	21	9	30
	Woman	59	14	73
Total		**80**	**23**	**105**

Source: Survey data

Given that the finding of Chi-square test isn't significant (p-value: 0.231), it could be decided to accept the first hypothesis and confirm that gender don't impact on the willingness to pay for organic foods. In line with previous findings (Janssen, and Hamm, 2012; Ayhan 2014; Suanmali, 2020), this study confirms that the gender don't play an important role regarding paying extra prices for organic foods in Algerian markets.

4. Conclusion

Organic foods offer various benefits, including reduced exposure to synthetic pesticides and fertilizers, support for environmentally sustainable farming practices, and, in certain cases, potentially higher nutritional value. Organic products are generally more expensive, but many consumers prefer them for health, environmental, and ethical reasons. Finally, whether or not to choose organic foods is determined by personal beliefs, aspirations, and availability, but it is clear that organic agriculture plays an important part in establishing a more sustainable and aware food system.

The purpose of this contribution was to study the relationship between gender and awareness of organic food consumption in Algeria, using both qualitative and quantitative methodologies. As a result, the theoretical section provides a full understanding of organic foods and green marketing. Furthermore, the current study provides an important conclusion to previous research. According to the independent samples t-test, there is no significant difference between men and women on this topic. In other words, the first hypothesis is accepted, whereas the second hypothesis is to be rejected.

The study reveals noteworthy findings. However, clear limits are demonstrated. Regardless of the central limit theorem, which suggests that the given conclusions might be applied to the full survey population. The collected data is less extensive (n=103), which is owing to time and cost limitations. Another disadvantage is that responders were more concentrated among women (70.87%). As a result, increasing the sample size and incorporating men is strongly advised. It should be mentioned that this study does not include all Algerian

cities and other variables (age groups, educational level, and economic level). Therefore, it is proposed that these characteristics be considered in future research.

References-

Aygen, F. G. (2012). Attitudes and Behavior of Turkish Consumers With Respect to Organic Foods. *International Journal of Business and Social Science., 3*(18), 262-273.

Ayhan, R. M. (2014). Consumer willingness to pay for organic chicken and milk in Kuşadası, Turkey (Master's thesis, Middle East Technical University).

Bajpai, N. (2013). *Business Statistics.* PEARSON Education Inc.

Berenson, M., Levine, D., Szabat, K. A., & Krehbiel, T. C. (2012). *Basic Business Statistics: Concepts and Applications.* Pearson Higher Education AU.

Boukhedimi, C. E., Batache, A., Sahali, N., & Redjouani, Y. (2025). Exploring the awareness of organic food consumption in Algeria: a gender based-study.. *Management and Entrepreneurship: Trends of Development, , 2*(32), 177-186.https://doi.org/10.26661/2522-1566/2025-2/32-14.

Chang, H. J., K. Huang, and C. Wu. (2006). Determination of sample size in using central limit theorem for weibulldistribution. *International Journal of Information and Management Sciences, 17*(3), 153-174.

Dholakia J, Shukul M. (2012). Organic food: An assessment of knowledge of homemakers and influencing reasons to buy/not to buy. *JHum Ecol., 37*(3), 221–227. https://doi.org/10.1080/09709274.2012.11906467.

Diagourtas G, Kounetas KE, Simaki V. (2023). Consumer attitudes and sociodemographic profiles in purchasing organic food products: evidence from a Greek and Swedish survey. *Br food J 125(7):2407–2423, 125*(7), 2407–2423.

Ditlevsen, K.; Sandøe, P.; Lassen, J. (2019). Healthy Food Is Nutritious, but Organic Food Is Healthy Because It Is Pure: The Negotiation of Healthy Food Choices by Danish Consumers of Organic Food. *Food Qual. Prefer.*, pp 46–53, https://doi.org/10.1016/j.foodqual.2018.06.001.

Eurobarometer. (2020). *Making Our Food Fit for the Future – Consumer Expectations, Special Eurobarometer 505 Report (December), available at: https://data.europa.eu/data/datasets/ s2241_505_eng?locale=en (accessed 11th May 2024).*

Fatha, L., & Ayoubi, R. (2023). A revisit to the role of gender, age, subjective and objective knowledge in consumers' attitudes towards organic food.. *Journal of Strategic Marketing,, 31*(3), 499-515.https://doi.org/10.1080/0965254X.2021.1939405.

Fukuda, K. . (2024). An empirical study on sample size for the central limit theorem using Japanese firm data. *Teaching Statistics, , 46*(3), 184-191.

George. D, Mallery.P . (2003). *SPSS for Windows step by step: A simple guide and reference.* Boston: Allyn& Bacon (4th ed.).

Hallak, R., Onur, I., & Lee, C. (2022). Consumer demand for healthy beverages in the hospitality industry: Examining willingness to pay a premium, and barriers to purchase.. *Plos one, 17*(5), e0267726.https://doi.org/10.1371/journal.pone.0267726.

Hedin, B., Katzeff, C., Eriksson, E. and Pargman, D. (2019). "A systematic review of digital behaviour change interventions for more sustainable food consumption",. *Sustainability,, 11*(9), p. 2638, https://doi.org/10.3390/su11092638. .

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstedemodel in context. . *Online Readings in Psychology andCulture, 2* (1), 1–26. doi: 10.9707/2307-0919.1014.

Jánská, M., Kollar, P., & Celer, Č. . (2020). Factors influencing purchases of organic food. . *Zagreb International Review of Economics & Business, , 23*(1), 81-94.https://doi.org/10.2478/zireb-2020-0006.

Janssen, M., & Hamm, U. (2012). Product labelling in the market for organic food: Consumer preferences and willingness-to-pay for different organic certification logos. . *Food quality and preference, , 25*(1), 9-22.

Johnson, O. (2004). *Information Theory and the Central Limit Theorem.* London: Imperial College Press.

Koivisto, HU & Mangnusson, MK. (2003). Consumer perceptions of genetically modified and organic foods: What kind of knowledge matters? *Appetite*, 207-209.

Lea, E & Worsley,T. (2005). Australians' organic food beliefs, demographics and values. *British Food Journa, 107*(11), 855-869.

Leonidou L, Eteokleous P, Christofi A, & Korfiatis N. (2022). Drivers, outcomes,and moderators of consumer intention to buy organic goods: meta-analysis,implications, and future agenda. *J Bus Res, 151*, 339–354.

Martins, A. P. D. O., Bezerra, M. D. F., MARQUES, S., Brito, A. F., ANDRADE, J. C. D., GALVÃO, J. G. B., ... & Rangel, A. H. D. N. (2019). Consumer behavior of organic and functional foods in Brazil.. *Food Science and Technology,, 40*(2), 469-475.https://doi.org/10.1590/fst.03519.

Mintel (2021). (n.d.). "Mintel sustainability barometer report", Mintel Sustainability Barometer 2021,available at: Mintel.com (accessed 11th May 2024).

Northbourne, L. (1940). "Look to the Land". In *Farming and Mechanised Agriculture.* Sophia Perennis, 2005.

Pearson, D. (2002). *Marketing organic food: Who buys it and what do they purchase? Food Australia, 54, 31-4.*

Polya, G. (1920). Uber den Zentralen Grenzwertsatz der Wahrscheinlichkeit-Srechnung und das Momenten. *Mathematische Zeitschrift,, 08.*, pp197-198.

Singh, A., & Verma, P. (2017). Factors influencing Indian consumers' actual buying behavior toward organic food products. *J of Clean Prod., 167*, 473–483.https://doi.org/10.1016/j.jclepro.2017.08.106.

Storstad, O & Bjorkhaug, H. (2003). Foundations of production and consumption of organic food in Norway: Common attitudes among farmers and consumers. *Agriculture and Human Values, 20*, 151-163.

Suanmali, S. (2020). Determinants of a customer's willingness to pay (WTP) for organic fruits and vegetables: an empirical study in the Bangkok Metropolitan Area. . *International Journal of Trade, Economics and Finance,, 11*(4), 71-76.

Urdan, T. (2005). *Statistics in plains English.* London: Lawrence Erlraum associates publishers.

Ureña, F., Bernabéu, R., & Olmeda, M. (2008). Women, men and organic food: differences in their attitudes and willingness to pay. A Spanish case study.. *international Journal of consumer Studies, , 32*(1), 18-26.https://doi.org/10.1111/j.1470-6431.2007.00637.x.

Van doorn. J & Verhoef. PC. (2011). Willingness to pay for organic products: Differences between virtue and vice foods. *International Journal of Research in Marketing, 28*(3), 167-180.

Vermeir, I., Weijters, B., De Houwer, J., Geuens, M., Slabbinck, H., Spruyt, A., Van Kerckhove, A., Van Lippevelde, W., De Steur, H. and Verbeke, W. (2020). "Environmentally sustainable food consumption: a review and research agenda from a goal-directed perspective". *Frontiers in Psycholoy,, 11*, p. 1603, https://doi.org/10.3389/fpsyg.2020.01603.

WandelL M & Bugge, A. (1997). Environmental concern in consumer evaluation of food quality. *Food Quality and Preference, 8*(1), 19-26.