eISSN 2583-6986
IDEALISTIC JOURNAL OF ADVANCED RESEARCH IN PROGRESSIVE SPECTRUMS (IJARPS)
A MONTHLY, OPEN ACCESS, PEER REVIEWED (REFEREED) INTERNATIONAL JOURNAL
Volume 03, Issue 09, September 2024

Impact of educational level on the awareness toward the consumption of organic foods: An insight of green marketing in Türkiye and Algeria

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Received: 15 Sep 2024 Accepted & Reviewed: 25 Sep 2024, Published : 30 Sep 2024

Abstract

Using the independent-samples t-test, this paper examines whether the educational level impact on the awareness with the consumption of organic meals in Türkiye and Algeria. Including 81 participants, in which 80.2 % are under graduated and graduated, while the rest (19.8 %) are post-graduated; consequently, this study concluded that there is no significant difference regarding well-being concerns.
Key Words- Consumer behavior, green marketing, organic foods, two sample t-test, Turkiye, Algeria.

Introduction

1.1 Background of the Study

1.1.1 Organic foods

Globally, there has been a growing interest in organic food consumption driven by increasing consumer concerns about wellness, eco-friendly practices, and the safety of food products (Diagourtas et al. 2023; Leonidou et al. 2022). So, the most important reason for organic food purchases seems to be “health” (Gul Aygen, 2012). Further, foods that are cultivated without the application of chemical pesticides can be called organic foods (Singh, 2017). When the world’s population was low, almost all agriculture was primarily organic and near-natural. However, these traditional practices, passed from one generation to the next, did not produce enough food to meet the rapidly increasing global population’s demands. This led to the "green revolution," in which farmers used technological interventions to maximize outputs to meet the growing need for food for the increasing population (Dholakia & Shukul, 2012). Additionally, previous research has identified that the most important attributes of organic foods centre around health (i.e. minimal artificial chemical residues in the product and high nutritional value), environment (i.e. preference for a product that has been produced and processed in an environmentally friendly manner) and high quality such as taste (Pearson, 2002). Apart from addressing immediate environmental concerns, the consumption of organic products is also driven by consumers’ pursuit of healthy eating habits that improve their quality of life (Ditlevsen et al, 2019).

The term “organic” was first used in a study carried out by Northbourne (1940), about organic farm entitled “Look to the Land”. Consumers play a significant role in addressing the sustainability challenges of food systems (Hedin et al, 2019; Vermeir et al, 2020). İn other words, consumers tend to hold producers and manufacturers accountable for making food systems more sustainable (Eurobarometer, 2020; Mintel, 2021).

1.1.2 Green marketing

Over the years, the notion of green marketing has been developed as a vital alter-native for society’s sustainable growth in the 21st century, taking into consideration the increasingly strained interplay between human beings and the environment (Vijai &Anitha, 2020; Yang; Chai, 2022). On the other hand, green marketing is one of the most addressed matters in the business of this era (Boukhedimi, Zerouti and Nedil,

2023). Advertising is the most popular way to promote awareness of environmental products and create demand for them (Carlson et al, 1993). In addition to that, green advertising which has been growing exponentially since the late 1990s, is proposed as the driving force behind increasing worldwide public awareness of environmental and ecological issues and as well as leveraging demand for green products (Futerra, 2008, Cox, 2008; Leonidou et al, 2011)

Green Marketing therefore is about the incitation to use safe products which aren't harmful for the environment and well-being of humans in order to achieve sustainable development (Boukhedimi et al, 2023). In this way, the literature contains various definitions of green marketing. The American Marketing Association (AMA) was the first one to present obviously the ecological marketing in the earliest 1970s as the study of positive and negative aspects of marketing activities on pollution, energy depletion, and non-energy resources depletion (Henion, Kinnear, 1976). Green marketing, also called environmental marketing and responsible marketing, is the integration of value-creating change into the natural environment as well as consumers and society (Polonsky, 2011). Furthermore, Boukhedimi (2021) defined the green marketing as the promotion of health and safety products obtained by the honest practices of factories in order to protect both ecological environment and well-being of citizens (consumers, employers of factories and the rest of the society). Hence, Charter & Polonsky (1999) have defined this concept as the marketing or promotion of a product based on its environmental performance or an improvement thereof. In addition to that, Green marketing was identified as the movement which is directed towards organizations production of products responsible environmentally (Kotler & Armstrong, 2004). Ultimately, green marketing refers to holistic marketing concept wherein the production, marketing consumption disposal of products and services happen in a manner that is less harmful to the environment or not at all harmful (Ahmed et al, 2023).

In this regard, the current study examines the awareness toward the consumption of organic foods among under graduated /graduated and post-graduated, respondents in Türkiye and Algeria, the research statement could be presented as follow:

Does the educational level impact on citizens' awareness of the consumption of organic foods in Türkiye and Algeria?

1.2 Research hypotheses

1. Both under graduated /graduated and post-graduated are aware of the consumption of organic foods in Türkiye and Algeria;

2. There is a significant difference regarding the use of organic foods in Türkiye and Algeria based on the educational level.

1.3 Literature review

Many studies on the consumption of organic foods were subject of discussion. In a study conducted by Gundala & Singh (2021), the factors affecting consumer buying behavior toward organic foods in the Midwest (United States) were examined. Based on the responses of 770 consumers, with the use of ANOVA, multiple linear regression, factor analysis, independent t-test, and hierarchical multiple regression analysis, it has been found that the health awareness, consumer knowledge, perceived or subjective norms, and perception of price influence consumers' attitudes toward buying organic foods, availability and other demographic factors (i.e. age, education, and income) impact on consumers' buying behaviour. Moreover, Siahaan & Thiodore (2022) analyzed the analysis effect of consumer behavior to purchase organic foods among 400 Indonesians, the study was conducted between June, 12th and July 3rd 2017, and this study used Structural Equation Model (SEM)

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and descriptive analysis of data collected. Accordingly, it has been concluded that a "strong" correlation between attitudes and perceived behavioral on the on intention to buy organic foods. Anyway, the subjective norms have not influenced the intention. Thus, taking the intention as a mediator variable, it has found a very strong nexus to purchase decisions of organic foods. Another research entitled "Overview of Organic Consumption in Brazil" assessed of organic consumption patterns among a sample of 1000 individuals in Brazil in 2021, which, (Organis GmbH, 2022) highlights that approximately 36% of respondents mentioned recent consumption of organic food within the past 30 days, while another 10% reported its consumption within the last 6 months. Furthermore, numerous participants emphasized the heightened cost of organic products, arguing that this is due to perceived advantages such as the non-use of pesticides in production, superior quality, and enhanced cultivation practices.

Also, Lamonaca et al (2022) presented a study about consumer perception of attributes of organic food in Italy among 672 respondents. The results indicate that consumers perceive organic food as safer than healthiness and environmentally sustainable attributes. Additionally, the presence of specific information on food's label conducts to perceive organic food as healthier, safe, and environmentally sustainable. Hence, the socio-demographic profile of consumers plays a significant role: males and females have a different perception of organic food, and younger consumers are more likely to buy and consume organic products.

Brata et al, (2022) studied the factors driving customers' beliefs toward organic food consumption as well as the measurement of frequency changed before and after the COVID-19 outbreak in Romania. A questionnaire was conducted on 190 organic food consumers in Bihor Province. As a result, people who used organic products more often before the pandemic have either kept or increased their consumption, while more indifferent consumers maintained or decreased the quantity of organic foods in their diet.

Furthermore, the study of Czudec (2022) aimed to evaluate the factors that enhance organic food consumers' interest in the local origin of food, among 850 Polish consumers. The survey results additionally pointed out that the emphasis on the importance of the local origin of organic food by consumers is causally linked to their awareness of the needs of other people; particularly, this is shown by taking into account the importance of caring for the natural environment in their purchasing decisions.

Beyond that, Boukhedimi et al (2023), examined the impact of demographic factors on the consumption of organic foods across 14 countries, the factors examined includes gender, age, occupation, educational level and nationality of respondents. Consequently, the findings revealed that the demographic variables tested were independent of the consumption of organic food.

In a study aimed to analyze the behavior of consumers of agro ecological products in Algeria, Akli et al (2024) conducted online survey which revealed that more than a third of respondents (37.5%) consume agro ecological products from total of 315 participants.

Along with the study of Deliberador (2024), based in Brazil among 240 consumers. The results reveal that environmental concern, price consciousness, and health consciousness are all significant in the organic food purchase intention, while impulsive shopping value does not. The intention to purchase organic food resulted in a decrease in household food wastage, indicating that this relationship is not a reliable predictor.

2. Methods

This paper used qualitative and quantitative approaches to address the research concerns previously identified. The previous studies, which are mainly focused on organic foods, were highlighted by the qualitative method,

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several articles from Google Scholar, Science Direct and Research Gate have been explored. In this sense, specific keywords were selected to outline the purpose of this research. However, the quantitative method is employed to examine hypotheses determined earlier, by the execution of statistical tests and methods, such as descriptive statistics, and the independent-samples t-test.

2.1. Sampling

The study population of the current study consists of the Turkish and Algerian consumers in order to examine the impact of their educational degree on the consumption of organic foods, among 81 participants. Thus, it should be noted that the study sample is representative according to central limit theorem (CLT) as it was highlighted by (Chang et al, 2006; Polya, 1920; Johnson, 2004; Tomothy, 2005; Berenson et al, 2012 ; Naval, 2013; Kwak & Kim, 2017; Allende-Alonso et al, 2019; Jenkins & Quintana-Ascencio, 2020; El Sherif, 2021; Nair et al, 2022; Boukhedimi et al, 2023; Sriram, 2023; Zhang et al, 2023; Fukuda, 2024), who outlined that as long as you have a reasonably large sample size (e.g, n= 30), The sampling size of the study will be normally distributed.

2.2. Data collection

An online questionnaire has been implemented as a data collection method, and the surveyed were asked with questions related to organic fools' consumption. The online survey's period was conducted during 2022, and the sample was randomly chosen in Türkiye and Algeria . Thus, the data collected were entered and processed through SPSS software V26 in order to enable the examination of study hypotheses.

3. Result and discussion

3.1. Reliability test

The interpretation of the Cronbach alpha differs statistically from 0.0 to 1.0 (Howe & Straauss,1992; Solomon et al, 2006). The value is accepted when going from 0.6 to 0.7 (George. & Mallery, 2003).The reliability of our questionnaire is adequate (0.774).

3.2. Sociodemographic statistics

The survey has included 81 participants. On the count of gender, women were 77.8%, and men represented 22.2 % of the full sample. Overall, it should be mentioned that in economic research, The term gender, or men and women, is appropriate to replace the term sex, because it is particularized to biological and physical attributes. (Boukhedimi, 2022). From the other side, considering the statistics by age category, the largest percentage of respondents are from generation "Y" (88.9%), followed by 8.6 % from generation "X", and 2.5 % from generation (Z). As well, 80.2 % of respondents are undergrads or have graduated, while the rest (19.8 %) are postgraduates. In addition to that, 55.6 % of our sample is Turkish and 44.4 % is Algerian.

Additionally, the table below indicates that there is a small desperations based on the responses collected (SD were near to zero).

Table1. Descriptive statistics for the educational level of the study sample.

	Frequency (n)	Mean ($\bar{x}$)	Standard deviation (σ)
Undergraduate/graduate	65	1.4**07**	0.224
Post graduate	16	1.364	0.174

Source: Survey data

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3.3. independent-samples t-test

Based on the study findings, it can be stated that the t-test of two conducted on independent sample reveals that educational level does not impact on the intention to consume organic foods, as the first hypothesis stated. Further, the variances of two samples are homogenous (LEVENE test' sig: 0.352 > 0.05), and the result of the t test isn't significant (sig t: 0.412 > 0.05)

Table 2. Hypotheses results

Hypotheses	Result
H1	**Accepted**
H2	**Rejected**

Source: Survey data

4. Conclusion

This paper attempted to analyze the effect of the academic level on the intention to use organic foods in Türkiye and Algeria. The current research makes an important theoretical contribution to the previous studies and suggests that there isn't a significant difference between undergraduate/graduate and postgraduate respondents regarding this issue.

The study has some limitations as well as important findings found. First and foremost, the data collected is limited due to the time and cost constraints of questionnaire distribution, so it should be larger. However, the results could be generalized and include all the survey population, according to the central limit theorem. Moreover, another limitation is that the respondents showed concentration above graduates and under-graduates (80.2 %). Therefore, increasing the number of sample study as well as the area (other countries) is truly recommended.

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