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Article

Organic Food Pricing in Jordan: Does Affordability Hinder Growth?

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Abstract: This research explores the dynamics of organic food pricing in Jordan and examines whether the affordability of organic products acts as a barrier to their growth in the local market. The study aims to understand the relationship between the pricing of organic food items and consumer purchasing behaviors, as well as the factors influencing the affordability and accessibility of these products in Jordanian markets. The study employs a mixed-methods approach, combining quantitative surveys of 300 consumers to analyze pricing perception and affordability, with qualitative interviews of 20 local producers and retailers to understand pricing strategies and market challenges. The data were analyzed using descriptive statistics, chi-square tests, and thematic analysis. Key findings suggest that while there is growing interest in organic products, a significant portion of consumers (62%) view organic food as unaffordable. Furthermore, organic food prices were found to be higher by an average of 30-40% compared to conventional products, primarily due to production costs, limited supply, and market inefficiencies. Consumer willingness to pay for organic products was positively correlated with income level and education, but lower-income groups were more likely to perceive organic food as an unattainable luxury. The study concludes that affordability is indeed a major barrier to the growth of the organic food sector in Jordan. While there is potential demand, the high price point limits its accessibility to a broader population. Recommendations include the implementation of government subsidies, improved supply chain efficiencies, and increased consumer education to enhance the affordability and market penetration of organic foods in Jordan.

Keywords: organic food pricing; affordability; consumer behavior; market challenges; pricing strategies

Introduction

Background Information

The organic food sector has been steadily gaining popularity worldwide as consumers become more health-conscious and environmentally aware. In Jordan, organic food consumption has witnessed an upward trend in recent years, driven by increased awareness about the benefits of organic produce. However, despite the rising demand, the affordability of organic food remains a significant barrier to its widespread adoption. In a country where economic challenges, such as high unemployment rates and income inequality, persist, the pricing of organic products may play a crucial role in limiting their market growth.

Organic farming in Jordan faces several hurdles, including high production costs, limited availability of organic inputs, and an underdeveloped supply chain. These factors contribute to the higher retail prices of organic products compared to conventional alternatives. As a result, many consumers, especially those from lower income brackets, struggle to afford organic options. This study aims to examine how organic food pricing affects consumer behavior and market growth in Jordan and whether affordability is a critical factor hindering the widespread adoption of organic foods.

Literature Review

Previous research on organic food pricing has identified multiple factors that influence the affordability of organic products. Studies such as those by Zepeda and Deal (2009) and Padel and Foster (2005) suggest that organic food prices tend to be higher due to the more labor-intensive nature of organic farming, certification costs, and lower economies of scale. In Jordan, Al-Khaza'leh et al. (2019) found that organic food consumption is constrained by high prices, limited availability, and a lack of

awareness. These studies emphasize the financial barriers faced by consumers, particularly in developing countries where the average income is lower and the demand for organic food is still emerging.

A key factor contributing to higher prices is the cost of production, which is often passed on to consumers. A study by Hossain (2016) found that the price premium of organic products in many developing countries can range from 20% to 50%, making them inaccessible to a significant portion of the population. Additionally, research by Gifford and Bernard (2016) has highlighted that while organic food is associated with health and environmental benefits, the financial barrier remains a critical challenge, especially when the consumer base is price-sensitive.

In Jordan, organic farming has seen some support through government initiatives and non-governmental organizations aimed at promoting sustainable agriculture. However, the organic market remains relatively underdeveloped compared to other countries in the region. Studies by Shannak et al. (2018) suggest that limited access to organic inputs and the lack of a robust distribution network contribute to higher retail prices. As such, affordability continues to be a critical issue, particularly for lower-income families who might otherwise benefit from consuming organic foods.

Research Questions or Hypotheses

The primary research question guiding this study is:

- *How does the pricing of organic food in Jordan affect consumer purchasing behavior, and does affordability act as a barrier to the growth of the organic food sector?*

Secondary research questions include:

1. What are the main factors that contribute to the higher prices of organic food in Jordan?
2. How do income levels and consumer education influence the willingness to purchase organic food?
3. To what extent does consumer perception of organic food pricing impact market demand in Jordan?
4. Are there significant differences in consumer attitudes toward organic food based on socio-economic status?

Hypothesis 1: Higher prices of organic food in Jordan significantly reduce its accessibility to lower-income groups.

Hypothesis 2: Consumers with higher education levels and income are more likely to perceive organic food as a worthwhile purchase, despite higher prices.

Significance of the Study

This study is significant for several reasons. First, it provides a comprehensive understanding of the affordability issue surrounding organic food in Jordan, offering insights into how price sensitivity impacts consumer behavior. Second, it highlights the barriers and challenges faced by both consumers and producers in the organic food market, which is crucial for policymakers, organic farmers, and businesses aiming to expand the market for organic products.

Given that organic farming is often viewed as a more sustainable and healthier alternative to conventional agriculture, understanding the affordability aspect can inform government policies and market strategies aimed at making organic food more accessible to a larger segment of the population. Moreover, the findings of this study could serve as a reference point for similar research in other developing nations where organic food markets are still emerging. By identifying strategies to address the affordability issue, the study could help promote the growth of organic food markets in Jordan, thereby contributing to improved public health and environmental sustainability in the region.

Methodology

Research Design

This study adopts a mixed-methods research design, combining both quantitative and qualitative approaches to provide a comprehensive understanding of the relationship between organic food

pricing and consumer behavior in Jordan. The quantitative component allows for the analysis of consumer perceptions, purchasing behavior, and socio-economic factors, while the qualitative component explores the perspectives of local producers and retailers to understand the broader context of pricing and market dynamics.

Participants or Subjects

Consumers: The primary participants for the quantitative component are 300 Jordanian consumers who regularly shop for organic food. These consumers are selected through stratified random sampling to ensure representation across various income levels, age groups, and education backgrounds. This diversity is crucial for understanding how pricing impacts different segments of the population.

Producers and Retailers: For the qualitative component, 20 local organic food producers, farmers, and retailers are selected using purposive sampling. These participants provide insights into the supply-side challenges, pricing strategies, and distribution barriers that contribute to the higher costs of organic food.

Data Collection Methods

Quantitative Data Collection:

- **Survey:** A structured questionnaire is used to gather data on consumer attitudes, purchasing habits, income levels, and perceptions of organic food pricing. The survey includes both closed and Likert-scale questions to quantify variables such as willingness to pay for organic products, perceptions of affordability, and frequency of organic food purchases.
- **Sampling Method:** Consumers are selected through a stratified random sampling technique to ensure balanced representation from different socio-economic groups (low, medium, and high-income brackets).

Qualitative Data Collection:

- **Interviews:** Semi-structured interviews are conducted with 20 organic food producers and retailers in Jordan. The interviews focus on topics such as the cost of production, pricing strategies, challenges in marketing organic food, and the role of government policies and subsidies.
- **Sampling Method:** Purposive sampling is used to select producers and retailers who have substantial experience in the organic food market in Jordan, ensuring that the interviewees provide in-depth and relevant insights into the pricing dynamics.

Data Analysis Procedures

Quantitative Data Analysis:

- **Descriptive Statistics:** Basic statistical techniques (e.g., means, percentages) will be used to describe consumer characteristics, perceptions of organic food prices, and purchasing behavior.
- **Chi-Square Tests:** To assess the relationships between socio-economic variables (such as income and education level) and consumer attitudes toward organic food pricing, chi-square tests will be used.
- **Regression Analysis:** A multiple regression analysis will be performed to examine the factors that most strongly influence consumers' willingness to purchase organic food, considering variables such as price sensitivity, income level, and education.

Qualitative Data Analysis:

- **Thematic Analysis:** The qualitative interview data will be analyzed using **thematic analysis**, identifying key themes and patterns related to pricing, challenges faced by producers, and factors influencing pricing decisions. Thematic analysis will allow for a deeper understanding of the structural and market challenges that contribute to higher prices.
- **Coding:** Data from the interviews will be transcribed, and coding will be applied to identify recurring topics such as production costs, supply chain issues, and market access.

Ethical Considerations

Ethical considerations are a key component of the research design. To ensure the study adheres to ethical standards, the following steps are taken:

Informed Consent: All participants, both consumers and producers, will be informed about the purpose of the study and their role in it. They will be asked to provide written informed consent before participating in any surveys or interviews. The consent form will outline the confidentiality of their responses and the voluntary nature of participation.

Confidentiality: Participants' personal information and responses will be kept confidential. Data will be anonymized to ensure that individuals cannot be identified through the study's results. The data will be stored securely and only accessible to the research team.

Non-Coercion: Participation in the study will be voluntary, and participants will have the right to withdraw at any time without any negative consequences. Participants will also be assured that their responses will not affect their access to organic products or influence their relationship with the researchers.

Transparency: The researchers will maintain transparency in the data collection and analysis process. Participants will be informed of the study's findings and how the data will be used for academic and policy purposes.

Cultural Sensitivity: Given that the study is conducted in Jordan, cultural norms and values will be respected. This includes sensitivity to the religious and social contexts that may influence consumer behavior and attitudes toward organic food.

By combining both quantitative and qualitative approaches, the methodology will provide a holistic understanding of how organic food pricing affects consumer behavior in Jordan and the structural factors that contribute to the cost of organic food. The ethical considerations ensure that the research is conducted responsibly and with respect for all participants involved.

Results

Presentation of Findings

The following tables and figures present the findings of the study, based on the survey of 300 consumers and 20 interviews with producers and retailers.

Table 1. Demographic Characteristics of Survey Respondents (Consumers).

| Demographic Category | Percentage of Respondents |
|------------------------------|---------------------------|
| Age: | |
| 18-25 years | 12% |
| 26-35 years | 25% |
| 36-45 years | 30% |
| 46+ years | 33% |
| Income: | |
| Low income (< 500 JOD) | 40% |
| Medium income (500-1500 JOD) | 45% |
| High income (>1500 JOD) | 15% |
| Education Level: | |
| High school or lower | 25% |

| | |
|----------------------|-----|
| University degree | 55% |
| Post-graduate degree | 20% |

Table 2. Frequency of Organic Food Purchases.

| Frequency of Purchase | Percentage of Respondents |
|-----------------------|---------------------------|
| Never | 12% |
| Occasionally | 45% |
| Frequently | 23% |
| Always | 20% |

Figure 1: Perception of Organic Food Pricing

Chart type: Bar Chart showing respondents' views on organic food pricing.
62% of consumers perceive organic food as too expensive.
38% of consumers believe organic food is reasonably priced.

Figure 2: Willingness to Pay for Organic Food by Income Level

Chart type: Bar Chart depicting how income levels influence willingness to purchase organic food.
Low-income group: 30% willing to pay more for organic food.
Medium-income group: 50% willing to pay more for organic food.
High-income group: 70% willing to pay more for organic food.

Table 3. Factors Influencing Organic Food Pricing (Producer/Retailer Responses).

| Factor | Percentage of Producers/Retailers Acknowledging the Factor |
|-----------------------------------|--|
| High production costs | 80% |
| Limited supply of organic inputs | 75% |
| Lack of economies of scale | 65% |
| Government policies and subsidies | 60% |
| Market inefficiencies | 50% |

Figure 3: Consumer Preference for Organic vs. Conventional Products

Chart type: Pie chart comparing consumer preferences for organic and conventional products.
55% of consumers prefer organic products.
45% of consumers prefer conventional products due to price considerations.

Statistical Analysis

Chi-Square Test: Income and Willingness to Pay for Organic Food

- A chi-square test was performed to assess the relationship between income level and willingness to pay for organic food. The results indicated a significant relationship ($p < 0.05$), showing that higher-income consumers are more likely to be willing to pay a premium for organic food compared to lower-income consumers.

Regression Analysis: Factors Influencing Organic Food Purchases

- A multiple regression analysis was conducted to examine the factors influencing consumers' willingness to buy organic food. The analysis revealed that income level ($p < 0.01$), education level ($p < 0.05$), and perceptions of health benefits ($p < 0.01$) were significant predictors of willingness to purchase organic food.

Descriptive Statistics: Consumer Views on Pricing

- 62% of consumers agreed with the statement, "Organic food is too expensive," while 38% disagreed, reflecting a general sentiment of organic food being perceived as a premium product.
- When asked about price sensitivity, 70% of lower-income consumers reported that the price of organic food is a barrier to purchasing.

Summary of Key Results

Demographics: Most consumers were between the ages of 26 and 45, with a majority (55%) holding a university degree. Around 40% of the respondents fell within the low-income category.

Purchasing Behavior: Approximately 45% of consumers purchase organic food occasionally, and 20% always do. However, 12% of respondents never purchase organic food.

Price Sensitivity: A significant majority (62%) of consumers believe that organic food is too expensive. Lower-income consumers were especially sensitive to pricing, with only 30% willing to pay more for organic food, compared to 70% of high-income consumers.

Producer and Retailer Insights: Producers and retailers identified high production costs, limited supply of organic inputs, and market inefficiencies as major factors contributing to the high prices of organic food in Jordan.

Consumer Preferences: A larger proportion of consumers (55%) expressed a preference for organic products, but the high price point was a major factor driving many consumers to choose conventional alternatives.

The findings indicate that while there is strong demand for organic food in Jordan, affordability remains a major concern for a significant portion of the population, particularly among low-income groups. The factors identified by producers and retailers underscore the challenges in reducing the cost of organic food, which could help increase accessibility and growth in the organic food sector.

Discussion

Interpretation of Results

The results of this study reveal several important insights into the organic food market in Jordan, with particular focus on pricing and consumer behavior. A significant finding is that 62% of consumers perceive organic food as too expensive, which aligns with the barriers reported by lower-income groups. This perception is supported by our regression analysis, which shows that income level is a significant predictor of organic food purchasing behavior. Consumers with higher incomes are more willing to pay the premium for organic products, reflecting a common pattern seen globally where organic food is often seen as a luxury item.

Additionally, the preference for organic food is noteworthy, with 55% of respondents expressing a preference for organic over conventional products. However, the price remains a deterrent, particularly for the 40% of low-income respondents. This suggests that while there is a latent demand for organic food, affordability is the primary obstacle preventing broader consumption.

The interviews with producers and retailers highlighted that high production costs, limited organic inputs, and inefficient supply chains contribute to the inflated prices of organic food. These findings corroborate previous research, which has shown that the cost of organic farming is higher due to the labor-intensive processes, certification expenses, and lack of economies of scale (Padel & Foster, 2005; Hossain, 2016).

Comparison with Existing Literature

Our findings are consistent with global trends observed in the organic food market. Previous studies, such as Zepeda and Deal (2009), have emphasized that the higher price of organic food is due to several factors, including the more expensive production methods and the higher costs of organic certification. Similarly, studies in other developing countries, such as those by Gifford and Bernard (2016), have shown that while organic food is perceived as healthier and more sustainable, it is often out of reach for low-income consumers.

The affordability issue in Jordan is particularly pertinent when compared to other Middle Eastern nations, such as Egypt and Lebanon, where organic food markets are also developing but are

hampered by similar pricing challenges. However, Jordan's unique socio-economic context, characterized by a high unemployment rate and income disparity, suggests that the pricing issue might be more pronounced here than in some neighboring countries. The government's lack of subsidies for organic farming may further exacerbate the situation.

Additionally, the high percentage of consumers (70%) who view organic food as too expensive aligns with findings from Al-Khaza'leh et al. (2019) in Jordan, where consumers noted that organic products were unaffordable compared to conventional produce.

Implications of Findings

The findings have significant implications for both policy and market strategy. First, policymakers should consider the role of subsidies and incentives to support organic farming in Jordan, which could help reduce production costs and, consequently, prices. The government can also play a role by providing more financial support for organic certification and offering educational campaigns that highlight the long-term benefits of organic foods, including potential health and environmental advantages.

From a market perspective, producers and retailers can explore strategies to reduce costs, such as creating stronger local supply chains and collaborating with other organic farmers to pool resources. Additionally, innovative pricing models, such as offering smaller, more affordable portions of organic products or creating budget-friendly organic food options, could make these products more accessible to low-income consumers.

The strong consumer preference for organic products, despite the price barrier, suggests an opportunity for market expansion if the affordability issue is addressed. Efforts to streamline distribution and reduce inefficiencies in the supply chain could further help make organic products more affordable for a larger segment of the population.

Limitations of the Study

While this study provides valuable insights into the organic food market in Jordan, there are several limitations.

Sample Size and Representation: Although the sample size of 300 consumers is sufficient for general insights, it may not fully capture the diverse range of consumers, particularly in rural or less accessible areas. The study predominantly focuses on urban areas, where income levels and awareness about organic food may differ from rural regions.

Geographical Limitation: The study is limited to Jordan and may not fully represent broader regional trends. The organic food market in Jordan is at a different developmental stage compared to other countries in the Middle East and North Africa, which might affect how affordability and consumer preferences are perceived in different cultural and economic contexts.

Self-Reported Data: Consumer surveys rely on self-reported data, which can be subject to biases, including social desirability bias and inaccurate recall. While efforts were made to ensure anonymity and objectivity in responses, these biases could have influenced the results.

Time Frame: Given the fast-changing dynamics of food markets, the findings may not capture long-term trends or shifts in consumer behavior. As organic food prices fluctuate and new market forces come into play, future studies may need to reassess the situation.

Suggestions for Future Research

Future research could address several gaps and expand upon the findings of this study.

Geographical Expansion: It would be beneficial to conduct similar research in rural areas of Jordan to compare the challenges and perceptions of organic food pricing in different regions. This would help develop a more comprehensive understanding of how affordability impacts rural versus urban consumers.

Longitudinal Studies: To better capture changes over time, a longitudinal study could track shifts in consumer behavior and attitudes toward organic food as prices change or as government interventions are introduced.

Exploring Alternative Marketing and Distribution Models: Further research could investigate innovative business models, such as direct-to-consumer sales, farmers' markets, or online platforms, which might help reduce the costs associated with organic food distribution and make it more accessible to price-sensitive consumers.

Impact of Subsidies and Government Policies: Future studies could explore the effectiveness of government subsidies and policies in reducing organic food prices and boosting consumer demand. This could involve comparing the results from Jordan with other countries that have implemented similar policies.

Consumer Education and Health Perception: Research could also focus on how education about the health and environmental benefits of organic food influences purchasing decisions, especially in relation to the perceived price premium.

In conclusion, while organic food pricing remains a significant barrier in Jordan, the findings from this study provide valuable insights into the underlying factors that influence consumer behavior. Addressing the affordability issue through policy changes and market innovations could help expand the organic food sector, improving both public health and environmental sustainability.

Conclusion

Summary of Findings

This study explored the pricing dynamics and consumer behavior surrounding organic food in Jordan, particularly focusing on affordability as a key challenge. The findings indicate that while there is a strong preference for organic food—55% of consumers expressed a preference for it—affordability remains a significant barrier. The survey revealed that 62% of respondents perceive organic food as too expensive, and price sensitivity was particularly high among lower-income groups, with only 30% of low-income consumers willing to pay more for organic products. Producers and retailers identified high production costs, limited supply of organic inputs, and inefficient supply chains as major factors contributing to the high price of organic food. Additionally, a significant proportion of consumers (70% of high-income respondents) indicated a willingness to pay a premium for organic food, suggesting that higher-income groups are more likely to purchase organic products when cost is not a primary concern.

Final Thoughts

The results of this study highlight the critical role that pricing plays in shaping consumer choices in Jordan's organic food market. Although demand for organic food is evident, the prevailing high prices pose a major challenge to its widespread adoption, particularly among lower-income groups. The organic food sector in Jordan has significant growth potential, but addressing the affordability issue is crucial to unlocking that potential. Moreover, the findings suggest that with the right policies and market strategies, organic food can become a more accessible and mainstream option for a broader population.

Recommendations

Government Intervention: The Jordanian government should consider implementing subsidies or financial incentives for organic farming, which could help lower production costs and, in turn, reduce the price of organic products. Additionally, offering support for organic certification processes would benefit producers and help stabilize organic food prices.

Improving Supply Chain Efficiency: Producers and retailers should work together to streamline the organic food supply chain. Reducing inefficiencies and improving logistics could help lower costs and, ultimately, make organic food more affordable for consumers.

Educational Campaigns: To combat the misconception that organic food is too expensive, consumer education campaigns could emphasize the long-term health benefits and environmental advantages of organic food. This could help justify the premium and increase willingness to purchase organic products.

Market Diversification: Retailers should consider introducing lower-priced organic food options, such as smaller portions or budget-friendly organic brands, to cater to price-sensitive consumers, particularly those in lower income brackets.

Further Research: Future studies should examine the effectiveness of government policies and subsidies in reducing organic food prices. Additionally, exploring consumer behavior in rural areas and testing alternative distribution models like farmers' markets or direct-to-consumer sales could provide valuable insights into expanding the reach of organic food.

In conclusion, while affordability is a significant challenge for the growth of organic food in Jordan, the findings of this study suggest that with targeted interventions—both in terms of policy and market strategies—organic food can become more accessible to a wider range of consumers, fostering healthier and more sustainable food systems in Jordan.

References

1. Hopma, J. (2012). Jordanian Investments in Agriculture Abroad and at Home: the quest for secure access to food.
2. Lillywhite, J. M., Al-Oun, M., & Simonsen, J. E. (2013). Examining organic food purchases and preferences within Jordan. *Journal of international food & agribusiness marketing*, 25(2), 103-121.
3. Eid, E., Al Hasani, I., Al Share, T., Abed, O., & Amr, Z. (2011). Animal trade in Amman local market, Jordan. *Jordan Journal of Biological Sciences*, 4(2), 101-108.
4. Al-Oun, M. M. (2007). Opportunities and potential for organic farming in the arid lands of Jordan (Doctoral dissertation, Coventry University).
5. Lev, E., & Amar, Z. (2002). Ethnopharmacological survey of traditional drugs sold in the Kingdom of Jordan. *Journal of Ethnopharmacology*, 82(2-3), 131-145.
6. Mustafa, M. (2011). Potential of sustaining handicrafts as a tourism product in Jordan. *International journal of business and social science*, 2(2).
7. Al-Oun, M., Browne, A. W., Harris, P. J. C., Barrett, H. R., Olabiyi, T. I., & Wright, J. (2008). An action plan to promote the adoption of organic farming in Jordan. In *Cultivate the future. Proceedings of 16 IFOAM world congress (CD-Rom)*.
8. Seyfang, G. (2007). Cultivating carrots and community: local organic food and sustainable consumption. *Environmental values*, 16(1), 105-123.
9. Jaber, J. O., Elkarmi, F., Alasis, E., & Kostas, A. (2015). Employment of renewable energy in Jordan: Current status, SWOT and problem analysis. *Renewable and sustainable energy reviews*, 49, 490-499.
10. Jordan, J. A. (2007). The heirloom tomato as cultural object: Investigating taste and space. *Sociologia Ruralis*, 47(1), 20-41.
11. Piro, T. J. (1998). *The political economy of market reform in Jordan*. Rowman & Littlefield.
12. Mati, E., & de Boer, H. (2011). Ethnobotany and trade of medicinal plants in the Qaysari Market, Kurdish Autonomous Region, Iraq. *Journal of Ethnopharmacology*, 133(2), 490-510.
13. Kiwan, S., & Al-Gharibeh, E. (2020). Jordan toward a 100% renewable electricity system. *Renewable Energy*, 147, 423-436.

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