

CONSUMERS' PREFERENCES FOR SUSTAINABILITY ATTRIBUTES WHEN SELECTING A PLACE TO PURCHASE FRUITS AND VEGETABLES IN SPAIN, FRANCE & MOROCCO

ABSTRACT

The purpose of this study is to analyze consumers' relative importance of economic, social and environmental factors when selecting a place to purchase fruit and vegetables in order to establish new strategies according to consumer's preferences and optimize Short Food Supply Chain models. For that purpose, we analyzed consumers' acceptance and preferences using AHP methodology as a multi-criteria decision analysis. Data were obtained from a semi-structured questionnaire completed by 180 consumers from Spain, France and Morocco. Results showed some heterogeneity across countries. In general terms, in Spain consumers demand a nearby shopping place, with a wide variety of fruits and vegetables that are sold in bulk without packaging. In France, consumers give the highest relative importance to a place with seasonal and locally produced fruits and vegetables, with diversity of the products offered at lower price. This behavior was also similar to consumers in Morocco. In addition, results showed the existence of an "attitude-behavior gap"; that implies that consumers' stated environmental and social concerns does not always translate into actual purchase behavior. In this sense, carrying out awareness campaigns, new marketing strategies and the implementation of farmers' markets in urban areas emerges as a strategy for the implementation of the SFSC model in cities in order to promote the consumption of local products, to ensure fair trade and generate employment in the region. The AHP approach seems to be a reliable tool for analyzing consumer preferences. However, due to the diversity of cultures and traditions in each country analyzed, it is necessary to explore into the behavior of consumers according to segments and localities and complement these studies with consumers' willingness to pay techniques and thus delve into the "attitude-behavior gap".

Keywords: Consumers' preferences, AHP, Short Food Supply Chain, Sustainability.

1. Introduction

The current situation of the agri-food market opens up new opportunities to implement more sustainable food supply chain models and offer consumers additional benefits to the product itself, such as protecting the environment, improving the competitiveness and profitability of small farmers or generating employment in the region. In this context, short food supply chains (SFSC) emerge as a sustainable alternative model to the traditional one (based on the presence of various intermediaries or economic agents). One of the strategic decisions that small farmers must make, under an SFSC model, is where to sell the fruits and vegetables they produce. For this reason, knowing the behavior and preferences of the consumer when selecting the place of purchase is key so that small farmers can make strategic decisions that help them to improve their competitiveness and profitability in the long term.

2. Literature Review

According to the European Commission (2020), SFSC are a key pillar for the transition towards a more sustainable food system. Several studies indicate that the challenge of achieving a more sustainable agriculture and food is closely related to the willingness of consumers to buy and consume more sustainable products (Verhees & Verbong 2015). In fact, consumers increasingly demand healthier and quality products. In addition, they request a greater diversity of products, better quality packaging, quality services offered at the place of purchase and food locally produced (Jarzębowski *et al.*, 2020). For this reason, analyzing consumer preferences and behaviors towards local origin of food products (Baba *et al.*, 2017) is emerging as a strategy for small farmers to make strategic decisions that help them improve their long-term competitiveness and profitability. In this sense, the Analytical Hierarchy Process (AHP), as a widely used multi-criteria decision-supporting technique (Saaty, 2007) to analyze consumer preferences, can offer us key information for the establishment of new strategies that help to implement an optimized SFSC model in Spain, France and Morocco.

3. Hypotheses/Objectives

The main objectives of this study are to determine the relative importance of the attributes that the place of purchase of fruits and vegetables must have in order to adjust to the needs of the consumer. Furthermore, to identify consumers' needs and preferences that allow smallholder farmers make key strategic decisions to improve engagement and optimization of SFSCs.

4. Research Design/Methodology

Data were collected from a semi-structured questionnaire applied on an online consumers' panel in Spain, France and Morocco through the Qualtrics company platform (Seattle, Washington, US). Data sample was obtained from 180 consumers, over 18 years of age, responsible for purchasing fruit and vegetables at household. The Analytical Hierarchy Process (AHP) method was used as a multi-criteria decision-supporting technique (Saaty, 2007) to estimate the relative importance of 12 criteria identified in the literature and discussed later in a focus group made up of several members of the several institutions involved in this research. Three main categories of criteria were identified according to the sustainability analysis proposed by the FAO: economic, social and environmental criteria. The global level weights were used by multiplying the local aggregated level weights of the main categories.

5. Data/Model Analysis

Results (Appendix 1) showed that, for consumers in the three countries analyzed, the economic and environmental factors play an important role and were the most important criteria when selecting the place to purchase fruit and vegetables. Specifically, according to the global level weights, consumers demand a nearby shopping place, with a wide variety of fruits and vegetables that are sold in bulk without packaging in Spain. In France and Morocco, consumers demand seasonal and locally produced fruits and vegetables with high diversity and lower price. However, the least important criterion was in all countries that the place should guarantee job creation in the region and the consumers services. It is important to highlight that the availability of organic products was less relevant in Spain but was positively evaluated by consumers in France. Finally, it is worth mentioning that

consumers in Morocco give lower importance to the fact that the place of purchase should ensure fair prices to farmers and that fruits and vegetables should be in bulk, not packaged, despite having shown concern about environmental and social aspects.

6. Limitations

The approach followed in this study through the AHP allowed to analyze consumer preferences but not necessary consumers' actual purchase decision. Therefore, it would be interesting to complement this methodology with other techniques that make it possible to deepen into the "attitude-behavior gap" of consumers. In addition, in this study we only explore consumers' preferences and there is a need to target a significant and representative sample of consumers in the three countries analyzed. The diversity of cultures and traditions within and across countries are important factors to take into account when analyzing consumer selection of the place of purchase. Thus it is necessary to investigate deeper into the behavior and preferences of consumers by profiles, products and localities.

7. Conclusions

In this study, the AHP has revealed that economic and environmental factors play an important role for consumers' decision in Spain, France and Morocco, as they demand a nearby shopping place, with a wide variety of fruits and vegetables that are sold in bulk without packaging, so reducing the distance between producer and consumer becomes essential for the implementation of an SFSC model. However, an "attitude-behavior gap" has been observed that implies that consumers' stated environmental and social concerns does not always translate into actual purchase behavior. Therefore, new marketing strategies and the implementation of farmers' markets in urban areas emerges as a strategy for the implementation of SFSC models in cities.

8. Key References

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9. Appendices

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Appendix 1: AHP results of the different criteria evaluated

