

# Consumers' Perceptions about Food Safety Issues: Evidence from Albania

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*Abstract: Food safety has become an important food quality attribute within the last decade. Scholars are seeking to understand the evolution of food safety from a consumer perspective in order to identify its impact on the purchasing process. In developing countries like Albania, where the institutional environment and related controls still need improvement, issues with food safety are even more tangible.*

*The main objective of the research described in this paper was to analyse consumer perceptions about food safety in Albania and the differences that exist among the social groups in the Albanian population. More than 300 face-to-face questionnaires were implemented among urban consumers in Tirana using a representative population sample concerning their perceptions about food safety in Albania, and their willingness to pay for safer food products.*

*Consumers consider food safety to be a quality attribute of products, and in many cases think that organic products are safer than other products. Internationally well-known labels are considered to be safer than those with national labels. However, a short supply chain (direct sales) is associated with safer products. Interviewees would pay a higher price for safer food products.*

*The results presented in this paper give insights into food safety in Albania and the situation in developing countries, and are important in relation to tailoring public policies and interventions into food safety.*

**Keywords:** Food safety, consumer perception, developing countries, Albania

## 1. Introduction

Food safety has been an important issue on the political agenda over the last ten years in both developed and developing countries. Food safety has a significant impact on the overall acceptability of products, on returns on investment, and, as a result, on the success of the enterprises that produce them (Kokthi et al., 2015).

Grunert (2005) lists a number of factors that have led to the above-mentioned effects: a) a variety of food scares have directed public attention to food safety issues; b) segments of the general public have become interested and often critical of certain ways of producing food – both at the farm level and at the processing level; and, c) partly related to the previous factor, consumers in developed countries have become more demanding, more critical, and more fragmented in their food choices, leading to situations where the quality differentiation of food products, both vertical and horizontal, has become necessary. As a result, consumer attention to food quality has increased during the last twenty years and has shifted consumer demand toward safer products such as organic products (Rana & Paul, 2017). The issue of food safety is even more pressing for developing countries where the related controls and the institutional framework are still underdeveloped. However, evolving safety standards and monitoring can support not only a healthier domestic population (which is important above all), but also exports, which can foster economic growth (Faour-Klingbeil et al., 2018).

Although the literature is not comprehensive in its evaluation of preferences regarding food safety attributes, several factors related to food safety have been studied in relation to consumer preferences (Kokthit et al, 2015, 2016). Several studies claim that reducing food safety risks (including the need to reduce the risk of pesticide residues) is the top concern for consumers with respect to food safety (Buzby et al., 1995; Buzby et al., 1998; Govindasamy et al., 2001; Bazoche et al., 2008). Analysis conducted by several authors on the impact of organic product information on product evaluation indicates the greater preference of consumers for such quality schemes (Christensen et al., 2011; Yazdanpanah et al., 2015).

The issue of food safety is central in Albania due to the presence of numerous food-related rumours and the limited monitoring of the food sector.

The main objective of this paper is to analyse consumer perceptions about food safety in Albania, including the differences that exist among the different social groups in the Albanian population. More than 300 face-to-face questionnaires were implemented among urban consumers of Tirana on a representative sample of the population concerning their perception of food safety in Albania, and their willingness to pay for safer food products.

This paper is organized as follows: a description of the methodological approach of the paper is next, then the discussion of results, and finally conclusions are drawn.

## 2. Methodological approach

The research into perceptions of consumers about food safety in Tirana is based on a contingent evaluation method that employed the payment card method.

The payment card method was developed by Mitchell and Carson (1981) as an alternative to the iterative bidding method. By using this approach, the number of potential answers may be increased, thereby helping the consumer to visualize and pick their preferred price level. The evaluation technique is more advanced because it specifies consumers' willing-to-pay (WTP) both in terms of price increase and decrease. The main question may be open or closed. An open question asks consumers for a precise WTP, while a closed question first asks consumers their willingness to pay more (or less) for a product, and then to specify the amount they are willing to pay (or accept). The payment card method offers many choices of price levels to consumers. Additionally, it moderates the interviewer bias through an iterative bidding approach. Generally, the payment card method is used to improve the results obtained from the application of other contingent evaluation methods. Alberini, Kanninen and Carson (1997) showed that defining WTP as a segment increases the accuracy of estimations of consumers' WTP. The use of WTP intervals creates the possibility of establishing a minimum and maximum consumer WTP. Hu et al.(2011) and Bateman et al. (2001) analysed the main issues related to this evaluation method by modifying the presentation of prices on the payment card to identify potential changes in consumer selections. Moreover, they tried to identify whether the specification of an initial price biased the final WTP of consumers. For this purpose, they used the initial prices of the natural substitutes of a product (in this case, coffee). Results generated by the two methods (i.e. using a single initial, and a substitute price) were different.

Using secondary sources, the aim of the research described herein is to investigate consumers' perceptions about food safety and potential willingness to pay more for higher food safety standards in Albania. In this way, their views and approach to food safety are highlighted. Accordingly, the following hypotheses were formed:

H1: Consumers feel confident about food safety in Albania.

H2: Consumers mistakenly equate food quality and food safety.

H3: Customers are willing to pay more for safer food products.

To identify the perceptions of consumers in Tirana we implemented face-to-face questionnaires with more than 300 randomly selected consumers in the city of Tirana. To ensure the greater representativeness of this sample the questionnaires were implemented in different areas of Tirana, including the city centre and suburban areas. Groups of interviewers were distributed in five main markets of Tirana. Fifty questionnaires were implemented in four of them and 100 questionnaires in the main market in Tirana. In each case, the interviewers (in groups of two) selected interviewees on two different days leaving three days

between interview sessions. In each session no more than 25 questionnaires were implemented. One out of five consumers were sequentially selected at the main entrance to the market (if a consumer rejected the approach, the following shopper was selected). The interviews were carried out in October 2018.

## **2.1 The questionnaire**

The questionnaire was organized in four different parts. The first part of the questionnaire was designed to collect socioeconomic information about the interviewee and their family (e.g. gender, age, education, family size, family income, etc.). The second part of the questionnaire collected information about the consumption habits of the respondent family (food expenditure), while the third part of the questionnaire referred to the respondent's perceptions about food safety. This took the form of an open question which identified the key concepts defining food safety from the consumer perspective. In this section, information about groups of products, sales units, and labels that are considered to be safer was collected. The last part of the questionnaire contained the questions on the payment card and identified consumer WTP for a higher level of food safety.

## **2.2 The sample**

More than 314 questionnaires were completed with consumers from Tirana (56% females and 44% males, representative of the gender structure of the Albanian population). The level of education of the sample respondents is higher than the national average, potentially leading to a higher level of concern about food safety, while the same comment applies to the age structure of the sample, which is younger than the national average according to INSTAT (2018) data. Detailed socio-demographic data and the related scales are included in Table 1.

The mode is four people regarding family size, and 245-490 euros (31,000-60,000 ALL) with respect to monthly food expenditure. However, the median income is 490-730 euros (61,000-90,000 ALL). Household size follows a normal distribution, while the sample contains fewer singles and large families with more than six people. The most significant monthly expenditure of a typical family on food is 80-245 euros (10,000-30,000 ALL; 47.7% of the sample), representing a very high share of income. It is generally well known that the more developed a country is, the less the proportion of income spent on food (more money is spent on clothing, health-care, leisure and other activities).

Table 2: Sample descriptive statistics (N=314)

| VARIABLES                                        | SCALE | DESCRIPTION                   | FREQUENCY% |
|--------------------------------------------------|-------|-------------------------------|------------|
| <b>GENDER</b>                                    | 1-2   | male                          | 44         |
|                                                  |       | female                        | 56         |
| <b>AGE</b>                                       | 1-5   | 1)18-24                       | 31         |
|                                                  |       | 2)25-34                       | 26         |
|                                                  |       | 3)35-44                       | 24         |
|                                                  |       | 4)45-54                       | 10         |
|                                                  |       | 5)55+                         | 9          |
| <b>MARITAL STATUS</b>                            | 1-3   | single                        | 36         |
|                                                  |       | married                       | 48         |
|                                                  |       | other                         | 16         |
| <b>EDUCATION</b>                                 | 1-4   | 1) Secondary school (9 years) | 9          |
|                                                  |       | 2) Undergraduate              | 27         |
|                                                  |       | 3) Graduate                   | 47         |
|                                                  |       | 4) Postgraduate               | 17         |
| <b>INCOME ALL/MONTHLY (000 ALL<sup>3</sup>)</b>  | 1-6   | 1) 10-30                      | 14         |
|                                                  |       | 2) 30-60                      | 28         |
|                                                  |       | 3) 60-90                      | 26         |
|                                                  |       | 4) 90-120                     | 10         |
|                                                  |       | 5) 120-150                    | 7          |
|                                                  |       | 6) 150                        | 13         |
| <b>HOUSEHOLD SIZE</b>                            | 1-5   | 1-2 people                    | 9.4        |
|                                                  |       | 3 people                      | 19.6       |
|                                                  |       | 4 people                      | 33         |
|                                                  |       | 5 people                      | 20         |
|                                                  |       | 6+ people                     | 17         |
| <b>MONTHLY FOOD EXPENSE PER FAMILY (000 ALL)</b> | 1-4   | 10-30                         | 47.7       |
|                                                  |       | 30-60                         | 31.7       |
|                                                  |       | 60-90                         | 11         |
|                                                  |       | 90                            | 9.7        |

Source: Authors' construction

<sup>3</sup> Albanian Lek

### 3. Results and discussion

Analysis of the results shows that the majority of respondents in Tirana do not feel entirely confident about food products marketed in Albania. More than 50% of the sample feel only somewhat sure (50.4%) that food is safe. This proportion is larger than the share of those who do not feel safe at all (15%) or who feel quite safe (7%) (Figure 1.).

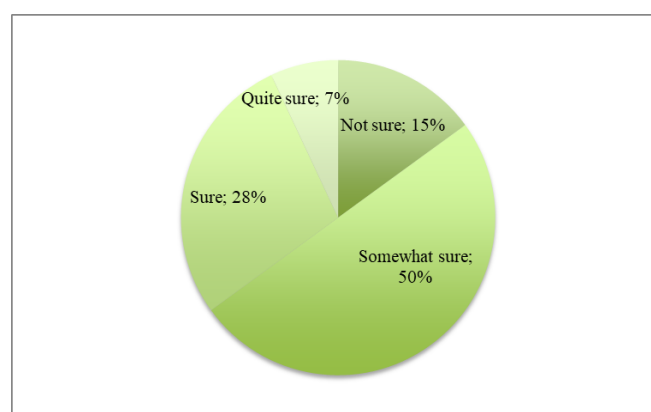


Figure 1: Perceptions about food safety according to respondents (N=314)

Source: Authors' construction

Detailed analysis of these figures according to the socio-demographic characteristics of the sample indicates that females are more concerned about food safety than males (females in Albania are typically responsible for food purchasing and preparation and are thus more directly concerned with food-related issues). On the other hand, youngsters are more concerned about safety than older persons. This may be mainly due to the lack of experience that youngsters have with purchasing and preparing food compared to the older generation. However, in many cases this experience may not be very effective, taking into consideration that the structure of markets and products on markets have radically changed over the last 20 years. Ultimately, although both younger and experienced consumers encounter new products or varieties on the shelves, experienced consumers still consider their experience to be a valid guide to the selection process.

Table 2 shows that the higher the family income, the less concerned members are with food safety; the reverse is true for families with lower incomes. This result – which may not seem logical – is based on the fact that families with higher incomes rely on food products that are more expensive, ergo perceived as safer,

compared to less wealthy consumers who are more concerned about food safety due to their limited capacity to access expensive or labeled products.

Table 2: Variance analysis of food safety according to socio-demographic characteristics

| VARIABLES                                        | DESCRIPTION                    | %    | MEAN | F VALUE            |
|--------------------------------------------------|--------------------------------|------|------|--------------------|
| <b>GENDER</b>                                    | male                           | 44   | 2.4  | 4.44* <sup>4</sup> |
|                                                  | female                         | 56   | 2.2  |                    |
| <b>AGE</b>                                       | 18-24                          | 31   | 2.2  | 4.54**             |
|                                                  | 25-34                          | 26   | 2    |                    |
|                                                  | 35-44                          | 24   | 2.4  |                    |
|                                                  | 45-54                          | 10   | 2.5  |                    |
|                                                  | 55+                            | 9    | 2.7  |                    |
| <b>MARITAL STATUS</b>                            | single                         | 36   | 2.2  | 2.8*               |
|                                                  | married                        | 48   | 2.3  |                    |
|                                                  | other                          | 16   | 2.5  |                    |
| <b>EDUCATION</b>                                 | 1) Secondary school (9 years), | 9    | 2.1  | Not significant    |
|                                                  | 2) Undergraduate               | 27   | 2.3  |                    |
|                                                  | 3) Graduate                    | 47   | 2.3  |                    |
|                                                  | 4) Post-graduate               | 17   | 2.3  |                    |
| <b>INCOME ALL/MONTHLY (000 ALL)</b>              | 1) 10-30                       | 14   | 2    | 3.733**            |
|                                                  | 2) -60                         | 28   | 2.2  |                    |
|                                                  | 3) 60-90                       | 26   | 2.1  |                    |
|                                                  | 4) 90-120                      | 10   | 2.6  |                    |
|                                                  | 5) 120-150                     | 7    | 2.5  |                    |
|                                                  | 6) 150                         | 13   | 2.5  |                    |
| <b>HOUSEHOLD SIZE</b>                            | 1-2 people                     | 9.4  |      | Not significant    |
|                                                  | 3 people                       | 19.6 |      |                    |
|                                                  | 4 people                       | 33   |      |                    |
|                                                  | 5 people                       | 20   |      |                    |
|                                                  | 6+ people                      | 17   |      |                    |
| <b>MONTHLY FOOD EXPENSE PER FAMILY (000 ALL)</b> | 10-30;                         | 47.7 |      | Not significant    |
|                                                  | 30-60;                         | 31.7 |      |                    |
|                                                  | 60-90;                         | 11   |      |                    |
|                                                  | 90                             | 9.7  |      |                    |

Source: Questionnaire responses

One of the main objectives of the paper was to identify respondents' definitions of food safety. To avoid influencing the answers of the interviewees, an open question was used in which the former could express in an honest way what their definition of food safety is. Analysis of the related answers and identification of

<sup>4</sup>  $P \leq 0.10 = *$ ,  $P \leq 0.05 = **$ ,  $P \leq 0.01 = ***$

the main keywords they expressed suggests that responses may be classified into four factors: namely, nutritional value, quality of products, organic products, and regular monitoring. In the literature the question of the mismatch between quality and safety is broadly discussed (van Rijswijk and Frewer, 2008). However, as comparative research claims, there is significant difference in the knowledge of the consumers of diverse developing countries (Odeyemi et al., 2019). Albanian consumers are no exception (Figure 2). Only one consumer out of four (25%) considers a product which has been adequately monitored to be a safe product. The other part of the sample mistakenly associate safety with quality. Nearly half of all respondents (42%) consider that products with greater nutritional qualities or those labelled organic are safer products. In any case, food safety is not considered to be an issue that is related to production units in terms of their responsibility for production and or processing.

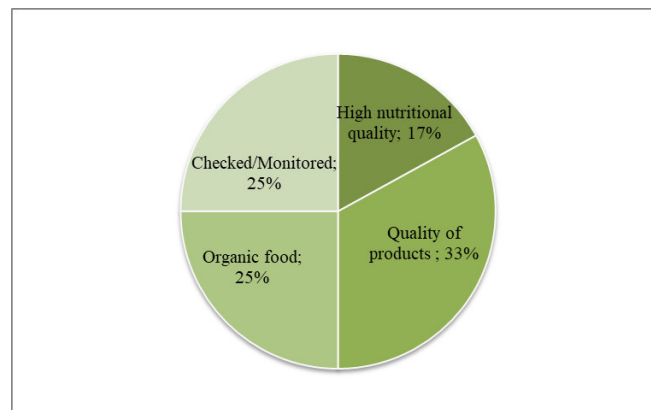


Figure 2: Consumers' definitions of food safety (N=314)  
Source: Authors' construction

The conception of food safety is not clear to the Albanian consumer, thus it is important to clarify it through a better communication process with consumers in terms of food safety characteristics.

Perceived food safety according to product group shows that consumers consider raw products to be less safe, with the exception of fresh fruit and vegetables, and processed (baked products) like bread and pastry products, and sweets and chocolate, to be safer. As expected, meat is considered to be the least safe product among all products (77% of the sample consider meat to be unsafe, or only a little safe).

Figure 3 indicates that two-thirds of consumers would be ready to pay a higher price for safer food, clearly indicating the real concern of consumers in Albania about this topic. One-third of respondents claim that they would be ready to pay



30% or more above the present price for safer products. Such a high WTP emphasizes that food safety remains an important issue in Albania today.

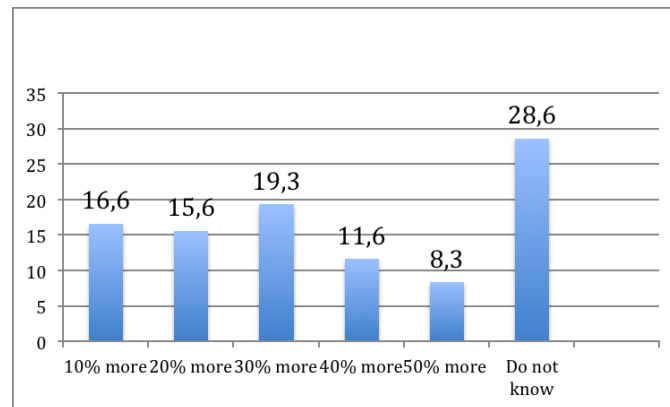


Figure 3: Willingness to pay for safer products (N=314)

Source: Authors' construction

## Conclusions

Food safety is a significant issue in developing countries due to the lack of public institutions which are able to deal with new and increasing food safety concerns that are not only related to domestic issues, but which arise in other countries too. Independent of their social class or income level, consumer concern about food safety is very significant.

Consumers need a lot more information about food safety and the meaning of the concept. The results of the research described in this paper reflect the fact that the information about food safety is incomplete, and that policy makers should raise awareness about this topic.

H1 can be accepted: 85% of respondents feel confident about food safety in Albania. However, acceptance of H2 indicates that the sample is completely unfamiliar with the term 'food safety', as they were very likely confused in equating the former with the attributes of food quality, high nutritional quality, or organic food.

H3 can be also accepted as 72.4% are willing to pay more for safer food products, while more than half of all respondents would pay up to 30% more.

Consumers are willing to pay extra for food that is safer, meaning that it is worth investing in enhancing food safety standards. By doing so, enterprises can increase the turnover of their products.

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