Is it Safe to Eat Locally? An Empirical Research on Albanian Consumers

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Abstract

The local product concept is a complex and abstract term with definitions varying from consumer perception, culture, regulation, and country legislation. However, the labelling of such products is used despite consumers and/or producers not being totally clear about the attributes conferred by product locality. In this context, the aim of this paper is to clarify the perception of Albanian consumers regarding local fruit and vegetables. The identification of consumer willingness to pay, of attributes inferred, as well as consumer demographic features produce a solid base of information for policy-making institutions on strategies around local food. The contingent valuation method is used in this paper to measure WTP for local products. Consumer will pay in average 20% more from the baseline price for the locally produced products. The results show also that consumers consider local products to be healthier.

Keywords

Local product, consumer preferences, short chains, willingness to pay, contingent evaluation.

1. *Introduction*

Scholars analyse local product from a different point of view, i.e. as products used in short supply chain, their impact on economic development, environmental footprint, and rural development etc. The increasing interest of consumers in this type of product has further intrigued scholars to analyse such products in an extensive manner. It has been found that consumers tend to display a reduced level of insecurity related to food products, such as impact on health, by electing to buy local food.

The concept of local product provides also several applications, such as the Community Supporting Agriculture (CSA), Short Food Supply Chains (SFCs), box scheme, "teikei" system, and roadside market among others. The common feature of all these applications is the direct relationship existing between producer and consumer. This helps in the creation of a loyal link between producer and consumer and produces a short supply chain for products. SFCs are particularly relevant for agricultural products on low/middle income economies, but not only these. On the one hand, satisfying those consumers who seek a higher level of information about the food products they consume, while on the other, reducing the insecurity of small producers regarding their markets.

The local food concept is a more abstract term compared with that related to organic food (Adams & Salois, 2010). The local food concept definition depends on consumer perception, cultural heritage, and existing legislation/regulation related to such products. Several authors consider that the concept of local is closely related to cultural values. According to Holt and Amilien (2007), in a study carried out in the UK, local food is usually associated with freshness and low risk. Other authors make a distinction between local and localised products. The local product is only locally-produced, while the localised one has a cultural identity and its characteristics are strongly related to the area of production (Bérard & Marchenay, 2004a) (Bérard & Marchenay, 2007b). The definition depends upon the links that exist between consumers, producers, and the factors of originality (Bérard and Marchenay, 2004, 2007).

Several authors have analysed local food from a supply chain perspective and their socio-economic and environmental effects (King et al., 2014), identifying a list of impacts that include: a) revitalised local economies, b) reduced greenhouse emissions, c) preservation of farmland and rural lifestyles, and reduced food-based shortage, (Lev et al., 2014). These impacts form part of consumer preference and reflect a positive attitude toward these categories of product and in their willingness to pay (WTP). Consumers appreciate several attributes of

locally-grown products. Nurse et al. (2012) found that these attributes can be wide-ranging and include safety, health, social fairness, and sustainability. In related research, the health benefits of local products are more frequently evoked by consumers than that of organic local products.

In low/middle income countries, local fruit and vegetables are appreciated both by consumers on low income and those earning higher salaries. Poor people buy local food because it is generally cheaper compared with imported products. On the other hand, consumers with higher incomes consider local fruit and vegetables as being healthier, tastier, and having a lower environmental footprint.

Albanian consumer preferences have been studied in several previous research projects, such as: origin (Kokthi et al., 2016; Kokthi et al., 2014), pesticide- and chemical-free, organic (Kokthi et al., 2015). The results of these studies have shown that the extra premium relating to origin/local food system originates from food safety; paradoxically, this is not the case for the extra premium levied on organic products and rather originates from origin and locality. In this framework, it is interesting to ascertain the product features associated by consumers with locally-produced food and the respective added value. An understanding of consumer perception of local foods may be used as a guide to small local producers to better design their communication strategy.

Thus, the aim of this paper is to understand consumer preferences regarding local products in Albania. WTP estimation, local product perception, and the effect of consumer demographics on WTP are the main drivers of this research.

The paper is organised into four sections: the first deals with the rationale of the study. The second section turns its attention to data collection and the applied methodology, while the third illustrates the results. The final section presents the conclusions and a discussion about the results.

2. Materials and method

The payment card design of Contingent Valuation (CV), similar to that of Hu et al. (2011), was applied. The method of CV is based on a questionnaire that gathers information in cases where the real market for the product does not exist (Jin et al., 2006). It is considered to be a declarative method because consumer declarations are analysed, rather than data from real situations. This method is widely used to evaluate the extra premium for products that do not have a functional market, such as health services, and it has more recently been used in the identification of WTP for food products or different qualities of the same product. Misra et al.

(1991) used the CV method to identify the WTP of consumers for reduced pesticide levels in fresh vegetables. Halbrendt et al. (1995) also used this method to determine the WTP of consumers for pork that contained a reduced quantity of fat. A later study conducted by Buzby et al. (1998) employed the method to evaluate products with less risky ingredients. So too did Hine et al. (2001) who sought to discover the WTP for local, organic, and genetically modified (GM) products, while Loureiro and Umberger (2005) examined meat origin in the USA, and Spence and Townsend (2006) researched GM products in the UK.

The payment card method is generally used in this type of evaluation because it is easier to use with consumers who have no previous experience with evaluation methods. Respondents were presented with five bids and asked: *'Assuming that 1kg of local product (fruit-vegetables) is priced at 100 ALL[1] in your store, how much are you willing to pay? The options provided were: 1) No payment WTP=0, 2) WTP= up to 20%, 3) WTP=20% to 50% and 4) WTP >50%.*

Further questions regarding attitudes on local attributes were based on the 5-point Likert scale. This enabled us to understand the associations made with regard to local products. A definition/explanation is provided for each of the attributes (see Table 1 below).

Table 1: Description of attributes and attitudes

Please rank your level of agreement with of the following statements 1=Strongly disagree, 5=Strongly agree		Mean	Sd
Environment	A local product is produced by practices respecting the environment.	4.2	1.1
Healthy products	A local product is a healthy food.	4.8	0.4
Good Taste	A local product has a better taste compared to a non-local product.	4.6	0.6
Price	A local product is offered with a lower price compared to non-local.	3.8	1
Origin	A local product is produced in specific origin.	3.7	1.3
Convenience	A local product is more convenient.	3.4	1.2

Source: Authors' elaboration

[1] Albanian Currency

2.1 Sampling

This study was conducted in Tirana, the capital of Albania. Tirana is the main market of the country where is located nearly the one third of the population of the country (more than 800 thousand inhabitants out of 2.9 million in the whole country). The Tirana municipality is comprised of 11 mini municipalities. Two stage cluster sampling was employed. The first step was to randomly select several mini municipalities: Tirana 1, Tirana 5, Tirana 6, Tirana 10, and Tirana 11. Next, housing units were randomly chosen within each selected mini municipality. Each questionnaire was addressed to the individual responsible for household expenses. As a result, the sample does not reflect the gender distribution of the national population. The process of data collection lasted for two months (February-March 2020) and consisted of a door-to-door interview survey wherein trained interviewers visited the respondent's home and conducted the interview at a scheduled date and time. A total of 434 questionnaires were completed (the computed sample size was 384 respondents, based on 95% confidence intervals, and 5% significance level).

Table 2: Sample description

Variables	Scale	Description	Mean	Standard deviation
Age	1-6	Age categories 18-24, 25-34, 35-44, 45-54, 55-64, 65+	3.3	1.16
Education	1-3	Education levels (High school; Bachelor's degree; Master's degree)	1.62	0.57
Incomes Euro/monthly	1-8	(refused to answer, -€144, €145-289, €290-435, €436-580, €581-725, €726-1,084, >€1,085)	3.35	2.29
Household size	1-6	Number of persons living in the household (1-2, 3, 4, 5, 6, 7)	3.6	1.19

Source: Authors' elaboration

3. Results

One of the objectives of the paper is to identify the extra WTP of Albanian consumers for local products. As expected, the majority (80.4%) of consumers sampled were willing to pay more for local products, with only 20% showing no preference. The majority of consumers ready to pay more for local products (54.8%) showed an extra willingness to pay up to 20% more. Only

a limited share of those interviewed (3%) were willing to pay 50% more for local products, with the remainder (22.8%) showing a willingness to pay from 20 to 50% more. These explanatory results should be further analysed on the future. Taking into consideration the limited experience of the Albanian consumer with this evaluation method, it was impossible to gather more detailed information in order to more accurately specify the WTP.

Paired comparisons of the environment attribute with that of taste, through the Wilcoxon signed rank mean[2], show that consumers gave higher importance to taste than environmental characteristics (Z = -8.038***). The pair comparison between Price and Environment shows that consumers prefer the environment attribute more than price when considering local products (Z = -5.452***). This result could be linked to the strategic bias implied by the method, as specified by Mitchell et al. (1989). However, these results show that the consumer may be open to other labels, such as environmentally-friendly and production protection when considering local products. Other pair comparisons, such as Convenience-Environment (Z=-6.510***) and Origin-Environment (Z=-6.454***) show that these attributes are also less preferable compared with the environmental one.

3.1 Results of multinomial logit model

The main indicators when dealing with a multinomial logistic regression procedure include a goodness-of-fit test through chi-square statistics, Pearson and deviance goodness-of-fit statistics, a likelihood ratio test, and the coefficient of determination Nagelkerke's R^2 (Nagelkerke, 1991). These indicators show whether the model fits the data better than a null model. Since the significance level of this test is less than 0.05 (Chi-Square = 398,904, p value 0,000), we can conclude that this model is outperforming the null. In this model, the Nagelkerke's R^2 is about 0.68, showing a good proportion of variance in WTP associated with the independent variables computed in the model. The null hypothesis is that all parameter effects are 0. Among all the effects tested in the model, only education showed no significant effect: education (Chi-Square= 6,045; p value 0,.418). However, household-size (Chi-Square= 44,999; p value 0,.000), incomes (Chi-Square= 130,792; p value 0,.000), age (Chi-Square= 69,918; p value 0,.000), origin (Chi-Square= 29,262; p value 0,.004), healthy (nutritional health benefit) Chi-Square= 27,218; p value 0,.001), environment (Chi-Square= 22,999; p value

[2]p<*0.10* significant at p<0.05; ** significant at p<0.01; *** ,not significant=ns*

0,.028), and taste (Chi-Square= 25,766; p value 0, 002) revealed significant effects in the tested model.

When comparing WTP up to 20% with WTP=0, households of 4 with two children were less likely to pay up to 20% compared to those with three children. High income earners were more likely to pay this premium than not. Those who judge origin as important while buying local were less likely to pay this premium. These results are explained by the fact that origin is not important or else it overlaps local, since local identifies the producer's origin. The healthy attribute did not show any significant effect in WTP for a local product. Those who judge taste as neutral regarding local products were less likely to pay up to 20% than not. Younger people were less likely to pay this premium compared with older consumers. While considering WTP of 20-50%, the origin and environment attributes linked to local offered an interesting result: people judging origin as not being important were 48 times more likely to pay that premium compared to those who rank it as very important. Regarding the environment attribute, consumers who judge environment to be important were seven times more likely to pay that premium compared with those who rank it as very important. Income also shows a significant effect, with high income earners more likely to pay this premium.

4. Discussion

Consumers who buy local products most appreciate the fact that local products are healthier. The findings are in line with those of other scholars showing that the consumer identifies local products as being healthier (Dentoni et al., 2009; Nurse et al., 2012). Another appreciated attribute relates to taste. According to the respondents, local products taste better than the same product originating elsewhere. As a result, consumers have higher expectations in terms of quality and taste, and assume local to mean healthier (Kokthi and Kruja, 2016; Kokthi et al., 2016). This result is also due to the perception that local products are misunderstood as having been generated through primitive agriculture. Primitive agriculture, from the consumer perspective, is assumed to be healthier since farmers do not use external inputs within their production system. One unexpected finding of our analysis is that Albanian consumers consider the environmental footprint of the product to be a more important attribute than the place of production. Other similar studies (Holt, 2007) find that consumers in countries in southern Europe consider origin (localised food systems) to be more important than the environmental footprint of the products they buy. This new result should be further analysed in order to understand if consumer concern for the environment is linked with the environmental

sustainability of production or the amount of pesticides and other residuals within the final product. It has previously been concluded by Kokthi et al (2016) that pesticide-free products are ranked among the top attributes preferred by the Albanian consumer.

5. Conclusions

The identification of the positive WTP of Albanian consumers for local fruit and vegetables is only the first step that must be taken in order create a sustainable long-lasting relationship between consumers and small producers. Examples of commercialisation schemes (baskets of products or fair trade, etc.) can be used as models to be applied in the Albanian case.

The results of this paper show that the majority of Albanian consumers (80%) express an extra WTP for local products. Local food is considered to be healthier (mean score 4.8). This explanatory analysis supports the public policy strategy to encourage local products, but further and more detailed analyses are needed to better shape public support and private marketing strategies. Further research will provide more information.

The formalisation of local product schemes will, on the one hand, offer farmers better use of agricultural economic resources, while on the other, reinforce the positive perception and WTP of consumers in relation to such products.

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