# Assimilation-Contrast Theory Supporting Quality Signals Based On Geographical Origin in Albania: (The case of Gjirokastra Cheese)

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Abstract— Effects of expectations conveyed by geographical origin in the evaluation of Gjirokastra's cheese are studied in tasting experiment setting. The experimental design elicited Willingness to Pay (WTP) of consumers in three different information conditions. Partial assimilation demonstrates that the role of origin in product evaluation is important.

Keywords- Origin, Albania, WTP, Expectations, Assimilation, Contrast

# I. INTRODUCTION

Quality schemes related with geographical denominations are important tools for diversification of activities and income sustainability in the rural areas (Barjolle, 2006). This quality schemes as Protected Denomination of Origin, Protected Geographical Indications have been successfully implemented in some EU countries like France, Italy, Spain and the inherent question that arises is whether these policies will be successful in Albania. What are the chances that products part of a quality scheme produce a positive effect in farmers' incomes? To answer this question we should know if the Albanian consumer has a higher WTP for products differentiated on the basis of geographical origin.

Previous researchers have identified Gjirokastra Cheese as a product highly associated with the territory of production and a highly positive perception of Albanian consumers' (Bourbouze & François, 2001)(Schroder, Uruçi, & Meço, 2010). The research related to the origin effects – as information cue - in the construction of preferences for Albanian consumer and its WTP have used hypothetical methods such as conjoint analyses (Imami et al., 2014).

The general objective of this study is to analyze the importance of the information related to the origin of the cheese on the consumer preferences and if the latter justify the creation of a territory quality scheme for this product in the future. It is applied a method of tasting valuation experiment designed in three information conditions, to provide consumers WTP raised by the origin information and sensory characteristics of the product. The paper will analyze the WPT of Albanian consumers for the cheese produced in Gjirokastra region - selected due to his national notoriety - The paper use the

theory of Expectations -Disconfirmation to identify at what extent the notoriety of Gjirokastra cheese is perceived and affects the consumer behavior.

Our paper is organised in four sections. In the first section is presented the literature review related with the origin effects on consumer choice and some of the theories that envelop the mismatch between expectations and product sensorial qualities. The methodology is explained in the second section. The third part presents the results. Conclusions and recommendations are drawn in the last section.

# The disconfirmation model and its theoretical bases

The expectations generated from extrinsic cue may or not be confirmed when consumer tastes the product. The discrepancy observed between expectations and objective quality (the real performance of the product) is known as disconfirmation of expectancies (E. W. Anderson & Sullivan, 1993; Deliza R & MacFie H.J.H, 1996; Schifferstein H, 2001). Expectations provide a baseline or anchor level of satisfaction (E. W. Anderson & Sullivan, 1993) if disconfirmation is perceived the customer's satisfaction increases or decreases from this baseline level. Disconfirmation may be positive when the product objective performance exceeds expectations and negative when objective performance fails to meet expectancies. Three alternatives can be useful to elicit sensory and non sensory preferences, following the classification provided by (Schifferstein H, 2001) depending on the information or stimuli set available to individuals,. 1) Blind test with the product, 2) Expectation test which provides non sensory information and 3) Full information test (provision of sensory and no sensory information regarding the product). The differences between scores or prices measured respectively in the blind, expectation and full information test are denominated (Schifferstein H 2001) as follows:

- Full information test price(F)-Expectation price(E)= Degree of Disconfirmation
- Expectation test price (E)-Blind test price (B)=Degree of incongruence
- Full information test price (F) Blind test price (B)= Degree of Response shift

The monetary equivalent of the response shift represent a promising measure to single out the direct impact of an extrinsic cue such as geographical region of the product (Stefani, Romano, & Cavicchi, 2006). When the informational process refer to geographical origin of the product it has been reported that consumers indifferent between two products in the blind test revealed a strong sensory preference for products produced in specific areas in the full information test (Guerrero, Abad, & Aguera, 2001). One of the theories that try to explain this behaviour is the Assimilation theory. According to this theory assimilation occurs when unconfirmed expectations discrepancies are assimilated by aligning the perception with the expectations (R. Anderson, 1973; Deliza R & MacFie H.J.H, 1996; Schifferstein H, 2001). When assimilation is absent means that the extrinsic cue is not interfering sensory perception in the overall evaluation of the product and the blind score should be equal to full should be equal to zero. We observe an assimilation effect (positive or negative) whenever the change of product evaluation in full information condition is in the same direction of expected value information. The contrast effect which might be positive or negative occurs when the change of product evaluation in full information condition goes in the opposite direction of the expected value information. Assimilation-Contrast combines the theories of assimilation and contrast. This theory sustain that there are levels of acceptance and rejection in consumer perceptions. If the disparity between expectations and performance is small enough to be perceived, consumer will assimilate it. If the discrepancy is large enough to fall on the zone of rejection than contrast effect appears (R. Anderson, 1973; Schifferstein H, 2001).

# II. METHODOLOGY

**Experimental protocol:** The experimental design opted in the present research place the respondent in two different cognitive situations. Firstly they evaluate the product after tasting it and give a price. Sensory analyse is performed by serving small pieces of cheese. Secondly we present to the subjects the label for Gjirokastra cheese to be estimated. The label contains only origin information. Finally participants give a price after tasting it again and matching sensorial information with origin

information. Several sessions were organized with a maximum of 10 participants within each session. The sessions were held before dinner time in order to have a more motivated tasting.

A familiar product for the Albanian consumers as cheese is selected. The initial assumption is that a contrast effects is more likely to occur because consumers will rely more on taste (their experience) than on origin (expectations). Nevertheless previous research(Imami et al., 2014) (EU, FAO 2013)(Bourbouze and François 2001; Kokthi 2008) show the existence of a strong relation of Gjirokastra cheese with its area of production. Gjirokastra cheese is produced by mixing different types of milk (cow, sheep and goat). Is ripened white cheese, similar to the Greek cheese 'Feta', with 35-days ripening period and requiring 4.5 litres of milk to produce 1 kg of cheese. The technology of processing is traditional. The survey was conducted during February-March 2012 and 285 questionnaires are realised with consumers of different areas of Tirana. Only cheese consumers are selected and the majority of them (about 80%) buy cheese regularly). For purposes of the study interviewed consumers have different socio-economic characteristics. 70% of the samples are women and 30% are men. This difference is due to the refusal of men to participate in tasting experiment. Nevertheless the research is not gender biased because women take an important role in purchasing foods for the family.

### III. EXPERIMENTAL RESULTS

Mean WTP T-test was applied to each differential of information 1) (Expectation-Blind) 2) (Full-Blind), 3)(Full-Expectation). As expected statistically significant (p<0.01) differentials between Expectation and Blind is observed, meaning that the information about the production area is important for the consumer. The consumer are ready to pay (in average) 51.5 ALL/kg more for the cheese produced in Gjirokastra region compared with the blind testing price. This result comfort all the empiric results underlying the role of Gjirokastra region in Cheese production and the positive reputation that this product has among the consumers (Imami et al., 2014)(Bourbouze & François, 2001; EU,FAO, 2013; Kokthi, 2008).

The second part of the analysis deal with the differential (Full-Blind) of consumers' evaluation. This differential is important for our analysis because it shows if there is assimilation or not. Assimilation is absent when the WTP offered during Full information condition equals the WTP offered during blind condition. Meaning that, there is no effect of origin in the overall evaluation of the product. This differential is statistically significant (p<0.01) 37 ALL/kg and the differential sign is as expected positive. However the WTP values have decreased compared with the first step of our analysis (E-B). The explanation behind is that the cheese produced in Gjirokastra region is less tasteful compared with the average consumer expectancies for a product coming from that area (-14.5ALL/kg). The third differential (F-E) or disconfirmation show if assimilation or contrast is partial or complete. When this differential equals zero means that the assimilation or the contrast is complete which is not the case for the cheese experimented in this study.

### IV. CONCLUSION

The disconfirmation of expectations approach is used in order to evaluate the role of origin in WTP in the case of cheese. The disconfirmation of taste (E-B) reveals the informational value of the origin. Consumer will pay in average 9.4% premium for Gjirokastra cheese. In full information condition consumers has decreased the WTP premium in 7.5%. Previous study concerning this product (EU,FAO 2013) report higher levels of WTP (an average premium of 23%) using an open ended technique of contingent valuation method. The differences with the present study are probably produced by the method. (List & Gallet, 2001) reports that in stated preference methods the estimated WTP is 2.5-3 times higher compared with the estimated WTP in non hypothetical scenarios. Scholars also (Goldstein et al., 2008) show that in naturalistic scenarios (test experiments) with the product the extrinsic information tends to be less important and the intrinsic more important one. The results suggest also that the: high information available to the consumer and good reputation raised by the origin produces both partial positive assimilation and contrast.

Since after tasting the product, consumers do not completely assimilate the discrepancy between expectations generated from origin, these consumers are likely to reappraise their expectations in real situations (Goering, 1985). Gjirokastra Cheese is facing the problem of non homogenous supply (Bourbouze & François, 2001; Kokthi, 2008) and also the usurpation of the name by other producers of other regions that produces in better conditions and have more competitive environment. The nonhomogeneity and usurpation of name will possibly lead consumers to update the high expectancies to low expectancies. Lower expectancies will generate lower prices and will affect also the degree of productiveness of origin cue. If producers of Gjirokastra region will produce under a Denomination of Origin the problem of quality variations will be solved and the name will be protected by usurpation. The information availability conveyed by Geographical Indications will reduce risk perception among consumers and the producers of this area will capture the value added generated by the origin. The results of this study show that Geographical Indications might be sustainable tool of product differentiation since consumer pays for an attribute such as origin. The main contribution of this paper is the method used. To the best author knowledge this is the first time that a taste experiment is used in order to elicit WTP. However we have to consider the influence of market prices in consumer responses and how the order of information given to the consumer is affecting WTP. For future research's it will be of interest to change the order of information provided to the consumer and investigate whether the WTP will change.

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