

# Consumers' preferences for Organic tomato in Tirana market using a conjoint analysis

Prof. Ass. **Engjell Skreli**, Faculty of Economics and Agribusiness,

Prof. Ass **Drini Imami**, Faculty of Economics and Agro-business, AUT

Prof. As. **Edvin Zhllima**, Faculty of Economics and Agro-business, AUT

Prof. Ass. **Maurizio Canavari**, Dept. of Agricultural Science, University of Bologna

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# Problem and objectives

## Motivation: why and what question

### Background

- ▣ Albania has a comparative advantage
- ▣ Supply side studied more than demand side

### General objective

Understand consumer preferences for organic tomato

### Specific objectives

- ▣ Group consumers according to their preferences for the main tomato attributes;
- ▣ Assess consumer preferences of each identified group for the given attributes and willingness to pay for organic tomatoes;
- ▣ Provide marketing and policy recommendations for the sector's stakeholders, with particular focus on farmers and policy-makers



# Methods and procedures

## How question...


- Conjoint choice Experiment and Latent Class Analysis (LCA) was used to analyze the data collected
- Questionnaire
  - Interviewees are asked to choose 1 preferred profile among three alternatives in a set of 12 choice tasks.

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If these were your only options, which would you choose? Choose by putting an X under preferred alternative.

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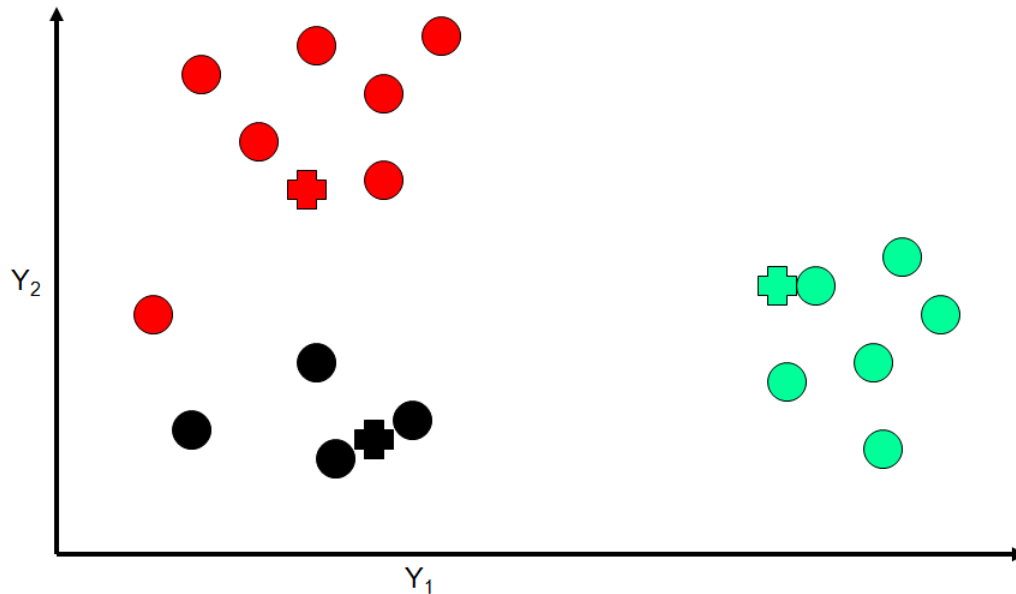
Tomato		
Greenhouse tomato	Field tomato	Greenhouse tomato
Regular	Organic	Organic
Lushnja	Korça	Lushnja
ALL40	ALL80	ALL160
I would choose		
↓	↓	↓
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# Methods and procedures, continued

## Latent Class analysis

LCA allows detecting K classes by grouping consumers with similar utility preferences, based on their choices



# Methods and procedures, continued

## Data collection and administration

### □ Sample

- Sample size: 250 respondents responsible for food purchase in the household
- Location: Tirana market in different types of markets
  - purchasing power is concentrated mainly in Tirana
  - due to internal migration, Tirana offers a reasonably good (representative?) picture of the country.

### □ Data collection

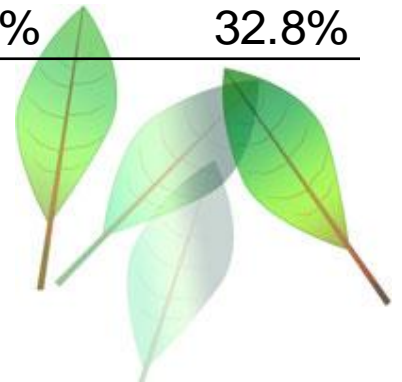
- face-to-face interviews by experienced interviewers.



# Results and their interpretation

## Class size and attribute importance

Attributes	Class 1	Class 2	Class 3
<b>Class size</b>	52.8%	30.6%	16.6%
<b>Attribute importance (%)</b>			
Price	3.6%	67.5%	19.6%
Type (bio)	84.4%	18.1%	29.7%
Origin	1.0%	2.3%	17.9%
Technology	11.0%	12.1%	32.8%



# Results and their interpretation

## Part-worth utilities

Attributes	Levels	Class 1	Class 2	Class 3
<b>Type</b>	Not bio	-1.81610**	-0.54046**	-0.46551**
	Bio	1.81610**	0.54046**	0.46551**
<b>Origin</b>	Lushnja	-0.02257	0.06919**	-0.28112**
	Korca	0.02257	-0.06919**	0.28112**
<b>Technology</b>	Green house tomatoes	-0.23682**	-0.36125**	-0.51370**
	Field tomatoes	0.23682**	0.36125**	0.51370**
<b>Price</b>		-0.05082**	- 1.34162**	0.20530**





# Results and their interpretation

## Willingness to pay

### □ Class 1 of consumers

- willing to pay almost ALL 300 per kg of organic tomato versus non organic tomato
- Not realistic mainly probably due to lexicographic type of preference
- Very strong preference for organic products

### □ Class 2 of consumers

- willing to pay a maximum of ALL 32 per kg of organic tomato versus non organic tomato with same characteristics
- More realistic
- Price sensitive Class



# Conclusions and recommendations

- Consumers' willingness to pay a premium for bio products versus non-bio products reveals an important market potential for bio products in Albania.
- However, in order to develop market potentials, several issues have to be considered by both private producers and government agencies:
  - Opening special bio product shops,
  - negotiate dedicated areas in supermarkets, and
- Government agencies have also an important role to play by
  - subsidizing conversion to bio production in order to reduce access barriers for farmers,
  - developing certifications programmes



# Study limitations

- Two main limitations
  - ▣ the sample is small and not representative of the whole country population, and
  - ▣ the choice was hypothetical, which usually determines an overestimation of willingness to pay and makes the prevalence of lexicographic preferences more likely.
- Although the real size of both the "organic-ready" segment and of WTP for organic tomato among Albanian consumers is probably lower than reported in the estimations, evidence suggests that a large segment of Albanian consumers are keen to consider the purchase of organic food.





Thank you!



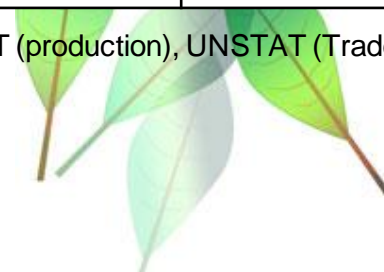
# Annexes

# Tomato statistics for Albania

Production, trade statistics of tomatoes in Albania in selected years from 2000-2011, Mt

Item	2000	2005	2006	2010	2011
Production	162,000	152,000	164,853	192,283	205,000
Import	2,263	6,514	7,985	3,429	3,061
Export	0	123	216	6,573	11,349
Supply	164,263	158,391	172,622	189,139	196,712
Export/import	0%	2%	3%	192%	371%
Export/production	0.0%	0.0%	0.0%	3%	6%
Import/supply	1.4%	4.1%	4.6%	2%	2%

Source: FAOSTAT (production), UNSTAT (Trade)



# Methods and procedures, continued

## Conjoint choice experiment

### Design stages for a Conjoint Choice Experiment

Stage	Description
Selection of attributes	Selection of apple attributes has been done based on the literature review, expert interview and focussed group discussions.
Assignments of attributes level	The range of attributes is also determined by literature review, expert interview and market situation. The attribute levels have been assigned such as to be reasonable and realistic.
Choice of experimental design	Fractional factorial design is used to reduce the possible combinations which combine the levels of the attributes that reduces respondents fatigue and also provide efficiency in model estimation
Construction of choice tasks	The profiles identified by the experimental design are then paired and grouped into choice sets to be presented to respondents.
Measurement of preference	Choice of the survey administration i.e. face-to-face interview

